LASA-25-02

Craven
AG SERVICES, INC.
2115 Hwy 55 West New Bern, NC 28562

BILLY DUNHAM, PRESIDENT
(252) 633-5334
(252) 670-8530

July 21,2014

Tony Gallagher
Composting and Land Application Branch
N.C. Division of Waste Management
1646 Mail Service Center
Raleigh, N. C. 27699-1646

Subject: Coastal Carolina Clean Power Wood Ash Reports for Physical year 2013-2014
Michael Wood, Regional EHS Coordinator
P.O. Box 809
1823 NC 11 & 903
Kenansville, N.C. 28349

Coastal Carolina Clean Power produced 5,208 tons of fly ash physical year 2013-2014. All of the ash was hauled to Craven Ag Services storage site for off season storage. We began hauling from storage to Wood Brothers farms on 2/27/14 and finished spreading on 6/24/14. An average of 5 tons per acre was applied on 1,206 acres. Corn and Soybeans were planted on the fields. I am enclosing the following materials:

1. MapQuest of the farm location
2. Nutrient loading rates and waste analysis
3. Product label
4. Metals conversion table
5. Best Management Practices
6.Driver hauling records
7. Soil Samples and field maps

The Farms received approximately 5 tons of ash per acre. The nutrient management plan includes nutrient applications as well as calculated metals application at 5 tons per acre. These calculations show that we are well under any annual loading rates for metals.

All of the ash generated from 7/1/2013-6/30/2014 was applied on the Wood Brothers farm and an additional 501 ton came from Craven Wood Energy

Sincerely
Billy Dunham
Craven Ag Services, Inc

CC: Michael Wood.

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July 21,2014

Mr. Michael Wood
Regional EHS Coordinator
Coastal Carolina Clean Power
PO Box 809
1823 NC 11 & 903
Kenansville, NC, 28349

Dear Mr. Wood:

I have completed my report for Coastal Carolina Clean Power's land application for Physical year 2013-2014. As you can see all of the ash was applied on The Wood Brothers farms in Craven County. Everything went well and we are gearing up for another year for 2014-2015. I am enclosing my annual report that I send to NCDWM each year for your files.

Sincerely,

Billy Dunham

Billy Dunham

mapquest

Map of: Wood Brothers

2584 Wintergreen Rd

Cove City, NC 28523-9219

Notes

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June 26, 2014

Wood Ash Clients:

Woodbrothers Farm-----5,810 TONS WHERE APPLIED ON 1,206 ACRES OF CORN AND SOYBEANS FOR AN AVERAGE OF APROXIMATELY 5 TON PER ACRE.THE ASH WAS INCOOPERATED INTO THE SOIL.

I hope your crop is doing well and we appreciate your business. I am including with your invoice a copy of the waste analysis taken on 5/27/14 of the wood ash you received. This was a random sample of our storage pile after it was screened and before it was loaded and shipped to your farm. You can pretty much depend upon at least 75% of these nutrients being available the first year. Therefore, you should not have to add any additional nutrients other than a "pop up" and nitrogen for corn. Annual soil sampling should help you monitor soil ph and other nutrients.

A summary of the analysis follows.

Nutrients received

Ton/Ac	P	K	Ca	Mg	S	Fe	Mn	Zn	Cu	B	Lime
4	58	150	277	46	24	73	5	2	.8	.76	.8T
5	73	188	346	58.5	30	92	6	3	1	.95	1T
6	87	225	415	70	37	110	8	3	1	1	1.2T
7	102	263	485	81.9	43	129	9	4	1.5	1.3	1.4T

Billy Dunham

5-27-14

Sample Information

Sample ID: WA
Waste Code: FCW
Description:
Composted Waste - Other
Comments:
Woodash

Nutrient and Other Measurements

Nitrogen (N) (ppm)	
Total N	914
Total Kjeldahl N	
Inorganic N	
NH4-N	
NO3-N	
Organic N	
Urea	

P (ppm)	K (ppm)	Ca (ppm)	Mg (ppm)	S (ppm)	Fe (ppm)	Mn (ppm)	Zn (ppm)	Cu (ppm)	B (ppm)	Na (ppm)	C (ppm)
7770	28700	84700	14200	7490	22500	1660	714	260	236	3220	162000

pH	DM (%)	SS (10^{-5}S/cm)	EC (mS/cm)	CCE (%)	ALE (tons)	C:N
10.18	68.1	1450	14.45	26.0	5.08	177 : 1

Ni (ppm)	Cd (ppm)	Pb (ppm)	Al (ppm)	Se (ppm)	Li (ppm)	As (ppm)	Cr (ppm)	Co (ppm)	Cl (ppm)	Mo (ppm)
19.3	3.33	44.9								

Application Method
Broadcast
Soil Incorporated

Estimate of Nutrients Available for First Crop (lb / ton)

N	P_2O_5	K_2O	Ca	Mg	S	Fe	Mn	Zn	Cu	B	Mo
0.50	14.6	37.6	69.3	11.7	6.13	18.4	1.36	0.58	0.21	0.19	
0.62	18.2	42.3	86.6	14.6	7.66	23.0	1.70	0.73	0.27	0.24	

Other Elements (lb / ton)

Cl	Na	Ni	Cd	Pb	Al	Se	Li
	4.39	0.03	T	0.06			
	4.39	0.03	T	0.06			

Sample Information

Sample ID: TDA
Waste Code: FCW
Description:
Composted Waste - Other
Comments:
Tobacco Dust

Nutrient and Other Measurements

Nitrogen (N) (ppm)	
Total N	18500
Total Kjeldahl N	
Inorganic N	260
NH4-N	244
NO3-N	15.3
Organic N	18200
Urea	

P (ppm)	K (ppm)	Ca (ppm)	Mg (ppm)	S (ppm)	Fe (ppm)	Mn (ppm)	Zn (ppm)	Cu (ppm)	B (ppm)	Na (ppm)	C (ppm)
2130	17000	20300	4470	2570	2120	124	62.6	12.3	30.1	79.0	319000

pH	DM (%)	SS (10^{-5}S/cm)	EC (mS/cm)	CCE (%)	ALE (tons)	C:N
5.65	50.0	1530	15.31	0	0	17.3 : 1

Ni (ppm)	Cd (ppm)	Pb (ppm)	Al (ppm)	Se (ppm)	Li (ppm)	As (ppm)	Cr (ppm)	Co (ppm)	Cl (ppm)	Mo (ppm)
2.32	1.30	4.87								

Application Method
Broadcast
Soil Incorporated

Estimate of Nutrients Available for First Crop (lb / ton)

N	P_2O_5	K_2O	Ca	Mg	S	Fe	Mn	Zn	Cu	B	Mo
7.38	2.93	16.3	12.2	2.68	1.54	1.27	0.07	0.04	0.01	0.02	
9.22	3.66	18.3	15.3	3.35	1.93	1.59	0.09	0.05	0.01	0.02	

Other Elements (lb / ton)

Cl	Na	Ni	Cd	Pb	Al	Se	Li
	0.08	T	T	T			
	0.08	T	T	T			

PRODUCT LABLE

AGRI-ASH

WOOD FLY ASH

Guaranteed Analysis

Calcium (Ca)	6%
Calcium Carbonate Equiv.	20%
Magnesium (mg)	10%
Passing 20 Mesh Screen	90%
Passing 100 Mesh Screen	45%

Total Tons per load: _____

10,000 lbs (5ton) of this material equals 2,000 lbs (1 ton) of N. C. Calcitic Liming standards.

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NEW BERN, N.C. 28562

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ANNUAL METALS CONVERSION FOR WOODASH COASTAL CAROLINA POWER 2014

Change mg/l to Mg/Kg by taking the average DM% of the NCDA Waste Analysis Report and dividing it into the mg/l value of each metal. Then converted the Mg/Kg into lbs per ton by multiplying by.002.converson factor. Then using the ALE liming factor from the NCDA Waste Analysis Report (average 5 to 1) to get the annual application rate of each metal on a per acre basis.

Metal	mg/l	mg/kg	lbs/ton	lbs/acre	Annual limit lbs/ac
Arsenic	.75	1.56	.003	.015	1.76
Barium	<10	20.8	.042	.21	NA
Cadmium	<.050	.105	.0002	.0001	1.67
Chromium	.35	.73	.0015	.0075	132
Lead	<.50	1.04	.0021	.0105	13.2
Mercury	<.010	.021	.00004	.0002	.99
Selenium	<.50	1.04	.0021	.0105	4.4
Silver	<.10	.021	.00004	.0002	N A

Accutest Laboratories Southeast, Inc.		Feb 28, 2012 09:19 am
Job Number:	**F90467**	
Account:	**Coastal Carolina Clean Power, LLC**	
Project:	**Coastal Carolina Clean Power LLC**	
Project Number:		
	Legend:	Hit
Client Sample ID:		**CCCP-FA-212**
Lab Sample ID:		**F90467-1**
Date Sampled:		**02/09/2012**
Matrix:		**Solid**
Metals Analysis		
Arsenic	mg/l	0.75
Barium	mg/l	<10
Cadmium	mg/l	<0.050
Chromium	mg/l	0.35
Lead	mg/l	<0.50
Mercury	mg/l	<0.010
Selenium	mg/l	<0.50
Silver	mg/l	<0.10

Johnny Smith Fax
910 298-4977

yield goals, time and method of application including surface applications or incorporation, erosion control for erodible conditions, water flow management, separation distances from surface water, and depth to groundwater.

- Best Management Practices plans shall include certification to ensure that annual pollutant loading rates and cumulative pollutant rates are consistent with 40 CFR part 503.13, Tables 2 and 4 (enclosed).

Table 4 of §503.13 ANNUAL POLLUTANT LOADING RATES

Pollutant	Annual Pollutant Loading Rate From Wood Ash (Kg/ha/365 day period)
Arsenic	2.0
Cadmium	1.9
Chromium	150
Copper	75
Lead	15
Mercury	0.85
Molybdenum	0.90
Nickel	21
Selenium	5.0
Zinc	140

Table 2 of §503.13 CUMULATIVE POLLUTANT LOADING RATE

Pollutant	Cumulative Pollutant Loading Rates From Wood Ash Kg/Ha over site life
Arsenic	41
Cadmium	39
Chromium	3000
Copper	1500
Lead	300
Mercury	17
Molybdenum	18
Nickel	420
Selenium	100
Zinc	2800

BEST MANAGEMENT PRACTICES FOR

WOOD ASH USED AS AN

AGRICULTURAL SOIL AMENDMENT

BY CRAVEN AG SERVICES INC.

1. When ash is produced in industrial combustion systems, the temperature of combustion, cleanliness of the fuel wood, the collection location and the process can have profound effects on the nature of the ash material. Therefore, wood ash composition can be highly variable. This makes testing the wood ash very important. Therefore random samples of the wood ash being used will be sampled before being applied on farm land. This will give us a dependable data source to use in developing a nutrient plan.

2. Calcium is the most abundant element in wood ash and gives the ash properties that are similar to agricultural lime. Therefore, the limiting factor for land application in usually the Calcium Carbonate Equivalence (CCE). Ash is also a good source of potassium, phosphorus, magnesium, and aluminum. In terms of commercial fertilizer, average wood ash would probably be about 0-1-3 (N-P-K). In addition to these macronutrients, wood ash is also a good source of many micronutrients that are needed in trace amounts for adequate plant growth. Wood ash contains few elements that pose environmental problems. Heavy metal concentrations are typically low and not in a highly extractable or available form. Therefore, a waste management plan will be developed that address all nutrients that are available as well any accumulative metal precautions that should be addressed.

3. Planning for wood ash application requires several considerations. Soil nutrient level and pH must be determined through proper soil testing.

* Soils will be sampled by the farmer or representatives of Craven Ag Services Inc.

* Waste Analysis will be taken monthly by Craven Ag Services, Inc to determine the nutrient and liming value of the ash.

* Annual metals testing will be done by the generator

* Using the waste analysis,a nutrient management plan will be developed by Craven Ag Services Inc for each farm.

4. Best Management Practices (BMP'S) for spreading wood ash shall be produced by Craven Ag Services Inc. They will include the following:

* Road maps showing the general location of the farm receiving the ash

* If any storage sites are set up on these farms they shall be located on the maps along with a BMP that covers all requirements set by the Department of Solid Waste. If it is to be a permanent storage site a permit will be gotten from the department of Solid Waste before storage begins.

*A nutrient plan shall be developed for each field and will include the following:

**Soil samples of each field

**Field maps of each field

**A Waste analysis of the ash to be applied

**The actual nutrient plan showing the tons of ash to be applied per acre to maintain the soil pH within the optimum range of the intended crop growth. Even though we cannot guarantee any nutrient value for the wood ash the plan will use the average wood ash analysis to show the nutrient value of the ash being applied to the field.

* Water protection practices will include:

**Erosion possibilities. If a field has a tolerance of less than 5 tons of soil erosion per year then it is considered as having no erosion problems. Wood ash will not be applied on any fields with a tolerance of more than 5 tons.

**Separation from surface waters...25 Ft buffer is required for storage and spreading.

** Separation from drainage ...5 ft buffer with no ash applied in any drainage structure

**Distance to groundwater..ash will not be applied on fields when the water table is less than 18" of the soil surface.

**Setbacks... 25 feet from property lines...100 feet from dwellings...50 feet from well.

5. Certification to ensure that annual pollutant loading rates and cumulative pollutant rates are consistent with 40 CFR part 503.13. This will be done be including a copy of Table 4 of 503.13 and Table 2 of 503.13. These tables (found in the MANAGEMENT OF WOODASH AS A SOIL AMENDMENT) will be accompanied by a copy of the latest NCDA waste analysis and the latest copy of the metals toxicity tests.

6. To control dust the wood ash will be spread at a moisture percentage of 35 to 40 percent.

7. Wood ash will always be covered during transport to prevent losses in route to the storage or application sites.

8. Litter spreaders will be used to spread the ash evenly over the fields. Spreaders will be calibrated to be sure they are applying the proper rates per acre.

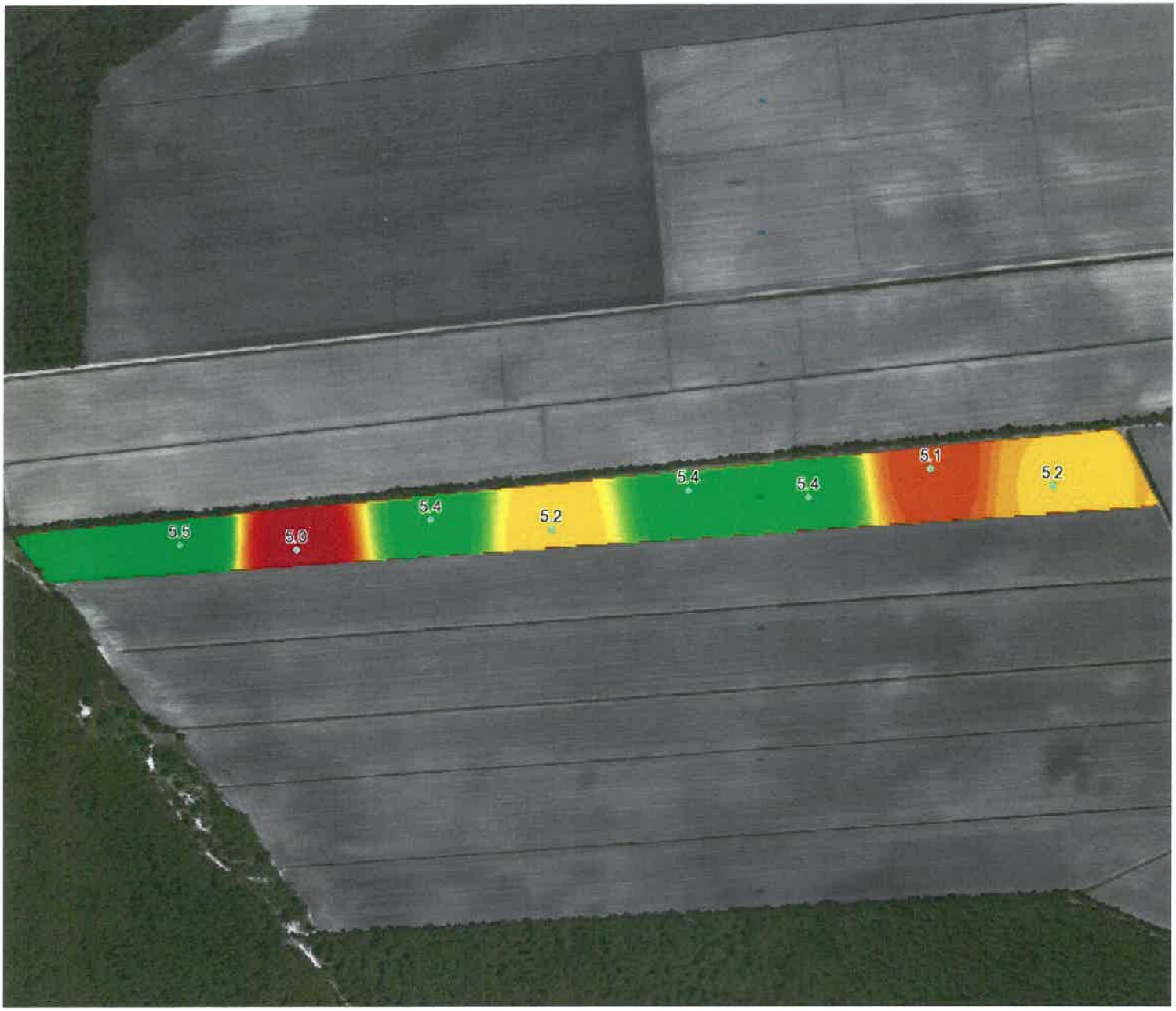
9. Health considerations will be taken into account to prevent both particle inhalation and contact with the eyes and skin. (safety glasses, masks, etc.)

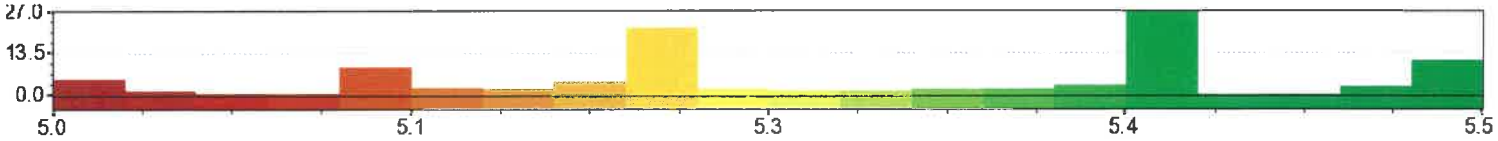
echelon
THE NEXT LEVEL OF AGRICULTURAL SOLUTIONS

Master Soil Book
Element Map

Grower: KENNETH H QUINN Farm: New Ground Field: New Ground 8

pH (none)





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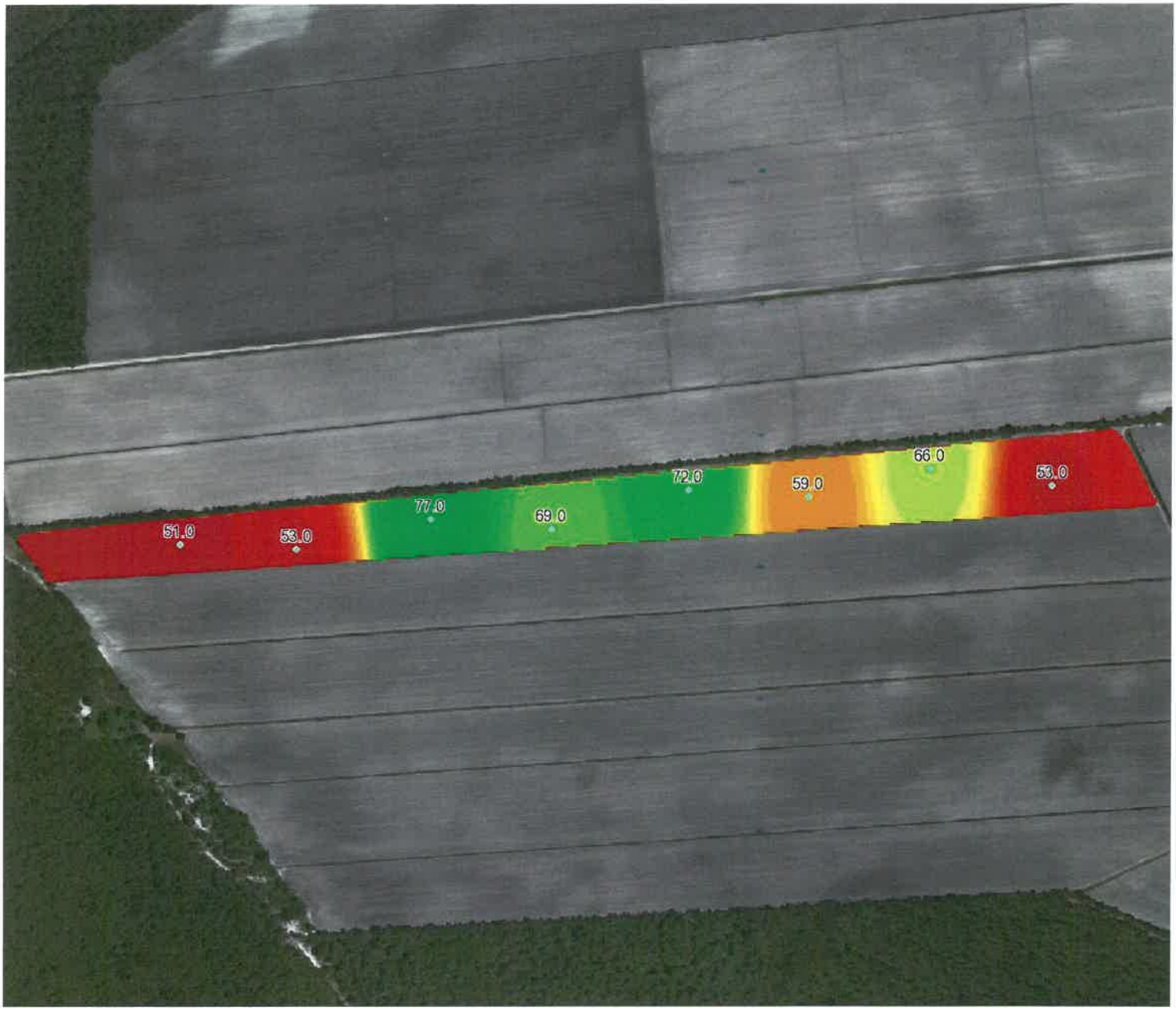
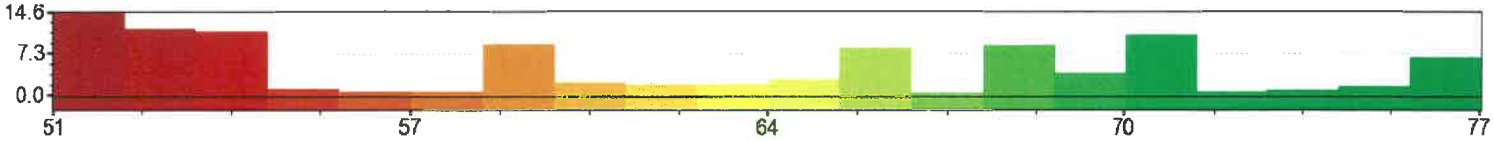
THE NEXT LEVEL OF AGRICULTURAL SOLUTIONS

Master Soil Book
Element Map

Grower: KENNETH H QUINN Farm: New Ground Field: New Ground 8

PI (none)





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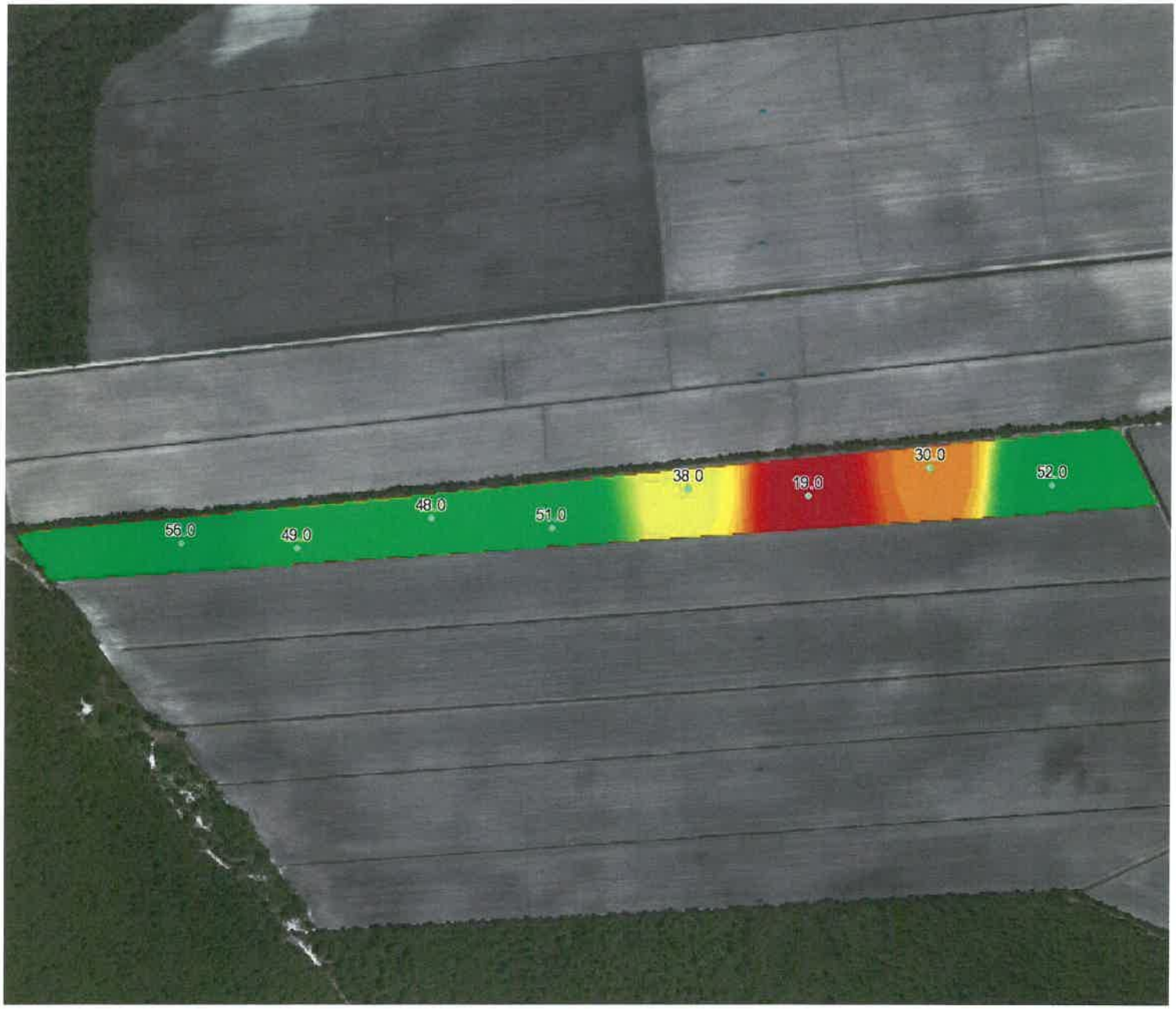
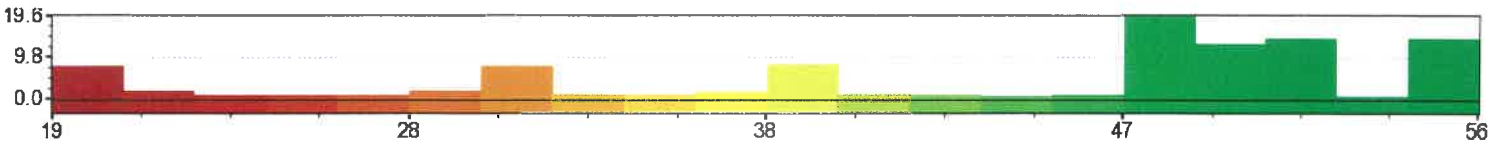
THE NEXT LEVEL OF AGRICULTURAL SOLUTIONS

Grower: KENNETH H QUINN Farm: New Ground Field: New Ground 8

Master Soil Book
Element Map

KI (none)





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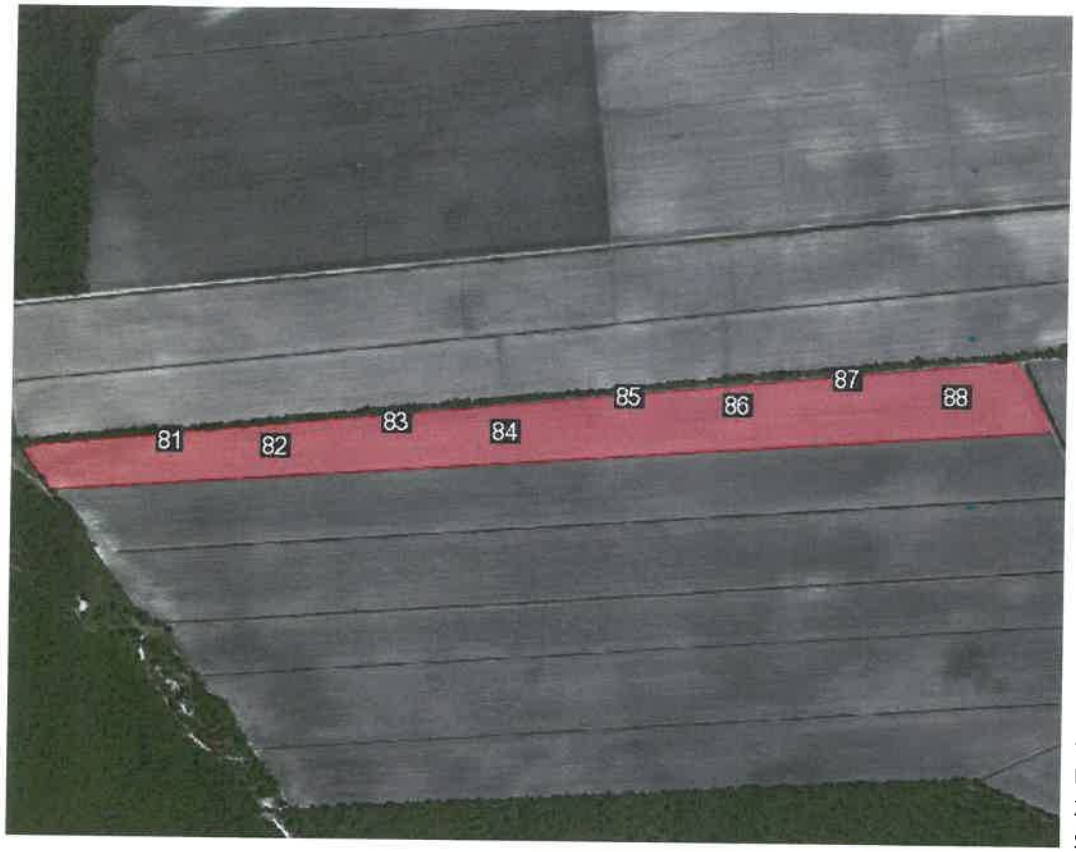
THE NEXT LEVEL OF AGRICULTURAL SOLUTIONS

Grower: KENNETH H QUINN Farm: New Ground Field: New Ground 8

Master Soil Book
Sample Summary



	Min	Max	Avg	
P	109.0	164.6	133.6	lbs/ac
K	66.2	195.1	149.4	lbs/ac
Mg	253.5	440.7	302.4	lbs/ac
Ca	1278.8	1973.4	1569.8	lbs/ac
Na	21.0	31.0	25.2	lbs/ac
S	22.8	32.8	26.7	lbs/ac
Cu	2.1	4.6	2.7	lbs/ac
Mn	6.5	12.0	9.0	lbs/ac
Zn	5.1	15.1	9.3	lbs/ac
pH	5.0	5.5	5.3	none
bpH	7.0	7.5	7.3	none
CEC	7.8	11.3	8.9	meq/100g
Bulk Density	0.00	0.00	0.00	none
AC	2.1	3.8	2.9	meq/100g
BS	0.00	0.00	0.00	%
PI	51.0	77.0	62.5	none
KI	19.0	56.0	42.9	none
MgI	14.0	18.0	15.6	none
CaI	43.0	55.0	49.8	none
SI	32.0	46.0	37.5	none
CuI	58.0	128.0	75.8	none
MnI	23.0	42.0	31.8	none
ZnI	72.0	213.0	131.2	none
SSI	0.00	0.00	0.00	none
HM	3.7	8.5	5.5	%
SP	0.00	0.00	0.00	%

Sample Date: 2012-11-27 Soil Lab: Waters NCDA

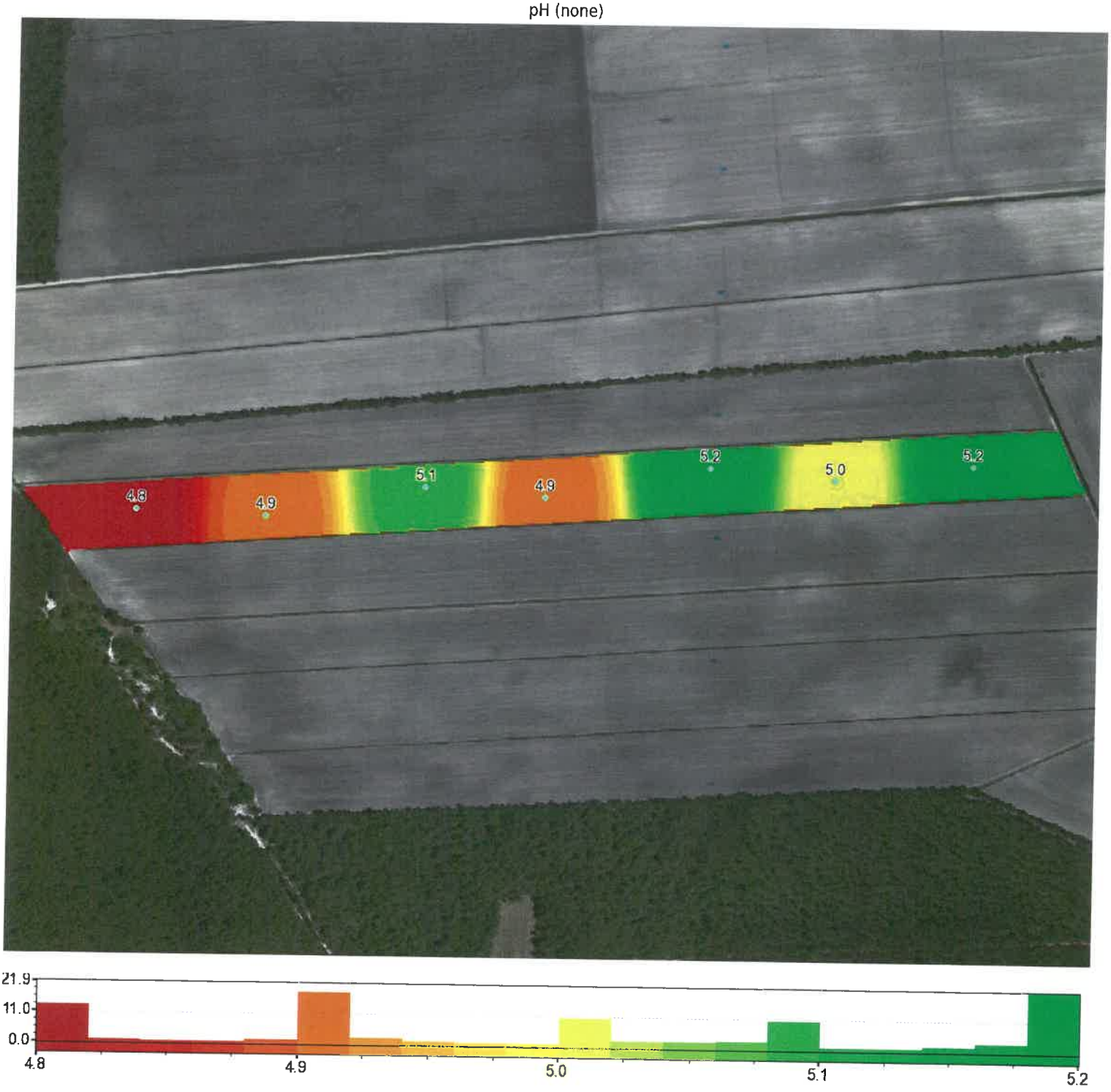
ID	P (lbs/ac)	K (lbs/ac)	Mg (lbs/ac)	Ca (lbs/ac)	Na (lbs/ac)	S (lbs/ac)	Cu (lbs/ac)	Mn (lbs/ac)	Zn (lbs/ac)	pH (none)	bpH (none)	CEC (meq/100g)	Bulk Density (none)	AC (meq/100g)	BS (%)	PI (none)	KI (none)	MgI (none)	CaI (none)	SI (none)	CuI (none)	MnI (none)	ZnI (none)	SSI (none)	HM (%)	SP (%)
81	109.0	195.1	256.8	1548.6	21.0	29.2	2.2	7.1	7.2	5.5	7.5	7.9	0.00	2.1	0.00	51.0	56.0	15.0	55.0	41.0	61.0	25.0	102.0	0.00	3.7	0.00
82	113.3	170.7	332.8	1471.2	31.0	32.8	2.3	6.5	6.9	5.0	7.0	9.6	0.00	3.8	0.00	53.0	49.0	16.0	43.0	46.0	65.0	23.0	97.0	0.00	6.8	0.00
83	164.6	167.2	282.8	1674.4	28.0	27.8	2.6	8.0	7.2	5.4	7.4	8.7	0.00	2.4	0.00	77.0	48.0	15.0	54.0	39.0	72.0	28.0	101.0	0.00	4.4	0.00
84	147.5	177.7	260.9	1409.9	23.0	25.7	2.3	7.7	5.1	5.2	7.2	8.6	0.00	3.2	0.00	69.0	51.0	14.0	46.0	36.0	65.0	27.0	72.0	0.00	6.6	0.00
85	153.9	132.4	305.7	1508.6	25.0	25.7	3.4	12.0	9.3	5.4	7.4	8.3	0.00	2.5	0.00	72.0	38.0	17.0	51.0	36.0	95.0	42.0	131.0	0.00	4.3	0.00
86	126.1	66.2	286.0	1693.6	28.0	22.8	2.2	9.4	15.1	5.4	7.3	8.8	0.00	2.6	0.00	59.0	19.0	15.0	54.0	32.0	62.0	33.0	213.0	0.00	4.7	0.00
87	141.1	104.5	253.5	1278.8	25.0	24.9	4.6	10.0	11.3	5.1	7.3	7.8	0.00	2.9	0.00	66.0	30.0	15.0	46.0	35.0	128.0	35.0	159.0	0.00	5.2	0.00
88	113.3	181.2	440.7	1973.4	21.0	24.9	2.1	11.7	12.4	5.2	7.1	11.3	0.00	3.6	0.00	53.0	52.0	18.0	49.0	35.0	58.0	41.0	175.0	0.00	8.5	0.00

echelon
THE NEXT LEVEL OF AGRICULTURAL SOLUTIONS

Grower: KENNETH H QUINN Farm: New Ground Field: New Ground 7

Master Soil Book
Element Map

pH (none)



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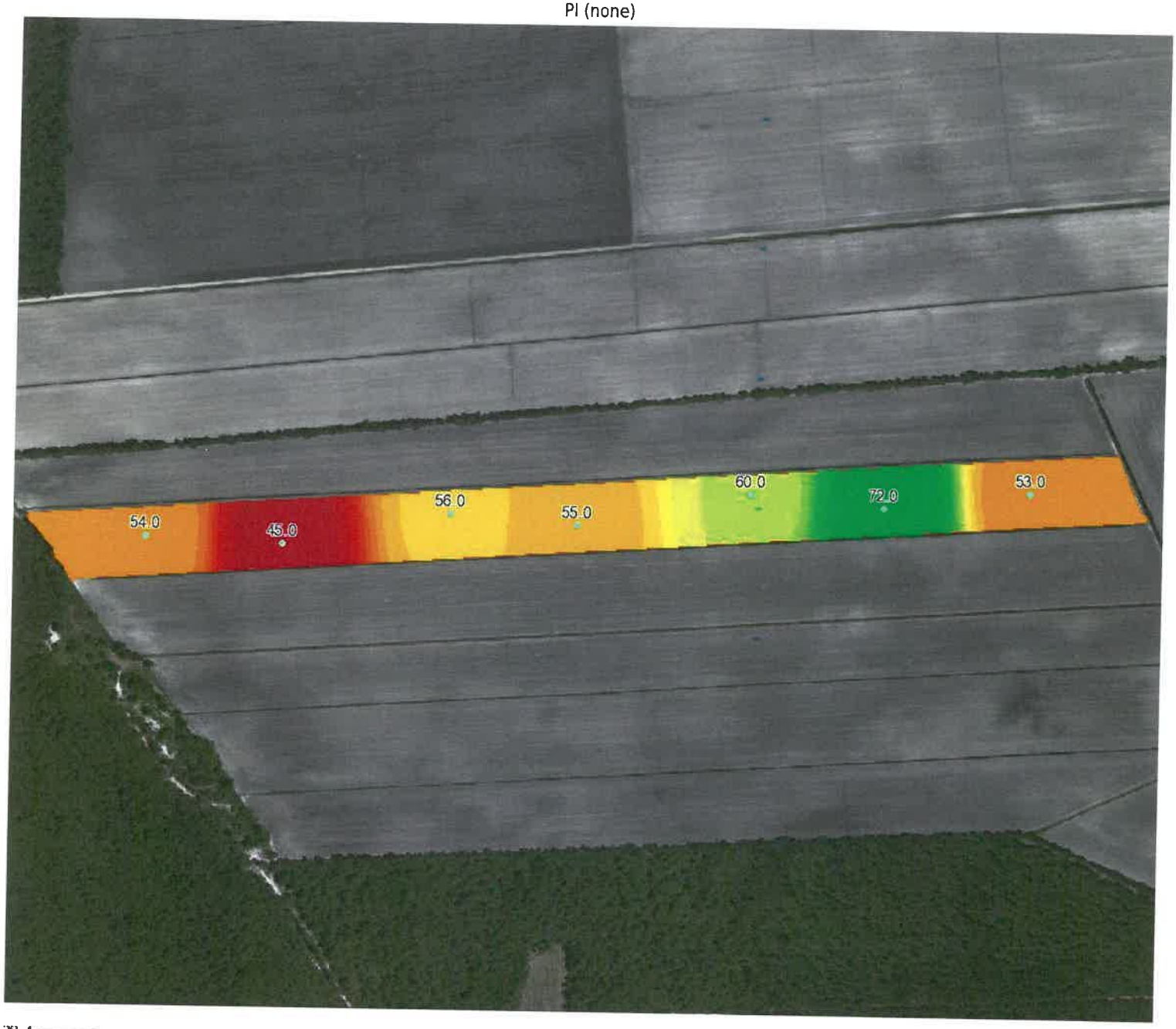
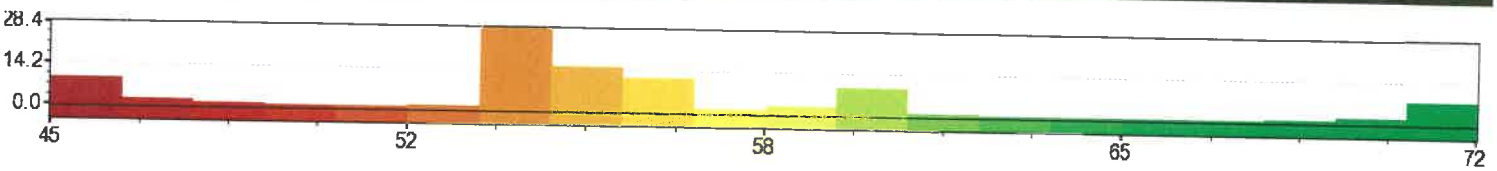
THE NEXT LEVEL OF AGRICULTURAL SOLUTIONS

Grower: KENNETH H QUINN Farm: New Ground Field: New Ground 7

Master Soil Book
Element Map

PI (none)





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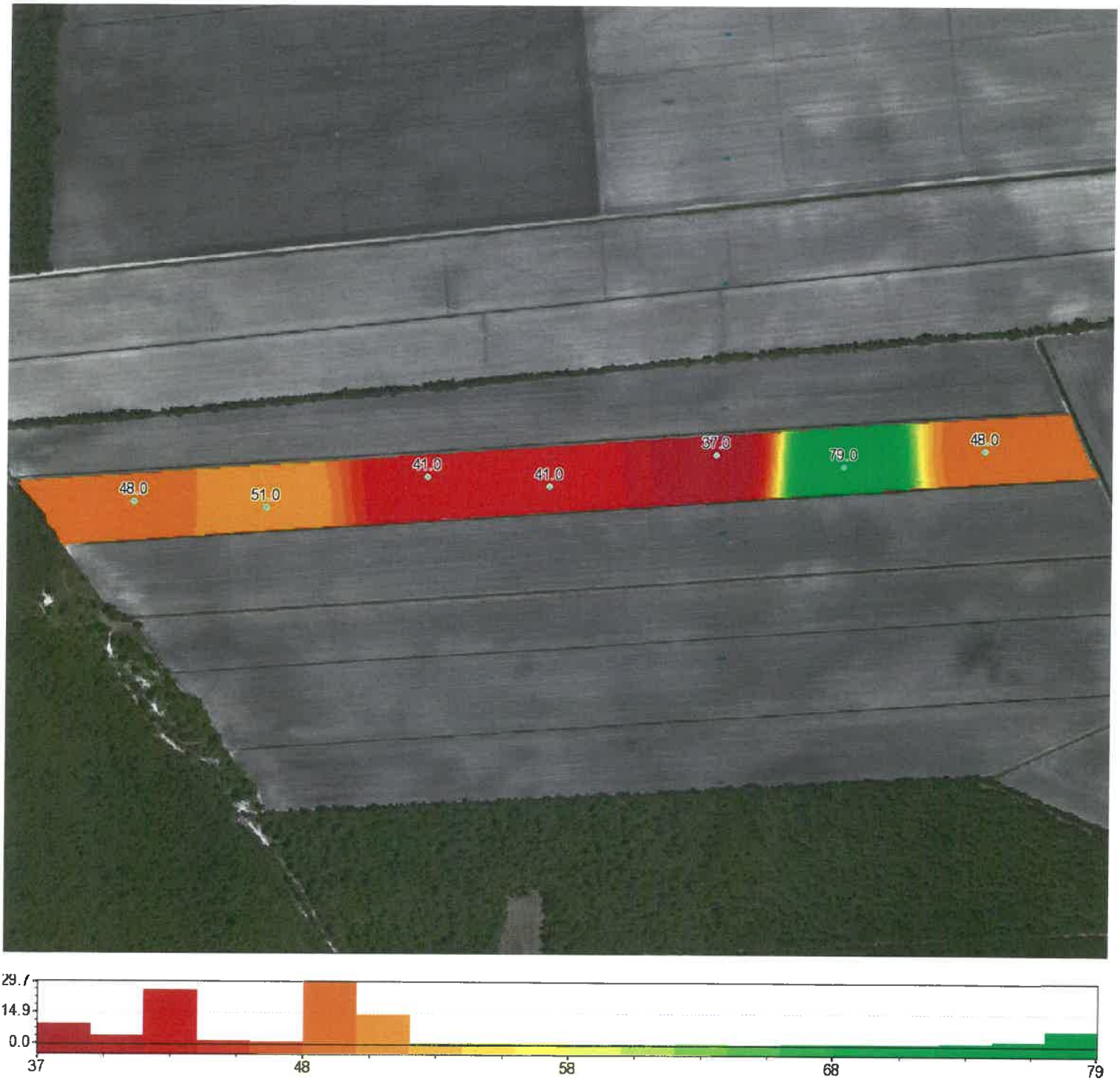
THE NEXT LEVEL OF AGRICULTURAL SOLUTIONS

Grower: KENNETH H QUINN Farm: New Ground Field: New Ground 7

Master Soil Book
Element Map

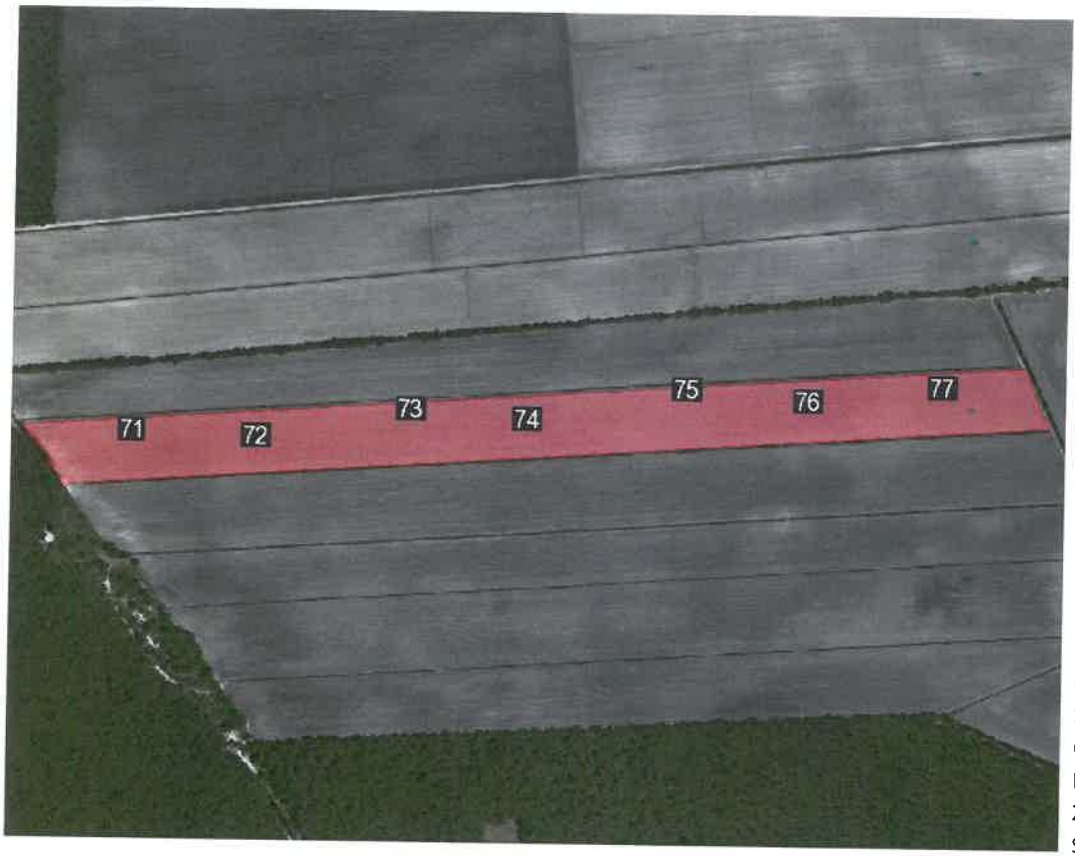
KI (none)



echelon
THE NEXT LEVEL OF AGRICULTURAL SOLUTIONS

Grower: KENNETH H QUINN Farm: New Ground Field: New Ground 7

Master Soil Book
Sample Summary



	Min	Max	Avg	
P	96.2	153.9	120.6	lbs/ac
K	128.9	275.2	171.7	lbs/ac
Mg	242.7	357.1	313.2	lbs/ac
Ca	1083.4	1651.9	1395.5	lbs/ac
Na	20.0	30.0	26.4	lbs/ac
S	26.4	35.6	31.6	lbs/ac
Cu	2.0	2.5	2.3	lbs/ac
Mn	5.4	11.4	8.6	lbs/ac
Zn	5.3	9.6	7.9	lbs/ac
pH	4.8	5.2	5.0	none
bpH	7.0	7.3	7.1	none
CEC	8.0	10.3	9.2	meq/100g
Bulk Density	0.00	0.00	0.00	none
AC	2.8	4.2	3.6	meq/100g
BS	0.00	0.00	0.00	%
PI	45.0	72.0	56.4	none
KI	37.0	79.0	49.3	none
MgI	14.0	18.0	15.7	none
CaI	38.0	49.0	42.6	none
SI	37.0	50.0	44.3	none
CuI	56.0	71.0	63.0	none
MnI	19.0	40.0	30.3	none
ZnI	75.0	135.0	111.9	none
SSI	0.00	0.00	0.00	none
HM	6.0	8.9	7.5	%
SP	0.00	0.00	0.00	%

Sample Date: 2012-11-27 Soil Lab: Waters NCDA

ID	P (lbs/ac)	K (lbs/ac)	Mg (lbs/ac)	Ca (lbs/ac)	Na (lbs/ac)	S (lbs/ac)	Cu (lbs/ac)	Mn (lbs/ac)	Zn (lbs/ac)	pH (none)	bpH (none)	CEC (meq/100g)	Bulk Density (none)	AC (meq/100g)	BS (%)	PI (none)	KI (none)	MgI (none)	CaI (none)	SI (none)	CuI (none)	MnI (none)	ZnI (none)	SSI (none)	HM (%)	SP (%)
71	115.5	167.2	305.5	1273.1	30.0	32.1	2.5	8.6	8.2	4.8	7.0	9.4	0.00	4.2	0.00	54.0	48.0	15.0	38.0	45.0	70.0	30.0	115.0	0.00	8.5	0.00
72	96.2	177.7	242.7	1083.4	24.0	29.9	2.3	5.4	5.3	4.9	7.1	8.0	0.00	3.6	0.00	45.0	51.0	14.0	38.0	42.0	64.0	19.0	75.0	0.00	7.2	0.00
73	119.7	142.8	357.1	1651.9	28.0	33.5	2.3	8.6	7.7	5.1	7.0	10.3	0.00	3.8	0.00	56.0	41.0	16.0	45.0	47.0	64.0	30.0	108.0	0.00	6.6	0.00
74	117.6	142.8	299.0	1377.1	30.0	34.9	2.1	8.3	8.1	4.9	7.0	9.2	0.00	3.8	0.00	55.0	41.0	15.0	42.0	49.0	59.0	29.0	114.0	0.00	7.7	0.00
75	128.3	128.9	343.2	1536.8	27.0	28.5	2.5	9.7	9.6	5.2	7.3	8.8	0.00	2.8	0.00	60.0	37.0	18.0	49.0	40.0	71.0	34.0	135.0	0.00	6.0	0.00
76	153.9	275.2	332.8	1402.8	20.0	26.4	2.0	11.4	8.8	5.0	7.0	9.6	0.00	3.8	0.00	72.0	79.0	16.0	41.0	37.0	56.0	40.0	124.0	0.00	8.9	0.00
77	113.3	167.2	312.0	1443.4	26.0	35.6	2.0	8.6	8.0	5.2	7.2	9.0	0.00	3.2	0.00	53.0	48.0	16.0	45.0	50.0	57.0	30.0	112.0	0.00	7.5	0.00

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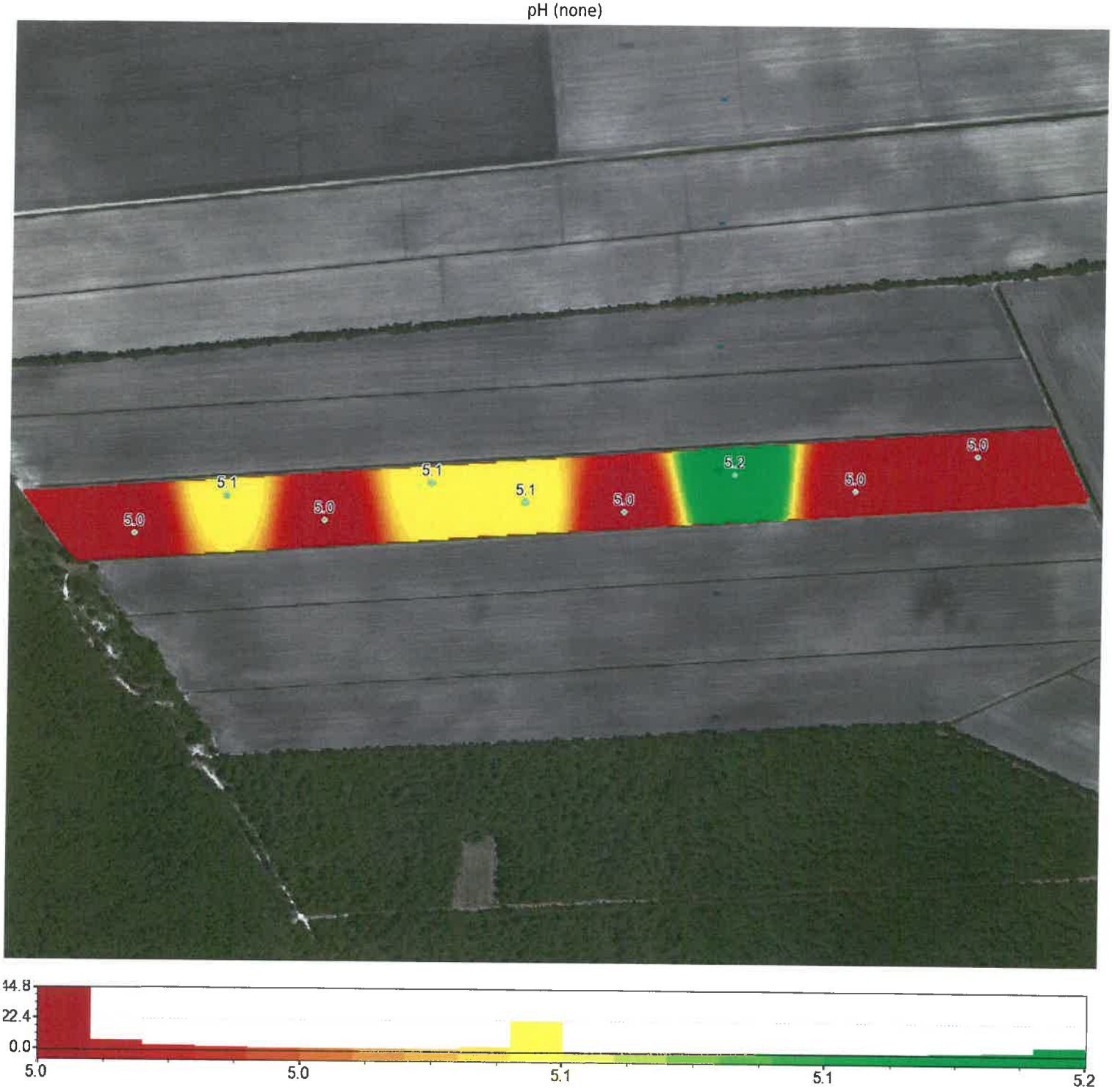
THE NEXT LEVEL OF AGRICULTURAL SOLUTIONS

Grower: KENNETH H QUINN Farm: New Ground Field: New Ground 6

Master Soil Book
Element Map

pH (none)



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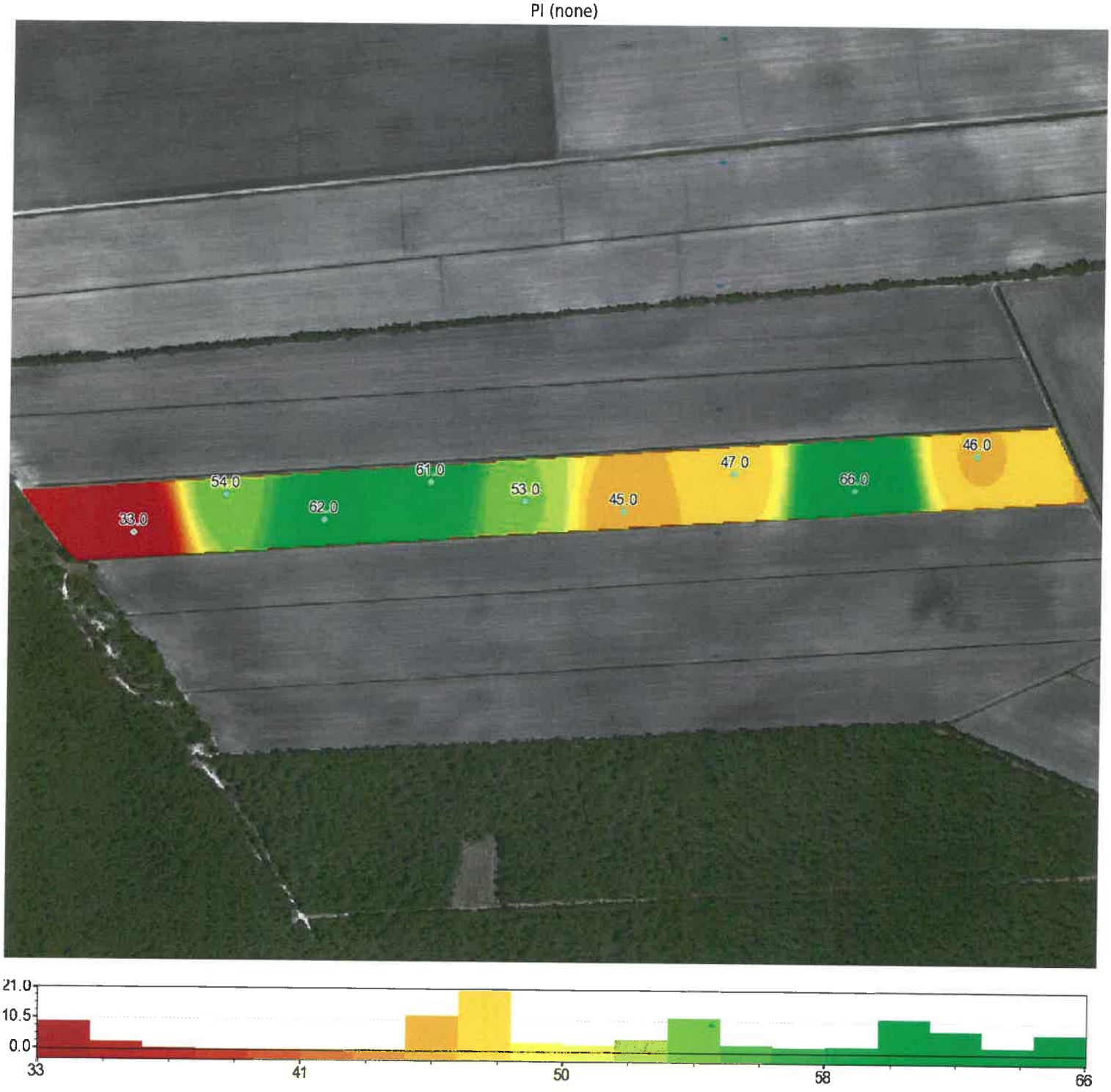
THE NEXT LEVEL OF AGRICULTURAL SOLUTIONS

Grower: KENNETH H QUINN Farm: New Ground Field: New Ground 6

Master Soil Book
Element Map

PI (none)



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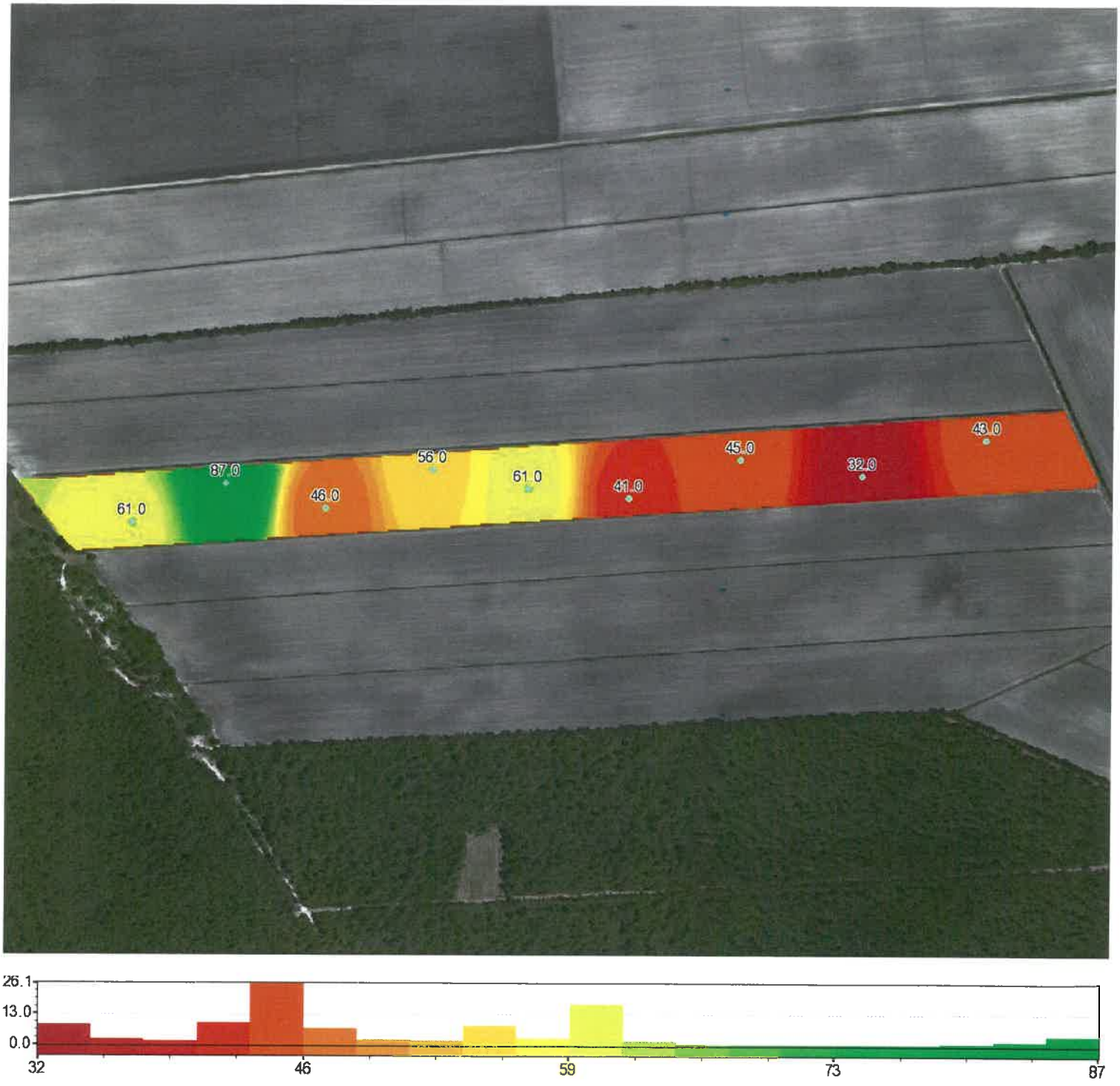
THE NEXT LEVEL OF AGRICULTURAL SOLUTIONS

Grower: KENNETH H QUINN Farm: New Ground Field: New Ground 6

Master Soil Book
Element Map

KI (none)



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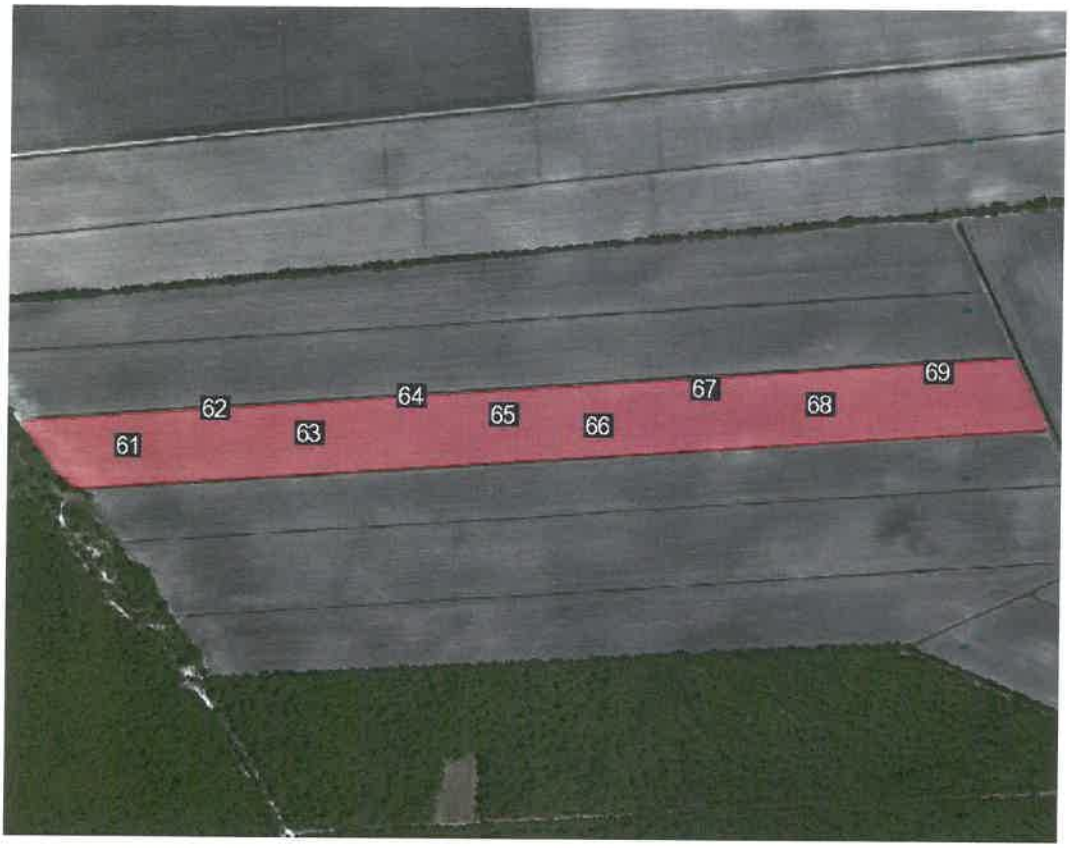
THE NEXT LEVEL OF AGRICULTURAL SOLUTIONS

Master Soil Book
Sample Summary

Grower: KENNETH H QUINN Farm: New Ground Field: New Ground 6



	Min	Max	Avg	
P	70.5	141.1	110.9	lbs/ac
K	111.5	303.1	182.7	lbs/ac
Mg	228.2	445.7	295.2	lbs/ac
Ca	1154.7	1940.6	1395.2	lbs/ac
Na	24.0	43.0	31.4	lbs/ac
S	29.2	41.4	33.3	lbs/ac
Cu	1.6	3.2	2.1	lbs/ac
Mn	7.4	10.0	8.7	lbs/ac
Zn	6.2	9.2	8.0	lbs/ac
pH	5.0	5.2	5.1	none
bpH	6.9	7.2	7.1	none
CEC	8.1	12.1	9.2	meq/100g
Bulk Density	0.00	0.00	0.00	none
AC	3.2	4.3	3.7	meq/100g
BS	0.00	0.00	0.00	%
PI	33.0	66.0	51.9	none
KI	32.0	87.0	52.4	none
MgI	13.0	17.0	14.7	none
CaI	38.0	45.0	42.4	none
SI	41.0	58.0	46.8	none
CuI	44.0	89.0	58.0	none
MnI	26.0	35.0	30.4	none
ZnI	87.0	129.0	113.3	none
SSI	0.00	0.00	0.00	none
HM	5.0	8.2	6.6	%
SP	0.00	0.00	0.00	%

Sample Date: 2012-11-27 Soil Lab: Waters NCDA

ID	P (lbs/ac)	K (lbs/ac)	Mg (lbs/ac)	Ca (lbs/ac)	Na (lbs/ac)	S (lbs/ac)	Cu (lbs/ac)	Mn (lbs/ac)	Zn (lbs/ac)	pH (none)	bpH (none)	CEC (meq/100g)	Bulk Density (none)	AC (meq/100g)	BS (%)	PI (none)	KI (none)	MgI (none)	CaI (none)	SI (none)	CuI (none)	MnI (none)	ZnI (none)	SSI (none)	HM (%)	SP (%)
61	70.5	212.5	267.0	1191.8	34.0	34.9	1.8	8.0	6.5	5.0	7.0	8.8	0.00	3.9	0.00	33.0	61.0	14.0	38.0	49.0	51.0	28.0	91.0	0.00	7.0	0.00
62	115.5	303.1	228.2	1154.7	33.0	33.5	3.2	7.4	6.2	5.1	7.2	8.1	0.00	3.4	0.00	54.0	87.0	13.0	40.0	47.0	89.0	26.0	87.0	0.00	5.5	0.00
63	132.6	160.3	257.9	1332.9	27.0	29.2	2.0	8.3	7.5	5.0	7.2	8.5	0.00	3.4	0.00	62.0	46.0	14.0	44.0	41.0	55.0	29.0	105.0	0.00	5.0	0.00
64	130.4	195.1	305.5	1474.1	29.0	30.6	2.7	9.7	9.1	5.1	7.1	9.4	0.00	3.6	0.00	61.0	56.0	15.0	44.0	43.0	76.0	34.0	128.0	0.00	6.6	0.00
65	113.3	212.5	445.7	1940.6	35.0	33.5	1.6	9.1	9.2	5.1	6.9	12.1	0.00	4.3	0.00	53.0	61.0	17.0	45.0	47.0	46.0	32.0	129.0	0.00	8.2	0.00
66	96.2	142.8	276.1	1297.3	24.0	34.2	2.0	9.1	7.7	5.0	7.0	9.1	0.00	4.0	0.00	45.0	41.0	14.0	40.0	48.0	56.0	32.0	109.0	0.00	7.0	0.00
67	100.5	156.8	325.9	1507.6	30.0	32.1	1.6	10.0	8.9	5.2	7.2	9.4	0.00	3.4	0.00	47.0	45.0	16.0	45.0	45.0	44.0	35.0	125.0	0.00	7.2	0.00
68	141.1	111.5	228.2	1299.1	28.0	30.6	2.0	7.7	8.9	5.0	7.2	8.1	0.00	3.2	0.00	66.0	32.0	13.0	45.0	43.0	57.0	27.0	125.0	0.00	6.0	0.00
69	98.3	149.8	322.4	1359.0	43.0	41.4	1.7	8.8	8.6	5.0	7.0	9.3	0.00	3.9	0.00	46.0	43.0	16.0	41.0	58.0	48.0	31.0	121.0	0.00	7.2	0.00

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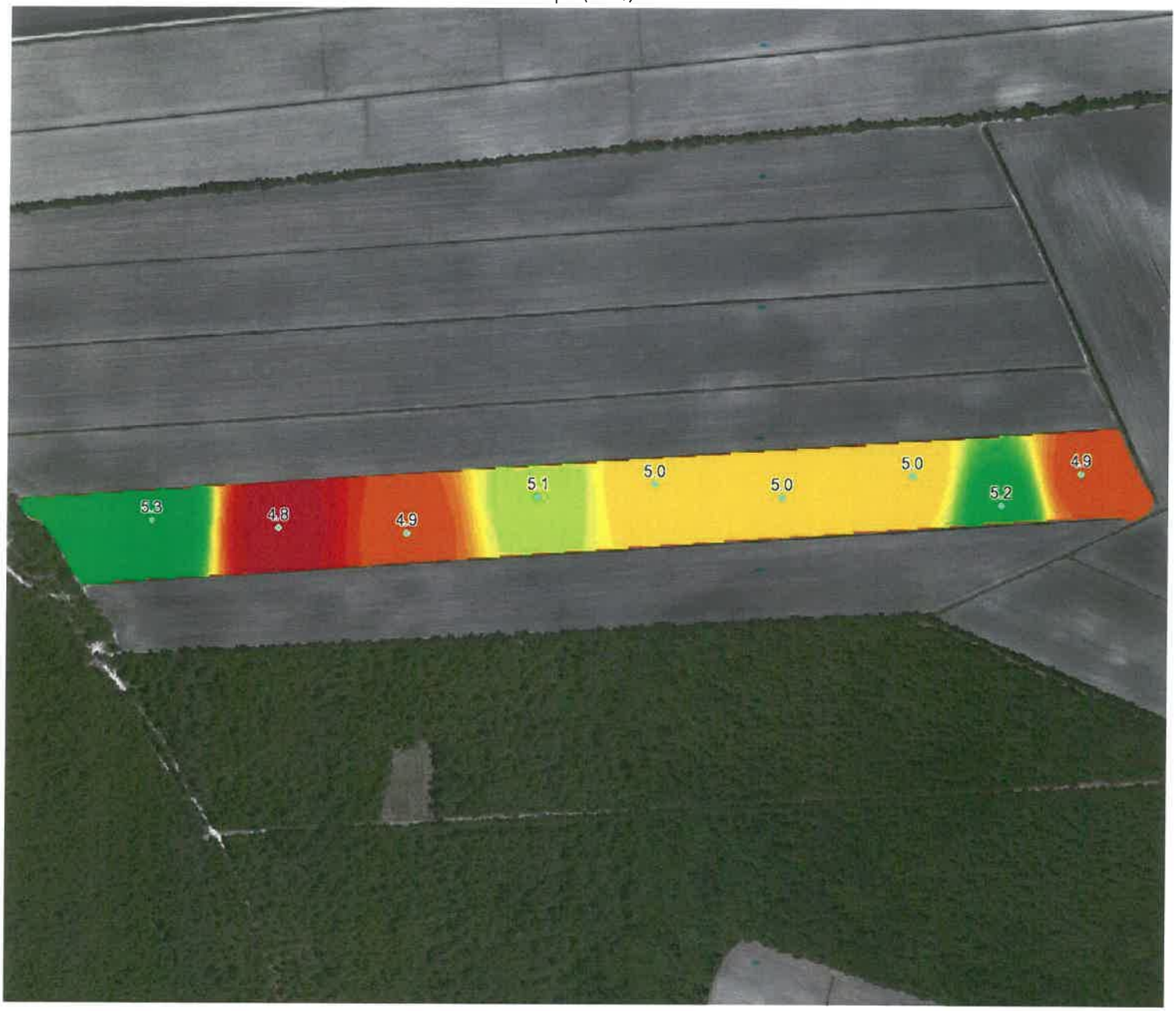
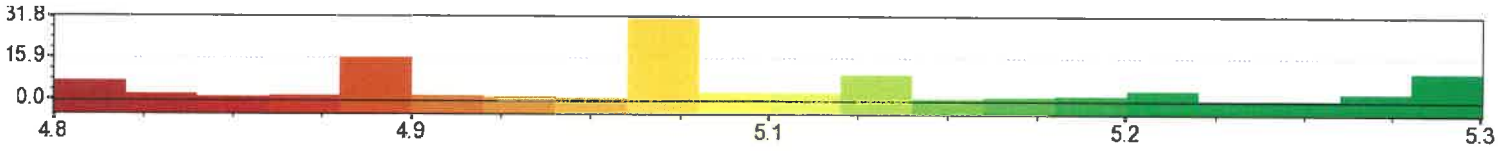
THE NEXT LEVEL OF AGRICULTURAL SOLUTIONS

Grower: KENNETH H QUINN Farm: New Ground Field: New Ground 4

Master Soil Book
Element Map

pH (none)





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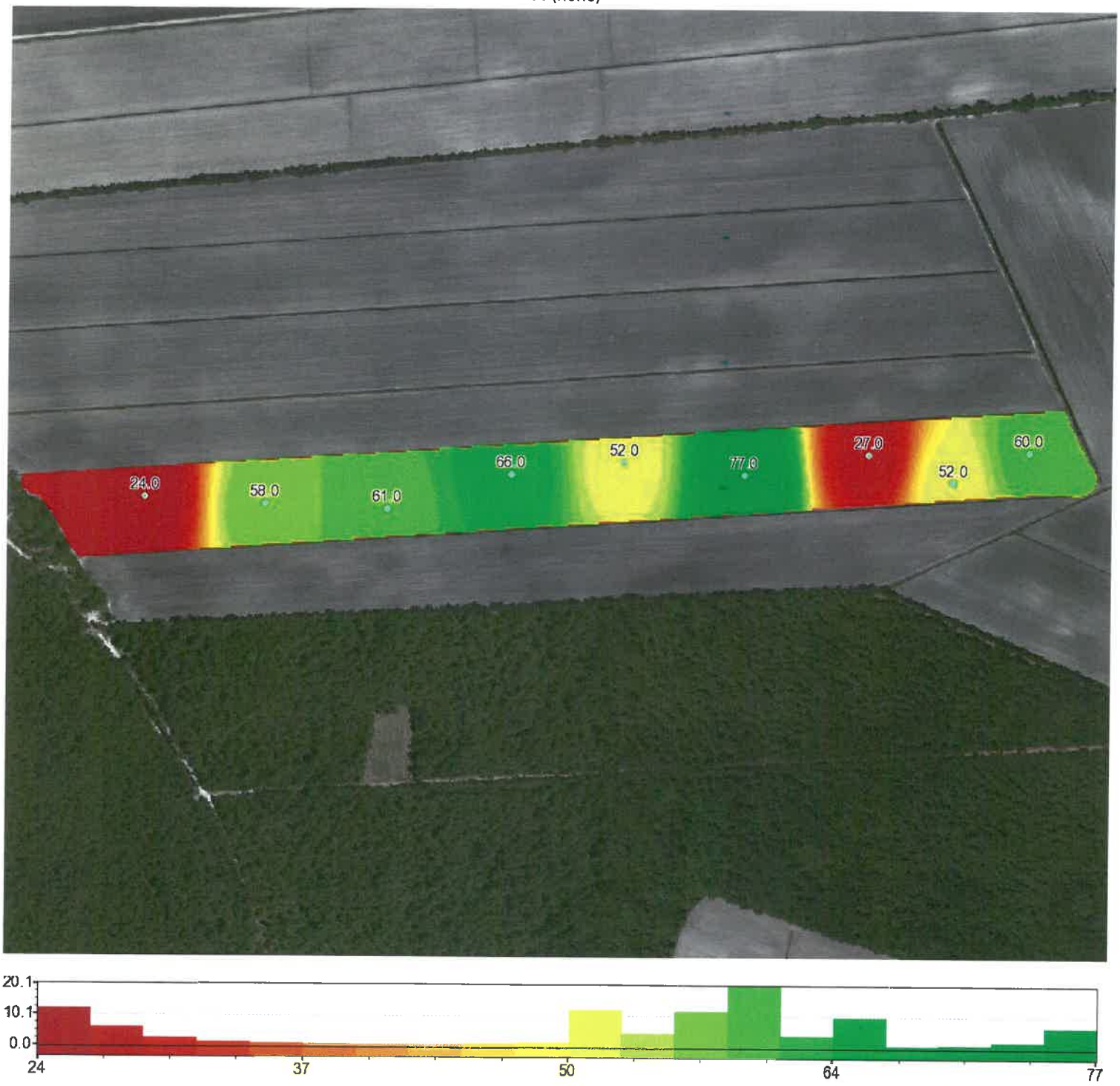
THE NEXT LEVEL OF AGRICULTURAL SOLUTIONS

Grower: KENNETH H QUINN Farm: New Ground Field: New Ground 4

Master Soil Book
Element Map

PI (none)



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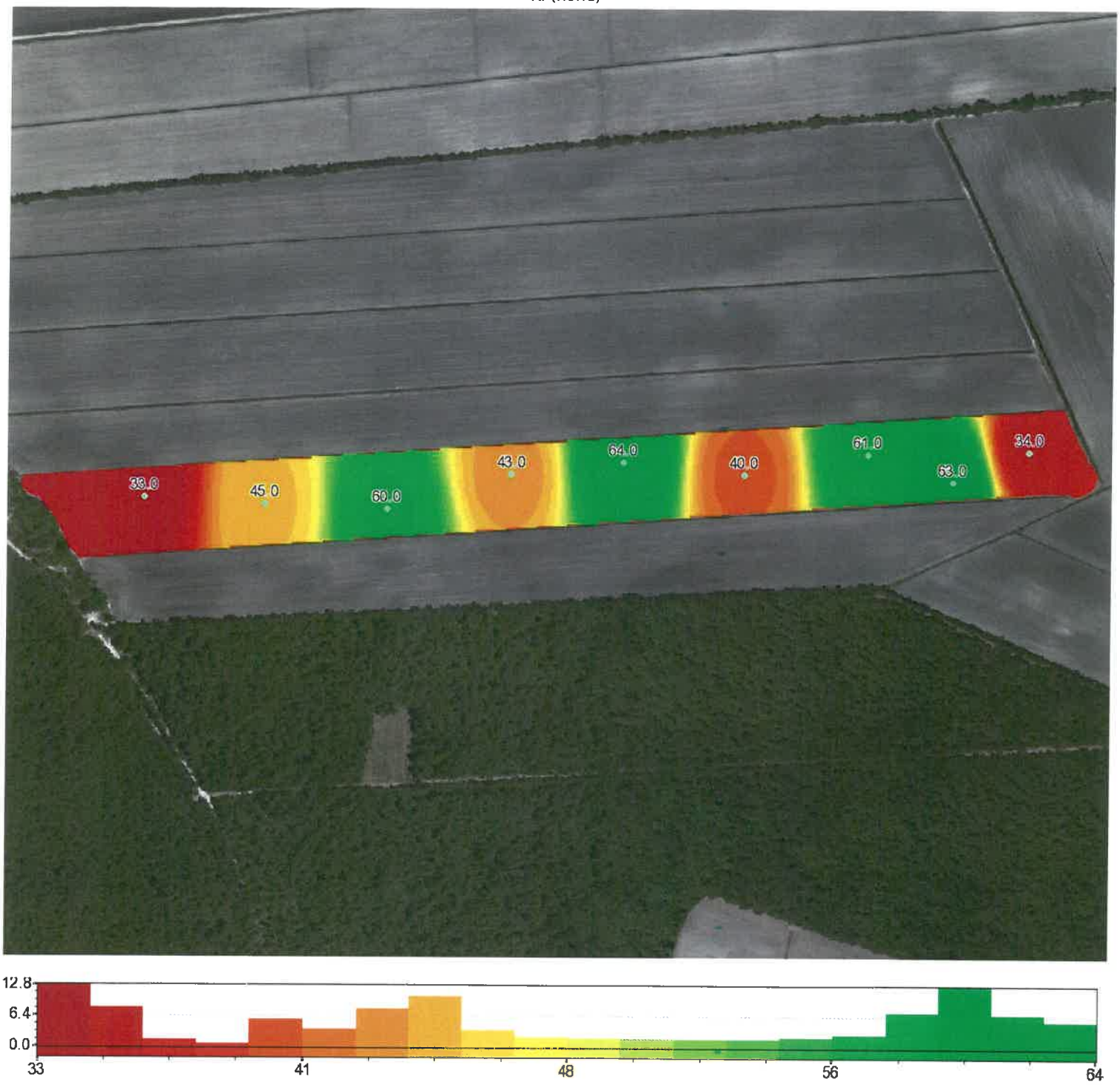
THE NEXT LEVEL OF AGRICULTURAL SOLUTIONS

Grower: KENNETH H QUINN Farm: New Ground Field: New Ground 4

Master Soil Book
Element Map

KI (none)



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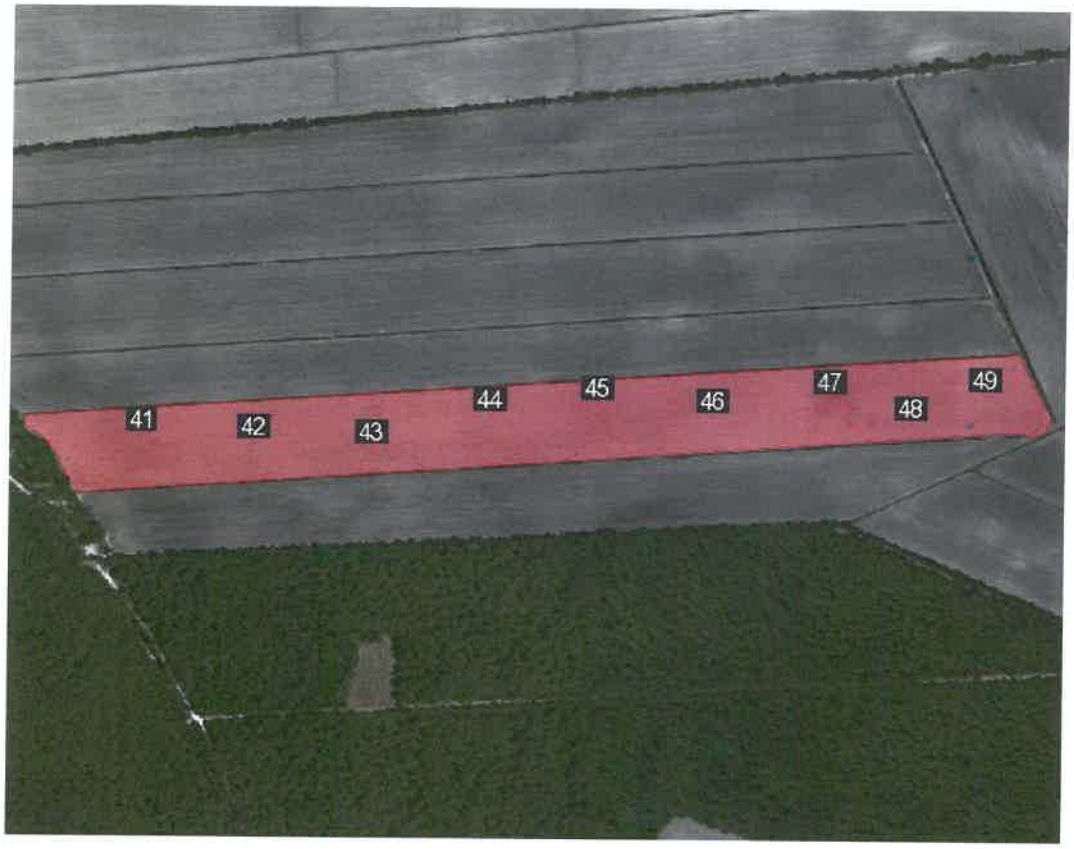
THE NEXT LEVEL OF AGRICULTURAL SOLUTIONS

Master Soil Book
Sample Summary

Grower: KENNETH H QUINN Farm: New Ground Field: New Ground 4



	Min	Max	Avg	
P	51.3	164.6	113.3	lbs/ac
K	115.0	223.0	171.5	lbs/ac
Mg	191.1	408.9	306.3	lbs/ac
Ca	763.4	1819.8	1211.4	lbs/ac
Na	35.0	55.0	46.0	lbs/ac
S	28.5	54.9	40.9	lbs/ac
Cu	1.1	2.3	1.6	lbs/ac
Mn	4.6	13.1	8.2	lbs/ac
Zn	6.0	19.7	10.8	lbs/ac
pH	4.8	5.3	5.0	none
bpH	6.8	7.2	7.0	none
CEC	6.3	11.1	8.9	meq/100g
Bulk Density	0.00	0.00	0.00	none
AC	3.1	4.8	3.8	meq/100g
BS	0.00	0.00	0.00	%
PI	24.0	77.0	53.0	none
KI	33.0	64.0	49.2	none
MgI	13.0	17.0	15.8	none
CaI	33.0	46.0	37.9	none
SI	40.0	77.0	57.3	none
CuI	30.0	65.0	45.6	none
MnI	16.0	46.0	28.7	none
ZnI	85.0	278.0	152.0	none
SSI	0.00	0.00	0.00	none
HM	4.8	8.9	6.6	%
SP	0.00	0.00	0.00	%

Sample Date: 2012-11-27 Soil Lab: Waters NCDA

ID	P (lbs/ac)	K (lbs/ac)	Mg (lbs/ac)	Ca (lbs/ac)	Na (lbs/ac)	S (lbs/ac)	Cu (lbs/ac)	Mn (lbs/ac)	Zn (lbs/ac)	pH (none)	bpH (none)	CEC (meq/100g)	Bulk Density (none)	AC (meq/100g)	BS (%)	PI (none)	KI (none)	MgI (none)	CaI (none)	SI (none)	CuI (none)	MnI (none)	ZnI (none)	SSI (none)	HM (%)	SP (%)
41	51.3	115.0	191.1	763.4	45.0	54.9	1.1	4.6	6.0	5.3	7.2	6.3	0.00	3.1	0.00	24.0	33.0	14.0	34.0	77.0	30.0	16.0	85.0	0.00	8.0	0.00
42	124.0	156.8	205.6	858.6	41.0	44.9	2.2	5.4	7.5	4.8	7.1	7.3	0.00	3.7	0.00	58.0	45.0	13.0	33.0	63.0	62.0	19.0	106.0	0.00	5.4	**0.00**
43	130.4	209.0	276.3	1090.6	35.0	39.9	1.8	6.3	7.2	4.9	7.0	8.5	0.00	3.8	0.00	61.0	60.0	15.0	36.0	56.0	50.0	22.0	102.0	0.00	5.8	0.00
44	141.1	149.8	313.1	1181.5	43.0	39.9	1.4	6.8	9.7	5.1	7.1	8.5	0.00	3.5	0.00	66.0	43.0	17.0	39.0	56.0	40.0	24.0	136.0	0.00	6.0	0.00
45	111.2	223.0	368.4	1318.7	55.0	40.6	1.1	9.4	9.7	5.0	6.9	10.0	0.00	4.3	0.00	52.0	64.0	17.0	37.0	57.0	32.0	33.0	136.0	0.00	8.9	0.00
46	164.6	139.4	316.8	1226.0	51.0	39.2	1.8	8.8	15.4	5.0	7.1	8.6	0.00	3.5	0.00	77.0	40.0	17.0	40.0	55.0	49.0	31.0	217.0	0.00	5.1	0.00
47	57.7	212.5	341.3	1347.2	51.0	45.6	1.3	9.7	12.1	5.0	6.8	10.5	0.00	4.8	0.00	27.0	61.0	15.0	36.0	64.0	36.0	34.0	171.0	0.00	8.5	0.00
48	111.2	219.5	335.2	1297.3	42.0	34.2	1.6	9.4	9.7	5.2	7.1	9.1	0.00	3.6	0.00	52.0	63.0	17.0	40.0	48.0	46.0	33.0	137.0	0.00	6.6	0.00
49	128.3	118.5	408.9	1819.8	51.0	28.5	2.3	13.1	19.7	4.9	7.0	11.1	0.00	4.0	0.00	60.0	34.0	17.0	46.0	40.0	65.0	46.0	278.0	0.00	4.8	0.00

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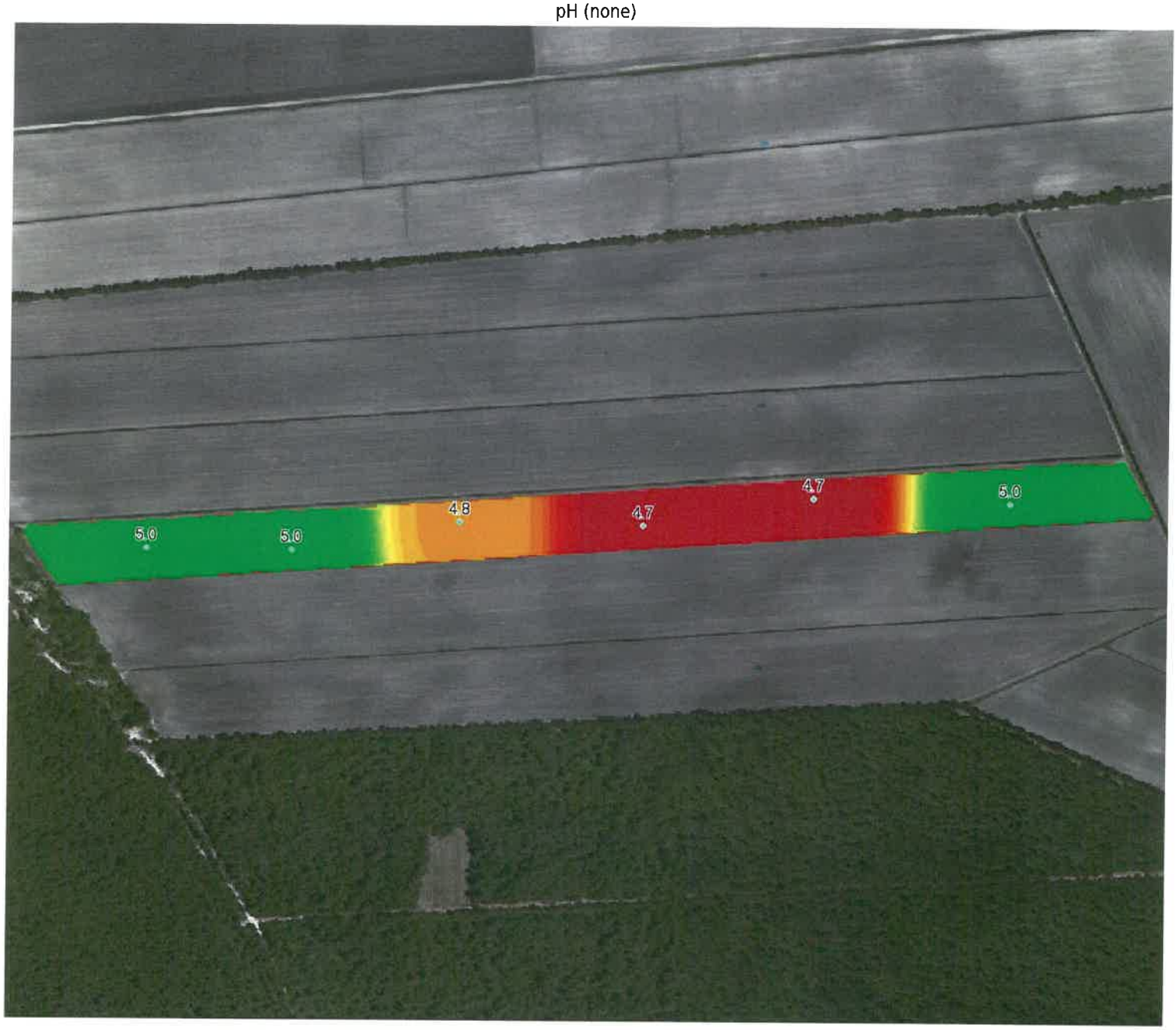
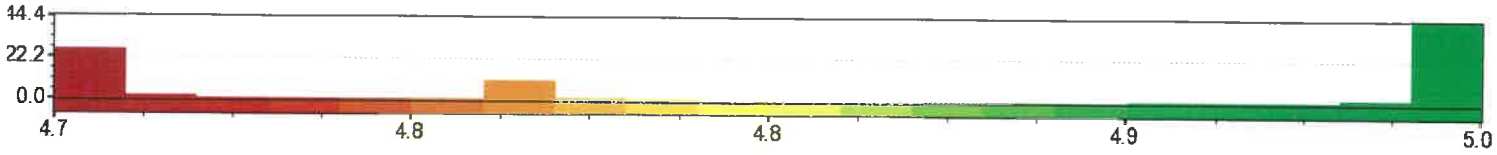
THE NEXT LEVEL OF AGRICULTURAL SOLUTIONS

Grower: KENNETH H QUINN Farm: New Ground Field: New Ground 5

Master Soil Book
Element Map

pH (none)





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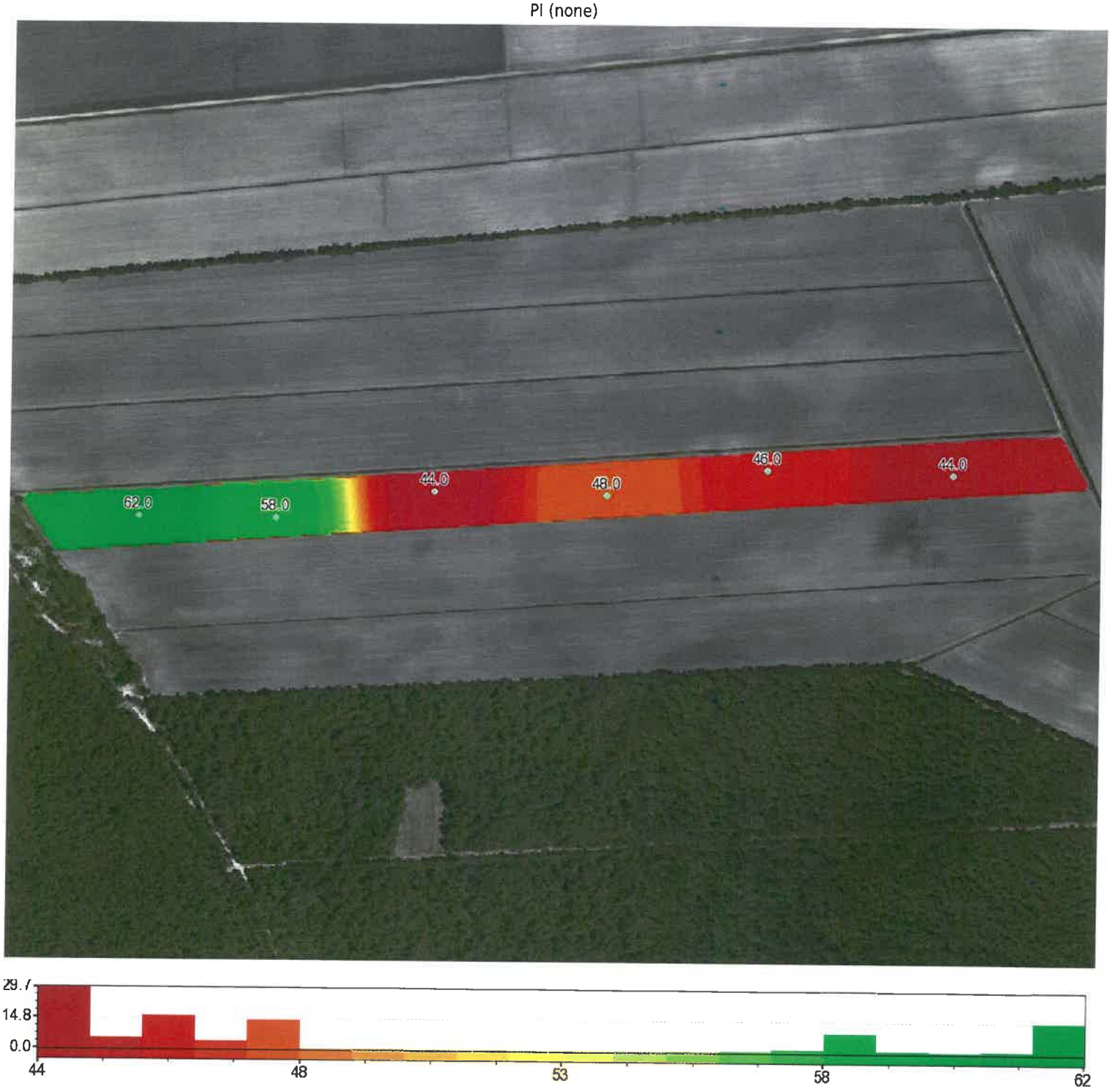
THE NEXT LEVEL OF AGRICULTURAL SOLUTIONS

Grower: KENNETH H QUINN Farm: New Ground Field: New Ground 5

Master Soil Book
Element Map

Pl (none)



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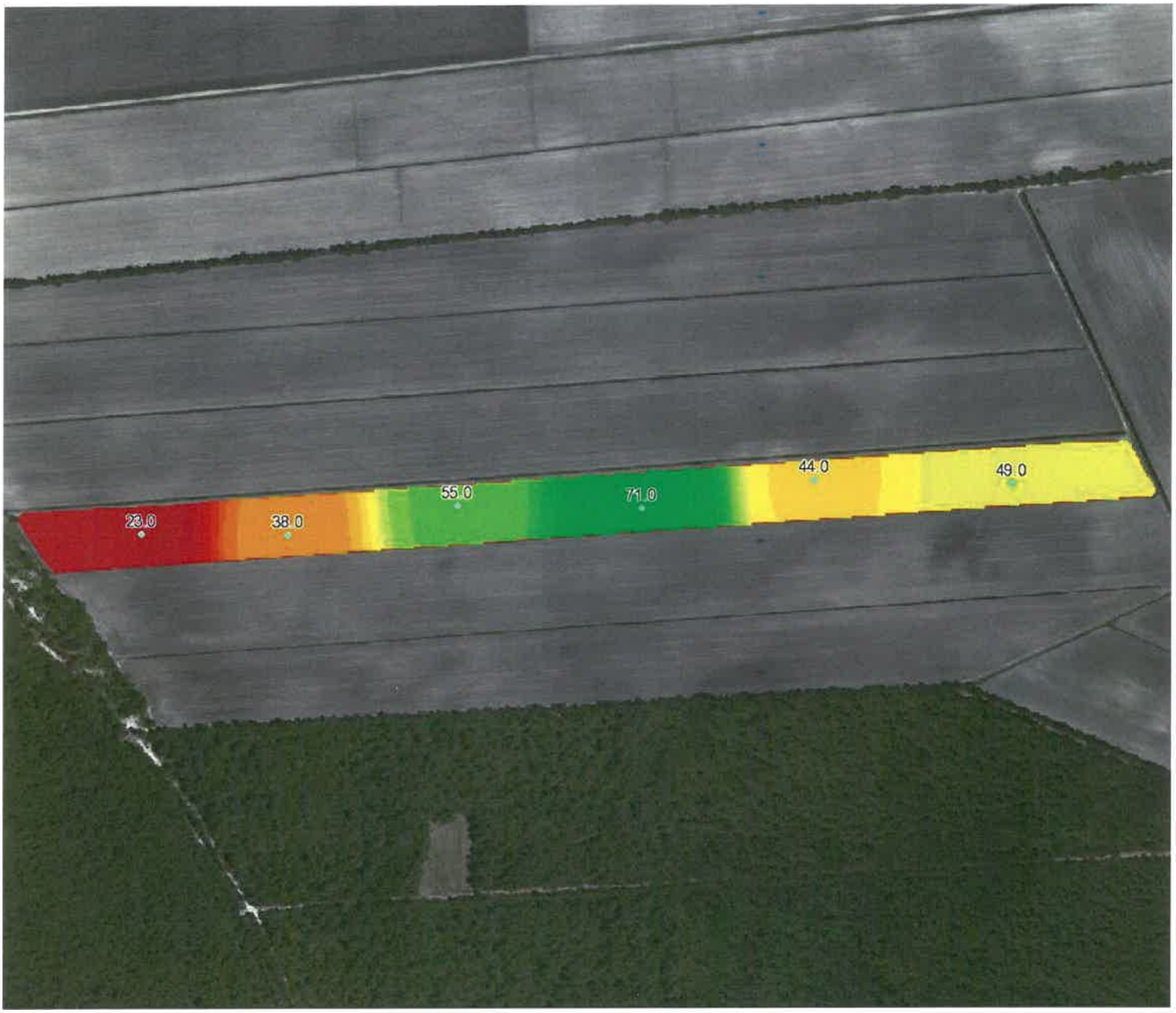
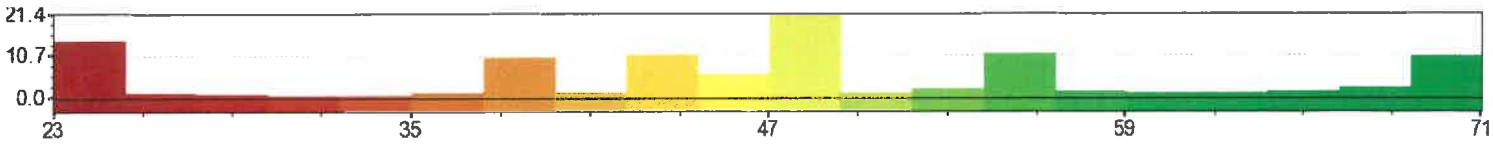
THE NEXT LEVEL OF AGRICULTURAL SOLUTIONS

Master Soil Book
Element Map

Grower: KENNETH H QUINN Farm: New Ground Field: New Ground 5

KI (none)





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THE NEXT LEVEL OF AGRICULTURAL SOLUTIONS

Master Soil Book
Sample Summary

Grower: KENNETH H QUINN Farm: New Ground Field: New Ground 5

	Min	Max	Avg	
P	94.1	132.6	107.6	lbs/ac
K	80.1	247.4	162.6	lbs/ac
Mg	185.9	279.1	245.0	lbs/ac
Ca	917.4	1408.5	1192.5	lbs/ac
Na	36.0	46.0	39.5	lbs/ac
S	36.4	39.9	38.1	lbs/ac
Cu	1.5	2.2	1.8	lbs/ac
Mn	7.1	10.3	8.8	lbs/ac
Zn	8.7	12.6	10.1	lbs/ac
pH	4.7	5.0	4.9	none
bpH	6.7	7.2	6.9	none
CEC	6.6	10.4	9.0	meq/100g
Bulk Density	0.00	0.00	0.00	none
AC	3.1	5.2	4.2	meq/100g
BS	0.00	0.00	0.00	%
PI	44.0	62.0	50.3	none
KI	23.0	71.0	46.7	none
MgI	12.0	14.0	12.7	none
CaI	33.0	39.0	37.5	none
SI	51.0	56.0	53.5	none
CuI	42.0	61.0	49.3	none
MnI	25.0	36.0	30.8	none
ZnI	123.0	178.0	142.5	none
SSI	0.00	0.00	0.00	none
HM	5.5	9.6	7.4	%
SP	0.00	0.00	0.00	%

Sample Date: 2012-11-27 Soil Lab: Waters NCDA

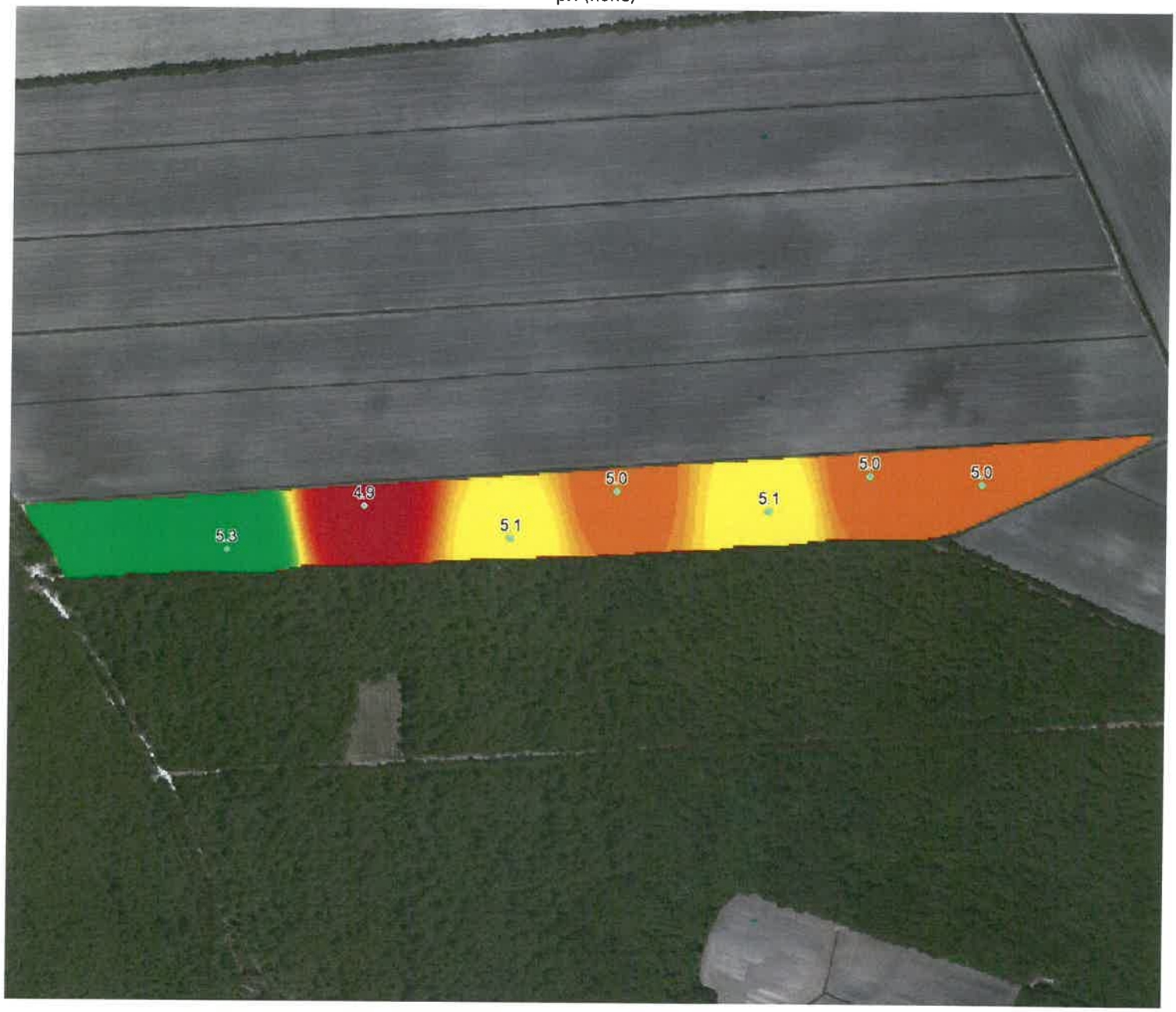
ID	P (lbs/ac)	K (lbs/ac)	Mg (lbs/ac)	Ca (lbs/ac)	Na (lbs/ac)	S (lbs/ac)	Cu (lbs/ac)	Mn (lbs/ac)	Zn (lbs/ac)	pH (none)	bpH (none)	CEC (meq/100g)	Bulk Density (none)	AC (meq/100g)	BS (%)	PI (none)	KI (none)	MgI (none)	CaI (none)	SI (none)	CuI (none)	MnI (none)	ZnI (none)	SSI (none)	HM (%)	SP (%)
51	132.6	80.1	185.9	917.4	36.0	36.4	1.9	7.1	10.3	5.0	7.2	6.6	0.00	3.1	0.00	62.0	23.0	13.0	39.0	51.0	52.0	25.0	145.0	0.00	6.4	0.00
52	124.0	132.4	222.5	1098.1	42.0	39.2	2.2	7.4	8.7	5.0	7.1	7.9	0.00	3.6	0.00	58.0	38.0	13.0	39.0	55.0	61.0	26.0	123.0	0.00	5.5	0.00
53	94.1	191.6	247.0	1252.7	46.0	39.9	1.5	9.7	9.3	4.8	6.9	9.5	0.00	4.5	0.00	44.0	55.0	12.0	37.0	56.0	43.0	34.0	131.0	0.00	8.0	0.00
54	102.6	247.4	265.2	1199.6	39.0	38.5	1.5	9.4	10.2	4.7	6.7	10.2	0.00	5.2	0.00	48.0	71.0	12.0	33.0	54.0	42.0	33.0	143.0	0.00	9.6	0.00
55	98.3	153.3	270.4	1408.5	36.0	36.4	1.8	10.3	12.6	4.7	6.8	10.4	0.00	5.0	0.00	46.0	44.0	12.0	38.0	51.0	51.0	36.0	178.0	0.00	8.2	0.00
56	94.1	170.7	279.1	1278.8	38.0	38.5	1.7	8.8	9.6	5.0	7.0	9.2	0.00	4.1	0.00	44.0	49.0	14.0	39.0	54.0	47.0	31.0	135.0	0.00	6.8	0.00

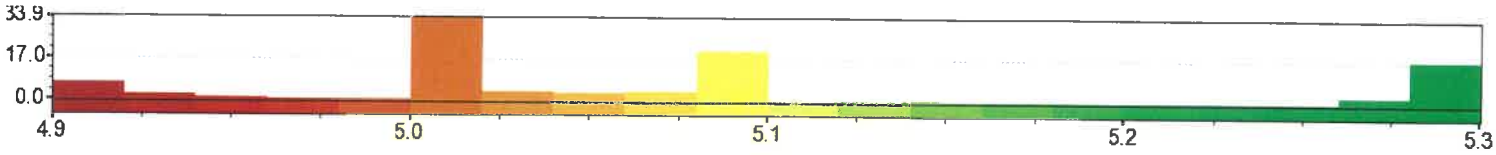
echelon
THE NEXT LEVEL OF AGRICULTURAL SOLUTIONS

Grower: KENNETH H QUINN Farm: New Ground Field: New Ground 3

Master Soil Book
Element Map

pH (none)



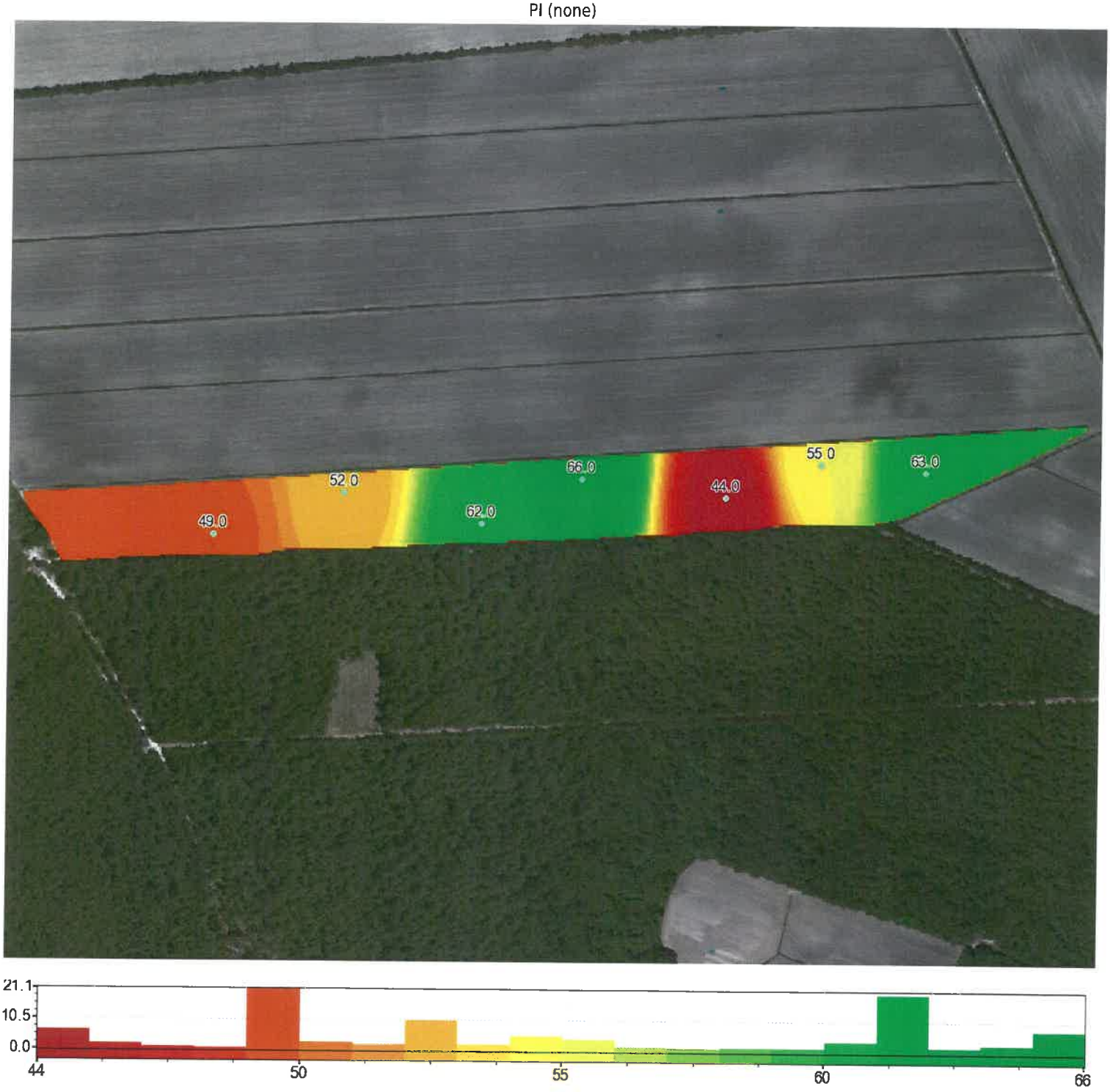


echelon
THE NEXT LEVEL OF AGRICULTURAL SOLUTIONS

Grower: KENNETH H QUINN Farm: New Ground Field: New Ground 3

Master Soil Book
Element Map

PI (none)

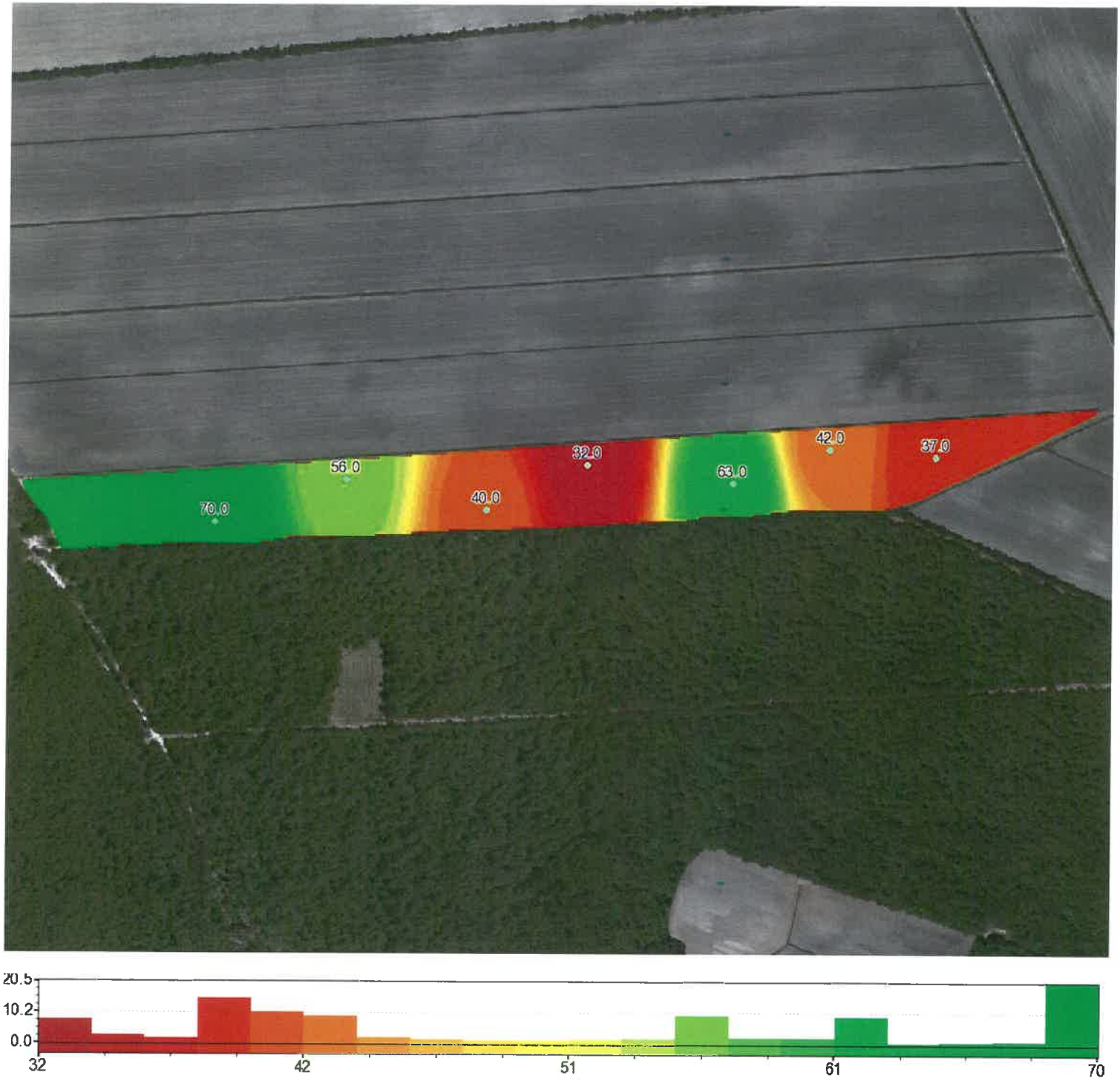


echelon
THE NEXT LEVEL OF AGRICULTURAL SOLUTIONS

Grower: KENNETH H QUINN Farm: New Ground Field: New Ground 3

Master Soil Book
Element Map

Kl (none)



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THE NEXT LEVEL OF AGRICULTURAL SOLUTIONS

Master Soil Book
Sample Summary

Grower: KENNETH H QUINN Farm: New Ground Field: New Ground 3

	Min	Max	Avg	
P	94.1	141.1	119.4	lbs/ac
K	111.5	243.9	169.2	lbs/ac
Mg	260.0	416.3	305.2	lbs/ac
Ca	1054.9	1691.5	1316.2	lbs/ac
Na	34.0	71.0	44.9	lbs/ac
S	27.1	52.0	38.5	lbs/ac
Cu	1.6	2.8	2.3	lbs/ac
Mn	7.4	12.5	9.7	lbs/ac
Zn	6.0	15.2	9.7	lbs/ac
pH	4.9	5.3	5.1	none
bpH	6.9	7.2	7.1	none
CEC	8.0	11.3	8.8	meq/100g
Bulk Density	0.00	0.00	0.00	none
AC	3.0	4.4	3.5	meq/100g
BS	0.00	0.00	0.00	%
PI	44.0	66.0	55.9	none
KI	32.0	70.0	48.6	none
MgI	14.0	19.0	15.9	none
CaI	35.0	48.0	41.7	none
SI	38.0	73.0	54.0	none
CuI	46.0	77.0	63.4	none
MnI	26.0	44.0	34.0	none
ZnI	85.0	214.0	137.1	none
SSI	0.00	0.00	0.00	none
HM	4.7	7.0	5.9	%
SP	0.00	0.00	0.00	%

Sample Date: 2012-11-27 Soil Lab: Waters NCDA

ID	P (lbs/ac)	K (lbs/ac)	Mg (lbs/ac)	Ca (lbs/ac)	Na (lbs/ac)	S (lbs/ac)	Cu (lbs/ac)	Mn (lbs/ac)	Zn (lbs/ac)	pH (none)	bpH (none)	CEC (meq/100g)	Bulk Density (none)	AC (meq/100g)	BS (%)	PI (none)	KI (none)	MgI (none)	CaI (none)	SI (none)	CuI (none)	MnI (none)	ZnI (none)	SSI (none)	HM (%)	SP (%)
31	134.7	128.9	263.9	1488.3	34.0	27.1	2.8	12.5	15.2	5.0	7.2	8.7	0.00	3.1	0.00	63.0	37.0	14.0	48.0	38.0	77.0	44.0	214.0	0.00	4.7	0.00
32	117.6	146.3	269.8	1272.0	39.0	37.1	2.4	12.0	10.2	5.0	7.2	8.3	0.00	3.2	0.00	55.0	42.0	15.0	43.0	52.0	67.0	42.0	143.0	0.00	4.8	0.00
33	94.1	219.5	366.4	1395.7	46.0	39.9	2.0	10.3	8.0	5.1	7.2	8.9	0.00	3.0	0.00	44.0	63.0	19.0	44.0	56.0	57.0	36.0	113.0	0.00	7.0	0.00
34	141.1	111.5	416.3	1691.5	71.0	52.0	1.6	10.0	13.0	5.0	6.9	11.3	0.00	4.4	0.00	66.0	32.0	17.0	42.0	73.0	46.0	35.0	183.0	0.00	7.0	0.00
35	132.6	139.4	277.4	1054.9	36.0	36.4	2.5	8.0	7.3	5.1	7.1	8.0	0.00	3.6	0.00	62.0	40.0	16.0	37.0	51.0	69.0	28.0	103.0	0.00	6.2	0.00
36	111.2	195.1	282.8	1085.2	48.0	40.6	2.3	7.7	8.4	4.9	7.0	8.7	0.00	4.0	0.00	52.0	56.0	15.0	35.0	57.0	63.0	27.0	119.0	0.00	6.2	0.00
37	104.8	243.9	260.0	1226.0	40.0	36.4	2.3	7.4	6.0	5.3	7.2	8.0	0.00	3.0	0.00	49.0	70.0	15.0	43.0	51.0	65.0	26.0	85.0	0.00	5.4	0.00

Grower: KENNETH H QUINN
Farm: New Ground
Area: 169.22 acres

2012

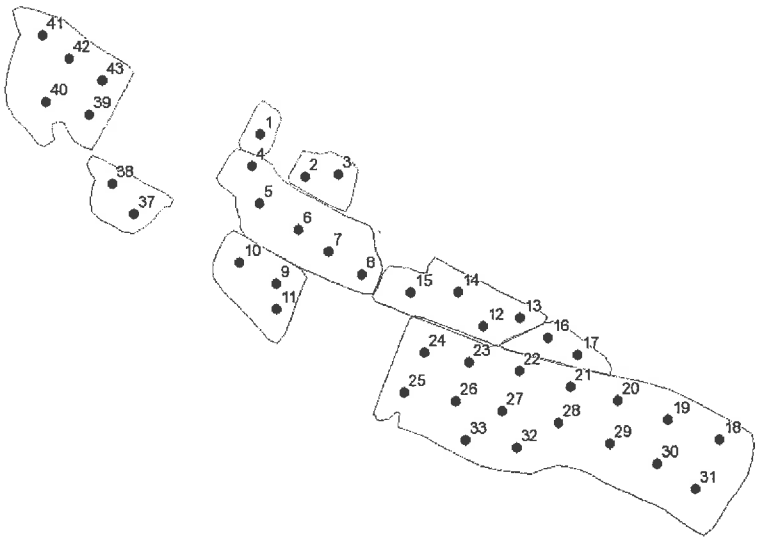
Field Sampler

NCDA Index Values

Grower: Wood Brothers
Farm: Raymonds
Acres: 85.81

Field(s): 94, 95, 96, 97, 98, 99, 100, 101, 102

Sarah Arthur LLC
211 Cameron Shores
New Bern, NC 28562
PHONE: 252-229-3907
FAX: 888-670-1840



Element	Average	Range
P-I:	175	64 - 312
K-I:	45	21 - 94
Mg%:	15.0	12.0 - 19.0
Ca%:	54.5	46.0 - 63.0
pH:	6.01	5.40 - 6.40
Ac:	1.21	0.70 - 2.80
S-I:	41	22 - 60
Zn-I:	94	49 - 131
Zn-Al:	N/A	N/A
Mn-I:	42	17 - 70
Mn-Al:	N/A	N/A
Cu-I:	60	29 - 111
CEC:	4.8	3.1 - 8.6
HM%:	1.0	0.3 - 3.0

Field	No.	P-I	K-I	Mg (%)	Ca (%)	pH	Ac	S-I	Zn-I	Zn-Al	Mn-I	Mn-Al	Cu-I	CEC	HM (%)
	43	67.0	45.0	13.0	49.0	5.4	2.8	51.0	124.0	n/a	27.0	n/a	37.0	7.9	2.9
94															
	1	146.0	43.0	15.0	56.0	6.2	1.1	45.0	95.0	n/a	23.0	n/a	111.0	4.5	0.8
95															
	2	141.0	44.0	15.0	54.0	6.2	1.0	41.0	72.0	n/a	28.0	n/a	74.0	4.0	0.5
	3	98.0	37.0	15.0	53.0	5.9	0.9	33.0	57.0	n/a	24.0	n/a	63.0	3.3	0.4
96															
	4	253.0	54.0	16.0	57.0	6.1	1.3	54.0	93.0	n/a	29.0	n/a	82.0	5.8	1.4
	5	283.0	40.0	15.0	55.0	6.1	1.2	36.0	106.0	n/a	46.0	n/a	92.0	4.7	0.9
	6	279.0	44.0	14.0	56.0	6.0	1.1	54.0	113.0	n/a	47.0	n/a	102.0	4.4	0.6
	7	197.0	48.0	14.0	56.0	6.1	1.3	56.0	105.0	n/a	34.0	n/a	72.0	4.9	1.1
	8	122.0	35.0	16.0	59.0	6.2	0.8	51.0	96.0	n/a	33.0	n/a	62.0	3.9	0.5
97															
	9	256.0	30.0	18.0	59.0	6.4	0.8	54.0	101.0	n/a	39.0	n/a	52.0	4.0	0.5
	10	312.0	39.0	13.0	52.0	6.0	1.4	50.0	102.0	n/a	42.0	n/a	62.0	4.5	0.8
	11	242.0	22.0	14.0	51.0	5.9	1.1	37.0	103.0	n/a	41.0	n/a	56.0	3.4	0.5
98															
	12	206.0	39.0	14.0	55.0	6.2	1.0	23.0	99.0	n/a	61.0	n/a	69.0	4.0	0.6
	13	122.0	39.0	14.0	52.0	5.8	0.9	32.0	75.0	n/a	39.0	n/a	38.0	3.1	0.3
	14	162.0	48.0	16.0	59.0	6.2	0.9	41.0	93.0	n/a	48.0	n/a	64.0	4.3	0.5
	15	266.0	73.0	18.0	55.0	6.2	1.3	57.0	87.0	n/a	50.0	n/a	101.0	6.0	1.4
99															
	16	95.0	50.0	16.0	57.0	6.2	0.9	31.0	68.0	n/a	35.0	n/a	44.0	4.3	0.6
	17	70.0	54.0	18.0	55.0	6.1	0.7	27.0	49.0	n/a	28.0	n/a	38.0	3.6	0.3

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SAMPLE DATE: 2011-10-27;2011-10-12
ISSUED: 4:55pm EST Dec 6, 2011
A Product of Agfleet Version 3.00

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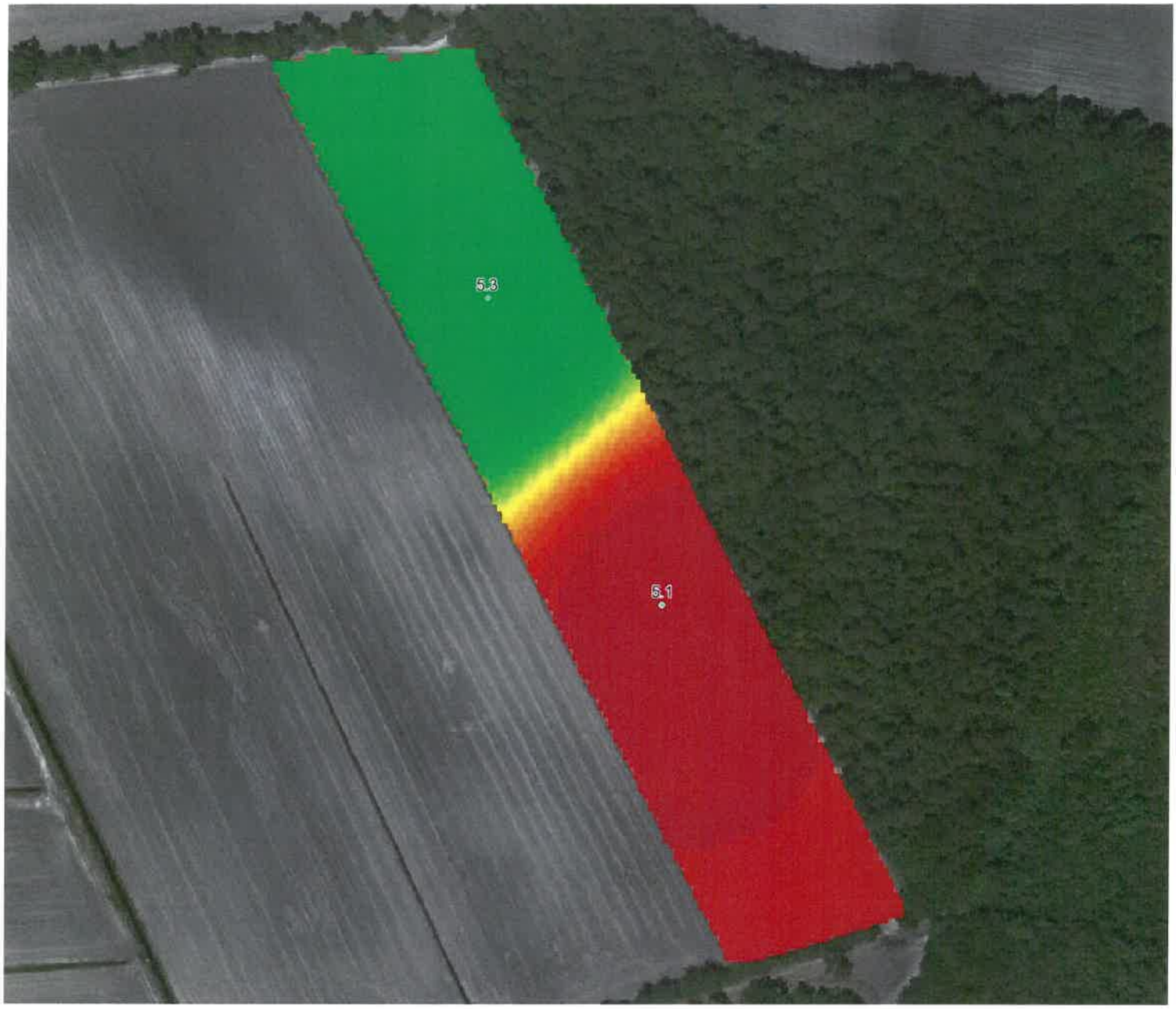
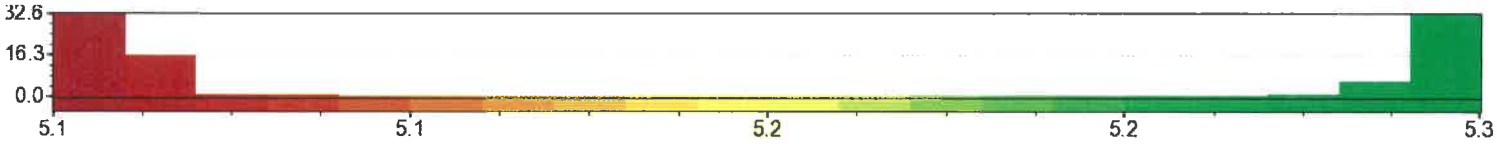
THE NEXT LEVEL OF AGRICULTURAL SOLUTIONS

Master Soil Book
Element Map

Grower: KENNETH H QUINN Farm: New Ground Field: New Ground 1

pH (none)





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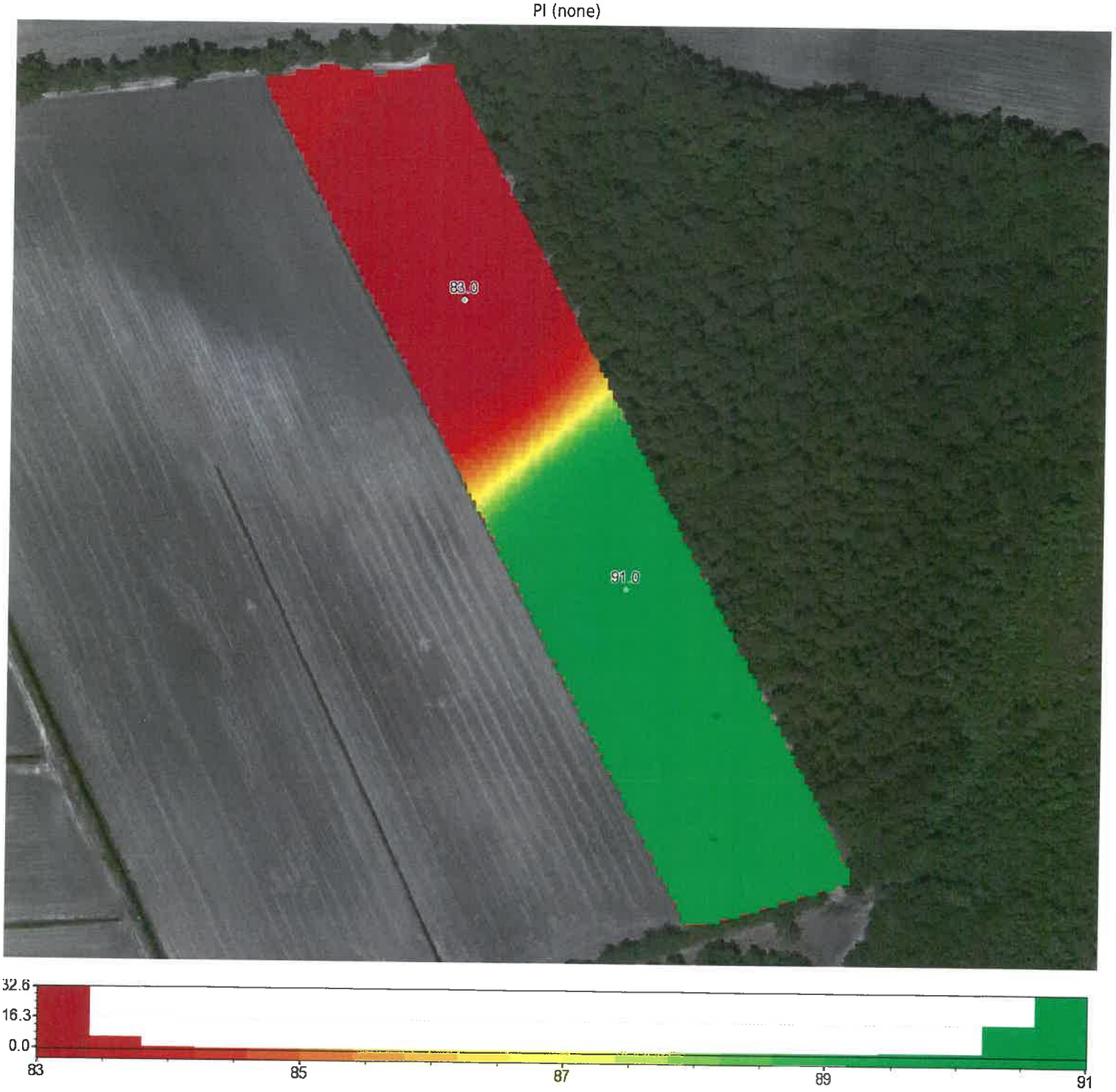
THE NEXT LEVEL OF AGRICULTURAL SOLUTIONS

Grower: KENNETH H QUINN Farm: New Ground Field: New Ground 1

Master Soil Book
Element Map

PI (none)



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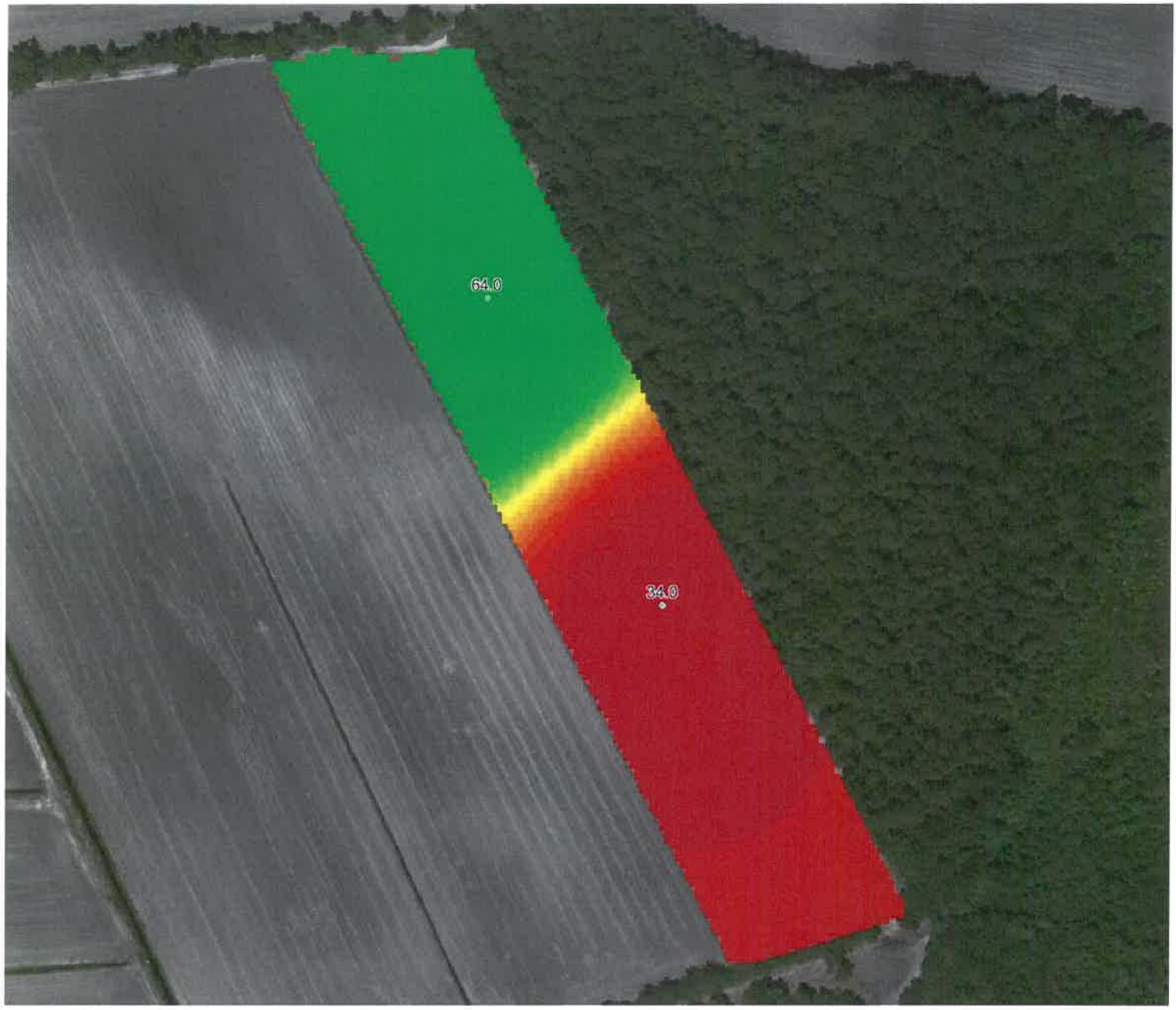
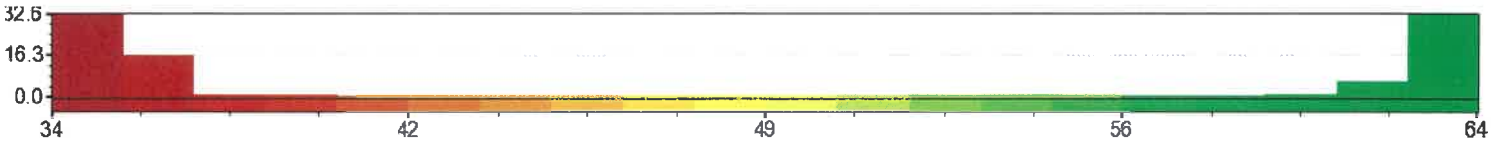
THE NEXT LEVEL OF AGRICULTURAL SOLUTIONS

Master Soil Book
Element Map

Grower: KENNETH H QUINN Farm: New Ground Field: New Ground 1

KI (none)





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THE NEXT LEVEL OF AGRICULTURAL SOLUTIONS

Master Soil Book
Sample Summary

Grower: KENNETH H QUINN Farm: New Ground Field: New Ground 1

	Min	Max	Avg	
P	177.4	194.6	186.0	lbs/ac
K	118.5	223.0	170.7	lbs/ac
Mg	184.6	257.9	221.2	lbs/ac
Ca	1062.8	1575.3	1319.0	lbs/ac
Na	20.0	24.0	22.0	lbs/ac
S	35.6	36.4	36.0	lbs/ac
Cu	1.5	1.9	1.7	lbs/ac
Mn	12.2	18.5	15.4	lbs/ac
Zn	8.7	14.6	11.6	lbs/ac
pH	5.1	5.3	5.2	none
bpH	7.2	7.3	7.3	none
CEC	7.1	8.5	7.8	meq/100g
Bulk Density	0.00	0.00	0.00	none
AC	2.6	3.0	2.8	meq/100g
BS	0.00	0.00	0.00	%
PI	83.0	91.0	87.0	none
KI	34.0	64.0	49.0	none
MgI	12.0	14.0	13.0	none
CaI	42.0	52.0	47.0	none
SI	50.0	51.0	50.5	none
CuI	42.0	52.0	47.0	none
MnI	43.0	65.0	54.0	none
ZnI	122.0	205.0	163.5	none
SSI	0.00	0.00	0.00	none
HM	5.0	5.1	5.0	%
SP	0.00	0.00	0.00	%

Sample Date: 2012-11-27 Soil Lab: Waters NCDA

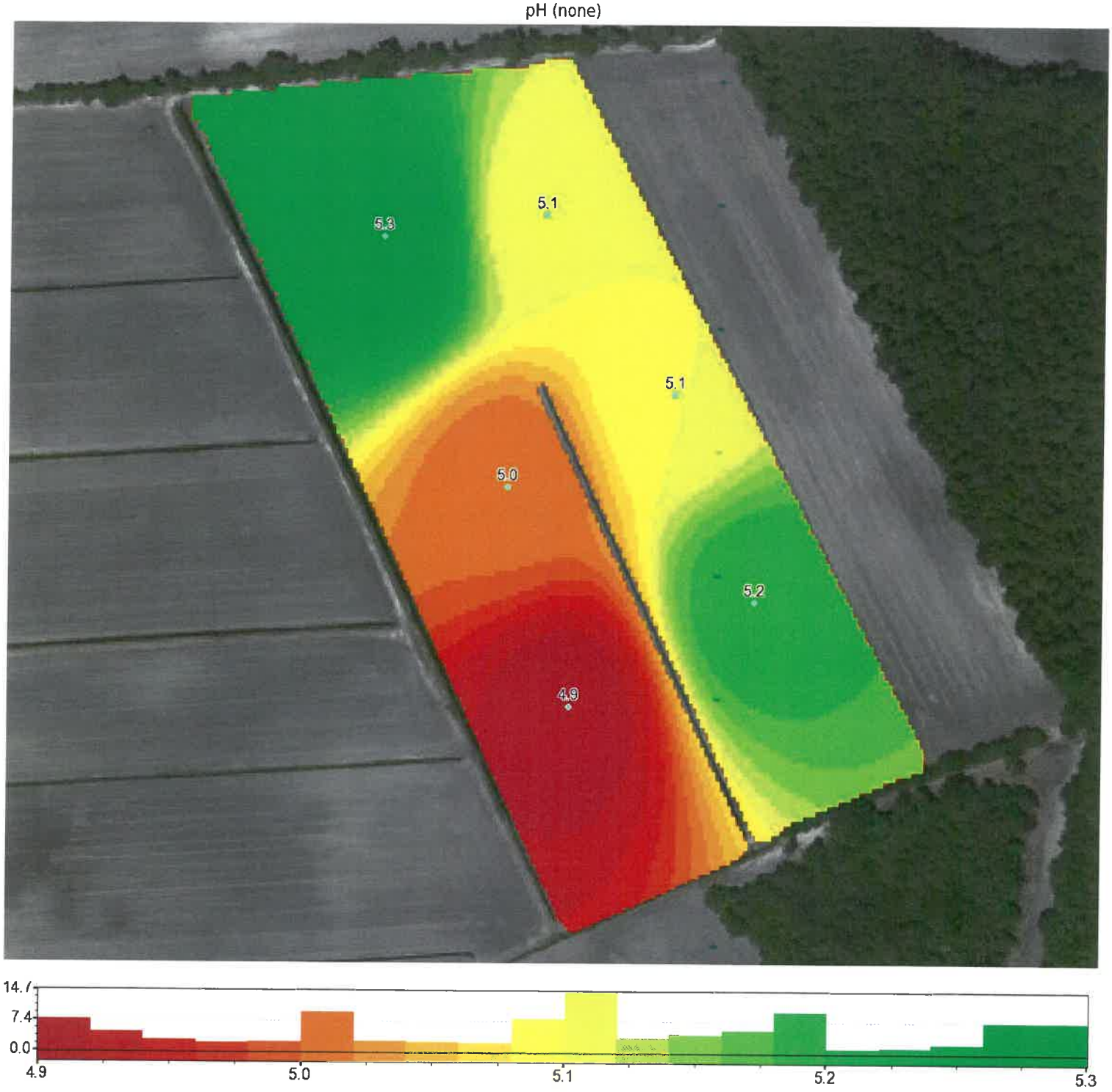
ID	P (lbs/ac)	K (lbs/ac)	Mg (lbs/ac)	Ca (lbs/ac)	Na (lbs/ac)	S (lbs/ac)	Cu (lbs/ac)	Mn (lbs/ac)	Zn (lbs/ac)	pH (none)	bpH (none)	CEC (meq/100g)	Bulk Density (none)	AC (meq/100g)	BS (%)	PI (none)	KI (none)	MgI (none)	CaI (none)	SI (none)	CuI (none)	MnI (none)	ZnI (none)	SSI (none)	HM (%)	SP (%)
11	177.4	223.0	257.9	1575.3	20.0	35.6	1.9	18.5	14.6	5.3	7.3	8.5	0.00	2.6	0.00	83.0	64.0	14.0	52.0	50.0	52.0	65.0	205.0	0.00	5.0	0.00
12	194.6	118.5	184.6	1062.8	24.0	36.4	1.5	12.2	8.7	5.1	7.2	7.1	0.00	3.0	0.00	91.0	34.0	12.0	42.0	51.0	42.0	43.0	122.0	0.00	5.1	0.00

echelon
THE NEXT LEVEL OF AGRICULTURAL SOLUTIONS

Grower: KENNETH H QUINN Farm: New Ground Field: New Ground 2

Master Soil Book
Element Map

pH (none)



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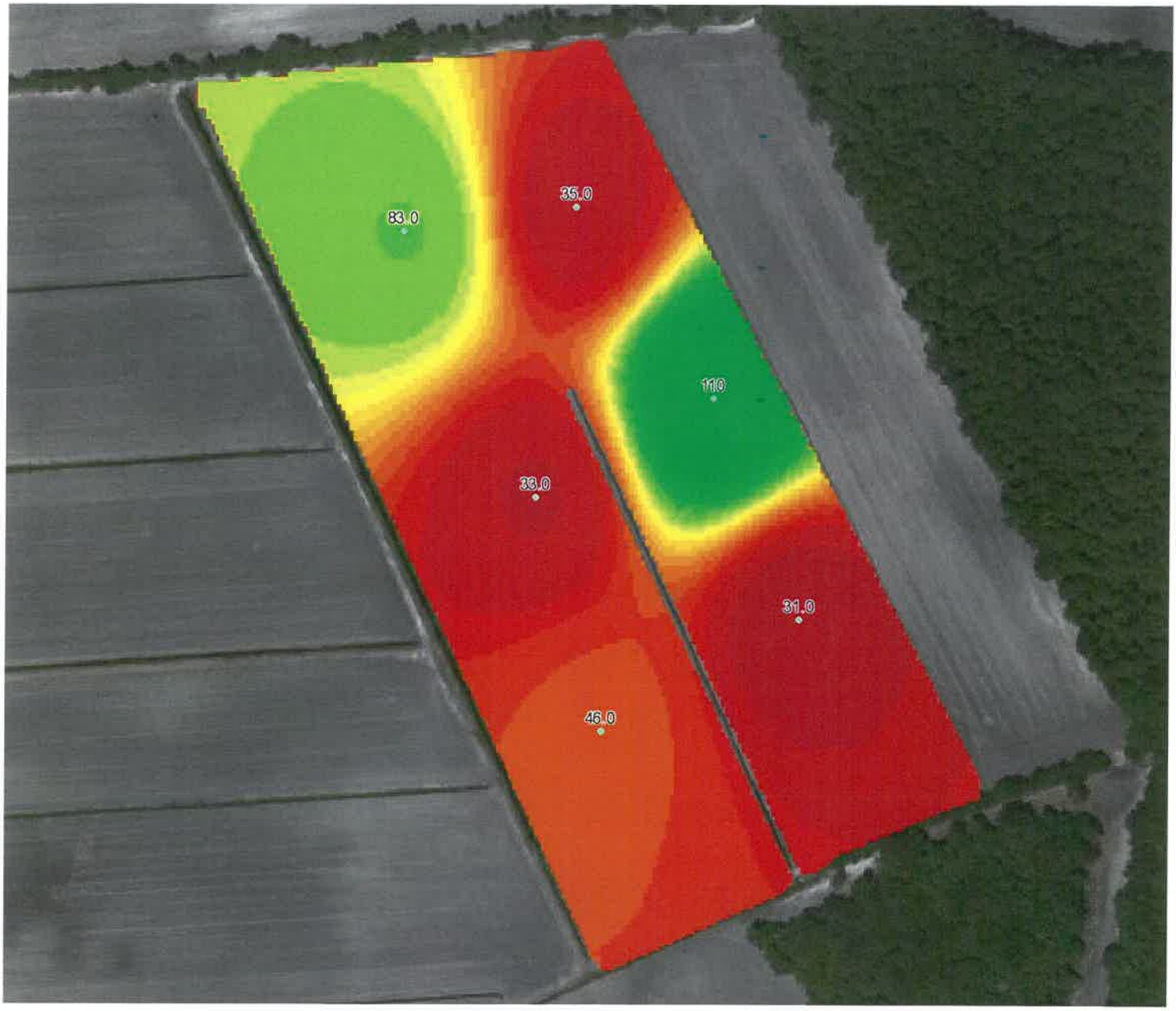
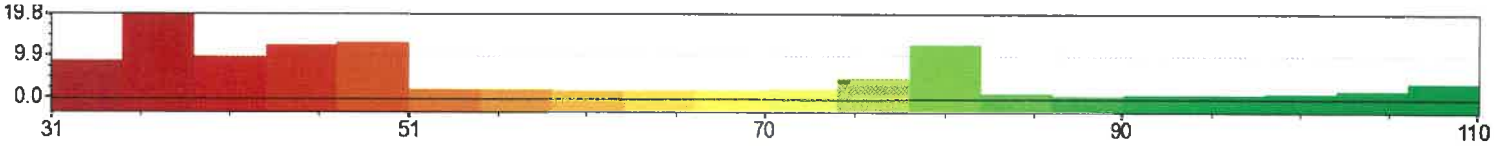
THE NEXT LEVEL OF AGRICULTURAL SOLUTIONS

Grower: KENNETH H QUINN Farm: New Ground Field: New Ground 2

Master Soil Book
Element Map

PI (none)





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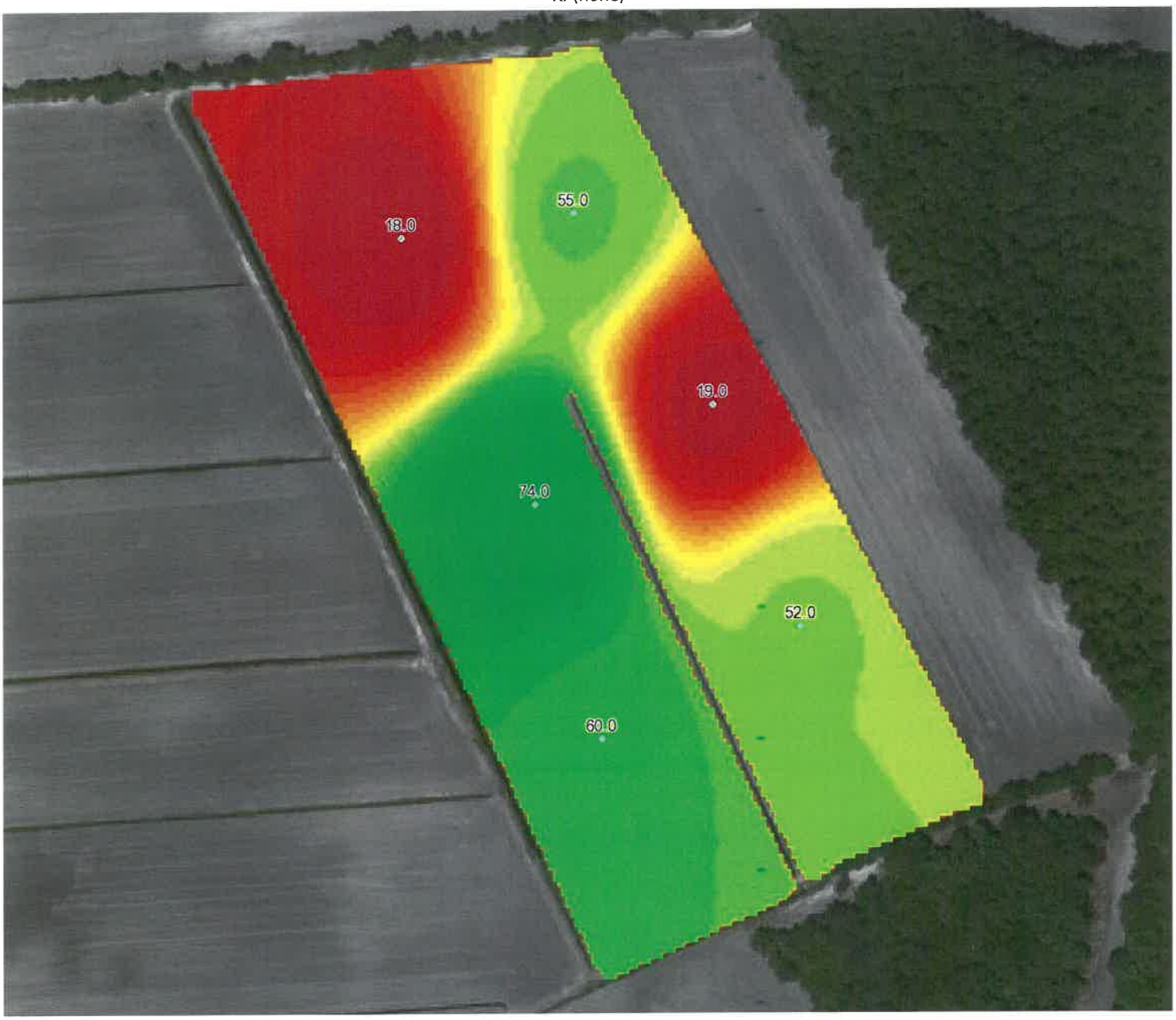
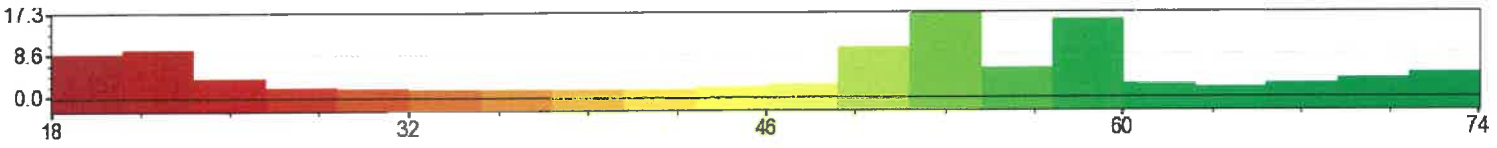
THE NEXT LEVEL OF AGRICULTURAL SOLUTIONS

Master Soil Book
Element Map

Grower: KENNETH H QUINN Farm: New Ground Field: New Ground 2

KI (none)





echelon
THE NEXT LEVEL OF AGRICULTURAL SOLUTIONS

Master Soil Book
Sample Summary

Grower: KENNETH H QUINN Farm: New Ground Field: New Ground 2

	Min	Max	Avg	
P	66.3	235.2	120.4	lbs/ac
K	62.7	257.8	161.4	lbs/ac
Mg	74.3	200.0	151.1	lbs/ac
Ca	768.4	1315.8	891.6	lbs/ac
Na	24.0	39.0	31.3	lbs/ac
S	24.2	46.3	35.6	lbs/ac
Cu	1.2	3.1	2.1	lbs/ac
Mn	6.3	11.4	8.9	lbs/ac
Zn	5.3	10.4	7.1	lbs/ac
pH	4.9	5.3	5.1	none
bpH	6.9	7.4	7.2	none
CEC	4.9	7.6	6.8	meq/100g
Bulk Density	0.00	0.00	0.00	none
AC	2.3	4.3	3.3	meq/100g
BS	0.00	0.00	0.00	%
PI	31.0	110.0	56.3	none
KI	18.0	74.0	46.3	none
MgI	7.0	13.0	10.2	none
CaI	29.0	52.0	37.5	none
SI	34.0	65.0	50.0	none
CuI	33.0	85.0	57.7	none
MnI	22.0	40.0	31.2	none
ZnI	75.0	146.0	99.7	none
SSI	0.00	0.00	0.00	none
HM	2.8	9.6	7.0	%
SP	0.00	0.00	0.00	%

Sample Date: 2012-11-27 Soil Lab: Waters NCDA

ID	P (lbs/ac)	K (lbs/ac)	Mg (lbs/ac)	Ca (lbs/ac)	Na (lbs/ac)	S (lbs/ac)	Cu (lbs/ac)	Mn (lbs/ac)	Zn (lbs/ac)	pH (none)	bpH (none)	CEC (meq/100g)	Bulk Density (none)	AC (meq/100g)	BS (%)	PI (none)	KI (none)	MgI (none)	CaI (none)	SI (none)	CuI (none)	MnI (none)	ZnI (none)	SSI (none)	HM (%)	SP (%)
21	66.3	181.2	145.2	811.9	34.0	40.6	2.3	6.3	5.6	5.2	7.1	6.7	0.00	3.5	0.00	31.0	52.0	10.0	34.0	57.0	63.0	22.0	79.0	0.00	9.2	0.00
22	235.2	66.2	74.3	768.4	24.0	27.8	3.1	11.4	10.2	5.1	7.4	4.9	0.00	2.3	0.00	110.0	19.0	7.0	44.0	39.0	85.0	40.0	143.0	0.00	2.8	0.00
23	74.8	191.6	162.1	824.0	25.0	32.8	1.7	8.3	5.3	5.1	7.1	6.8	0.00	3.5	0.00	35.0	55.0	11.0	34.0	46.0	48.0	29.0	75.0	0.00	8.5	0.00
24	177.4	62.7	200.0	1315.8	28.0	24.2	2.6	11.1	10.4	5.3	7.4	7.1	0.00	2.4	0.00	83.0	18.0	13.0	52.0	34.0	72.0	39.0	146.0	0.00	4.0	0.00
25	70.5	257.8	164.7	785.5	38.0	42.1	1.2	7.4	5.3	5.0	6.9	7.6	0.00	4.3	0.00	33.0	74.0	10.0	29.0	59.0	33.0	26.0	75.0	0.00	9.6	0.00
26	98.3	209.0	160.3	844.0	39.0	46.3	1.6	8.8	5.7	4.9	7.0	7.4	0.00	4.0	0.00	46.0	60.0	10.0	32.0	65.0	45.0	31.0	80.0	0.00	8.0	0.00

Data Manager

Farm-Field Map

Grower: Wood Brothers
Farm: Daryls
Acres: ~~71.58~~ 71.84

Field(s): 18, 19, 20, 21

Sarah Arthur LLC
211 Cameron Shores
New Bern, NC 28562
PHONE: 252-229-3907
FAX: 888-670-1840

*NOTE: The field labels above are actual FIELD NAMES.

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ISSUED: 5:48pm EDT Oct27, 2011
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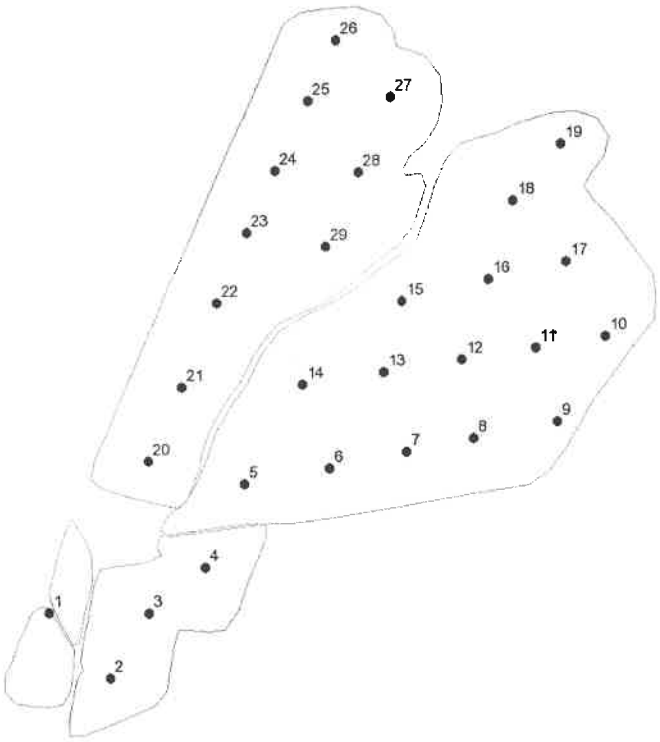
Field Sampler

NCDA Index Values

Grower: Wood Brothers
Farm: Daryls
Acres: 73.53

Field(s): 18, 19, 20, 21

Sarah Arthur LLC
211 Cameron Shores
New Bern, NC 28562
PHONE: 252-229-3907
FAX: 888-670-1840



Element	Average	Range
P-I:	231	131 - 335
K-I:	57	32 - 111
Mg%:	15.1	11.0 - 18.0
Ca%:	53.0	42.0 - 58.0
pH:	5.86	5.40 - 6.30
Ac:	1.34	0.80 - 3.00
S-I:	43	30 - 63
Zn-I:	368	89 - 675
Zn-Al:	N/A	N/A
Mn-I:	100	40 - 227
Mn-Al:	N/A	N/A
Cu-I:	434	80 - 761
CEC:	5.1	2.9 - 9.1
HM%:	0.7	0.2 - 3.2

Field	No.	P-I	K-I	Mg (%)	Ca (%)	pH	Ac	S-I	Zn-I	Zn-Al	Mn-I	Mn-Al	Cu-I	CEC	HM (%)
18															
	1	238.0	111.0	12.0	51.0	5.7	2.5	56.0	325.0	n/a	49.0	n/a	334.0	8.1	2.5
19															
	2	168.0	84.0	17.0	54.0	5.9	2.2	49.0	368.0	n/a	40.0	n/a	503.0	9.1	2.9
	3	190.0	80.0	12.0	42.0	5.7	3.0	48.0	353.0	n/a	43.0	n/a	476.0	7.5	3.2
	4	176.0	53.0	13.0	52.0	5.9	1.4	40.0	443.0	n/a	55.0	n/a	540.0	4.8	0.5
20															
	5	229.0	79.0	17.0	53.0	5.9	1.8	63.0	464.0	n/a	66.0	n/a	566.0	7.4	1.2
	6	222.0	40.0	15.0	57.0	6.3	0.9	40.0	125.0	n/a	67.0	n/a	99.0	3.8	0.2
	7	185.0	56.0	17.0	53.0	6.0	1.2	54.0	468.0	n/a	77.0	n/a	553.0	4.8	0.2
	8	169.0	55.0	17.0	53.0	5.9	1.2	51.0	602.0	n/a	103.0	n/a	725.0	4.8	0.2
	9	131.0	46.0	15.0	49.0	5.7	1.2	42.0	405.0	n/a	74.0	n/a	517.0	3.9	0.4
	10	291.0	107.0	17.0	53.0	6.0	1.4	48.0	296.0	n/a	227.0	n/a	411.0	6.5	0.6
	11	261.0	51.0	16.0	55.0	6.1	1.0	42.0	130.0	n/a	176.0	n/a	123.0	4.5	0.4
	12	235.0	47.0	16.0	55.0	6.1	1.0	42.0	115.0	n/a	136.0	n/a	104.0	4.1	0.4
	13	177.0	48.0	17.0	55.0	6.2	0.8	34.0	89.0	n/a	66.0	n/a	86.0	3.7	0.3
	14	150.0	51.0	16.0	52.0	6.0	0.9	35.0	192.0	n/a	51.0	n/a	230.0	3.6	0.3
	15	272.0	47.0	14.0	53.0	6.0	1.0	39.0	105.0	n/a	80.0	n/a	99.0	3.6	0.2
	16	331.0	52.0	13.0	55.0	6.1	1.2	44.0	111.0	n/a	169.0	n/a	120.0	4.6	0.5
	17	238.0	37.0	13.0	53.0	6.0	1.0	36.0	122.0	n/a	187.0	n/a	110.0	3.3	0.3
	18	230.0	35.0	12.0	45.0	5.7	1.1	30.0	92.0	n/a	133.0	n/a	80.0	2.9	0.3
	19	303.0	73.0	14.0	50.0	5.5	1.7	38.0	447.0	n/a	160.0	n/a	579.0	5.5	0.7
21															
	20	199.0	38.0	16.0	53.0	5.9	1.5	34.0	499.0	n/a	65.0	n/a	554.0	5.4	0.9
	21	235.0	56.0	17.0	58.0	5.9	1.4	51.0	570.0	n/a	54.0	n/a	626.0	6.6	1.0

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SAMPLE DATE: 2011-10-27;2011-09-09
ISSUED: 5:48pm EDT Oct27, 2011
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Field Sampler

Grower: Wood Brothers
Farm: Daryls
Acres: 73.53

Field(s): 18, 19, 20, 21

NCDA Index Values

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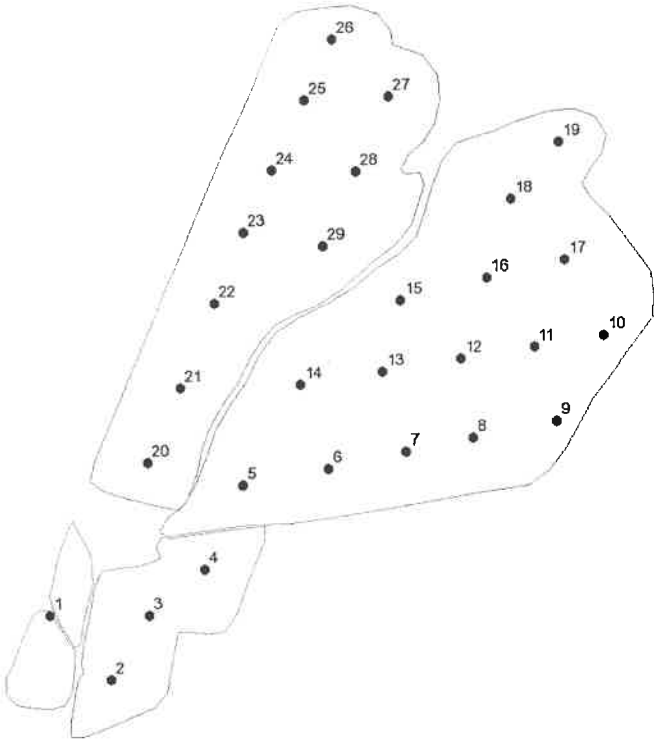

Element	Average	Range
P-I:	231	131 - 335
K-I:	57	32 - 111
Mg%:	15.1	11.0 - 18.0
Ca%:	53.0	42.0 - 58.0
pH:	5.86	5.40 - 6.30
Ac:	1.34	0.80 - 3.00
S-I:	43	30 - 63
Zn-I:	368	89 - 675
Zn-Al:	N/A	N/A
Mn-I:	100	40 - 227
Mn-Al:	N/A	N/A
Cu-I:	434	80 - 761
CEC:	5.1	2.9 - 9.1
HM%:	0.7	0.2 - 3.2

Field	No.	P-I	K-I	Mg (%)	Ca (%)	pH	Ac	S-I	Zn-I	Zn-Al	Mn-I	Mn-Al	Cu-I	CEC	HM (%)
	22	188.0	57.0	17.0	58.0	5.9	1.3	44.0	561.0	n/a	93.0	n/a	600.0	6.1	0.8
	23	217.0	66.0	17.0	57.0	5.8	1.2	42.0	667.0	n/a	96.0	n/a	730.0	5.8	0.5
	24	323.0	57.0	16.0	58.0	5.8	1.2	49.0	675.0	n/a	113.0	n/a	756.0	5.8	0.6
	25	335.0	35.0	11.0	52.0	5.4	1.1	33.0	617.0	n/a	120.0	n/a	761.0	3.6	0.3
	26	218.0	54.0	18.0	54.0	5.7	1.0	39.0	445.0	n/a	66.0	n/a	555.0	4.6	0.3
	27	275.0	42.0	15.0	55.0	5.7	1.0	48.0	480.0	n/a	126.0	n/a	599.0	3.9	0.4
	28	246.0	32.0	14.0	54.0	5.6	0.9	42.0	451.0	n/a	96.0	n/a	593.0	3.4	0.3
	29	258.0	59.0	15.0	49.0	5.5	1.8	43.0	469.0	n/a	123.0	n/a	555.0	5.7	1.0

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SAMPLE DATE: 2011-10-27;2011-09-09
ISSUED: 5:48pm EDT Oct27, 2011
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Data Manager

Farm-Field Map

Grower: Wood Brothers
Farm: Koonce Town
Acres: 23.02

Field(s): 22, 23, 24

Sarah Arthur LLC
211 Cameron Shores
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*NOTE: The field labels above are actual FIELD NAMES.

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ISSUED: 1:40pm EDT Nov 2, 2011
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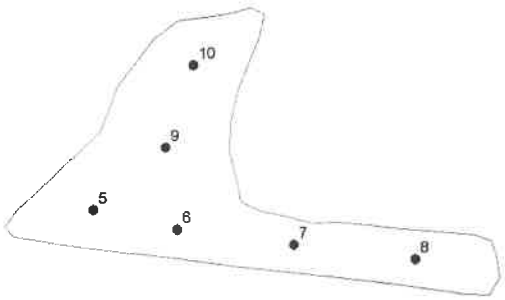
Field Sampler

NCDA Index Values

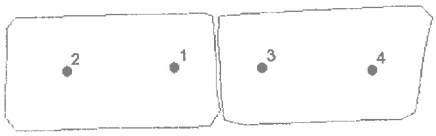
Grower: Wood Brothers
Farm: Koonce Town
Acres: 23.02

Field(s): 22, 23, 24

Sarah Arthur LLC
211 Cameron Shores
New Bern, NC 28562
PHONE: 252-229-3907
FAX: 888-670-1840



Element	Average	Range
P-I:	305	203 - 468
K-I:	50	25 - 109
Mg%:	15.8	12.0 - 19.0
Ca%:	50.7	44.0 - 56.0
pH:	5.75	5.40 - 6.10
Ac:	1.16	0.60 - 1.60
S-I:	42	29 - 57
Zn-I:	109	87 - 127
Zn-Al:	N/A	N/A
Mn-I:	73	40 - 107
Mn-Al:	N/A	N/A
Cu-I:	77	63 - 93
CEC:	4.2	2.9 - 6.0
HM%:	0.7	0.3 - 1.0



Field	No.	P-I	K-I	Mg (%)	Ca (%)	pH	Ac	S-I	Zn-I	Zn-Al	Mn-I	Mn-Al	Cu-I	CEC	HM (%)
22															
	1	214.0	51.0	19.0	56.0	6.1	0.8	43.0	94.0	n/a	40.0	n/a	66.0	4.1	0.4
	2	263.0	25.0	17.0	51.0	5.9	1.0	34.0	113.0	n/a	107.0	n/a	74.0	3.5	0.4
23															
	3	203.0	25.0	19.0	56.0	6.1	0.6	29.0	105.0	n/a	64.0	n/a	73.0	2.9	0.3
	4	272.0	40.0	15.0	52.0	5.7	1.2	39.0	121.0	n/a	85.0	n/a	81.0	4.3	1.0
24															
	5	284.0	62.0	15.0	52.0	5.7	1.1	44.0	111.0	n/a	56.0	n/a	74.0	4.3	0.7
	6	420.0	55.0	14.0	49.0	5.5	1.5	44.0	116.0	n/a	70.0	n/a	83.0	4.7	0.7
	7	368.0	54.0	19.0	54.0	5.9	1.0	45.0	127.0	n/a	93.0	n/a	82.0	4.7	0.8
	8	234.0	109.0	16.0	48.0	5.6	1.6	57.0	87.0	n/a	67.0	n/a	93.0	6.0	1.0
	9	468.0	34.0	12.0	44.0	5.4	1.3	40.0	111.0	n/a	90.0	n/a	80.0	3.4	0.6
	10	326.0	47.0	12.0	45.0	5.6	1.5	44.0	109.0	n/a	60.0	n/a	63.0	4.1	0.8

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SAMPLE DATE: 2011-10-10
ISSUED: 1:41pm EDT Nov 2, 2011
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Data Manager

Farm-Field Map

Grower: Wood Brothers
Farm: Camp Oak
Acres: 171.95

Field(s): 29, 30, 31, 32, 33, 34, 35, 36, 37

Sarah Arthur LLC
211 Cameron Shores
New Bern, NC 28562
PHONE: 252-229-3907
FAX: 888-670-1840

*NOTE: The field labels above are actual FIELD NAMES.

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ISSUED: 8:04am EDT Nov 2, 2011
A Product of Agfleet Version 3.00

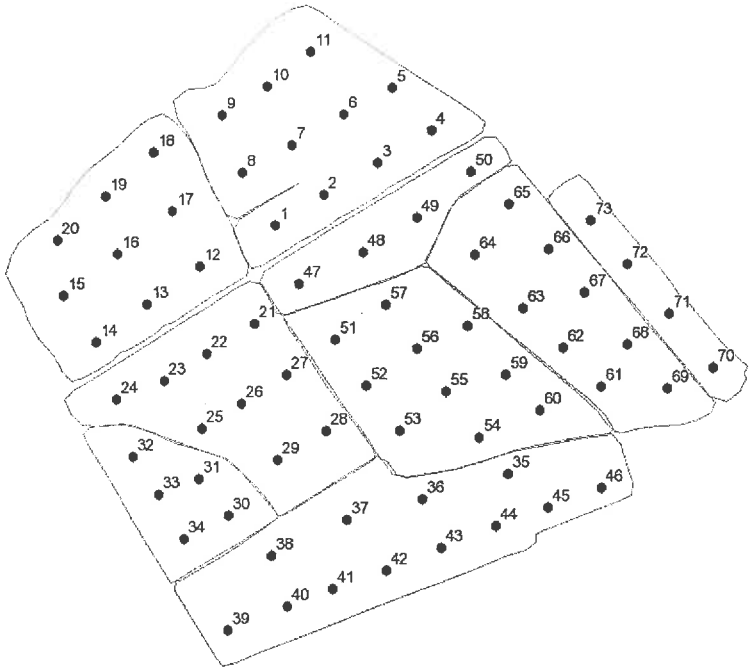
Field Sampler

NCDA Index Values

Grower: Wood Brothers
Farm: Camp Oak
Acres: 171.95

Field(s): 37, 36, 29, 30, 31, 32, 33, 34, 35

Sarah Arthur LLC
211 Cameron Shores
New Bern, NC 28562
PHONE: 252-229-3907
FAX: 888-670-1840



Element	Average	Range
P-I:	89	16 - 367
K-I:	64	39 - 134
Mg%:	17.4	11.0 - 28.0
Ca%:	51.0	35.0 - 79.0
pH:	5.48	4.80 - 6.50
Ac:	2.58	0.90 - 4.60
S-I:	66	42 - 89
Zn-I:	119	53 - 400
Zn-Al:	N/A	N/A
Mn-I:	38	17 - 112
Mn-Al:	N/A	N/A
Cu-I:	55	18 - 120
CEC:	9.1	3.9 - 16.4
HM%:	3.6	0.8 - 8.5

Field	No.	P-I	K-I	Mg (%)	Ca (%)	pH	Ac	S-I	Zn-I	Zn-Al	Mn-I	Mn-Al	Cu-I	CEC	HM (%)
29															
	1	264.0	53.0	13.0	60.0	5.7	1.3	42.0	107.0	n/a	71.0	n/a	70.0	5.9	1.1
	2	114.0	46.0	14.0	60.0	5.7	1.5	55.0	112.0	n/a	38.0	n/a	65.0	6.9	2.3
	3	84.0	39.0	15.0	64.0	5.7	1.3	50.0	78.0	n/a	35.0	n/a	54.0	6.6	1.7
	4	49.0	49.0	14.0	54.0	5.2	1.8	51.0	64.0	n/a	30.0	n/a	53.0	6.2	1.6
	5	42.0	49.0	18.0	62.0	5.8	1.2	46.0	84.0	n/a	33.0	n/a	54.0	7.3	1.7
	6	50.0	43.0	18.0	61.0	5.7	1.7	51.0	115.0	n/a	36.0	n/a	54.0	9.2	2.7
	7	64.0	55.0	18.0	58.0	5.7	1.6	62.0	80.0	n/a	34.0	n/a	57.0	8.0	2.8
	8	76.0	62.0	19.0	62.0	6.0	1.0	53.0	71.0	n/a	40.0	n/a	51.0	6.8	1.5
	9	88.0	39.0	17.0	59.0	5.8	1.0	44.0	116.0	n/a	71.0	n/a	49.0	5.0	0.9
	10	79.0	40.0	16.0	58.0	5.8	1.0	59.0	94.0	n/a	60.0	n/a	39.0	4.8	0.8
	11	77.0	51.0	15.0	58.0	5.8	1.2	63.0	88.0	n/a	64.0	n/a	44.0	5.2	1.0
30															
	12	326.0	46.0	14.0	55.0	5.7	1.3	53.0	105.0	n/a	40.0	n/a	77.0	4.8	1.1
	13	281.0	63.0	14.0	54.0	5.7	1.6	54.0	96.0	n/a	30.0	n/a	84.0	5.9	1.9
	14	115.0	61.0	13.0	49.0	5.5	2.3	63.0	85.0	n/a	19.0	n/a	76.0	6.7	3.6
	15	247.0	51.0	16.0	49.0	5.7	1.6	64.0	114.0	n/a	32.0	n/a	83.0	5.4	1.4
	16	277.0	40.0	16.0	55.0	5.7	1.1	46.0	131.0	n/a	39.0	n/a	83.0	4.3	0.8
	17	367.0	74.0	15.0	50.0	5.7	1.7	57.0	117.0	n/a	45.0	n/a	89.0	5.8	1.4
	18	147.0	55.0	15.0	59.0	5.8	1.2	52.0	147.0	n/a	112.0	n/a	84.0	5.4	1.1
	19	274.0	58.0	15.0	48.0	5.6	1.5	47.0	110.0	n/a	48.0	n/a	98.0	4.8	1.2
	20	183.0	41.0	18.0	49.0	5.8	1.1	53.0	90.0	n/a	58.0	n/a	55.0	3.9	0.9
31															
	21	91.0	50.0	17.0	57.0	5.5	2.4	75.0	170.0	n/a	31.0	n/a	47.0	10.3	4.4
	22	49.0	60.0	15.0	54.0	5.5	2.3	72.0	90.0	n/a	25.0	n/a	38.0	8.2	4.2

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SAMPLE DATE: 2011-10-08
ISSUED: 8:04am EDT Nov 2, 2011
A Product of Agfleet Version 3.00

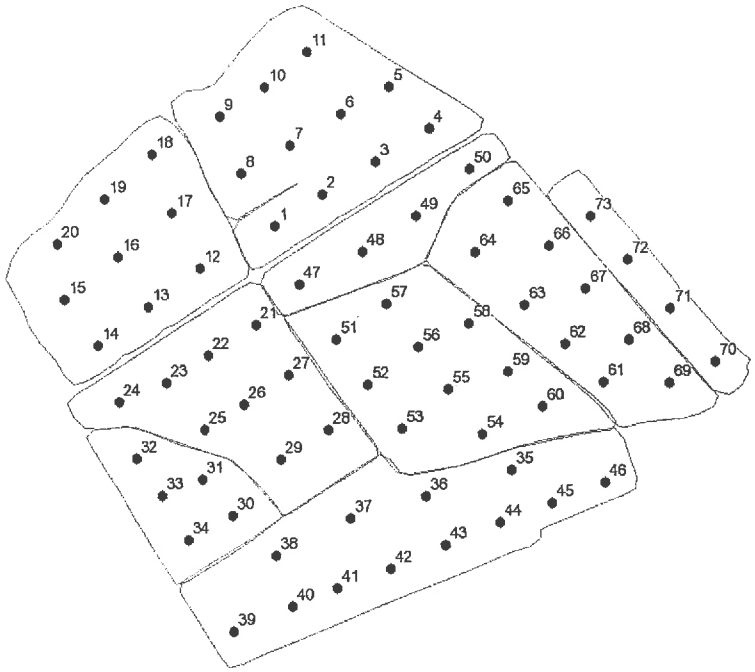
Field Sampler

NCDA Index Values

Grower: Wood Brothers
Farm: Camp Oak
Acres: 171.95

Field(s): 37, 36, 29, 30, 31, 32, 33, 34, 35

Sarah Arthur LLC
211 Cameron Shores
New Bern, NC 28562
PHONE: 252-229-3907
FAX: 888-670-1840



Element	Average	Range
P-I:	89	16 - 367
K-I:	64	39 - 134
Mg%:	17.4	11.0 - 28.0
Ca%:	51.0	35.0 - 79.0
pH:	5.48	4.80 - 6.50
Ac:	2.58	0.90 - 4.60
S-I:	66	42 - 89
Zn-I:	119	53 - 400
Zn-Al:	N/A	N/A
Mn-I:	38	17 - 112
Mn-Al:	N/A	N/A
Cu-I:	55	18 - 120
CEC:	9.1	3.9 - 16.4
HM%:	3.6	0.8 - 8.5

Field	No.	P-I	K-I	Mg (%)	Ca (%)	pH	Ac	S-I	Zn-I	Zn-Al	Mn-I	Mn-Al	Cu-I	CEC	HM (%)
	23	50.0	50.0	15.0	54.0	5.3	2.8	55.0	135.0	n/a	31.0	n/a	67.0	9.6	4.4
	24	43.0	68.0	13.0	58.0	5.4	2.7	59.0	104.0	n/a	34.0	n/a	57.0	10.6	4.3
	25	57.0	44.0	11.0	41.0	4.8	3.2	66.0	100.0	n/a	25.0	n/a	52.0	7.1	4.0
	26	63.0	56.0	15.0	43.0	5.1	3.5	74.0	112.0	n/a	30.0	n/a	37.0	9.0	5.1
	27	34.0	82.0	14.0	35.0	5.0	4.3	86.0	53.0	n/a	25.0	n/a	18.0	9.2	8.5
	28	56.0	49.0	18.0	44.0	5.0	3.1	67.0	83.0	n/a	23.0	n/a	36.0	8.8	4.2
	29	63.0	59.0	21.0	47.0	5.2	3.4	68.0	145.0	n/a	31.0	n/a	42.0	11.6	5.8
32															
	30	21.0	69.0	15.0	41.0	5.2	4.6	80.0	82.0	n/a	35.0	n/a	24.0	11.3	8.0
	31	16.0	73.0	14.0	42.0	5.1	4.2	74.0	65.0	n/a	34.0	n/a	23.0	10.4	6.6
	32	51.0	56.0	21.0	52.0	5.3	3.2	63.0	80.0	n/a	23.0	n/a	47.0	12.9	4.4
	33	25.0	77.0	21.0	50.0	5.6	2.8	79.0	65.0	n/a	17.0	n/a	34.0	10.8	4.7
	34	53.0	57.0	21.0	53.0	5.8	2.6	62.0	90.0	n/a	24.0	n/a	39.0	11.3	4.8
33															
	35	71.0	48.0	21.0	49.0	5.5	2.7	67.0	103.0	n/a	24.0	n/a	52.0	9.9	4.3
	36	94.0	65.0	22.0	44.0	5.2	3.1	77.0	88.0	n/a	24.0	n/a	43.0	10.1	4.1
	37	48.0	115.0	23.0	50.0	5.7	3.4	72.0	70.0	n/a	27.0	n/a	26.0	14.7	6.0
	38	73.0	73.0	25.0	52.0	5.8	2.7	75.0	146.0	n/a	26.0	n/a	36.0	13.5	4.6
	39	51.0	91.0	20.0	51.0	5.7	3.4	71.0	86.0	n/a	27.0	n/a	27.0	13.1	5.4
	40	52.0	132.0	19.0	48.0	5.6	3.9	69.0	80.0	n/a	29.0	n/a	25.0	13.5	5.7
	41	56.0	134.0	21.0	49.0	5.6	4.3	66.0	94.0	n/a	32.0	n/a	24.0	16.4	7.2
	42	46.0	77.0	20.0	45.0	5.5	4.3	86.0	93.0	n/a	32.0	n/a	21.0	13.4	7.7
	43	80.0	61.0	23.0	50.0	5.7	3.0	73.0	126.0	n/a	36.0	n/a	36.0	12.2	5.2
	44	61.0	56.0	19.0	53.0	5.6	2.1	74.0	71.0	n/a	22.0	n/a	36.0	8.2	2.6
	45	86.0	55.0	21.0	54.0	5.7	2.1	62.0	79.0	n/a	25.0	n/a	40.0	9.2	2.8

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Field Sampler

NCDA Index Values

Grower: Wood Brothers
Farm: Camp Oak
Acres: 171.95

Field(s): 37, 36, 29, 30, 31, 32, 33, 34, 35

Sarah Arthur LLC
211 Cameron Shores
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PHONE: 252-229-3907
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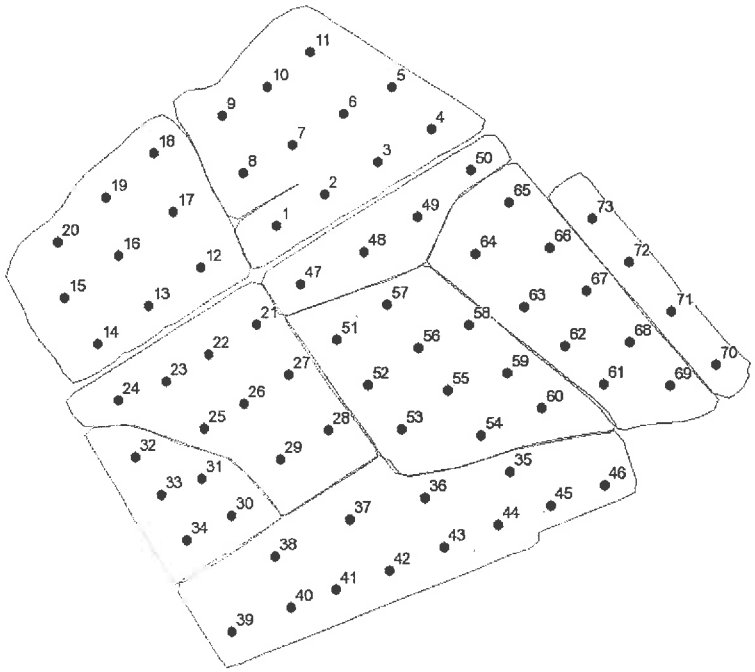

Element	Average	Range
P-I:	89	16 - 367
K-I:	64	39 - 134
Mg%:	17.4	11.0 - 28.0
Ca%:	51.0	35.0 - 79.0
pH:	5.48	4.80 - 6.50
Ac:	2.58	0.90 - 4.60
S-I:	66	42 - 89
Zn-I:	119	53 - 400
Zn-AI:	N/A	N/A
Mn-I:	38	17 - 112
Mn-AI:	N/A	N/A
Cu-I:	55	18 - 120
CEC:	9.1	3.9 - 16.4
HM%:	3.6	0.8 - 8.5

Field	No.	P-I	K-I	Mg (%)	Ca (%)	pH	Ac	S-I	Zn-I	Zn-AI	Mn-I	Mn-AI	Cu-I	CEC	HM (%)
	46	65.0	72.0	19.0	47.0	5.4	3.2	67.0	72.0	n/a	22.0	n/a	43.0	10.4	4.8
34															
	47	79.0	73.0	14.0	51.0	5.3	2.7	83.0	132.0	n/a	40.0	n/a	64.0	8.8	3.6
	48	166.0	53.0	11.0	79.0	6.5	0.9	73.0	372.0	n/a	54.0	n/a	108.0	10.5	1.7
	49	72.0	59.0	14.0	50.0	5.0	3.7	73.0	217.0	n/a	55.0	n/a	64.0	11.4	4.1
	50	53.0	51.0	16.0	51.0	5.4	1.4	72.0	78.0	n/a	38.0	n/a	35.0	5.0	0.8
35															
	51	69.0	61.0	20.0	48.0	5.4	3.4	81.0	223.0	n/a	51.0	n/a	62.0	11.5	5.4
	52	68.0	74.0	19.0	46.0	5.1	3.2	78.0	135.0	n/a	46.0	n/a	50.0	10.2	3.9
	53	63.0	51.0	28.0	56.0	6.1	1.6	68.0	121.0	n/a	34.0	n/a	49.0	10.8	3.8
	54	57.0	44.0	18.0	49.0	5.3	2.7	65.0	106.0	n/a	38.0	n/a	52.0	8.8	3.3
	55	46.0	59.0	16.0	46.0	5.1	3.4	78.0	126.0	n/a	42.0	n/a	63.0	9.7	4.2
	56	56.0	58.0	20.0	54.0	5.8	2.3	75.0	121.0	n/a	50.0	n/a	76.0	9.8	3.3
	57	67.0	68.0	23.0	46.0	5.0	3.4	83.0	129.0	n/a	35.0	n/a	60.0	11.8	4.6
	58	65.0	58.0	19.0	47.0	5.2	2.8	66.0	119.0	n/a	33.0	n/a	53.0	8.9	3.9
	59	79.0	77.0	23.0	48.0	5.7	2.8	70.0	99.0	n/a	32.0	n/a	51.0	11.0	4.2
	60	70.0	76.0	22.0	49.0	5.4	2.8	70.0	124.0	n/a	38.0	n/a	60.0	11.0	4.6
36															
	61	61.0	63.0	17.0	45.0	5.1	3.4	60.0	168.0	n/a	47.0	n/a	75.0	9.6	4.6
	62	55.0	55.0	15.0	39.0	4.9	3.2	80.0	95.0	n/a	38.0	n/a	59.0	7.6	3.4
	63	47.0	103.0	14.0	38.0	4.8	4.6	89.0	111.0	n/a	54.0	n/a	43.0	10.7	6.0
	64	48.0	65.0	16.0	53.0	5.8	2.2	81.0	139.0	n/a	37.0	n/a	70.0	8.2	2.8
	65	43.0	71.0	14.0	47.0	4.9	3.5	66.0	183.0	n/a	59.0	n/a	72.0	9.6	3.7
	66	58.0	77.0	19.0	50.0	5.8	2.8	53.0	196.0	n/a	49.0	n/a	78.0	10.4	4.4
	67	50.0	80.0	17.0	44.0	5.6	3.4	59.0	151.0	n/a	46.0	n/a	67.0	9.8	5.1

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SAMPLE DATE: 2011-10-08
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Field Sampler

NCDA Index Values

Grower: Wood Brothers
Farm: Camp Oak
Acres: 171.95

Field(s): 37, 36, 29, 30, 31, 32, 33, 34, 35

Sarah Arthur LLC
211 Cameron Shores
New Bern, NC 28562
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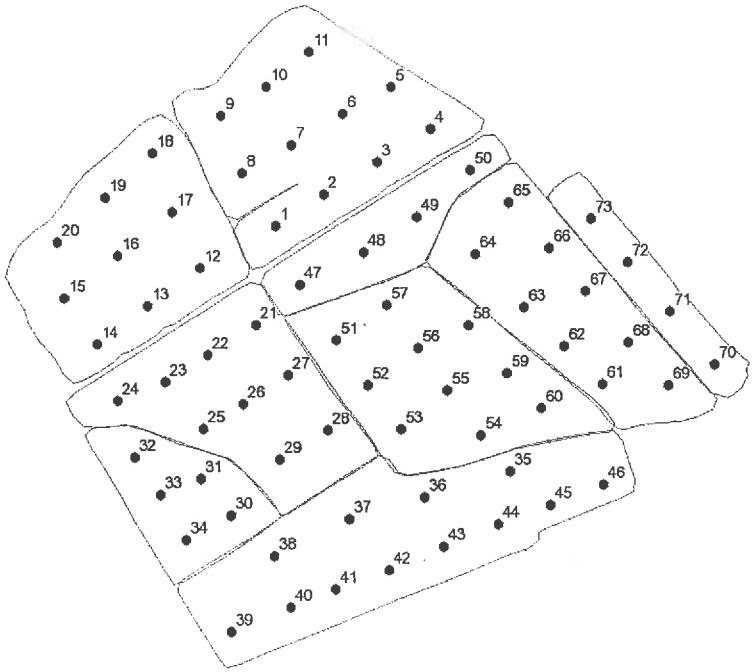

Element	Average	Range
P-I:	89	16 - 367
K-I:	64	39 - 134
Mg%:	17.4	11.0 - 28.0
Ca%:	51.0	35.0 - 79.0
pH:	5.48	4.80 - 6.50
Ac:	2.58	0.90 - 4.60
S-I:	66	42 - 89
Zn-I:	119	53 - 400
Zn-Al:	N/A	N/A
Mn-I:	38	17 - 112
Mn-Al:	N/A	N/A
Cu-I:	55	18 - 120
CEC:	9.1	3.9 - 16.4
HM%:	3.6	0.8 - 8.5

Field	No.	P-I	K-I	Mg (%)	Ca (%)	pH	Ac	S-I	Zn-I	Zn-Al	Mn-I	Mn-Al	Cu-I	CEC	HM (%)
	68	41.0	61.0	17.0	45.0	5.3	2.5	73.0	95.0	n/a	33.0	n/a	49.0	7.4	3.1
	69	53.0	51.0	17.0	50.0	5.6	2.3	63.0	114.0	n/a	35.0	n/a	60.0	7.8	2.4
37															
	70	49.0	98.0	13.0	44.0	5.0	4.0	72.0	118.0	n/a	40.0	n/a	65.0	10.4	4.2
	71	136.0	63.0	12.0	53.0	5.4	2.7	60.0	400.0	n/a	43.0	n/a	120.0	8.7	2.0
	72	61.0	68.0	17.0	54.0	5.6	2.4	61.0	205.0	n/a	31.0	n/a	63.0	9.4	2.5
	73	92.0	76.0	20.0	51.0	5.4	3.0	54.0	148.0	n/a	36.0	n/a	64.0	11.6	3.7

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SAMPLE DATE: 2011-10-08
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Data Manager — Farm-Field Map

Grower: Wood Brothers
Farm: Womack - Camp Oak
Acres: 130.18

Field(s): 68, 69, 70, 71, 72, 73

Sarah Arthur LLC
211 Cameron Shores
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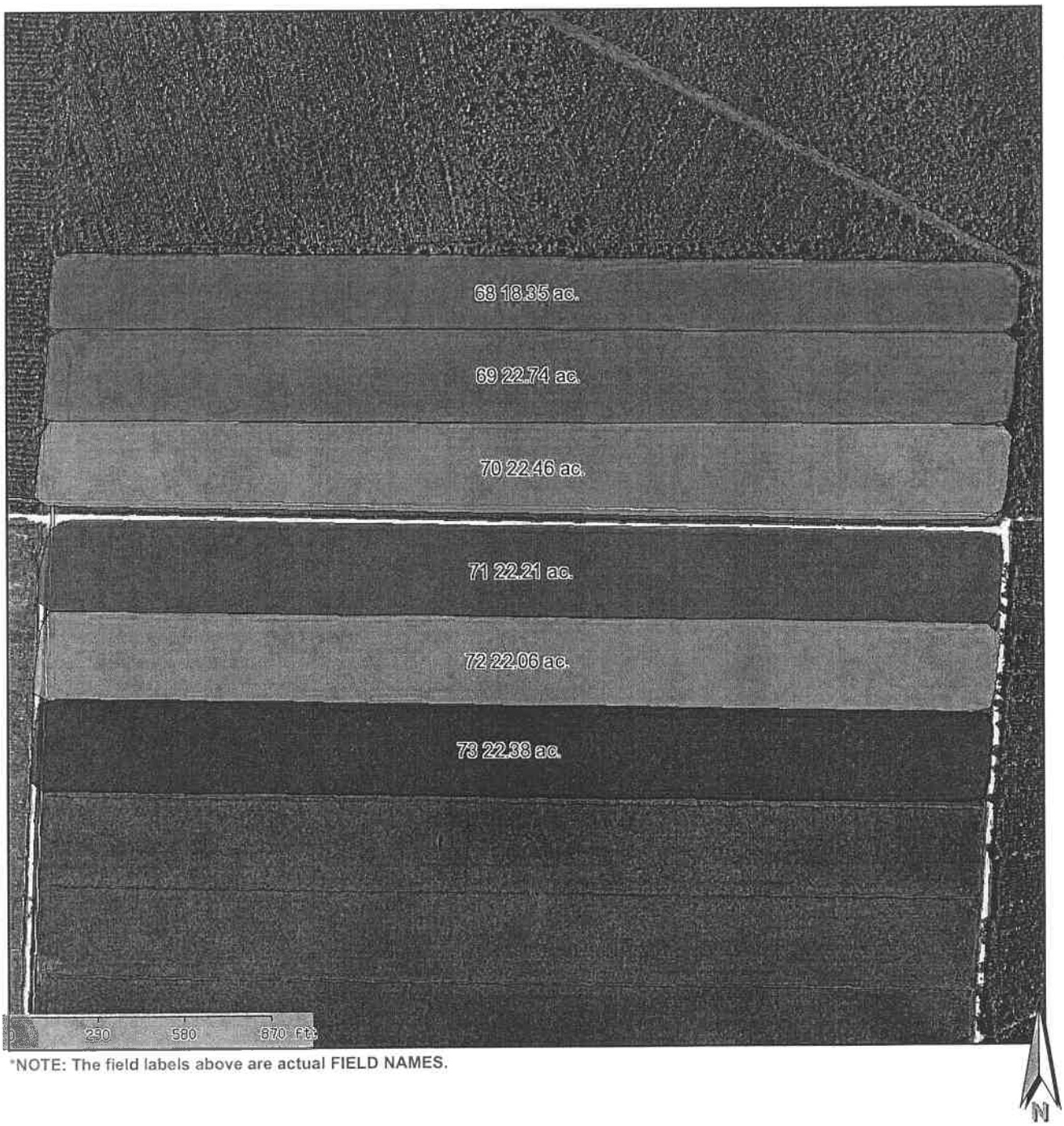

*NOTE: The field labels above are actual FIELD NAMES.

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Field Sampler

NCDA Index Values

Grower: Wood Brothers
Farm: Womack - Camp Oak
Acres: 130.18

Field(s): 68, 69, 70, 71, 72, 73

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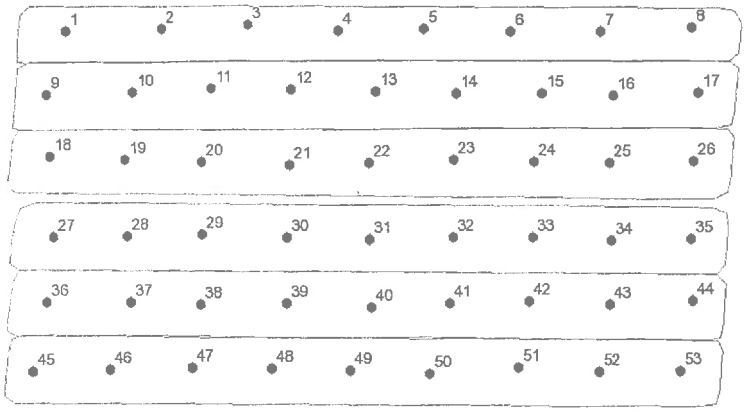

Element	Average	Range
P-I:	73	21 - 116
K-I:	82	56 - 120
Mg%:	13.3	8.0 - 24.0
Ca%:	39.7	30.0 - 54.0
pH:	4.89	4.50 - 5.50
Ac:	4.44	2.60 - 6.20
S-I:	76	54 - 115
Zn-I:	136	56 - 221
Zn-AI:	N/A	N/A
Mn-I:	31	18 - 45
Mn-AI:	N/A	N/A
Cu-I:	65	36 - 127
CEC:	10.5	7.4 - 13.6
HM%:	7.0	3.9 - 8.9

Field	No.	P-I	K-I	Mg (%)	Ca (%)	pH	Ac	S-I	Zn-I	Zn-AI	Mn-I	Mn-AI	Cu-I	CEC	HM (%)
68															
	1	94.0	59.0	17.0	35.0	4.7	6.2	74.0	196.0	n/a	37.0	n/a	92.0	13.6	8.5
	2	88.0	82.0	19.0	40.0	4.6	4.8	84.0	168.0	n/a	33.0	n/a	54.0	12.8	7.7
	3	79.0	76.0	11.0	32.0	4.5	5.8	71.0	160.0	n/a	31.0	n/a	52.0	10.8	8.0
	4	74.0	70.0	18.0	43.0	4.8	4.2	55.0	188.0	n/a	34.0	n/a	66.0	11.7	4.4
	5	94.0	65.0	24.0	54.0	5.5	2.6	54.0	184.0	n/a	27.0	n/a	62.0	13.2	4.4
	6	78.0	76.0	22.0	49.0	5.1	3.0	75.0	161.0	n/a	27.0	n/a	63.0	11.5	3.9
	7	61.0	71.0	15.0	38.0	4.7	4.5	69.0	129.0	n/a	29.0	n/a	50.0	10.3	6.2
	8	29.0	56.0	12.0	35.0	4.9	4.3	76.0	92.0	n/a	23.0	n/a	41.0	8.7	6.8
69															
	9	88.0	74.0	13.0	36.0	4.7	4.6	82.0	141.0	n/a	30.0	n/a	54.0	9.5	8.2
	10	105.0	73.0	10.0	33.0	4.9	4.4	73.0	131.0	n/a	30.0	n/a	51.0	8.4	7.5
	11	110.0	74.0	16.0	38.0	4.9	4.2	75.0	161.0	n/a	31.0	n/a	77.0	9.9	6.8
	12	104.0	65.0	16.0	35.0	4.7	5.5	83.0	172.0	n/a	28.0	n/a	127.0	11.8	6.8
	13	85.0	78.0	15.0	33.0	4.7	5.5	84.0	163.0	n/a	28.0	n/a	88.0	11.3	7.2
	14	47.0	76.0	15.0	36.0	4.9	4.9	90.0	139.0	n/a	26.0	n/a	55.0	10.8	8.0
	15	83.0	83.0	13.0	34.0	4.6	4.8	70.0	159.0	n/a	28.0	n/a	94.0	9.8	6.0
	16	34.0	85.0	11.0	33.0	4.7	4.8	83.0	124.0	n/a	25.0	n/a	77.0	9.2	7.2
	17	50.0	70.0	14.0	36.0	4.9	4.4	74.0	132.0	n/a	28.0	n/a	73.0	9.3	6.8
70															
	18	66.0	79.0	16.0	39.0	4.8	4.5	71.0	138.0	n/a	27.0	n/a	111.0	11.1	7.7
	19	82.0	87.0	13.0	35.0	4.7	4.7	71.0	124.0	n/a	26.0	n/a	57.0	10.0	8.5
	20	85.0	86.0	14.0	40.0	4.8	4.3	80.0	160.0	n/a	30.0	n/a	67.0	10.3	8.2
	21	109.0	78.0	19.0	45.0	4.7	3.7	83.0	176.0	n/a	32.0	n/a	60.0	11.2	6.6
	22	79.0	97.0	15.0	37.0	5.0	4.6	67.0	111.0	n/a	26.0	n/a	47.0	10.3	7.0

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SAMPLE DATE: 2011-10-27
ISSUED: 7:04am EDT Oct28, 2011
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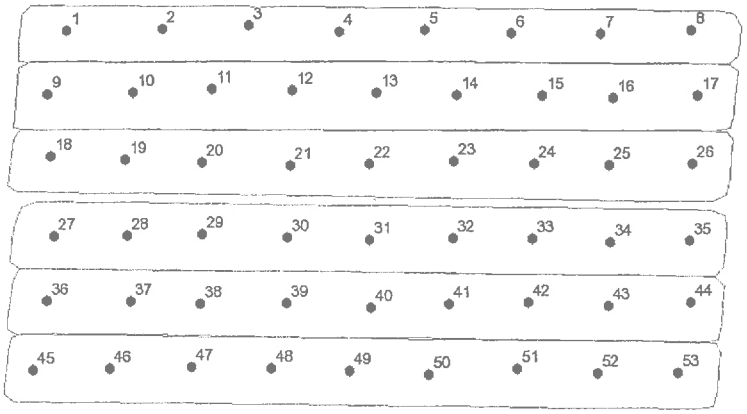
Field Sampler

NCDA Index Values

Grower: Wood Brothers
Farm: Womack - Camp Oak
Acres: 130.18

Field(s): 68, 69, 70, 71, 72, 73

Sarah Arthur LLC
211 Cameron Shores
New Bern, NC 28562
PHONE: 252-229-3907
FAX: 888-670-1840



Element	Average	Range
P-I:	73	21 - 116
K-I:	82	56 - 120
Mg%:	13.3	8.0 - 24.0
Ca%:	39.7	30.0 - 54.0
pH:	4.89	4.50 - 5.50
Ac:	4.44	2.60 - 6.20
S-I:	76	54 - 115
Zn-I:	136	56 - 221
Zn-Al:	N/A	N/A
Mn-I:	31	18 - 45
Mn-Al:	N/A	N/A
Cu-I:	65	36 - 127
CEC:	10.5	7.4 - 13.6
HM%:	7.0	3.9 - 8.9

Field	No.	P-I	K-I	Mg (%)	Ca (%)	pH	Ac	S-I	Zn-I	Zn-Al	Mn-I	Mn-Al	Cu-I	CEC	HM (%)
	23	44.0	75.0	9.0	30.0	4.8	4.9	74.0	86.0	n/a	23.0	n/a	39.0	8.7	8.2
	24	31.0	67.0	8.0	30.0	5.0	4.3	86.0	57.0	n/a	18.0	n/a	38.0	7.5	8.0
	25	21.0	59.0	9.0	34.0	5.1	3.9	96.0	56.0	n/a	18.0	n/a	36.0	7.4	7.5
	26	82.0	68.0	20.0	46.0	5.2	3.4	83.0	145.0	n/a	26.0	n/a	82.0	10.8	4.1
71															
	27	74.0	77.0	11.0	40.0	5.0	4.4	71.0	139.0	n/a	38.0	n/a	75.0	9.8	8.5
	28	62.0	96.0	10.0	40.0	4.8	5.0	64.0	138.0	n/a	39.0	n/a	68.0	11.2	8.9
	29	67.0	81.0	11.0	45.0	5.0	4.6	68.0	189.0	n/a	42.0	n/a	103.0	11.4	8.5
	30	77.0	91.0	11.0	42.0	4.8	4.8	72.0	177.0	n/a	43.0	n/a	114.0	11.3	7.7
	31	76.0	91.0	11.0	41.0	5.1	4.7	58.0	143.0	n/a	34.0	n/a	77.0	10.7	7.0
	32	85.0	111.0	11.0	42.0	4.9	4.7	72.0	138.0	n/a	39.0	n/a	66.0	11.1	7.0
	33	98.0	114.0	14.0	43.0	4.7	4.4	86.0	116.0	n/a	33.0	n/a	60.0	11.5	6.8
	34	37.0	72.0	9.0	41.0	5.2	4.5	77.0	71.0	n/a	22.0	n/a	43.0	9.9	7.5
	35	56.0	81.0	11.0	41.0	4.9	3.8	79.0	81.0	n/a	27.0	n/a	85.0	8.8	6.2
72															
	36	84.0	99.0	12.0	39.0	4.8	4.7	79.0	144.0	n/a	31.0	n/a	71.0	10.7	8.5
	37	77.0	101.0	10.0	40.0	5.0	4.9	57.0	126.0	n/a	31.0	n/a	74.0	10.8	8.5
	38	74.0	108.0	11.0	46.0	5.0	4.4	60.0	131.0	n/a	36.0	n/a	63.0	11.5	8.5
	39	116.0	69.0	14.0	50.0	5.1	3.6	66.0	167.0	n/a	37.0	n/a	69.0	10.7	5.0
	40	101.0	72.0	12.0	41.0	4.7	5.2	72.0	202.0	n/a	36.0	n/a	72.0	11.9	6.6
	41	95.0	75.0	16.0	44.0	4.7	4.7	74.0	181.0	n/a	32.0	n/a	77.0	12.8	6.2
	42	108.0	94.0	14.0	39.0	4.7	5.4	83.0	162.0	n/a	32.0	n/a	60.0	12.6	7.5
	43	58.0	88.0	12.0	38.0	4.8	5.2	78.0	137.0	n/a	28.0	n/a	57.0	11.3	6.8
	44	33.0	73.0	10.0	38.0	5.1	4.1	115.0	69.0	n/a	21.0	n/a	40.0	8.5	5.7
73															

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SAMPLE DATE: 2011-10-27
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Field Sampler

NCDA Index Values

Grower: Wood Brothers
Farm: Womack - Camp Oak
Acres: 130.18

Field(s): 68, 69, 70, 71, 72, 73

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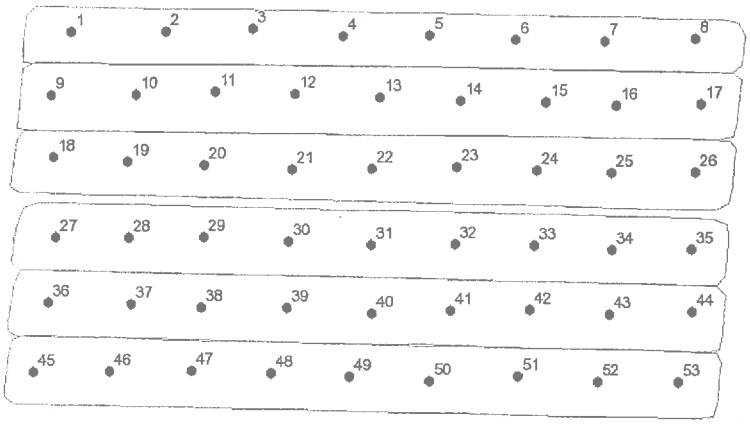

Element	Average	Range
P-I:	73	21 - 116
K-I:	82	56 - 120
Mg%:	13.3	8.0 - 24.0
Ca%:	39.7	30.0 - 54.0
pH:	4.89	4.50 - 5.50
Ac:	4.44	2.60 - 6.20
S-I:	76	54 - 115
Zn-I:	136	56 - 221
Zn-Al:	N/A	N/A
Mn-I:	31	18 - 45
Mn-Al:	N/A	N/A
Cu-I:	65	36 - 127
CEC:	10.5	7.4 - 13.6
HM%:	7.0	3.9 - 8.9

Field	No.	P-I	K-I	Mg (%)	Ca (%)	pH	Ac	S-I	Zn-I	Zn-Al	Mn-I	Mn-Al	Cu-I	CEC	HM (%)
	45	62.0	85.0	9.0	40.0	5.0	4.3	80.0	103.0	n/a	33.0	n/a	42.0	9.3	6.6
	46	71.0	100.0	10.0	44.0	4.9	3.7	69.0	103.0	n/a	36.0	n/a	45.0	9.2	7.0
	47	74.0	102.0	10.0	42.0	4.9	4.2	70.0	127.0	n/a	41.0	n/a	49.0	9.6	7.5
	48	82.0	71.0	17.0	48.0	5.0	4.0	63.0	221.0	n/a	45.0	n/a	92.0	12.5	5.1
	49	72.0	107.0	14.0	43.0	4.9	4.5	84.0	149.0	n/a	38.0	n/a	58.0	11.6	7.7
	50	82.0	101.0	15.0	40.0	4.8	4.1	91.0	118.0	n/a	36.0	n/a	55.0	10.1	5.7
	51	66.0	120.0	17.0	44.0	5.2	3.4	77.0	87.0	n/a	32.0	n/a	47.0	10.4	6.0
	52	50.0	89.0	10.0	35.0	5.1	4.0	77.0	75.0	n/a	26.0	n/a	39.0	8.2	6.0
	53	26.0	75.0	9.0	40.0	5.4	3.4	92.0	61.0	n/a	20.0	n/a	37.0	7.4	5.8

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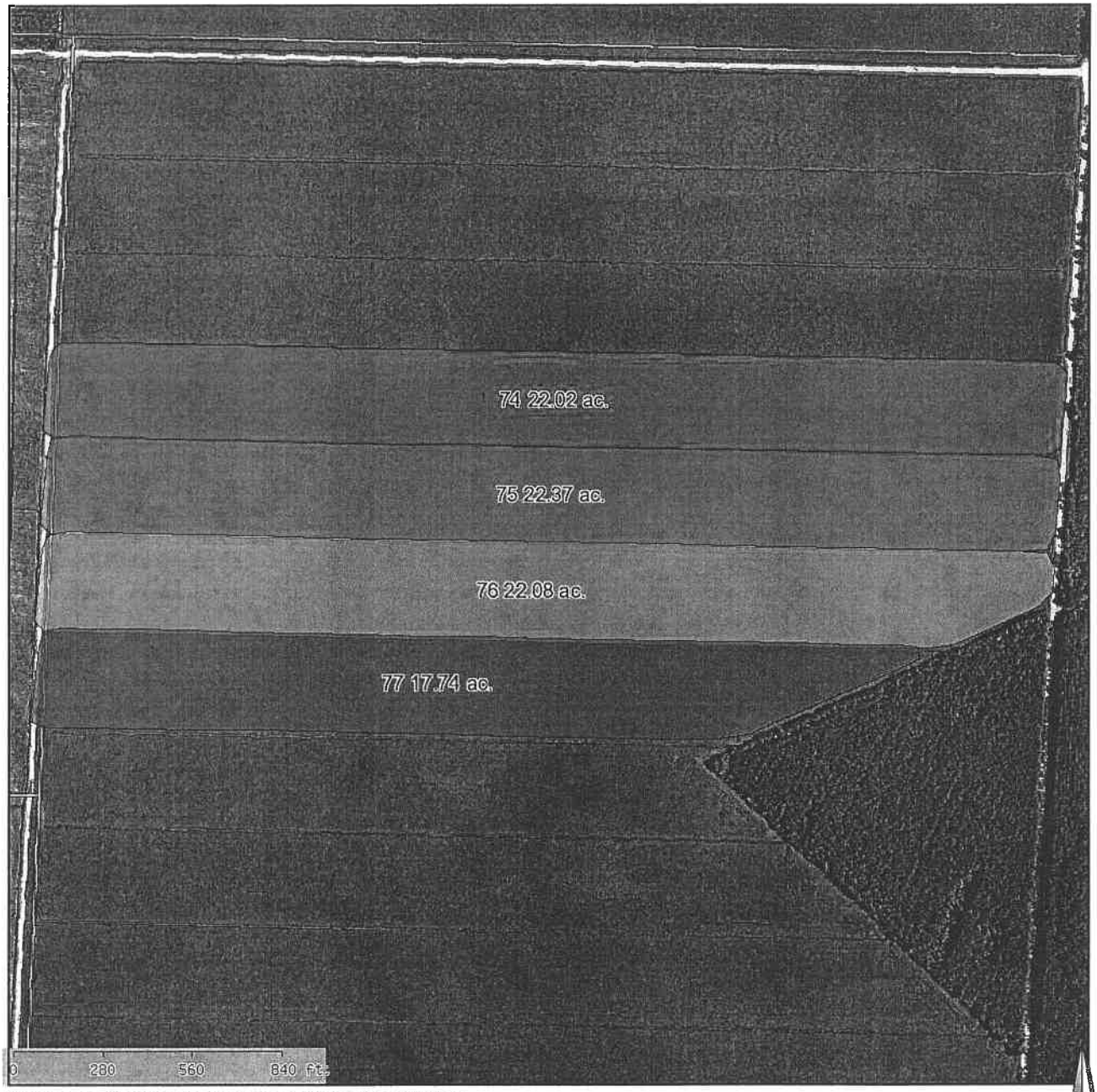
SAMPLE DATE: 2011-10-27
ISSUED: 7:04am EDT Oct28, 2011
A Product of Agfleet Version 3.00

Data Manager — Farm-Field Map

Grower: Wood Brothers
Farm: Womack - Camp Oak
Acres: 84.21

Field(s): 74, 75, 76, 77

Sarah Arthur LLC
211 Cameron Shores
New Bern, NC 28562
PHONE: 252-229-3907
FAX: 888-670-1840



*NOTE: The field labels above are actual FIELD NAMES.

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ISSUED: 3:08pm EDT Nov 2, 2011
A Product of Agfleet Version 3.00

Field Sampler

NCDA Index Values

Grower: Wood Brothers
Farm: Womack - Camp Oak
Acres: 84.21

Field(s): 74, 75, 76, 77

Sarah Arthur LLC
211 Cameron Shores
New Bern, NC 28562
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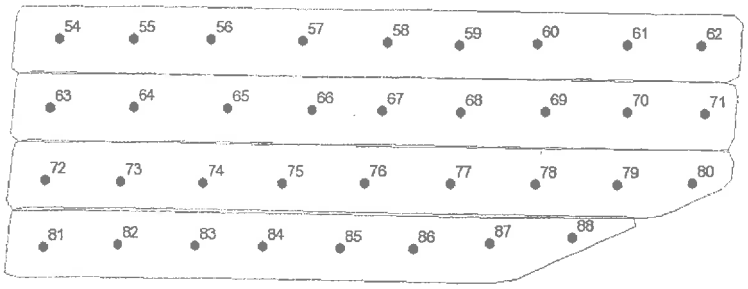
FAX: 888-670-1840



Element	Average	Range
P-I:	54	18 - 89
K-I:	71	40 - 114
Mg%:	8.9	5.0 - 19.0
Ca%:	39.0	33.0 - 52.0
pH:	4.90	4.60 - 5.40
Ac:	5.10	2.80 - 7.20
S-I:	68	48 - 92
Zn-I:	100	35 - 185
Zn-Al:	N/A	N/A
Mn-I:	27	19 - 39
Mn-Al:	N/A	N/A
Cu-I:	50	14 - 172
CEC:	10.5	8.1 - 13.6
HM%:	6.5	4.1 - 8.2

Field	No.	P-I	K-I	Mg (%)	Ca (%)	pH	Ac	S-I	Zn-I	Zn-Al	Mn-I	Mn-Al	Cu-I	CEC	HM (%)
74															
	54	47.0	70.0	7.0	34.0	5.1	5.2	68.0	86.0	n/a	26.0	n/a	49.0	9.5	7.2
	55	53.0	77.0	6.0	37.0	5.0	5.2	72.0	92.0	n/a	29.0	n/a	138.0	9.8	7.2
	56	50.0	87.0	5.0	34.0	5.0	5.5	66.0	78.0	n/a	29.0	n/a	39.0	9.9	7.0
	57	55.0	78.0	8.0	35.0	5.0	5.4	81.0	94.0	n/a	28.0	n/a	52.0	10.1	7.0
	58	65.0	74.0	8.0	39.0	4.9	5.2	75.0	99.0	n/a	28.0	n/a	69.0	10.5	6.8
	59	83.0	89.0	8.0	42.0	4.9	4.7	79.0	98.0	n/a	31.0	n/a	52.0	10.1	5.5
	60	89.0	100.0	12.0	42.0	5.2	3.8	72.0	76.0	n/a	22.0	n/a	50.0	9.3	4.1
	61	31.0	114.0	7.0	37.0	5.2	4.6	88.0	55.0	n/a	22.0	n/a	44.0	9.3	5.7
	62	18.0	81.0	7.0	40.0	5.4	4.2	80.0	83.0	n/a	19.0	n/a	33.0	8.6	6.2
75															
	63	32.0	67.0	6.0	34.0	5.1	5.6	69.0	59.0	n/a	22.0	n/a	26.0	10.0	8.2
	64	48.0	59.0	8.0	38.0	4.9	5.0	69.0	81.0	n/a	25.0	n/a	33.0	9.7	6.2
	65	44.0	85.0	7.0	33.0	4.8	5.7	72.0	64.0	n/a	26.0	n/a	24.0	10.2	7.0
	66	61.0	76.0	7.0	34.0	4.9	5.4	68.0	73.0	n/a	25.0	n/a	26.0	9.7	7.2
	67	68.0	81.0	6.0	39.0	5.1	5.0	68.0	74.0	n/a	29.0	n/a	35.0	9.8	6.4
	68	85.0	83.0	7.0	35.0	4.7	5.5	77.0	88.0	n/a	31.0	n/a	37.0	10.1	5.7
	69	63.0	100.0	5.0	34.0	4.8	5.0	73.0	60.0	n/a	28.0	n/a	33.0	9.0	5.7
	70	49.0	80.0	6.0	36.0	5.0	5.0	71.0	64.0	n/a	25.0	n/a	34.0	9.2	6.2
	71	82.0	57.0	10.0	38.0	4.8	5.2	72.0	108.0	n/a	27.0	n/a	48.0	10.6	5.0
76															
	72	53.0	86.0	8.0	41.0	5.0	5.6	64.0	94.0	n/a	35.0	n/a	24.0	11.9	7.7
	73	58.0	61.0	9.0	44.0	4.8	5.6	67.0	146.0	n/a	39.0	n/a	34.0	12.4	6.2
	74	56.0	65.0	10.0	41.0	4.8	5.5	64.0	130.0	n/a	30.0	n/a	32.0	11.9	5.7
	75	43.0	44.0	11.0	34.0	4.6	7.2	58.0	126.0	n/a	26.0	n/a	25.0	13.6	8.0

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SAMPLE DATE: 2011-10-08
ISSUED: 3:09pm EDT Nov 2, 2011
A Product of Agfleet Version 3.00

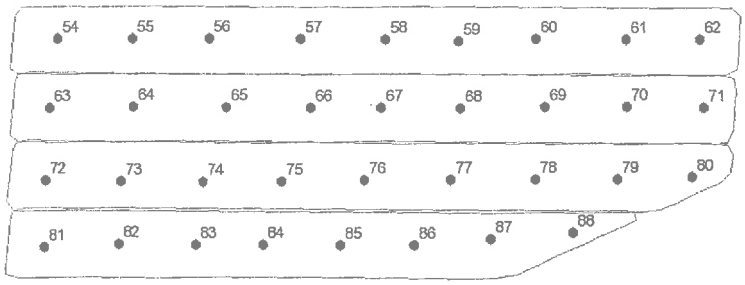
Field Sampler

NCDA Index Values

Grower: Wood Brothers
Farm: Womack - Camp Oak
Acres: 84.21

Field(s): 74, 75, 76, 77

Sarah Arthur LLC
211 Cameron Shores
New Bern, NC 28562
PHONE: 252-229-3907
FAX: 888-670-1840



Element	Average	Range
P-I:	54	18 - 89
K-I:	71	40 - 114
Mg%:	8.9	5.0 - 19.0
Ca%:	39.0	33.0 - 52.0
pH:	4.90	4.60 - 5.40
Ac:	5.10	2.80 - 7.20
S-I:	68	48 - 92
Zn-I:	100	35 - 185
Zn-Al:	N/A	N/A
Mn-I:	27	19 - 39
Mn-Al:	N/A	N/A
Cu-I:	50	14 - 172
CEC:	10.5	8.1 - 13.6
HM%:	6.5	4.1 - 8.2

Field	No.	P-I	K-I	Mg (%)	Ca (%)	pH	Ac	S-I	Zn-I	Zn-Al	Mn-I	Mn-Al	Cu-I	CEC	HM (%)
	76	44.0	40.0	11.0	35.0	4.7	7.0	62.0	115.0	n/a	23.0	n/a	22.0	13.2	7.5
	77	60.0	47.0	12.0	37.0	4.7	6.6	52.0	140.0	n/a	30.0	n/a	26.0	13.3	6.6
	78	76.0	40.0	9.0	37.0	4.6	6.3	54.0	134.0	n/a	29.0	n/a	28.0	12.1	5.8
	79	73.0	95.0	9.0	41.0	5.0	4.9	65.0	57.0	n/a	27.0	n/a	16.0	10.6	5.7
	80	19.0	89.0	8.0	38.0	5.1	3.9	92.0	35.0	n/a	20.0	n/a	14.0	8.1	6.8
77															
	81	25.0	59.0	9.0	40.0	4.7	4.8	68.0	81.0	n/a	21.0	n/a	43.0	10.0	8.0
	82	35.0	68.0	10.0	41.0	4.8	4.8	66.0	141.0	n/a	24.0	n/a	71.0	10.3	8.0
	83	29.0	60.0	9.0	41.0	4.7	4.8	72.0	121.0	n/a	24.0	n/a	58.0	10.2	7.0
	84	73.0	58.0	13.0	50.0	4.7	3.9	60.0	185.0	n/a	31.0	n/a	93.0	11.3	4.7
	85	54.0	42.0	12.0	47.0	4.7	4.2	48.0	176.0	n/a	28.0	n/a	100.0	10.6	5.2
	86	40.0	60.0	10.0	40.0	4.7	4.7	55.0	137.0	n/a	29.0	n/a	89.0	10.0	7.7
	87	55.0	49.0	11.0	44.0	4.8	4.6	48.0	155.0	n/a	33.0	n/a	172.0	10.7	6.2
	88	65.0	61.0	19.0	52.0	5.2	2.8	49.0	105.0	n/a	24.0	n/a	72.0	10.4	5.1

SAMPLE DATE: 2011-10-08
ISSUED: 3:09pm EDT Nov 2, 2011
A Product of Agfleet Version 3.00

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Field Sampler

NCDA Index Values

Grower: Wood Brothers
Farm: Raymonds
Acres: 85.81

Field(s): 94, 95, 96, 97, 98, 99, 100, 101, 102

Sarah Arthur LLC
211 Cameron Shores
New Bern, NC 28562
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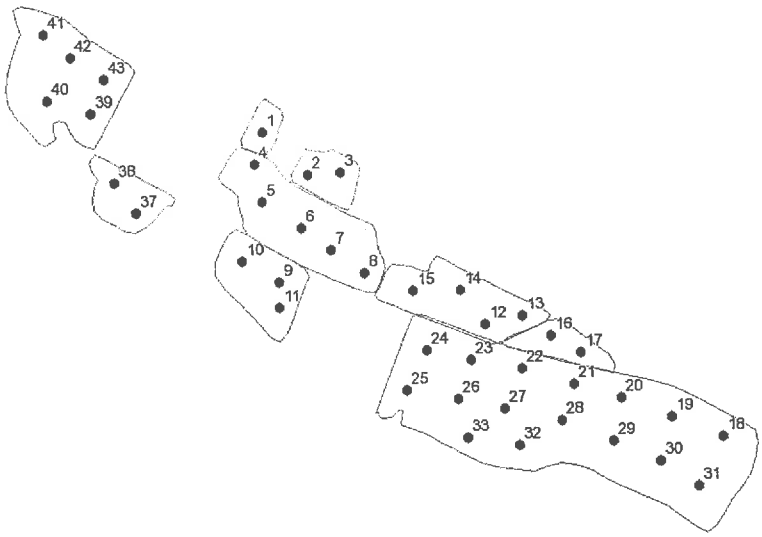
FAX: 888-670-1840



Element	Average	Range
P-I:	175	64 - 312
K-I:	45	21 - 94
Mg%:	15.0	12.0 - 19.0
Ca%:	54.5	46.0 - 63.0
pH:	6.01	5.40 - 6.40
Ac:	1.21	0.70 - 2.80
S-I:	41	22 - 60
Zn-I:	94	49 - 131
Zn-Al:	N/A	N/A
Mn-I:	42	17 - 70
Mn-Al:	N/A	N/A
Cu-I:	60	29 - 111
CEC:	4.8	3.1 - 8.6
HM%:	1.0	0.3 - 3.0

Field	No.	P-I	K-I	Mg (%)	Ca (%)	pH	Ac	S-I	Zn-I	Zn-Al	Mn-I	Mn-Al	Cu-I	CEC	HM (%)
100															
	18	246.0	43.0	17.0	51.0	6.0	1.0	27.0	79.0	n/a	65.0	n/a	43.0	3.6	0.4
	19	151.0	39.0	14.0	54.0	6.1	1.1	24.0	93.0	n/a	57.0	n/a	66.0	3.9	0.6
	20	173.0	24.0	13.0	49.0	5.9	1.2	26.0	92.0	n/a	51.0	n/a	66.0	3.4	0.5
	21	249.0	52.0	15.0	56.0	6.0	1.2	36.0	95.0	n/a	54.0	n/a	53.0	4.9	0.7
	22	268.0	94.0	14.0	52.0	5.9	1.9	60.0	111.0	n/a	61.0	n/a	68.0	6.9	2.4
	23	204.0	48.0	15.0	55.0	6.0	1.0	38.0	86.0	n/a	44.0	n/a	41.0	4.2	0.9
	24	153.0	59.0	15.0	56.0	6.1	1.0	41.0	74.0	n/a	38.0	n/a	42.0	4.5	0.9
	25	254.0	49.0	14.0	56.0	6.0	1.2	44.0	106.0	n/a	55.0	n/a	56.0	4.7	1.2
	26	157.0	55.0	13.0	55.0	5.8	1.2	43.0	93.0	n/a	47.0	n/a	49.0	4.5	0.9
	27	102.0	48.0	16.0	57.0	6.1	0.8	38.0	72.0	n/a	33.0	n/a	42.0	3.8	0.8
	28	207.0	45.0	14.0	56.0	6.0	1.1	31.0	91.0	n/a	59.0	n/a	46.0	4.3	1.0
	29	139.0	26.0	12.0	48.0	5.8	1.1	27.0	99.0	n/a	42.0	n/a	68.0	3.1	0.8
	30	130.0	25.0	15.0	55.0	6.2	0.9	22.0	117.0	n/a	52.0	n/a	77.0	3.4	0.9
	31	149.0	67.0	16.0	54.0	6.1	1.1	37.0	87.0	n/a	70.0	n/a	52.0	4.8	1.0
	32	213.0	31.0	12.0	46.0	5.8	1.4	31.0	100.0	n/a	67.0	n/a	81.0	3.7	1.0
	33	193.0	21.0	13.0	46.0	5.7	1.2	26.0	94.0	n/a	61.0	n/a	80.0	3.3	0.8
101															
	37	193.0	39.0	15.0	54.0	6.0	1.4	47.0	97.0	n/a	39.0	n/a	62.0	5.0	1.0
	38	146.0	52.0	16.0	58.0	6.1	1.1	59.0	93.0	n/a	45.0	n/a	53.0	5.2	0.8
102															
	39	96.0	39.0	14.0	55.0	5.7	2.0	44.0	127.0	n/a	24.0	n/a	38.0	7.2	2.5
	40	87.0	50.0	17.0	57.0	5.6	2.0	45.0	131.0	n/a	21.0	n/a	36.0	8.6	3.0
	41	112.0	50.0	19.0	63.0	6.2	1.2	52.0	89.0	n/a	17.0	n/a	29.0	8.0	2.2
	42	64.0	56.0	18.0	57.0	6.0	1.8	58.0	110.0	n/a	18.0	n/a	34.0	8.6	2.9

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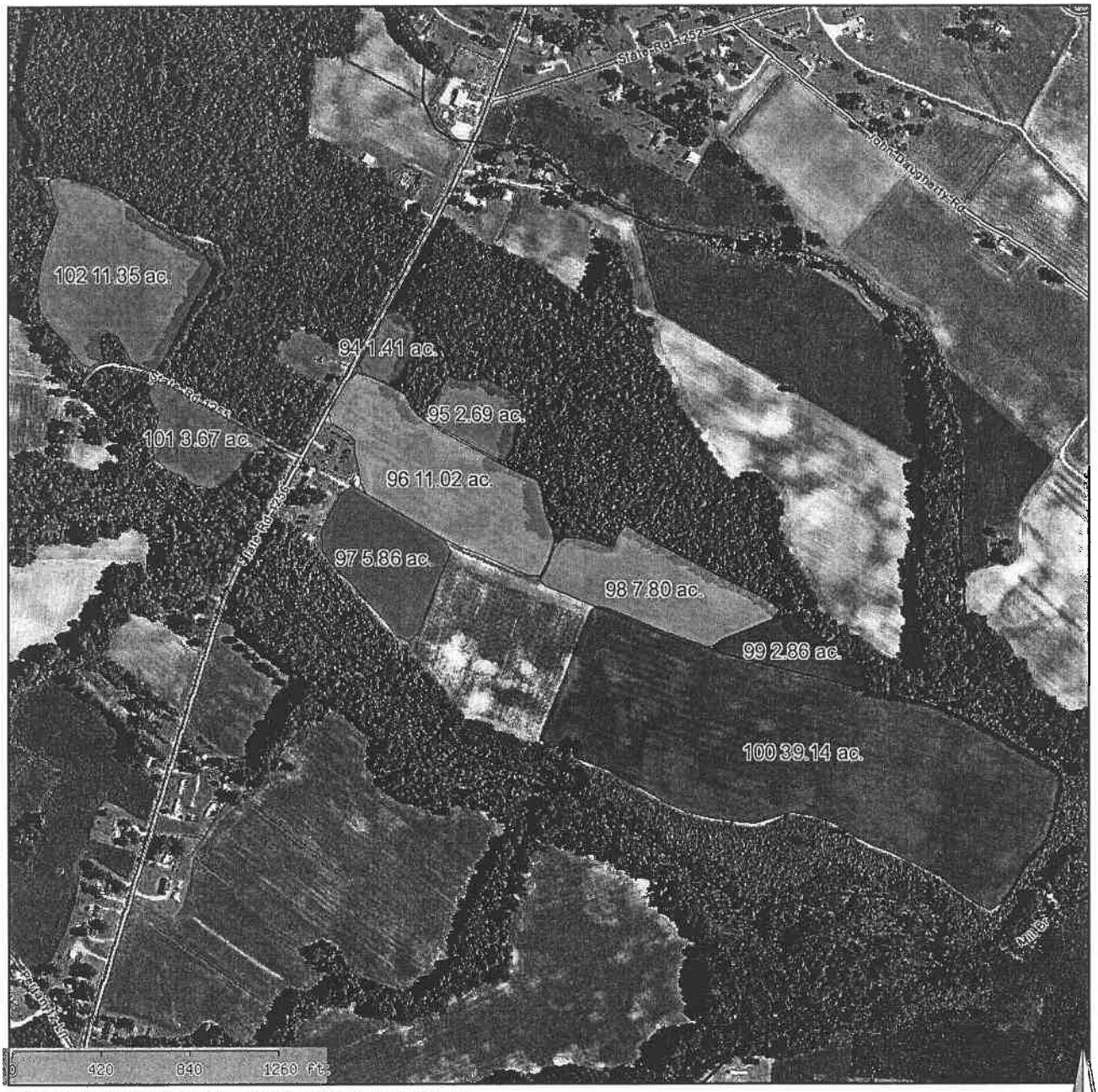
SAMPLE DATE: 2011-10-27;2011-10-12
ISSUED: 4:55pm EST Dec 6, 2011
A Product of Agfleet Version 3.00

Data Manager — Farm-Field Map

Grower: Wood Brothers
Farm: Raymonds
Acres: 85.81

Field(s): 94, 95, 96, 97, 98, 99, 100, 101, 102

Sarah Arthur LLC
211 Cameron Shores
New Bern, NC 28562
PHONE: 252-229-3907
FAX: 888-670-1840



*NOTE: The field labels above are actual FIELD NAMES.

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ISSUED: 4:55pm EST Dec 6, 2011
A Product of Agfleet Version 3.00

469 Total acres

Data Manager

Farm-Field Map

Grower: Wood Brothers
Farm: Jane Wood
Acres: 71.90

Field(s): 1, 2, 5, 6, 7

Sarah Arthur LLC
211 Cameron Shores
New Bern, NC 28562
PHONE: 252-229-3907
FAX: 888-670-1840

*NOTE: The field labels above are actual FIELD NAMES.

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ISSUED: 1:32pm EDT Nov 2, 2011
A Product of Agfleet Version 3.00

Data Manager — Farm-Field Map

Grower: Wood Brothers
Farm: Jane Wood
Acres: 207.04

Field(s): 3, 4, 8, 9, 10

Sarah Arthur LLC
211 Cameron Shores
New Bern, NC 28562
PHONE: 252-229-3907
FAX: 888-670-1840

*NOTE: The field labels above are actual FIELD NAMES.

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ISSUED: 6:05pm EDT Oct27, 2011
A Product of Agfleet Version 3.00

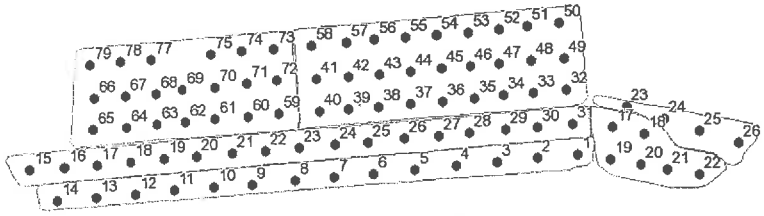
Field Sampler

NCDA Index Values

Grower: Wood Brothers
Farm: Jane Wood
Acres: 207.04

Field(s): 3, 4, 8, 9, 10

Sarah Arthur LLC
211 Cameron Shores
New Bern, NC 28562
PHONE: 252-229-3907
FAX: 888-670-1840



Element	Average	Range
P-I:	93	21 - 196
K-I:	143	51 - 357
Mg%:	17.5	12.0 - 23.0
Ca%:	44.7	36.0 - 56.0
pH:	5.25	4.70 - 5.70
Ac:	3.48	2.20 - 4.80
S-I:	69	43 - 105
Zn-I:	122	57 - 1217
Zn-Al:	N/A	N/A
Mn-I:	32	18 - 53
Mn-Al:	N/A	N/A
Cu-I:	77	40 - 138
CEC:	11.1	7.8 - 15.1
HM%:	6.1	2.8 - 10.0

Field	No.	P-I	K-I	Mg (%)	Ca (%)	pH	Ac	S-I	Zn-I	Zn-Al	Mn-I	Mn-Al	Cu-I	CEC	HM (%)
	18	131.0	51.0	15.0	53.0	5.7	2.4	51.0	195.0	n/a	42.0	n/a	96.0	8.4	3.0
	19	107.0	96.0	17.0	40.0	4.7	3.6	98.0	107.0	n/a	31.0	n/a	82.0	9.5	4.8
	20	92.0	102.0	16.0	48.0	5.5	3.1	72.0	128.0	n/a	38.0	n/a	99.0	9.9	5.1
	21	141.0	110.0	15.0	52.0	5.4	3.3	65.0	188.0	n/a	47.0	n/a	137.0	11.6	4.6
	22	165.0	78.0	14.0	54.0	5.4	3.2	51.0	259.0	n/a	52.0	n/a	133.0	11.3	4.2
4															
	23	196.0	147.0	16.0	46.0	5.1	3.9	68.0	200.0	n/a	38.0	n/a	128.0	12.2	6.2
	24	172.0	89.0	19.0	52.0	5.5	2.7	60.0	218.0	n/a	46.0	n/a	138.0	11.0	5.2
	25	167.0	109.0	17.0	48.0	5.6	3.1	64.0	161.0	n/a	42.0	n/a	112.0	10.6	5.2
	26	156.0	67.0	15.0	49.0	5.4	2.7	59.0	133.0	n/a	35.0	n/a	90.0	8.4	4.2
8															
	1	63.0	112.0	16.0	53.0	5.7	2.3	77.0	106.0	n/a	25.0	n/a	102.0	9.4	3.6
	2	46.0	86.0	17.0	53.0	5.5	2.5	81.0	103.0	n/a	24.0	n/a	115.0	9.6	4.8
	3	93.0	84.0	15.0	52.0	5.1	2.8	73.0	123.0	n/a	38.0	n/a	99.0	9.6	3.7
	4	78.0	130.0	16.0	51.0	5.2	3.2	73.0	109.0	n/a	32.0	n/a	72.0	11.7	6.4
	5	132.0	97.0	17.0	51.0	5.5	2.7	63.0	103.0	n/a	36.0	n/a	91.0	10.2	4.7
	6	135.0	66.0	16.0	56.0	5.7	2.2	64.0	1217.0	n/a	36.0	n/a	112.0	9.1	3.6
	7	115.0	105.0	20.0	51.0	5.4	3.2	78.0	178.0	n/a	35.0	n/a	70.0	12.7	5.5
	8	144.0	80.0	19.0	51.0	5.3	3.0	62.0	142.0	n/a	38.0	n/a	80.0	11.5	4.7
	9	115.0	145.0	17.0	41.0	5.2	4.3	61.0	105.0	n/a	34.0	n/a	55.0	11.9	7.7
	10	121.0	130.0	20.0	45.0	5.3	3.8	72.0	105.0	n/a	30.0	n/a	61.0	12.3	6.0
	11	131.0	115.0	23.0	50.0	5.6	2.8	80.0	93.0	n/a	26.0	n/a	68.0	12.2	5.1
	12	124.0	138.0	20.0	47.0	5.3	3.4	60.0	76.0	n/a	28.0	n/a	61.0	12.2	5.2
	13	90.0	156.0	19.0	51.0	5.4	2.6	76.0	60.0	n/a	19.0	n/a	68.0	11.3	3.6
	14	51.0	121.0	22.0	52.0	5.5	2.2	76.0	57.0	n/a	18.0	n/a	73.0	11.1	2.8

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SAMPLE DATE: 2011-09-14;2011-09-09
ISSUED: 6:05pm EDT Oct27, 2011
A Product of Agfleet Version 3.00

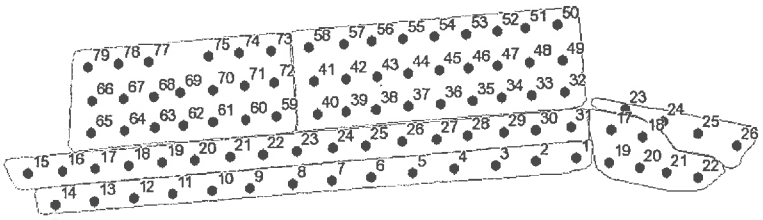
Field Sampler

NCDA Index Values

Grower: Wood Brothers
Farm: Jane Wood
Acres: 207.04

Field(s): 3, 4, 8, 9, 10

Sarah Arthur LLC
211 Cameron Shores
New Bern, NC 28562
PHONE: 252-229-3907
FAX: 888-670-1840



Element	Average	Range
P-I:	93	21 - 196
K-I:	143	51 - 357
Mg%:	17.5	12.0 - 23.0
Ca%:	44.7	36.0 - 56.0
pH:	5.25	4.70 - 5.70
Ac:	3.48	2.20 - 4.80
S-I:	69	43 - 105
Zn-I:	122	57 - 1217
Zn-Al:	N/A	N/A
Mn-I:	32	18 - 53
Mn-Al:	N/A	N/A
Cu-I:	77	40 - 138
CEC:	11.1	7.8 - 15.1
HM%:	6.1	2.8 - 10.0

Field	No.	P-I	K-I	Mg (%)	Ca (%)	pH	Ac	S-I	Zn-I	Zn-Al	Mn-I	Mn-Al	Cu-I	CEC	HM (%)
9															
	15	126.0	121.0	18.0	50.0	5.2	3.5	76.0	80.0	n/a	25.0	n/a	56.0	12.6	6.6
	16	77.0	86.0	18.0	44.0	5.0	3.8	84.0	102.0	n/a	25.0	n/a	85.0	11.2	5.4
	17	75.0	100.0	19.0	45.0	5.1	3.3	78.0	75.0	n/a	23.0	n/a	79.0	10.4	3.9
	18	79.0	123.0	17.0	47.0	5.3	3.7	57.0	120.0	n/a	39.0	n/a	94.0	11.7	5.8
	19	89.0	137.0	18.0	46.0	5.1	3.9	74.0	102.0	n/a	42.0	n/a	96.0	12.7	6.0
	20	82.0	122.0	18.0	50.0	5.4	3.5	61.0	141.0	n/a	40.0	n/a	116.0	12.7	6.0
	21	43.0	175.0	17.0	43.0	5.2	4.8	60.0	104.0	n/a	39.0	n/a	61.0	14.0	9.6
	22	62.0	130.0	14.0	46.0	5.1	4.0	66.0	119.0	n/a	41.0	n/a	98.0	11.6	7.0
	23	65.0	128.0	17.0	46.0	5.4	4.0	56.0	121.0	n/a	34.0	n/a	73.0	12.7	7.5
	24	85.0	130.0	12.0	42.0	5.0	4.2	72.0	95.0	n/a	41.0	n/a	66.0	10.6	7.7
	25	89.0	148.0	17.0	46.0	5.3	3.5	65.0	81.0	n/a	36.0	n/a	63.0	11.6	7.2
	26	72.0	137.0	16.0	44.0	5.2	3.8	63.0	68.0	n/a	34.0	n/a	51.0	11.2	6.8
	27	99.0	121.0	14.0	36.0	5.1	4.1	58.0	81.0	n/a	30.0	n/a	52.0	9.3	6.6
	28	86.0	134.0	15.0	38.0	5.1	4.3	78.0	100.0	n/a	34.0	n/a	54.0	10.7	8.0
	29	118.0	83.0	16.0	45.0	5.2	2.6	72.0	80.0	n/a	29.0	n/a	79.0	7.8	2.8
	30	106.0	100.0	14.0	44.0	5.2	3.0	58.0	77.0	n/a	32.0	n/a	94.0	8.3	4.3
	31	107.0	82.0	16.0	44.0	5.2	3.1	59.0	82.0	n/a	31.0	n/a	71.0	8.6	4.2

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SAMPLE DATE: 2011-09-14;2011-09-09
ISSUED: 6:05pm EDT Oct27, 2011
A Product of Agfleet Version 3.00

Data Manager — Farm-Field Map

Grower: Wood Brothers
Farm: Jane Wood
Acres: 225.82

Field(s): 11, 12, 13, 14, 15, 16, 17

Sarah Arthur LLC
211 Cameron Shores
New Bern, NC 28562
PHONE: 252-229-3907
FAX: 888-670-1840

*NOTE: The field labels above are actual FIELD NAMES.

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ISSUED:12:54pm EST Feb23, 2012
A Product of Agfleet Version 3.00

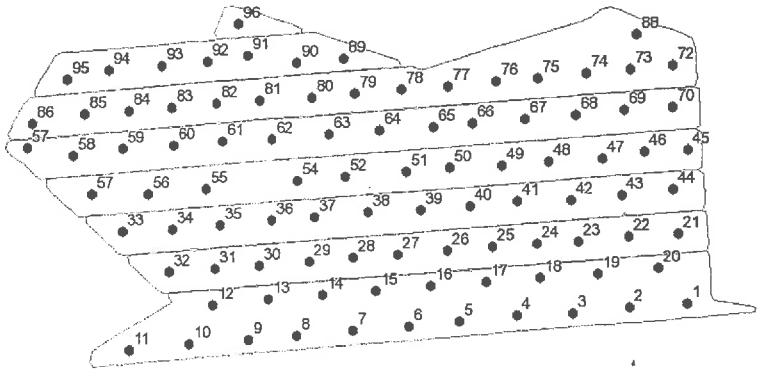
Field Sampler

NCDA Index Values

Grower: Wood Brothers
Farm: Jane Wood
Acres: 225.82

Field(s): 11, 12, 13, 14, 15, 16, 17

Sarah Arthur LLC
211 Cameron Shores
New Bern, NC 28562
PHONE: 252-229-3907
FAX: 888-670-1840



Element	Average	Range
P-I:	56	22 - 108
K-I:	75	41 - 132
Mg%:	15.6	9.0 - 23.0
Ca%:	41.5	30.0 - 50.0
pH:	5.19	4.60 - 5.80
Ac:	4.30	2.20 - 6.40
S-I:	76	44 - 171
Zn-I:	128	52 - 289
Zn-Al:	N/A	N/A
Mn-I:	28	17 - 45
Mn-Al:	N/A	N/A
Cu-I:	61	15 - 147
CEC:	10.9	7.6 - 14.6
HM%:	6.7	3.9 - 9.6

Field	No.	P-I	K-I	Mg (%)	Ca (%)	pH	Ac	S-I	Zn-I	Zn-Al	Mn-I	Mn-Al	Cu-I	CEC	HM (%)
11															
	1	108.0	72.0	17.0	43.0	5.2	3.2	50.0	88.0	n/a	38.0	n/a	63.0	8.8	5.2
	2	74.0	124.0	12.0	38.0	5.1	3.6	71.0	83.0	n/a	30.0	n/a	52.0	8.4	7.0
	3	71.0	132.0	11.0	37.0	5.1	4.0	68.0	94.0	n/a	33.0	n/a	49.0	8.9	7.0
	4	96.0	92.0	9.0	33.0	4.8	4.3	78.0	100.0	n/a	26.0	n/a	50.0	8.1	7.0
	5	72.0	106.0	19.0	44.0	5.3	4.3	77.0	99.0	n/a	31.0	n/a	47.0	13.1	9.2
	6	78.0	83.0	14.0	38.0	4.9	5.2	65.0	109.0	n/a	32.0	n/a	49.0	11.7	9.6
	7	80.0	77.0	16.0	41.0	5.0	4.7	69.0	112.0	n/a	29.0	n/a	56.0	11.8	8.5
	8	81.0	77.0	13.0	41.0	5.1	4.5	71.0	108.0	n/a	30.0	n/a	56.0	10.5	8.5
	9	67.0	90.0	14.0	39.0	4.9	4.8	65.0	99.0	n/a	29.0	n/a	56.0	11.0	8.9
	10	79.0	73.0	20.0	47.0	5.3	4.2	67.0	137.0	n/a	31.0	n/a	68.0	13.7	9.2
	11	63.0	79.0	18.0	44.0	5.3	4.4	95.0	98.0	n/a	27.0	n/a	47.0	12.9	9.2
	12	45.0	45.0	21.0	49.0	5.3	4.2	50.0	247.0	n/a	45.0	n/a	88.0	14.6	6.0
	13	64.0	70.0	18.0	42.0	5.2	4.6	57.0	180.0	n/a	34.0	n/a	71.0	12.6	7.7
	14	71.0	96.0	16.0	41.0	5.1	4.6	75.0	141.0	n/a	33.0	n/a	68.0	11.6	8.2
	15	46.0	92.0	13.0	38.0	5.2	4.5	86.0	97.0	n/a	29.0	n/a	62.0	9.9	8.2
	16	57.0	96.0	14.0	39.0	5.2	4.4	87.0	95.0	n/a	27.0	n/a	53.0	10.3	8.2
	17	44.0	111.0	10.0	32.0	5.1	5.3	84.0	91.0	n/a	28.0	n/a	46.0	10.2	8.5
	18	82.0	55.0	16.0	49.0	5.3	3.2	48.0	289.0	n/a	41.0	n/a	103.0	9.6	4.6
	19	76.0	81.0	20.0	49.0	5.4	2.8	59.0	112.0	n/a	29.0	n/a	62.0	10.3	4.7
	20	62.0	105.0	15.0	48.0	5.4	3.6	62.0	129.0	n/a	33.0	n/a	50.0	11.2	6.8
12															
	21	88.0	58.0	12.0	46.0	5.3	3.6	57.0	200.0	n/a	40.0	n/a	73.0	9.3	5.5
	22	85.0	67.0	13.0	50.0	5.5	3.1	55.0	202.0	n/a	44.0	n/a	78.0	9.1	3.9
	23	79.0	105.0	15.0	45.0	5.5	3.6	67.0	125.0	n/a	38.0	n/a	70.0	10.1	5.4

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SAMPLE DATE: 2011-12-20;2011-12-19
ISSUED:12:54pm EST Feb23, 2012
A Product of Agfleet Version 3.00

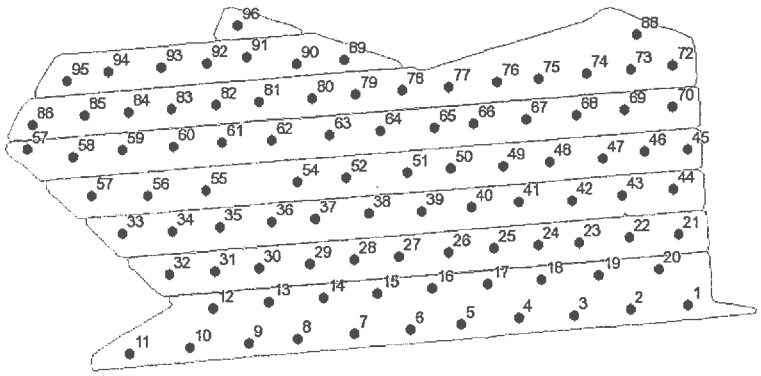
Field Sampler

NCDA Index Values

Grower: Wood Brothers
Farm: Jane Wood
Acres: 225.82

Field(s): 11, 12, 13, 14, 15, 16, 17

Sarah Arthur LLC
211 Cameron Shores
New Bern, NC 28562
PHONE: 252-229-3907
FAX: 888-670-1840



Element	Average	Range
P-I:	56	22 - 108
K-I:	75	41 - 132
Mg%:	15.6	9.0 - 23.0
Ca%:	41.5	30.0 - 50.0
pH:	5.19	4.60 - 5.80
Ac:	4.30	2.20 - 6.40
S-I:	76	44 - 171
Zn-I:	128	52 - 289
Zn-Al:	N/A	N/A
Mn-I:	28	17 - 45
Mn-Al:	N/A	N/A
Cu-I:	61	15 - 147
CEC:	10.9	7.6 - 14.6
HM%:	6.7	3.9 - 9.6

Field	No.	P-I	K-I	Mg (%)	Ca (%)	pH	Ac	S-I	Zn-I	Zn-Al	Mn-I	Mn-Al	Cu-I	CEC	HM (%)
	24	93.0	72.0	15.0	50.0	5.4	3.1	56.0	198.0	n/a	45.0	n/a	70.0	10.0	5.2
	25	65.0	67.0	15.0	40.0	5.0	4.9	81.0	175.0	n/a	31.0	n/a	56.0	11.5	7.7
	26	61.0	101.0	17.0	39.0	5.2	4.9	87.0	132.0	n/a	26.0	n/a	58.0	12.2	7.7
	27	72.0	86.0	14.0	36.0	4.9	5.0	84.0	134.0	n/a	26.0	n/a	73.0	10.7	7.5
	28	89.0	52.0	18.0	42.0	5.0	4.6	58.0	173.0	n/a	27.0	n/a	80.0	12.3	6.6
	29	67.0	58.0	15.0	39.0	4.9	4.8	67.0	152.0	n/a	26.0	n/a	83.0	10.9	6.8
	30	76.0	56.0	13.0	38.0	4.8	5.0	111.0	153.0	n/a	28.0	n/a	70.0	10.6	5.2
	31	56.0	47.0	21.0	48.0	5.4	3.8	46.0	206.0	n/a	32.0	n/a	74.0	12.8	4.3
	32	63.0	45.0	18.0	45.0	5.1	4.6	44.0	208.0	n/a	35.0	n/a	62.0	12.9	5.5
13															
	33	67.0	55.0	15.0	35.0	4.6	5.8	171.0	165.0	n/a	28.0	n/a	70.0	12.1	7.2
	34	65.0	66.0	14.0	40.0	4.8	5.3	110.0	227.0	n/a	39.0	n/a	85.0	12.4	8.0
	35	66.0	70.0	18.0	43.0	5.1	4.4	76.0	187.0	n/a	33.0	n/a	78.0	12.5	6.6
	36	46.0	77.0	11.0	35.0	4.9	4.8	61.0	115.0	n/a	24.0	n/a	40.0	9.4	8.2
	37	42.0	80.0	13.0	35.0	4.8	5.4	77.0	140.0	n/a	28.0	n/a	53.0	11.0	8.9
	38	40.0	74.0	17.0	39.0	5.0	4.6	75.0	144.0	n/a	26.0	n/a	52.0	11.4	8.0
	39	42.0	91.0	14.0	36.0	4.9	4.8	82.0	138.0	n/a	24.0	n/a	76.0	10.5	8.0
	40	35.0	88.0	15.0	38.0	4.9	5.1	83.0	129.0	n/a	27.0	n/a	46.0	11.7	8.5
	41	22.0	111.0	9.0	31.0	4.9	6.4	78.0	93.0	n/a	31.0	n/a	15.0	11.5	9.2
	42	66.0	62.0	16.0	45.0	5.3	3.3	56.0	167.0	n/a	28.0	n/a	80.0	9.3	6.2
	43	93.0	59.0	14.0	45.0	5.3	2.8	59.0	136.0	n/a	34.0	n/a	62.0	7.6	4.8
	44	35.0	109.0	12.0	38.0	5.2	3.5	78.0	74.0	n/a	30.0	n/a	38.0	8.1	6.4
14															
	45	33.0	111.0	11.0	36.0	5.2	3.9	70.0	65.0	n/a	28.0	n/a	33.0	8.3	8.5
	46	31.0	113.0	11.0	36.0	5.2	3.8	69.0	63.0	n/a	27.0	n/a	31.0	8.1	8.5

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SAMPLE DATE: 2011-12-20;2011-12-19
ISSUED:12:54pm EST Feb23, 2012
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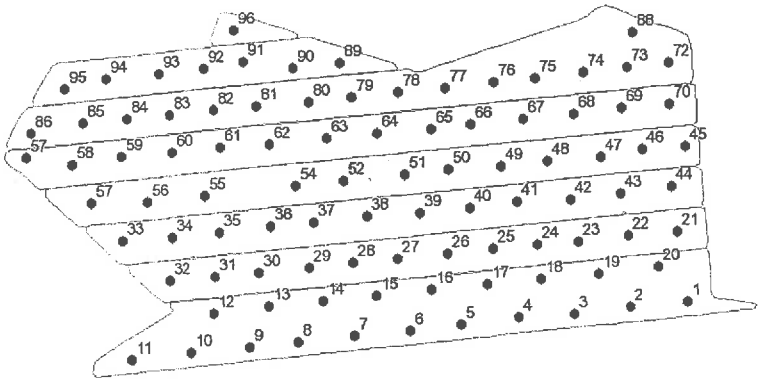
Field Sampler

NCDA Index Values

Grower: Wood Brothers
Farm: Jane Wood
Acres: 225.82

Field(s): 11, 12, 13, 14, 15, 16, 17

Sarah Arthur LLC
211 Cameron Shores
New Bern, NC 28562
PHONE: 252-229-3907
FAX: 888-670-1840



Element	Average	Range
P-I:	56	22 - 108
K-I:	75	41 - 132
Mg%:	15.6	9.0 - 23.0
Ca%:	41.5	30.0 - 50.0
pH:	5.19	4.60 - 5.80
Ac:	4.30	2.20 - 6.40
S-I:	76	44 - 171
Zn-I:	128	52 - 289
Zn-Al:	N/A	N/A
Mn-I:	28	17 - 45
Mn-Al:	N/A	N/A
Cu-I:	61	15 - 147
CEC:	10.9	7.6 - 14.6
HM%:	6.7	3.9 - 9.6

Field	No.	P-I	K-I	Mg (%)	Ca (%)	pH	Ac	S-I	Zn-I	Zn-Al	Mn-I	Mn-Al	Cu-I	CEC	HM (%)
	47	28.0	78.0	14.0	39.0	5.5	3.8	85.0	71.0	n/a	24.0	n/a	36.0	9.0	7.7
	48	52.0	94.0	14.0	39.0	5.4	3.8	76.0	73.0	n/a	25.0	n/a	26.0	9.1	6.2
	49	35.0	84.0	17.0	41.0	5.2	4.4	102.0	115.0	n/a	25.0	n/a	38.0	11.4	7.5
	50	42.0	65.0	14.0	36.0	5.0	5.1	80.0	139.0	n/a	23.0	n/a	71.0	10.9	7.0
	51	46.0	49.0	15.0	38.0	5.0	4.7	87.0	157.0	n/a	24.0	n/a	73.0	10.4	6.8
	52	43.0	67.0	16.0	41.0	5.2	4.2	87.0	92.0	n/a	23.0	n/a	29.0	10.5	6.2
	54	61.0	65.0	17.0	45.0	5.3	3.6	70.0	95.0	n/a	23.0	n/a	56.0	10.2	5.8
	55	42.0	64.0	13.0	37.0	4.9	5.0	69.0	123.0	n/a	23.0	n/a	64.0	10.6	7.5
	56	40.0	75.0	19.0	42.0	5.1	4.7	92.0	134.0	n/a	24.0	n/a	46.0	12.9	7.5
	57	55.0	44.0	18.0	46.0	5.2	3.5	82.0	161.0	n/a	25.0	n/a	63.0	10.5	5.2
15															
	57	55.0	44.0	18.0	46.0	5.2	3.5	82.0	161.0	n/a	25.0	n/a	63.0	10.5	5.2
	58	57.0	75.0	20.0	45.0	5.4	3.4	96.0	96.0	n/a	20.0	n/a	61.0	10.6	4.7
	59	46.0	69.0	16.0	40.0	5.1	4.2	86.0	118.0	n/a	22.0	n/a	51.0	10.3	6.8
	60	43.0	74.0	18.0	43.0	5.3	4.0	83.0	135.0	n/a	25.0	n/a	50.0	11.2	6.8
	61	33.0	76.0	17.0	42.0	5.2	4.3	94.0	128.0	n/a	27.0	n/a	41.0	11.4	8.2
	62	39.0	74.0	16.0	43.0	5.2	3.8	104.0	139.0	n/a	26.0	n/a	65.0	10.2	6.6
	63	50.0	63.0	16.0	42.0	5.2	3.6	70.0	126.0	n/a	23.0	n/a	58.0	9.2	5.8
	64	57.0	69.0	20.0	48.0	5.3	3.2	54.0	141.0	n/a	27.0	n/a	76.0	11.0	6.0
	65	46.0	59.0	17.0	40.0	5.0	4.6	77.0	150.0	n/a	24.0	n/a	116.0	11.4	7.5
	66	55.0	58.0	21.0	44.0	5.3	4.2	62.0	139.0	n/a	26.0	n/a	42.0	12.7	7.0
	67	38.0	76.0	20.0	42.0	5.2	4.7	62.0	134.0	n/a	26.0	n/a	35.0	13.2	8.0
	68	34.0	81.0	16.0	38.0	5.1	4.9	85.0	115.0	n/a	25.0	n/a	41.0	11.6	8.9
	69	92.0	62.0	16.0	49.0	5.4	2.7	62.0	132.0	n/a	30.0	n/a	69.0	8.8	4.8
	70	86.0	51.0	19.0	50.0	5.8	2.2	60.0	150.0	n/a	28.0	n/a	86.0	8.0	4.0

SAMPLE DATE: 2011-12-20;2011-12-19
ISSUED:12:54pm EST Feb23, 2012
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Field Sampler

NCDA Index Values

Grower: Wood Brothers
Farm: Jane Wood
Acres: 225.82

Field(s): 11, 12, 13, 14, 15, 16, 17

Sarah Arthur LLC
211 Cameron Shores
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PHONE: 252-229-3907
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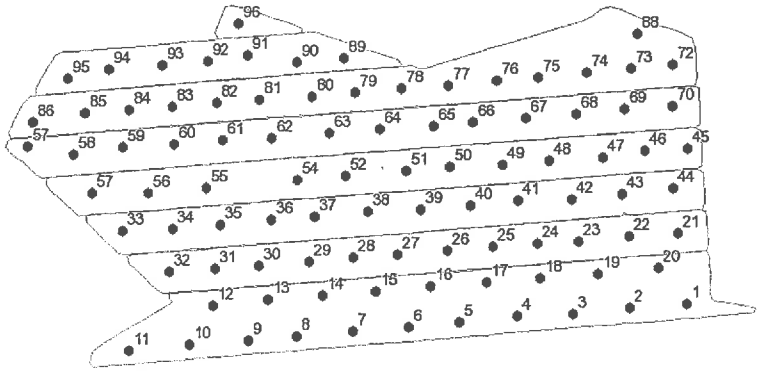

Element	Average	Range
P-I:	56	22 - 108
K-I:	75	41 - 132
Mg%:	15.6	9.0 - 23.0
Ca%:	41.5	30.0 - 50.0
pH:	5.19	4.60 - 5.80
Ac:	4.30	2.20 - 6.40
S-I:	76	44 - 171
Zn-I:	128	52 - 289
Zn-Al:	N/A	N/A
Mn-I:	28	17 - 45
Mn-Al:	N/A	N/A
Cu-I:	61	15 - 147
CEC:	10.9	7.6 - 14.6
HM%:	6.7	3.9 - 9.6

Field	No.	P-I	K-I	Mg (%)	Ca (%)	pH	Ac	S-I	Zn-I	Zn-Al	Mn-I	Mn-Al	Cu-I	CEC	HM (%)
16															
	72	44.0	106.0	13.0	44.0	5.4	3.9	60.0	104.0	n/a	32.0	n/a	56.0	10.3	5.8
	73	38.0	126.0	13.0	39.0	5.3	4.4	60.0	97.0	n/a	34.0	n/a	54.0	10.4	6.6
	74	61.0	103.0	18.0	47.0	5.6	3.3	65.0	85.0	n/a	29.0	n/a	45.0	11.2	5.0
	75	55.0	41.0	14.0	43.0	5.1	4.8	64.0	137.0	n/a	35.0	n/a	25.0	11.5	5.5
	76	43.0	58.0	13.0	38.0	5.1	5.2	87.0	100.0	n/a	30.0	n/a	23.0	11.0	6.6
	77	26.0	72.0	14.0	39.0	5.2	5.5	81.0	100.0	n/a	28.0	n/a	22.0	12.4	8.2
	78	25.0	78.0	16.0	40.0	5.1	5.7	84.0	143.0	n/a	27.0	n/a	64.0	14.0	8.5
	79	36.0	71.0	16.0	42.0	5.3	4.6	83.0	115.0	n/a	22.0	n/a	72.0	11.8	6.4
	80	41.0	69.0	14.0	42.0	5.2	4.7	85.0	121.0	n/a	29.0	n/a	71.0	11.5	6.0
	81	44.0	57.0	17.0	44.0	5.3	4.1	72.0	129.0	n/a	25.0	n/a	70.0	11.5	5.5
	82	42.0	65.0	14.0	42.0	5.1	4.4	96.0	106.0	n/a	26.0	n/a	68.0	10.5	5.1
	83	46.0	46.0	16.0	46.0	5.3	4.2	98.0	152.0	n/a	26.0	n/a	80.0	11.7	5.0
	84	41.0	47.0	15.0	40.0	5.1	5.6	80.0	157.0	n/a	24.0	n/a	147.0	12.7	6.6
	85	41.0	60.0	14.0	40.0	5.1	5.0	85.0	125.0	n/a	22.0	n/a	60.0	11.5	5.4
	86	51.0	57.0	21.0	48.0	5.6	3.5	104.0	100.0	n/a	19.0	n/a	70.0	12.3	4.4
	88	65.0	74.0	16.0	47.0	5.7	3.2	60.0	116.0	n/a	30.0	n/a	67.0	9.5	4.2
17															
	89	53.0	79.0	15.0	43.0	5.4	4.2	65.0	114.0	n/a	24.0	n/a	83.0	10.7	5.0
	90	42.0	89.0	17.0	43.0	5.5	4.1	53.0	99.0	n/a	21.0	n/a	70.0	11.3	5.4
	91	28.0	82.0	14.0	35.0	5.1	5.6	104.0	84.0	n/a	20.0	n/a	44.0	11.7	7.5
	92	37.0	74.0	15.0	39.0	5.4	4.6	78.0	77.0	n/a	20.0	n/a	63.0	10.8	5.8
	93	39.0	66.0	18.0	42.0	5.4	4.6	89.0	93.0	n/a	19.0	n/a	62.0	12.3	6.4
	94	52.0	54.0	15.0	37.0	5.1	5.5	92.0	113.0	n/a	21.0	n/a	110.0	12.1	6.2
	95	70.0	50.0	23.0	49.0	5.8	3.2	61.0	106.0	n/a	19.0	n/a	108.0	12.3	4.8

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Field Sampler

NCDA Index Values

Grower: Wood Brothers
Farm: Jane Wood
Acres: 225.82

Field(s): 11, 12, 13, 14, 15, 16, 17

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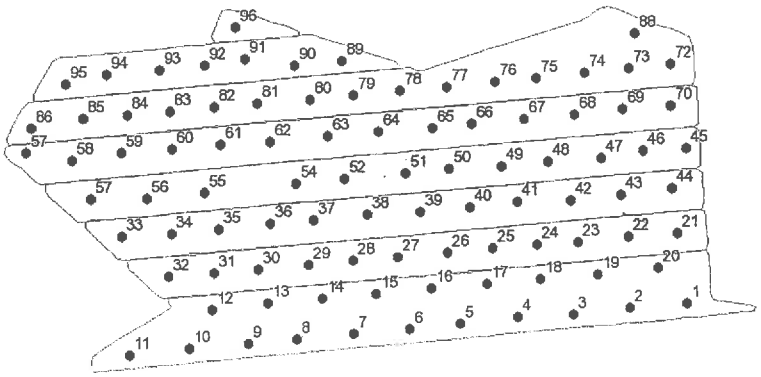

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Field	No.	P-I	K-I	Mg (%)	Ca (%)	pH	Ac	S-I	Zn-I	Zn-Al	Mn-I	Mn-Al	Cu-I	CEC	HM (%)
	96	36.0	67.0	13.0	30.0	5.1	5.0	91.0	52.0	n/a	17.0	n/a	19.0	9.3	6.0

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