

LAND APPLICATION OF BIOSOLIDS
HARRY SHEPHERD

MA09 (FIELDS 1 – 3)
MADISON COUNTY, VIRGINIA
AUGUST 2012





August 14, 2012

Mr. Ed Stuart
Dept of Environmental Quality
Northern Virginia Regional Office
13901 Crown Court
Woodbridge, VA 22193

Dear Mr. Stuart:

Transmitted herein for your consideration is land application site for Harry Shepherd (designated as MA09, fields 1 - 3), located in Madison County, Virginia. This submission contains strictly site specific information. Please refer to the operations and maintenance manual submitted under separate cover for all non-site specific information.

Do not hesitate to contact me at (804) 443-2170 should you have any questions or require additional information.

Sincerely,



Kelly M. Love
Technical Services Director

KML/cmw



FIELD SUMMARY SHEET

Harry Shepherd

MA09

SYNAGRO FIELD #	GROSS ACRES	NET ACRES	FSA TRACT #	FSA FIELD #	TOPO QUAD	OWNER
09-01	16.8	16.8	22	1	Madison Mills	Steve or Katrina Eaheart
09-02	19.5	19.1	22	2	Madison Mills	Steve or Katrina Eaheart
09-03	14.4	14.3	22	3	Madison Mills	Steve or Katrina Eaheart
TOTALS:	50.7	50.2				



VIRGINIA POLLUTION ABATEMENT PERMIT APPLICATION FORM D: MUNICIPAL EFFLUENT AND BIOSOLIDS

PART D-VI: LAND APPLICATION AGREEMENT - BIOSOLIDS AND INDUSTRIAL RESIDUALS

A. This land application agreement is made on 8-26-13 between S. & K. Eaheart referred to here as "Landowner", and Synagro, referred to here as the "Permittee". This agreement remains in effect until it is terminated in writing by either party or, with respect to those parcels that are retained by the Landowner in the event of a sale of one or more parcels, until ownership of all parcels changes. If ownership of individual parcels identified in this agreement changes, those parcels for which ownership has changed will no longer be authorized to receive biosolids or industrial residuals under this agreement.

Landowner:

The Landowner is the owner of record of the real property located in Madison Co., Virginia, which includes the agricultural, silvicultural or reclamation sites identified below in Table 1 and identified on the tax map(s) attached as Exhibit A.

Table 1.: Parcels authorized to receive biosolids, water treatment residuals or other industrial sludges			
Tax Parcel ID	Tax Parcel ID	Tax Parcel ID	Tax Parcel ID
<u>49.65</u> <u>49-65</u>			

Additional parcels containing Land Application Sites are identified on Supplement A (check if applicable)

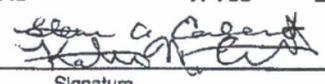
Check one: The Landowner is the sole owner of the properties identified herein.
 The Landowner is one of multiple owners of the properties identified herein.

In the event that the Landowner sells or transfers all or part of the property to which biosolids have been applied within 38 months of the latest date of biosolids application, the Landowner shall:

1. Notify the purchaser or transferee of the applicable public access and crop management restrictions no later than the date of the property transfer; and
2. Notify the Permittee of the sale within two weeks following property transfer.

The Landowner has no other agreements for land application on the fields identified herein. The Landowner will notify the Permittee immediately if conditions change such that the fields are no longer available to the Permittee for application or any part of this agreement becomes invalid or the information herein contained becomes incorrect.

The Landowner hereby grants permission to the Permittee to land apply residuals as specified below, on the agricultural sites identified above and in Exhibit A. The Landowner also grants permission for DEQ staff to conduct inspections on the land identified above, before, during or after land application of permitted residuals for the purpose of determining compliance with regulatory requirements applicable to such application.

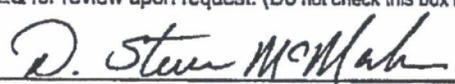
<u>Class B biosolids</u>	<u>Water treatment residuals</u>	<u>Food processing waste</u>	<u>Other industrial sludges</u>
X Yes <input type="checkbox"/> No	X Yes <input type="checkbox"/> No	X Yes <input type="checkbox"/> No	X Yes <input type="checkbox"/> No
<u>Steve A. Eaheart</u>		<u>6501 Trillium House Lane</u>	
<u>Katrina M. Eaheart</u>		<u>Charlottesville, VA 20120</u>	
Landowner - Printed Name, Title	Signature	Mailing Address	

Permittee:

Synagro, the Permittee, agrees to apply biosolids and/or industrial residuals on the Landowner's land in the manner authorized by the VPA Permit Regulation and in amounts not to exceed the rates identified in the nutrient management plan prepared for each land application field by a person certified in accordance with §10.1-104.2 of the Code of Virginia.

The Permittee agrees to notify the Landowner or the Landowner's designee of the proposed schedule for land application and specifically prior to any particular application to the Landowner's land. Notice shall include the source of residuals to be applied.

I reviewed the document(s) assigning signatory authority to the person signing for landowner above. I will make a copy of this document(s) available to DEQ for review upon request. (Do not check this box if the landowner signs this agreement)

<u>D. Steve McMahon</u>		<u>10647 Tidewater Trail</u>
<u>Permittee - Authorized Representative</u>	Signature	<u>Champlain, VA 22438</u>
Printed Name		Mailing Address

VIRGINIA POLLUTION ABATEMENT PERMIT APPLICATION: PART D-VI LAND APPLICATION AGREEMENT

Permittee: Synaagro County or City: Madison County

Landowner: S. & K. Eaheart

Landowner Site Management Requirements:

I, the Landowner, I have received a DEQ Biosolids Fact Sheet that includes information regarding regulations governing the land application of biosolids, the components of biosolids and proper handling and land application of biosolids.

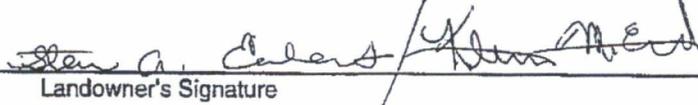
I have also been expressly advised by the Permittee that the site management requirements and site access restrictions identified below must be complied with after biosolids have been applied on my property in order to protect public health, and that I am responsible for the implementation of these practices.

I agree to implement the following site management practices at each site under my ownership following the land application of biosolids at the site:

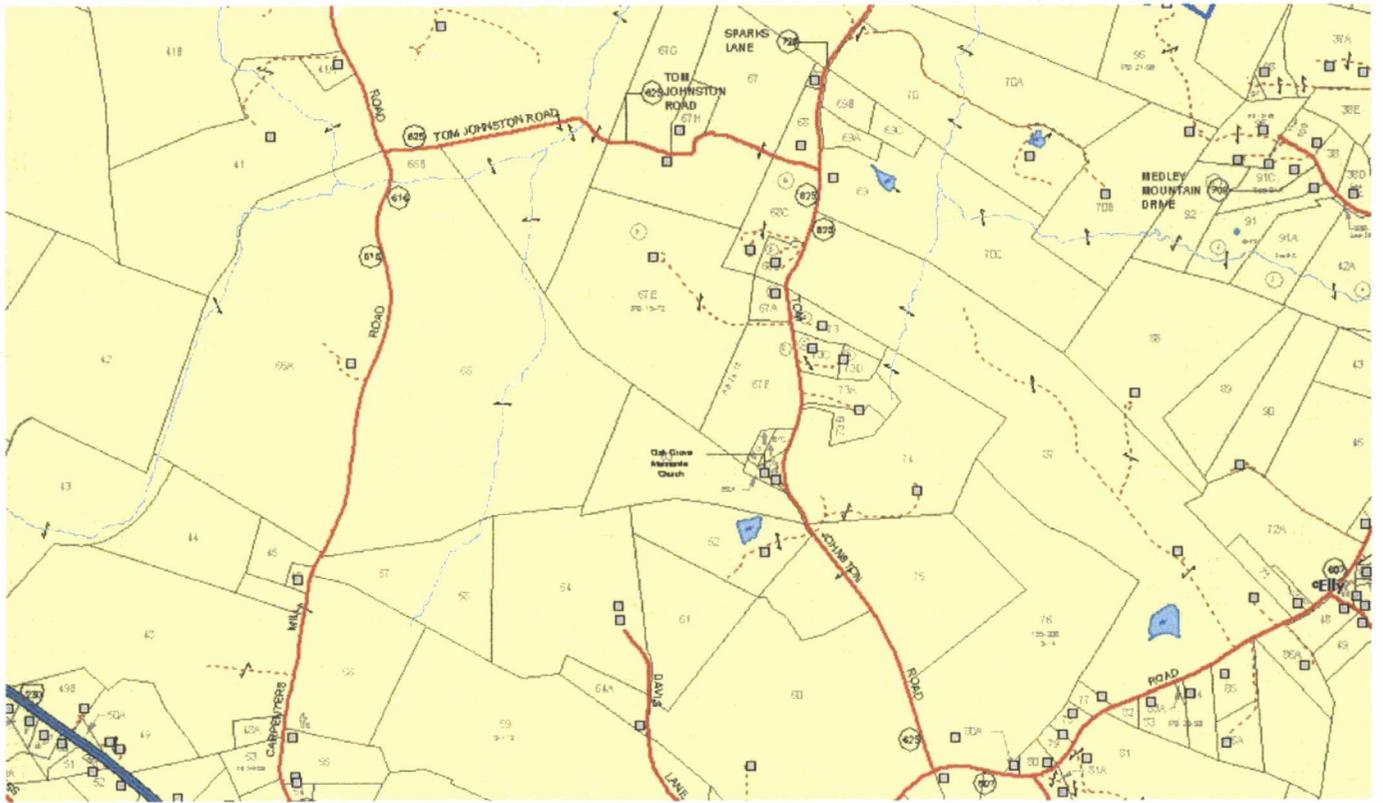
1. Notification Signs: I will not remove any signs posted by the Permittee for the purpose of identifying my field as a biosolids land application site, unless requested by the Permittee, until at least 30 days after land application at that site is completed.
2. Public Access
 - a. Public access to land with a high potential for public exposure shall be restricted for at least one year following any application of biosolids.
 - b. Public access to land with a low potential for public exposure shall be restricted for at least 30 days following any application of biosolids. No biosolids amended soil shall be excavated or removed from the site during this same period of time unless adequate provisions are made to prevent public exposure to soil, dusts or aerosols;
 - c. Turf grown on land where biosolids are applied shall not be harvested for one year after application of biosolids when the harvested turf is placed on either land with a high potential for public exposure or a lawn, unless otherwise specified by DEQ.
3. Crop Restrictions:
 - a. Food crops with harvested parts that touch the biosolids/soil mixture and are totally above the land surface shall not be harvested for 14 months after the application of biosolids.
 - b. Food crops with harvested parts below the surface of the land shall not be harvested for 20 months after the application of biosolids when the biosolids remain on the land surface for a time period of four (4) or more months prior to incorporation into the soil,
 - c. Food crops with harvested parts below the surface of the land shall not be harvested for 38 months when the biosolids remain on the land surface for a time period of less than four (4) months prior to incorporation.
 - d. Other food crops and fiber crops shall not be harvested for 30 days after the application of biosolids;
 - e. Feed crops shall not be harvested for 30 days after the application of biosolids (60 days if fed to lactating dairy animals).
4. Livestock Access Restrictions:

Following biosolids application to pasture or hayland sites:

 - a. Meat producing livestock shall not be grazed for 30 days,
 - b. Lactating dairy animals shall not be grazed for a minimum of 60 days.
 - c. Other animals shall be restricted from grazing for 30 days;
5. Supplemental commercial fertilizer or manure applications will be coordinated with the biosolids and industrial residuals applications such that the total crop needs for nutrients are not exceeded as identified in the nutrient management plan developed by a person certified in accordance with §10.1-104.2 of the Code of Virginia;
6. Tobacco, because it has been shown to accumulate cadmium, should not be grown on the Landowner's land for three years following the application of biosolids or industrial residuals which bear cadmium equal to or exceeding 0.45 pounds/acre (0.5 kilograms/hectare).


Landowner's Signature

8-29-2013
Date



TAX MAP



Tax ID Landowner Identification Sheet

Landowner	Field #	Tax ID
Steve A or Katrina M Eaheart	09-01	49 - 65
Steve A or Katrina M Eaheart	09-02	49 - 65
Steve A or Katrina M Eaheart	09-03	49 - 65

Field #	Latitude (north)	Longitude (west)
09-01	38 ⁰ 20' 48.82"	78 ⁰ 14' 09.47"
09-02	38 ⁰ 20' 42.28"	78 ⁰ 14' 06.01"
09-03	38 ⁰ 20' 35.06"	78 ⁰ 14' 11.27"

Farm Summary Report

Plan: New Plan Fall, 2010 - Winter, 2013

Farm Name: MA09
Location: Madison
Specialist: Bill Rogers
N-based Acres: 50.2
P-based Acres: 0.0

Tract Name: MA09
FSA Number: 0
Location: Madison

Field Name: 09-01
Total Acres: 16.80 Usable Acres: 16.80
FSA Number: 22/1
Tract: MA09
Location: Madison
Slope Class: C Hydrologic Group: C

Riparian buffer width: 0 ft
Distance to stream: 0 ft

P-Index Summary

N-based

Phosphorus Limit method: Phosphorus Environmental Threshold (PET) method

Soil Test Results:

DATE	PH	P	K	Lab
	[NO TEST]			

Soils:

PERCENT	SYMBOL	SOIL SERIES
44	EIC2	Elioak
34	HaC	Hazel
22	CfB	Cecil

Field Warnings:

Environmentally Sensitive Soils due to:

Shallow soils less than 41 inches deep likely to be located over fractured or limestone bedrock

Crop Rotation:

PLANTED	YIELD	CROP NAME
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Field Name: 09-02
Total Acres: 19.50 Usable Acres: 19.10
FSA Number: 22/2
Tract: MA09
Location: Madison
Slope Class: C Hydrologic Group: D

Riparian buffer width: 0 ft
Distance to stream: 0 ft

P-Index Summary

N-based

Phosphorus Limit method: Phosphorus Environmental Threshold (PET) method

Soil Test Results:

DATE	PH	P	K	Lab
	[NO TEST]			

Soils:

PERCENT	SYMBOL	SOIL SERIES
43	EIC	Elioak
16	LfC2	Lloyd
14	HaD	Hazel
12	MvB	Meadowville
10	CfB	Cecil
5	EmC2	Elioak

Field Warnings:

Crop Rotation:

PLANTED	YIELD	CROP NAME
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Field Name: 09-03
Total Acres: 14.40 Usable Acres: 14.30
FSA Number: 22/3
Tract: MA09
Location: Madison
Slope Class: C Hydrologic Group: D

Riparian buffer width: 0 ft
Distance to stream: 0 ft

P-Index Summary

N-based

Phosphorus Limit method: Phosphorus Environmental Threshold (PET) method

Soil Test Results:

DATE	PH	P	K	Lab
	[NO TEST]			

Soils:

PERCENT	SYMBOL	SOIL SERIES
89	EIC2	Elioak
11	MvB	Meadowville

Field Warnings:

Crop Rotation:

PLANTED	YIELD	CROP NAME
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MAP LEGEND



House/Dwelling with a well



Rock Outcrop



Well



Lake/Pond



Slope which exceeds 15%



Intermittent Stream



Stream/River



Agricultural/Drainage Ditch



Field boundary



Property Line

Environmentally Sensitive Areas

Field	Reason for Sensitive Area
09-01	Shallow Soils (Map Unit HaC – 34%)
09-02	Shallow Soils (Map Unit HaD – 14%)
09-03	None

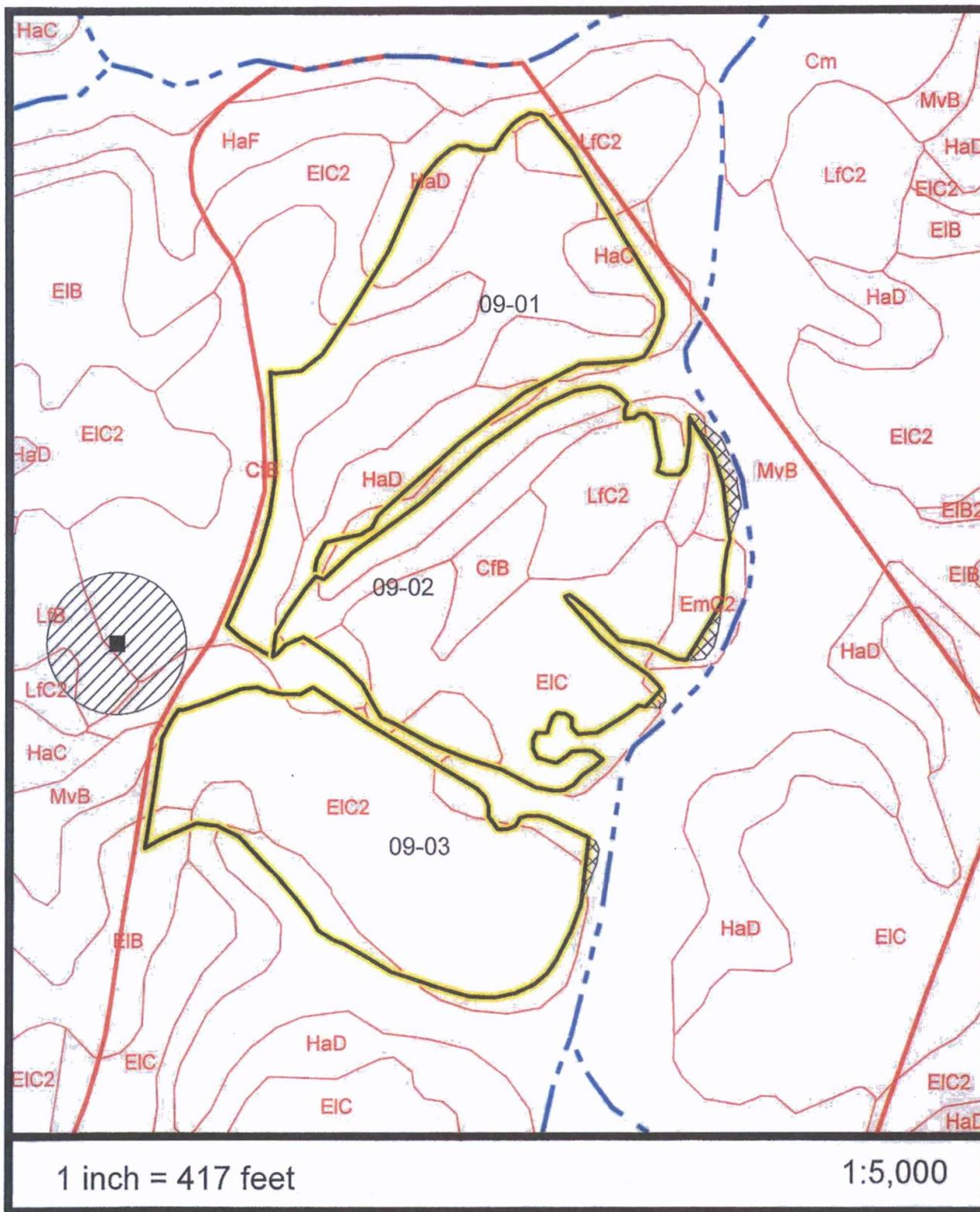
Madison County Soils that are Environmentally Sensitive

Soil Map Unit	Series Name	Time of year		Environmental
		High Water	Flooded	
Ab	Albano	Nov – May		
Ac, Ad	Alluvial	Nov – May	Nov – May	
Au	Augusta	Dec – May		
BaB	Baile	Nov – April		
BdC, BdD	Brandywine			Leaching
BeC, BeD, BeF	Brandywine			Leaching
BnD, BnF	Brandywine			Leaching
BrC, BrE	Bremo			Leaching
Bu	Buncombe		Feb – June	Leaching
CbB	Calverton	Dec – May		
CcC, CcE	Catoctin			Shallow
Cm	Chewacla	Nov – April	Nov – April	
Cn	Codorus	Nov – April	Nov – April	
CoC	Colfax	Nov – June		
Cv, Cw	Congaree		Nov – April	
Eb	Elbert	Nov – May		
HaC, HaD, HaF	Hazel			Shallow
IrB	Iredell	Dec – April		
LeD	Lewisberry			Leaching
LoC, LoD, LoF	Louisburg			Leaching
MoC	Manor			Leaching
Rh	Riverwash	Jan – Dec	Oct – July	
Rk	Roanoke	Nov – May		
TuB, TuC, TuD, TuE	Tusquitee			Leaching
WaC, WaE	Watt			Shallow
We	Wehadkee	Nov – May	Nov – May	
WmB	Worsham	Nov – April		



SYNAGRO

Harry Shepherd
MA 09
Fields 1-3



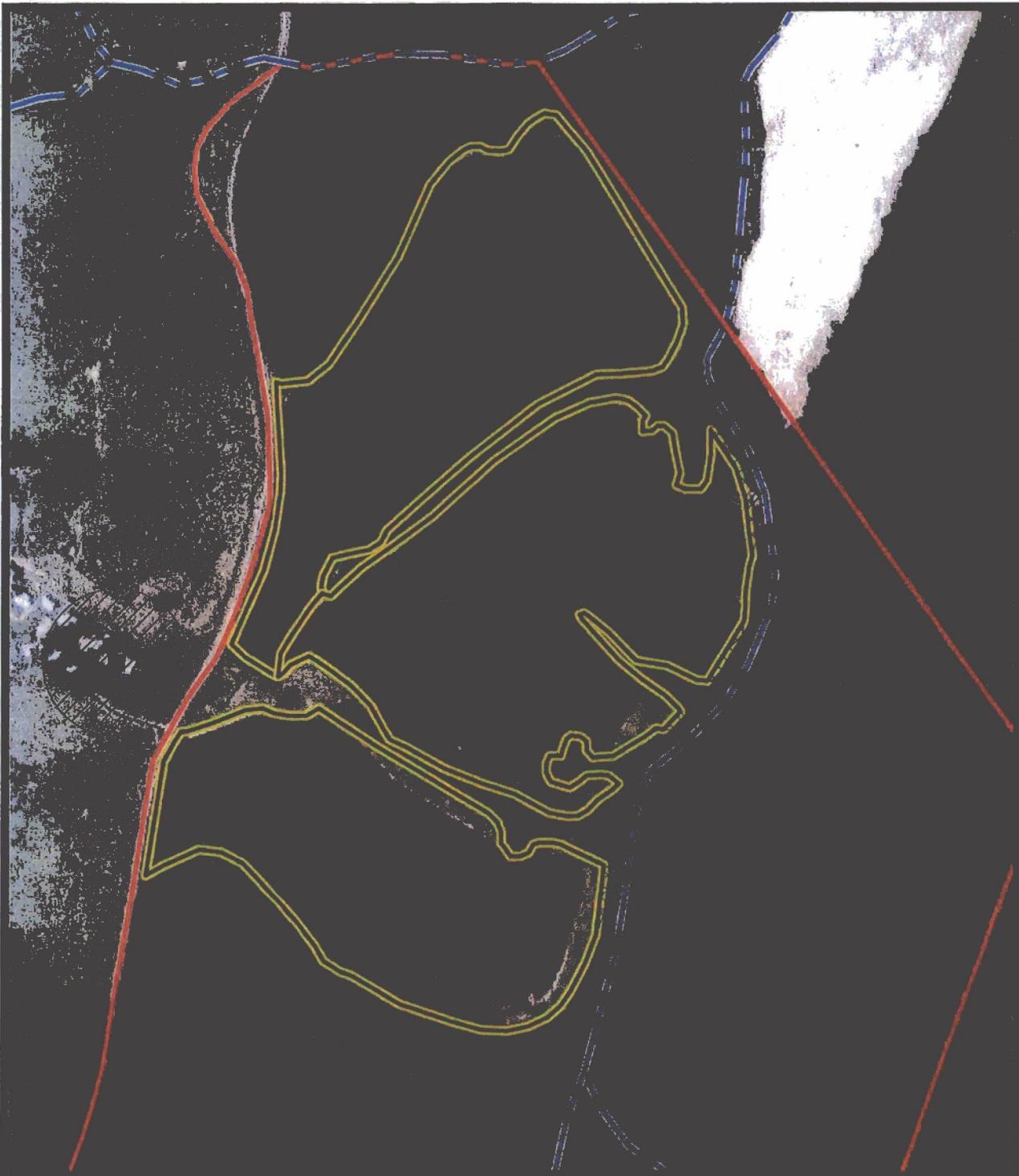
SOIL MAP

REVISED 10-15-2015



SYNAGRO

Harry Shepherd
MA 09
Fields 1-3



1 inch = 417 feet

1:5,000

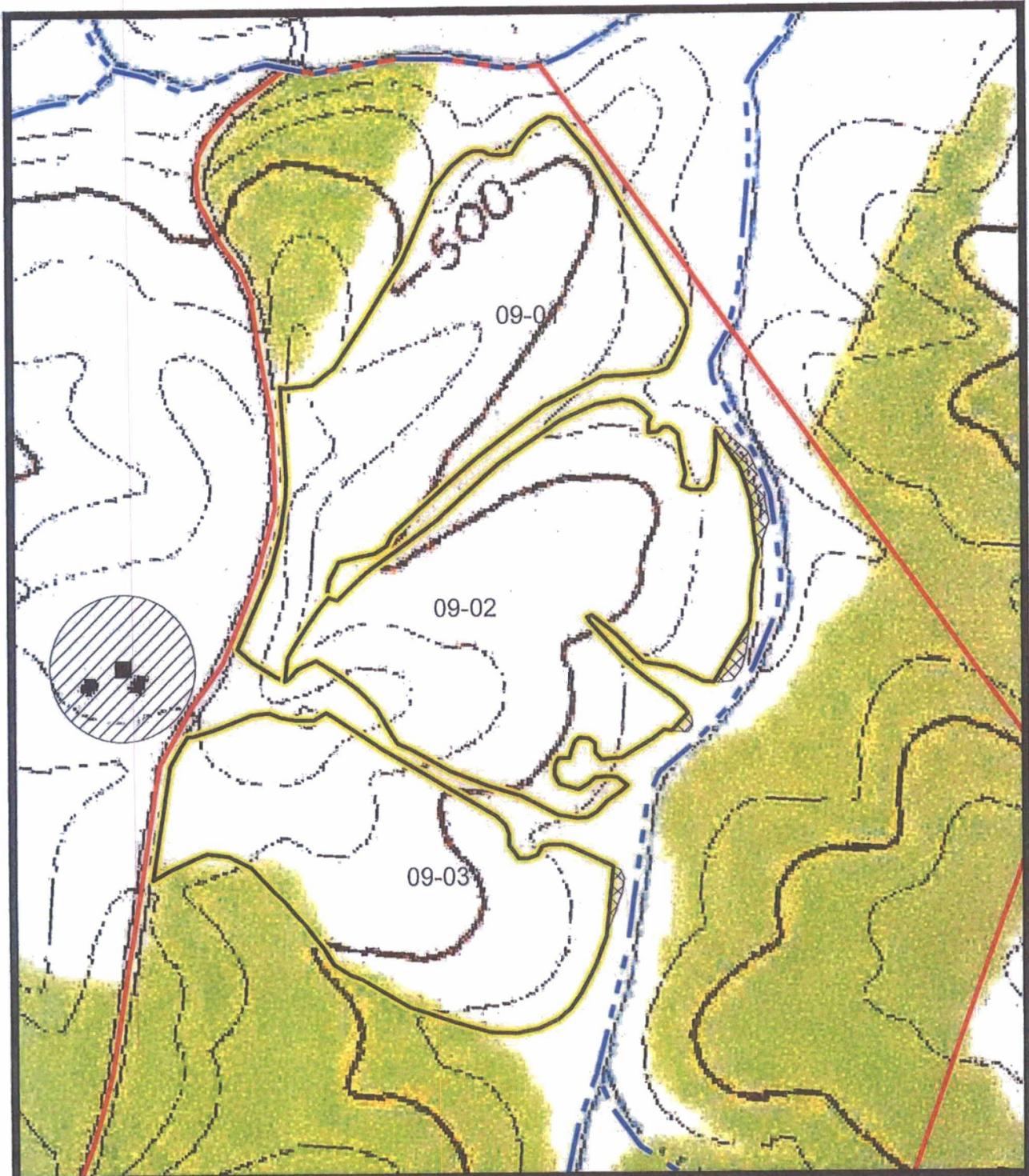
AERIAL MAP

REVISED 10-15-2015



SYNAGRO

Harry Shepherd
MA 09
Fields 1-3



1 inch = 417 feet

1:5,000

FIELD	ACRES
09-01	16.8
09-02	19.5
09-03	14.34

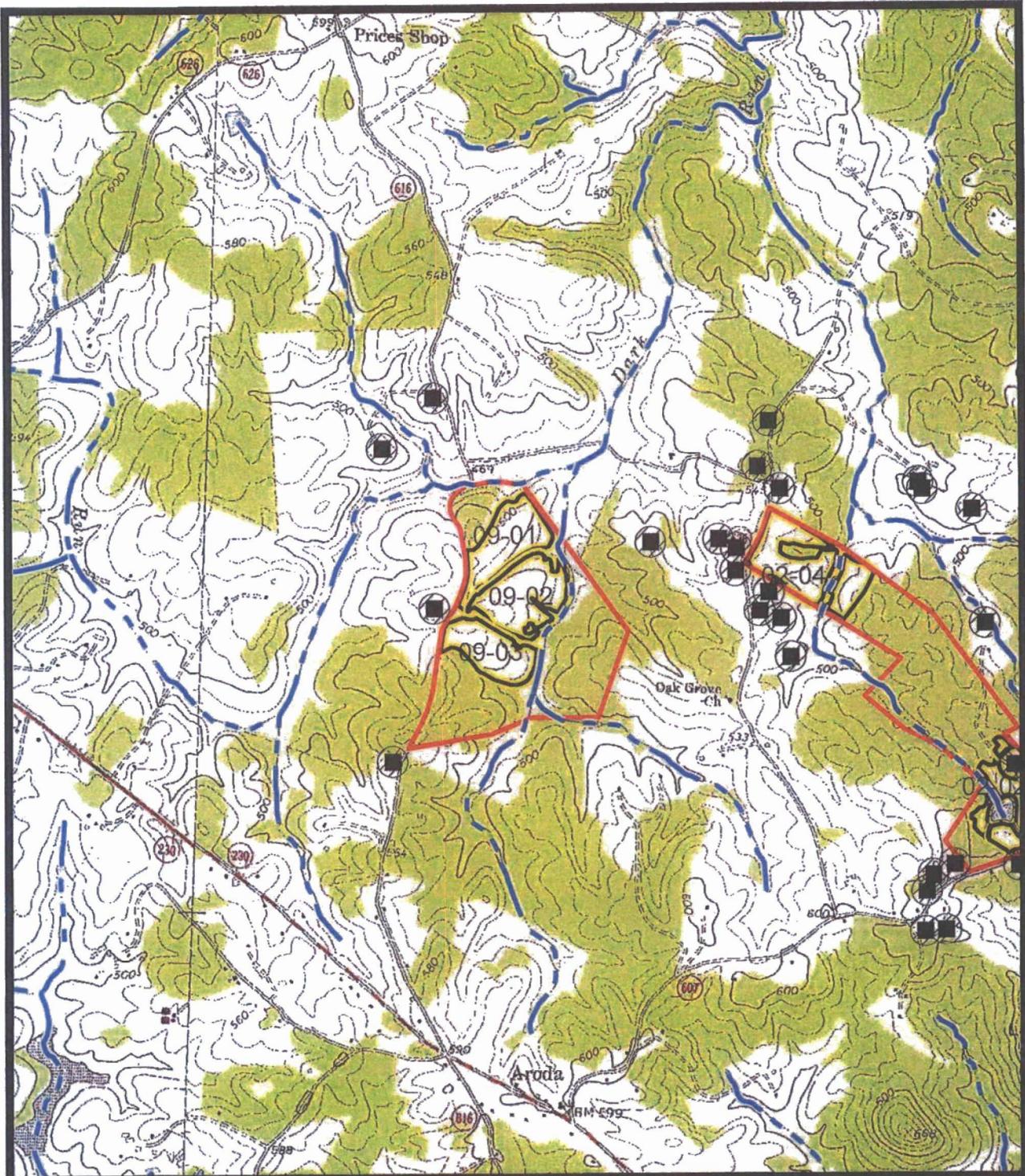
TOPO MAP

REVISED 10-15-2015



SYNAGRO

Harry Shepherd
MA 09
Fields 1-3

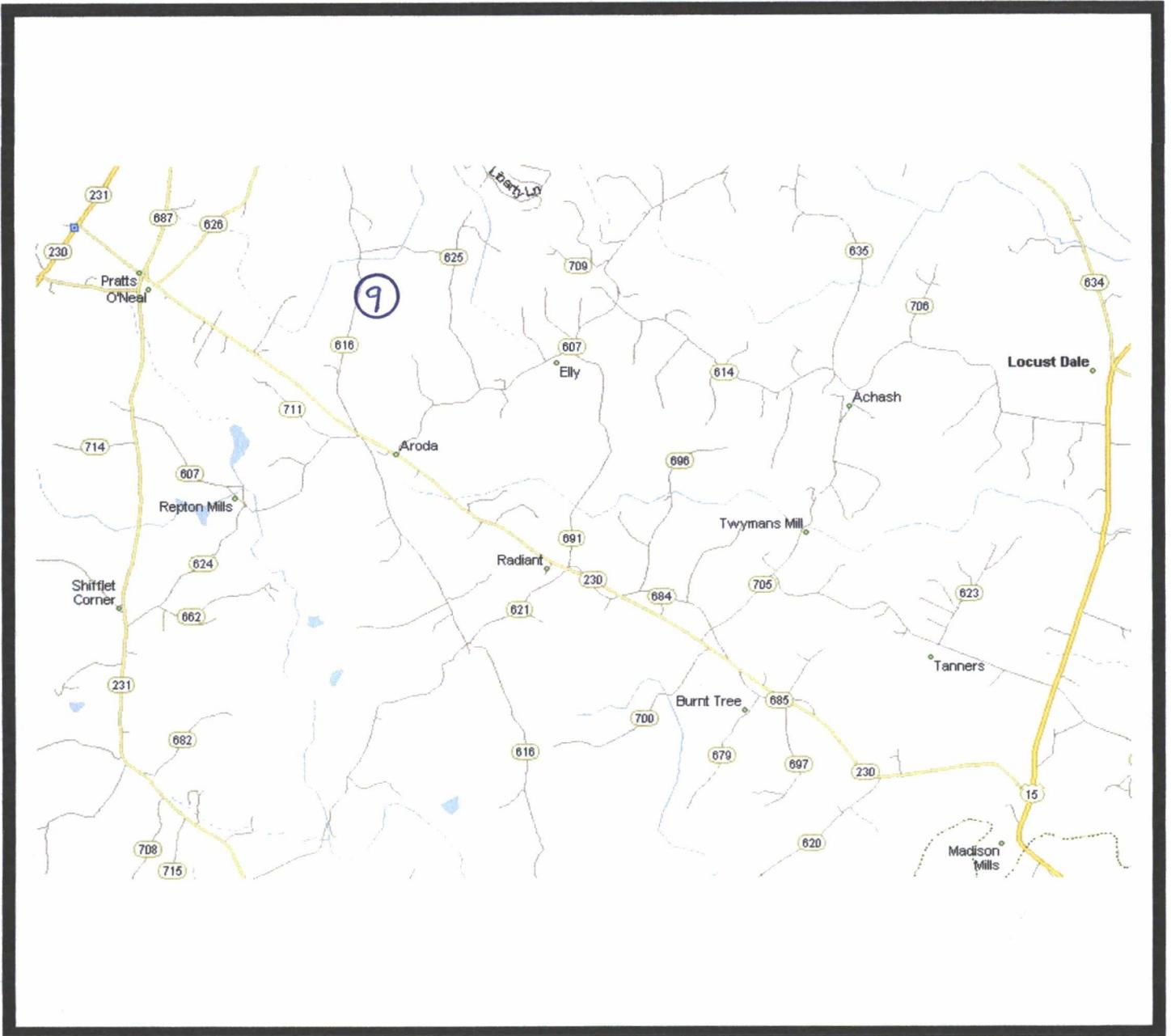


1 inch = 2,000 feet

1:24,000

TOPO MAP

REVISED 10-15-2015



LOCATION MAP

