

Received HC
NOV 23 2016

Animal Waste Management Plan October 2016

Y-1 Farms, Inc.

SUMMARY OF CAFO OPERATION

Operated by:

Doug and Corey Maag

5112 Maag Rd N.

Vale, Oregon 97918

(541)473-2266

Facility Address:

Hill Road and 12th Avenue East

Vale, Oregon

Operation:

Beef Feedlot

Large Federal CAFO

As owner and operator of Y-1 Farms, I intend to manage in accordance with the practices and operation and maintenance described in this Animal Waste Management Plan.

Signature_____

Date_____

Rec'd 12/19/16
App'd 5/22/17
AWMP# 17015
MA# 172845

GENERAL NARRATIVE DESCRIPTION

Y-1 Farms is located 16 miles outside of Vale, Oregon in Malheur County. The operation is owned by Doug Maag, Corey Maag and Y-1 Farm, Inc. They farm about 1700 acres and it is also a beef backgrounding and finishing feedlot. There are 1000 acres available for manure application. The beef feedlot is in operation all year. However, from October through April the feedlot is in full operation and animal numbers may reach the maximum of 12,500 head. The cattle are of mixed breeds. A majority of young animals are brought on to the feedlot each fall at a weight of approximately 525 pounds. If these animals are to be shipped off the operation in the spring they will weigh approximately 800 pounds. If the calves are to be finished, which the majority of them are, they will weigh approximately 1250 pounds when shipped. The average weight of the animals during the confinement period is approximately 675 pounds for calves, and 1000 pounds for yearling cattle.

Manure Collection Methods

All cattle are confined in earthen pens. The manure is collected in the pens where it is dehydrated and used as bedding for the cattle. When the cattle are shipped from the facility, pens are cleaned and the dry manure is used as a soil amendment. Some manure is left in the pens, mounded and packed for bedding.

A total of four evaporation areas are maintained on the property to catch contaminated runoff that may occur during a large winter storm event. An evaporation ditch exists at each feedlot and runs parallel to the feedlot. The north feedlot ditch helps to prevent clean runoff water from entering the feedlot areas. This water will be diverted in a manner that no contamination will occur. At the south feedlot the ditch runs directly into an evaporation pond. Earthen berms and grass filter strips are maintained around the pens to reduce potential for runoff during a storm.

Manure Storage Facilities and Transfer

The manure generated at the facility is handled in a dry solid form. Dry manure is scraped and stacked within feedlots during the confinement period, and then land applied at the end of the season. Clean water is diverted around the system, except in extreme conditions, when some rainfall enters the feedlots.

The evaporation holding areas are available to catch contaminated rainwater that fall on the pens. Most all liquid that is collected in the evaporation areas will evaporate due to the dry climate (9.97" average annual rainfall, 40.23" average annual evaporation), however a portable pump is available if needed. Solids and liquids that are collected in these areas are cleaned out as needed, usually once a year. They are then applied to crop ground.

The solid manure is stored within the dry lots. Some dry manure, due to space limitations in the smaller pens, is temporarily stacked in a secured location until it can be applied. Solid manure is transported to the fields via trucks and spread with a loader.

Corn silage is stored in a concrete pit or bunker. All leachate and contaminated runoff is contained and evaporated.

Manure Utilization

The land available for manure application is owned by Doug Maag, Corey Maag, Y-1 Farms, Inc. and WMK LLC. There are 1600 acres of crop ground adjacent to the operation. Currently, 200 acres of alfalfa which yields 9 tons per acre, 250 acres of corn silage which yields 37 tons per acre, 350 acre of corn grain which yields 200 bushels per acre, and 270 acres of wheat yields 130 bushels per acre are the crops which manure is utilized. The remaining acreage which consists of 230 acres of beets and 300 acres of onions is not used in this type of application due to the nature of the crop. The alfalfa, corn, and wheat are the only crops at this time that manure is applied to. These crops are used as feed in a high roughage ration for the cattle. Additional hay and corn grain are purchased and imported to the feedlot to meet the seasonal demand.

Manure is applied via trucks and spread with a loader in the late summer and fall. The manure is chunked and broken apart in the feedlot pens to allow for proper drying. Once dry, the needed manure is carefully mounded within the pens for bedding. At this time due to the feedlot pens being relatively new, 75 % of the manure is mounded for bedding for the following season. The mounding is managed such that a potential pollution hazard does not occur. The remainder dry manure will be spread in a wheat-corn silage-corn grain rotation. Also, some excess waste water in the evaporation holding areas will be pumped and drained as irrigation into alfalfa fields. Manure will be exported to third party recipients if needed.

Manure is not only used for nutrient benefits, but also to improve soil tilth via the inputs of organic material. The plan is balanced for nitrogen production and use. Y-1 Farms take nutrient soil tests annually on all fields except alfalfa acreage. GPS soil tests are taken on all fields that manure is applied. These GPS fields have a nutrient soil sample taken on each acre of the field. The results of these soil tests are mapped based on the GPS coordinates. Each section of the field will have the optimum amount of nutrient added to the farm ground. This prevents excessive use of synthetic fertilizers.

SPECIFIC DESCRIPTIONS AND CALCULATIONS

Land Application Areas

Aerial photos showing numbered field locations for all manure application acreage and surface water features, a topography map and a schematic of the feedlot headquarters are included in this Animal Waste Management Plan.

There are 11 soil types found on the property including, 11E Frohman Silt Loam, 12A and 12B Garbutt Silt Loam, 15 Harana Silty Clay Loam, 27 Powder Silt Loam, 31 Stanfield Silt Loam, 34 Umapine Silt Loam, 35A, 35B, 35C and 35E Virtue Silt Loam. A soil map and soil map unit description for all potential manure application areas is included in this Animal Waste Management Plan.

Manure and Waste Volumes

Calculated volumes of all manure, bedding, silage leachate, and contaminated storm water have been completed using an excel worksheet based from the NRCS Agricultural Waste Field Handbook. The worksheet is included in this Animal Waste Management Plan.

Nutrient Content of Manure, Litter and Process Waste Water

The same excel worksheet was used to estimate volume of manure. On farm manure test results are used in the worksheet to estimate manure nutrient content.

Farm Nutrient Balance

The excel worksheet also includes calculated data for nutrient balance for the operation. Y1 Farms is balancing for nitrogen which is the most limiting nutrient as determined by the NRCS Phosphorus Index, which indicated a Site Vulnerability Class of LOW.

Application Schedule and Limitations

Solid manure is applied and incorporated into the soil primarily in the late summer and fall of each year. Manure applied to corn ground is incorporated, then the soil is bedded for the corn which is planted the following spring. Manure applied to the wheat ground is incorporated and then planted.

Irrigation water from Vale Oregon Water District is used on all of the manure application acreage. Siphon irrigation is used from April through September. To reduce potential for runoff and leaching, irrigation water is applied at approximately 1 inch per application and all waste water is utilized.

Naturally vegetated buffers exist around all irrigation ditches. Also, Willowcreek, a natural water source which runs through the farm, is vegetated on both sides with grasses. The buffers average 35' in width and do not receive any manure application.

Animal Mortality Management

Darling International, rendering service available for the local area, removes deceased animals from the facility when needed. On occasion an animal carcass will be taken to range land to allow scavengers to dispose of the carcass.

Operation and Maintenance (Mark all that apply to your operation.)

✓ **Animal Access Lanes or Walkways**

Damaged components will be repaired or replaced as needed. Debris and excess manure will be removed from roadway surfaces, road ditch and drainage areas. Maintain drainage area capacities. Maintain good vegetative cover on all slopes and watercourses.

✓ **Culverts**

Inspect annually or after large rainfall event. All foreign objects restricting water flow will be removed. Damaged sections will be repaired or replaced. Erosion around inlet or outlet will be corrected.

□ **Dry Stack Storage Facility**

Solid manure storage facility will be inspected annually. Broken slabs and curbs will be repaired. Repair or replace rusted or damaged areas on roof structure. Broken gutters and/or downspouts will be repaired or replaced. Check for adequacy and function of drain away from downspouts. Check floor, side and back walls for soundness. Manure solids and leachate will not escape through cracks in the facility.

✓ **Feedlot Pens**

(ODA does advise long-term manure storage in open feedlot pens, even in low rainfall areas. Research is currently underway to determine environmental impacts of such practices.)

Maintaining a firm, dry feedlot surface is an important factor in good animal health and the environment. Diversion ditches or berms should direct clean water flow away from feedlot pens and holding areas. Storm water runoff from pens will be collected and stored appropriately. Dry manure will be contained within the pen until removed for storage or field application. Manure accumulations created by manure packs or mounding will be managed such that a pollution hazard is not created. Short-term mounding may be used in conjunction with quick clean-ups used to reduce manure pack from around aprons and under fences. Manure will be removed annually from pens. When removing manure from pens, care is taken to maintain the integrity of the compacted protective seal or "hard pan."

✓ **Fencing**

Fences will be inspected periodically. Broken or decayed posts will be replaced. Sagging wire will be tightened. Broken wire will be spliced or replaced. Broken or missing insulators for electric fencing will be replaced. Vegetation will be controlled under the fences. Electric fencing will be sufficiently charge to detour animals.

✓ **Irrigation Water Management**

Irrigation water application will be at rates that minimize transport of sediment, nutrients, and chemicals to surface water and ground water. Equipment modifications and/or soil amendments such as polyacrylamides and mulches should be considered to reduce erosion if needed.

✓ **Filter Strips**

Maintain vigorous growth of vegetative covering. This includes reseeding, fertilization and application of herbicides when necessary. Periodic mowing, harvesting or grazing may also be needed to control height. Remove all foreign debris that hinders system operation. Limit the traffic from filter strip area. Limit livestock usage to vegetative growth periods when the animals will not damage vegetative root system or compact the soil. Eradicate or otherwise remove all rodents or burrowing animals. Immediately repair any damage.

✓ **Manure Application Equipment**

All manure application equipment (including but not limited to sprinklers, big gun irrigators, spreaders and/or tank wagons) will be operated and maintained according to the manufacturer's manual. Equipment found to be broken or worn will be replaced. Equipment will be calibrated to ensure recommended rates are applied. Liquids will be drained from sprinklers or big guns prior to freezing weather. When system is flushed, rinse water is used following waste, and liquid and sediment is applied agronomically. Nozzles will be checked periodically and if worn, nozzles will be replaced. Minimize exposure to animal and organic wastes and manure gases. Wear protective clothing when appropriate. When cleaning equipment after nutrient application, remove and save wastes in an appropriate manner. Avoid applying manure near surface water by establishing buffer strips and setbacks, and use extreme care to avoid contaminating ground water.

✓ **Manure Effluent and Irrigation Transfer Lines**

Manure, effluent and irrigation lines shall be flushed with clean water periodically to prevent particle buildup and plugging. Manure flushed from the lines will be applied agronomically so that surface and groundwater will be protected. Manure, effluent and irrigation lines shall be inspected periodically for leaks or worn out nozzles, and repairs or replacements made as needed. Special inspection shall be done to pressure relief valves, risers and control valves. Shut off valves will be inspected annually. Avoid unnecessary travel over pipelines that will damage their integrity. Equipment found to be broken or worn will be replaced. Water will be drained during cold weather to prevent frozen or broken lines. These lines can explode if not properly maintained and may cause human injury.

✓ **Pumps**

Pumps will be maintained in accordance with manufacturer's operation and maintenance manual. Effluent will be drained from pumps prior to freezing weather. Pumps will be inspected periodically to identify and remove debris wrapped around impeller or worn parts. Appropriate action will be taken to repair any worn parts. Liquid will be drained from pump prior to freezing weather to prevent breakage. It is recommended to have a spare pump or back up system in case a pump must be removed for an extended time for repair.

✓ **Trough or Tank**

Watering facility will be inspected periodically. Damaged tank/trough will be repaired or replaced. Float valves will be maintained in good working order. Area immediately surrounding the trough/tank will be maintained in a stable condition. Watering facilities will not be allowed to overflow if additional liquid will affect waste storage capacities.

✓ **Evaporation Waste Storage Pond**

Prior to the storage season, empty the pond to provide storage capacity for the accumulation of wastewater and precipitation during the winter storage period. Sludge and accumulated solids will be removed from the pond periodically when buildup limits storage capacity in the pond. Depth markers are installed to assure maximum volume will be maintained and checked weekly. A 2-foot free board will be maintained to prevent spillage.

Maintain all pumps, pipeline, valves, and electrical and mechanical equipment in good operating condition following the manufacturer's recommendations. Immediately repair any vandalism, vehicular, or livestock damage to any earth fill. Immediately remove any obstructions for blockage of spillways, trash racks or pipe inlets. Settlement or cracks in earthen section should be investigated to determine cause and immediately repaired. Maintain vigorous growth of vegetative covering on the kikes to eliminate soil erosion. Eradicate or otherwise remove all rodents or burrowing animals and repair any damage caused by their activity. Fences and/or warning signs should be maintained as necessary to unauthorized human or livestock entry. Operate systems in a manner that minimize odor and drift.

- ☐ _____

- ☐ _____

Signature of Legally Authorized Representative: _____

Print Name: _____ Date: _____

6. Start over – Approximately every 15 years we will put alfalfa in a field for five consecutive year.

Projected Yields:

1. Wheat: 130 bushel/acre
2. Onions: 975 CWT per acre
3. Silage corn: 38 ton per acre
4. Sugar beets: 45 tons per acre
5. Gran corn: 240 bushel/acre
6. Alfalfa: 8 ton average per year per acre

RECORD KEEPING AND REPORTING

Soil samples will be taken in each field once every 5 years, and a manure sample will be taken yearly. Protocol for sampling and testing soil and manure is included in this Animal Waste Management Plan.

Y-1 Farms records date and amount of manure applied to each field. As a large Federal CAFO, the following inspections will occur and records kept:

INSPECTIONS	FREQUENCY OF INSPECTIONS	ITEM(S) TO BE INSPECTED
	DAILY	• Water lines
	WEEKLY	• Storm water diversions • Run-off diversions • Waste transport • Storage structures • Storage structure volume
	PERIODIC	• Application equipment leaks

Record results of:

1. Daily inspections
2. Weekly inspections
3. Periodic inspections
4. Corrective actions taken, explain those not corrected.
5. Expected crop yields
6. Weather conditions at the time of manure, litter or process water application and 24 hours before and after application.
7. Total amount of manure or wastewater transferred and the name and address of each recipient. Nutrient content data will be given to the recipient.

Y-1 Farms Feedlot will report any discharge within 24 hours to the Oregon Department of Agriculture. Annual reports including amount of manure and wastewater applied and exported will be submitted each year.

Crop rotation:

The following crop rotation is a general guideline that is followed:

1. Wheat
2. Onions
3. Corn
4. Sugar Beets
5. Corn

Business: Y-I FARMS INC LOT #1
MA #: 172845
Operator: DOUG MAAG
Facility Address: 5234 MAAG RD
OT #1 FACILITY
County: MALHEUR
Latitude: 44.192194
Longitude: -117.4265

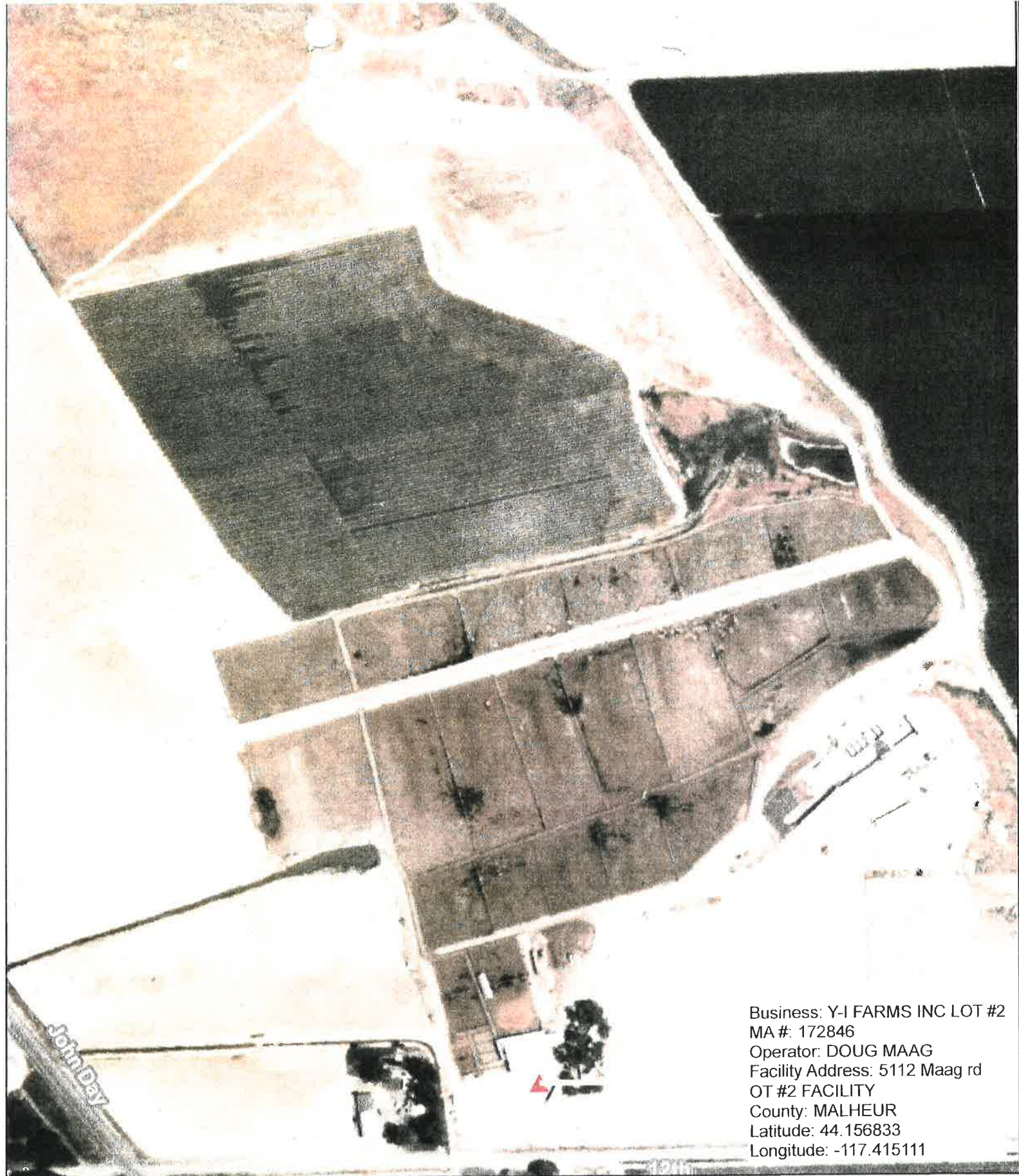
Old Oregon



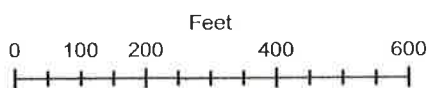
Feet
0 100 200 400 600

Source: Imagery NAIP, 2005 1 meter

Prepared By: Ron Jones
Printing Date: August 21, 2007
Projection: Oregon Lambert Projection (EPSG# 2992)
Datum: North American 1983
File: Q:\NaturalResources\CAFO\Area5.mxd



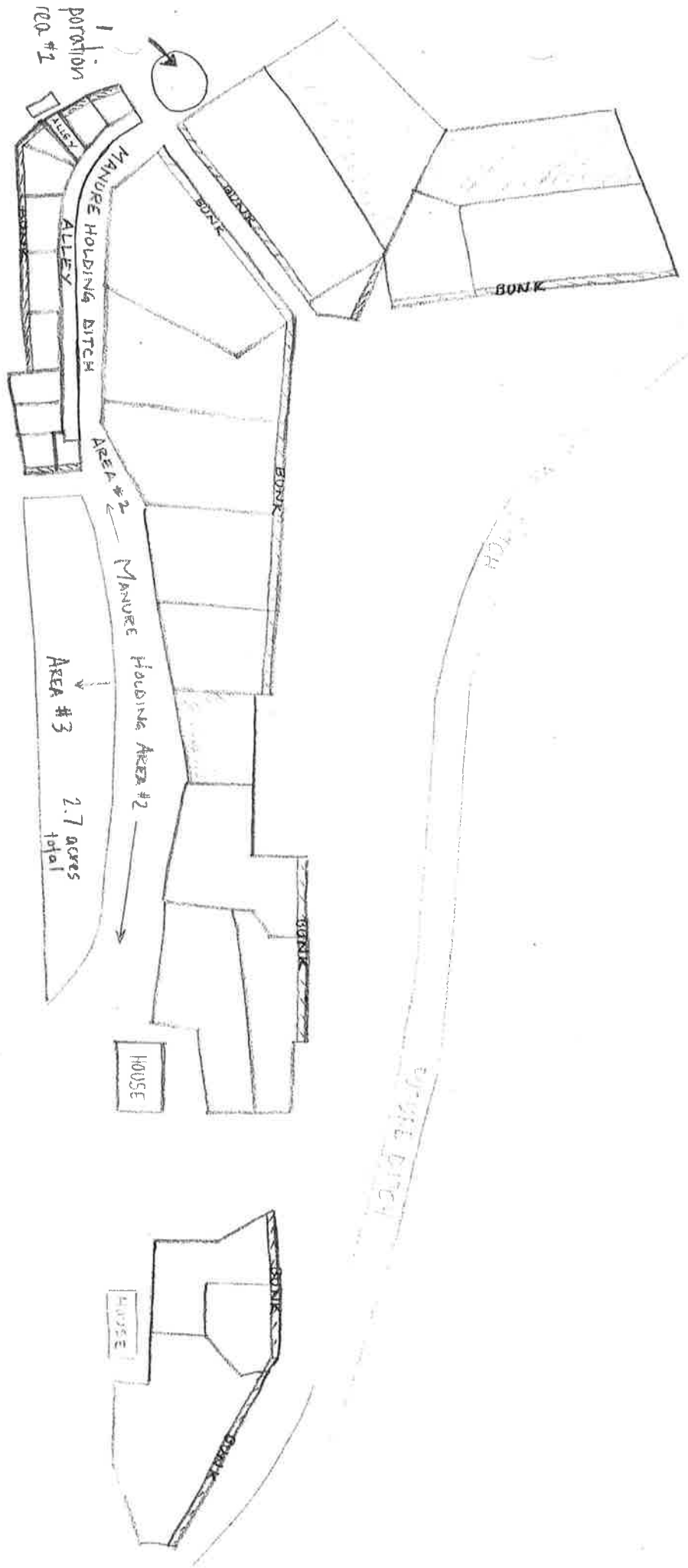
Business: Y-I FARMS INC LOT #2
MA #: 172846
Operator: DOUG MAAG
Facility Address: 5112 Maag rd
OT #2 FACILITY
County: MALHEUR
Latitude: 44.156833
Longitude: -117.415111

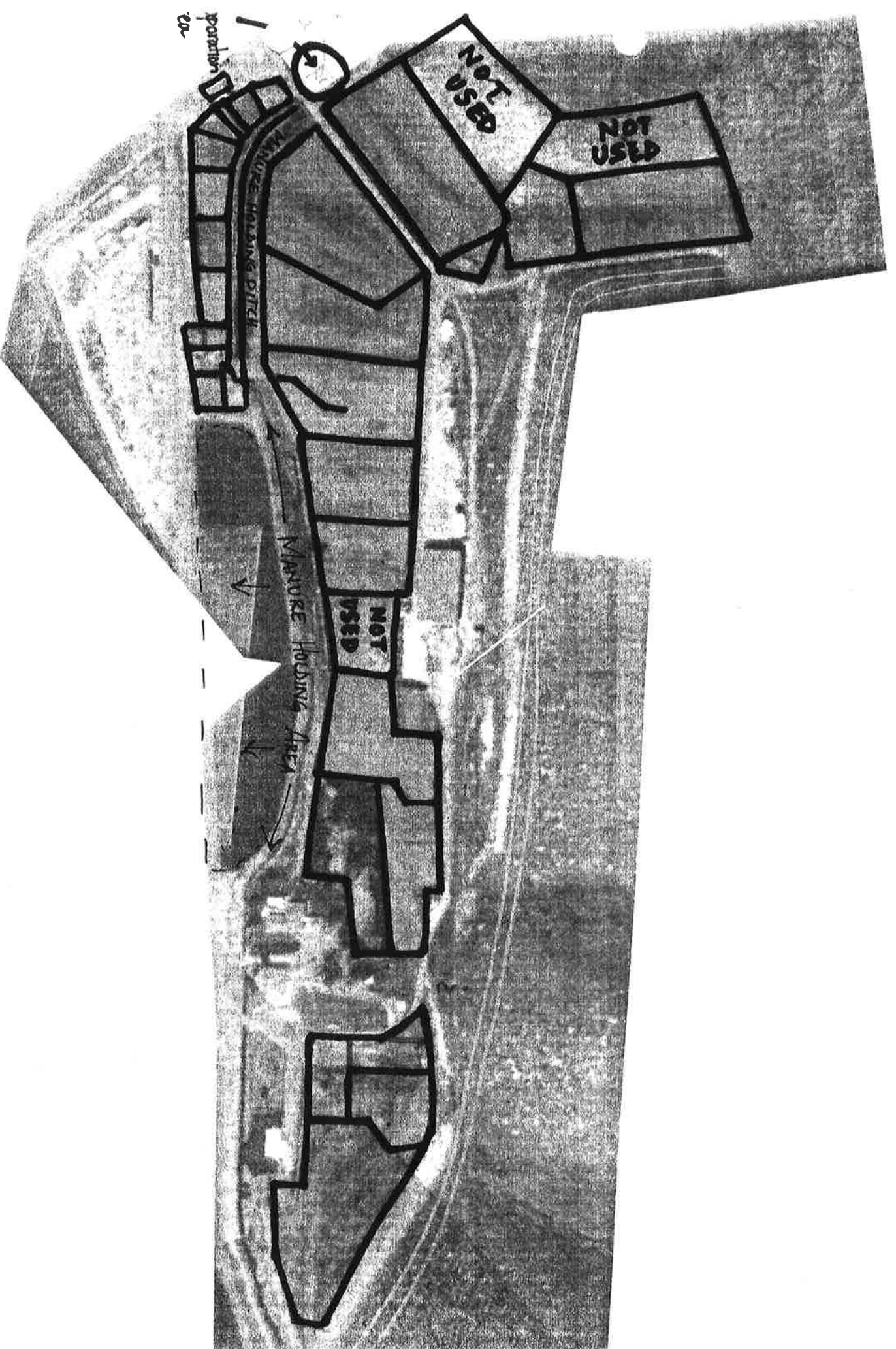


Source: Imagery NAB, 2005 1 meter

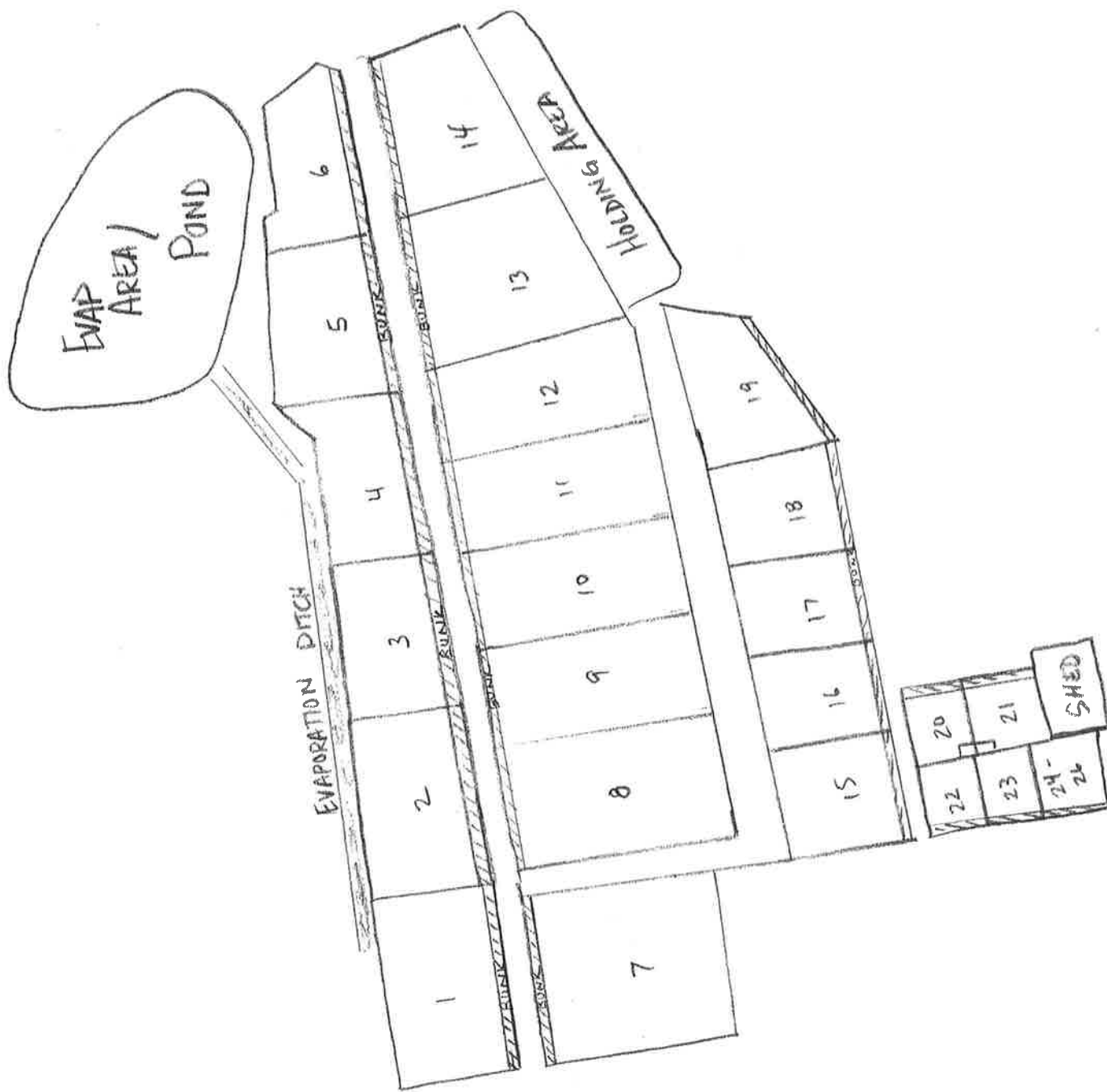
Prepared By: Ron Jones
Printing Date: August 21, 2007
Projection: Oregon Lambert Projection (EPSG# 2992)
Datum: North American 1983
File: O:\NaturalResources\CAFO\Area6.mxd

Y1 FARMS
FIELD #1





An aerial photograph of a residential development. The lots are numbered 1 through 24. A road labeled 'EVANSTON AVENUE' runs vertically through the center. A road labeled 'W. 10th St.' runs horizontally across the top. A road labeled 'W. 11th St.' runs horizontally across the bottom. The lots are arranged in a grid pattern, with some larger lots on the left and smaller lots on the right. The image is in black and white and has a grainy, high-contrast appearance.



[Send To Printer](#)

[Back To TerraServer](#)

[Change to 11x17 Print Size](#)

[Show Grid Lines](#)

[Change to Landscape](#)

USGS 4 km SE of Jamieson, Oregon, United States 19 Jun 1994



0 100M

0 100yd

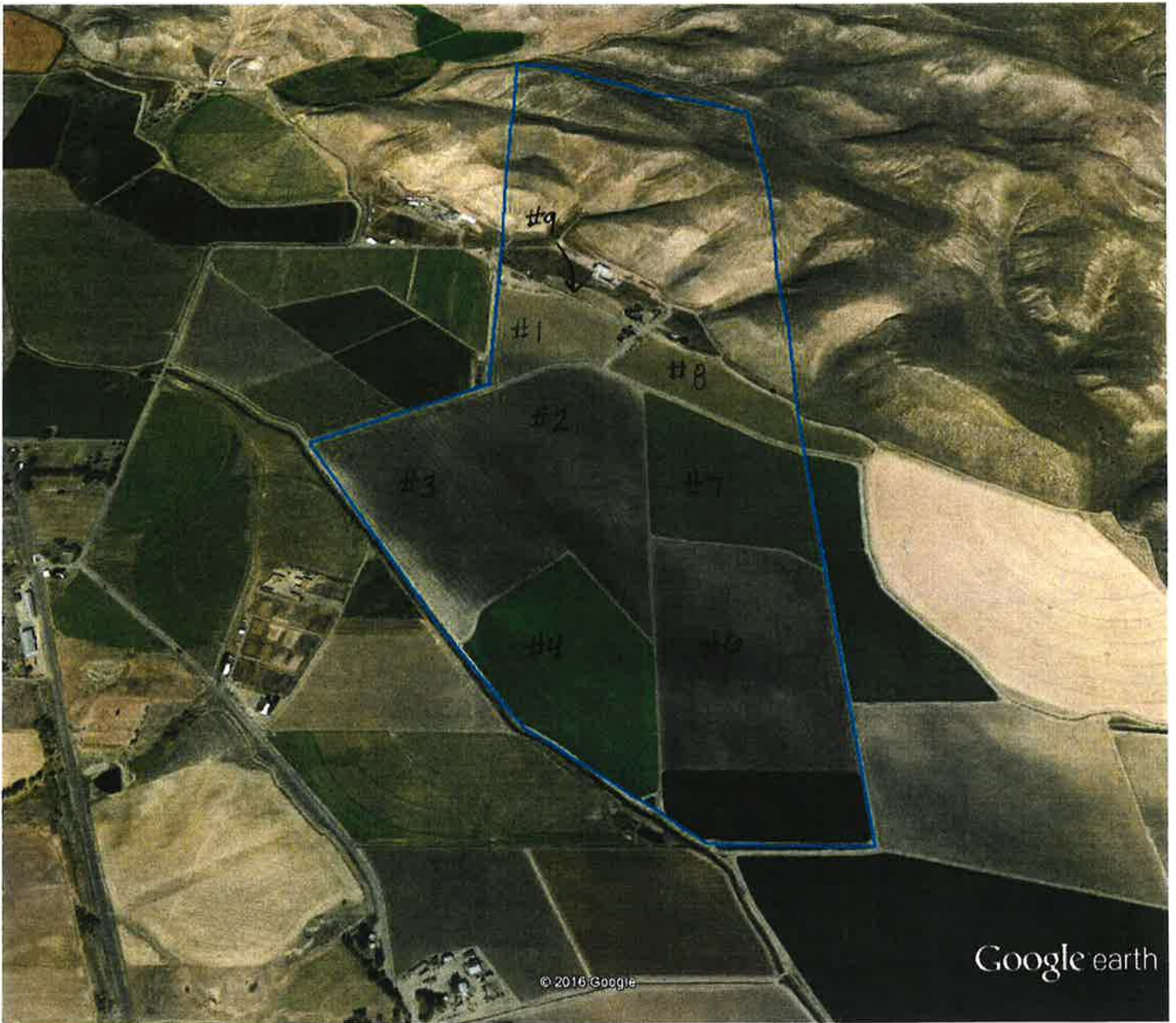
Image courtesy of the U.S. Geological Survey

© 2004 Microsoft Corporation.

[Terms of Use](#)

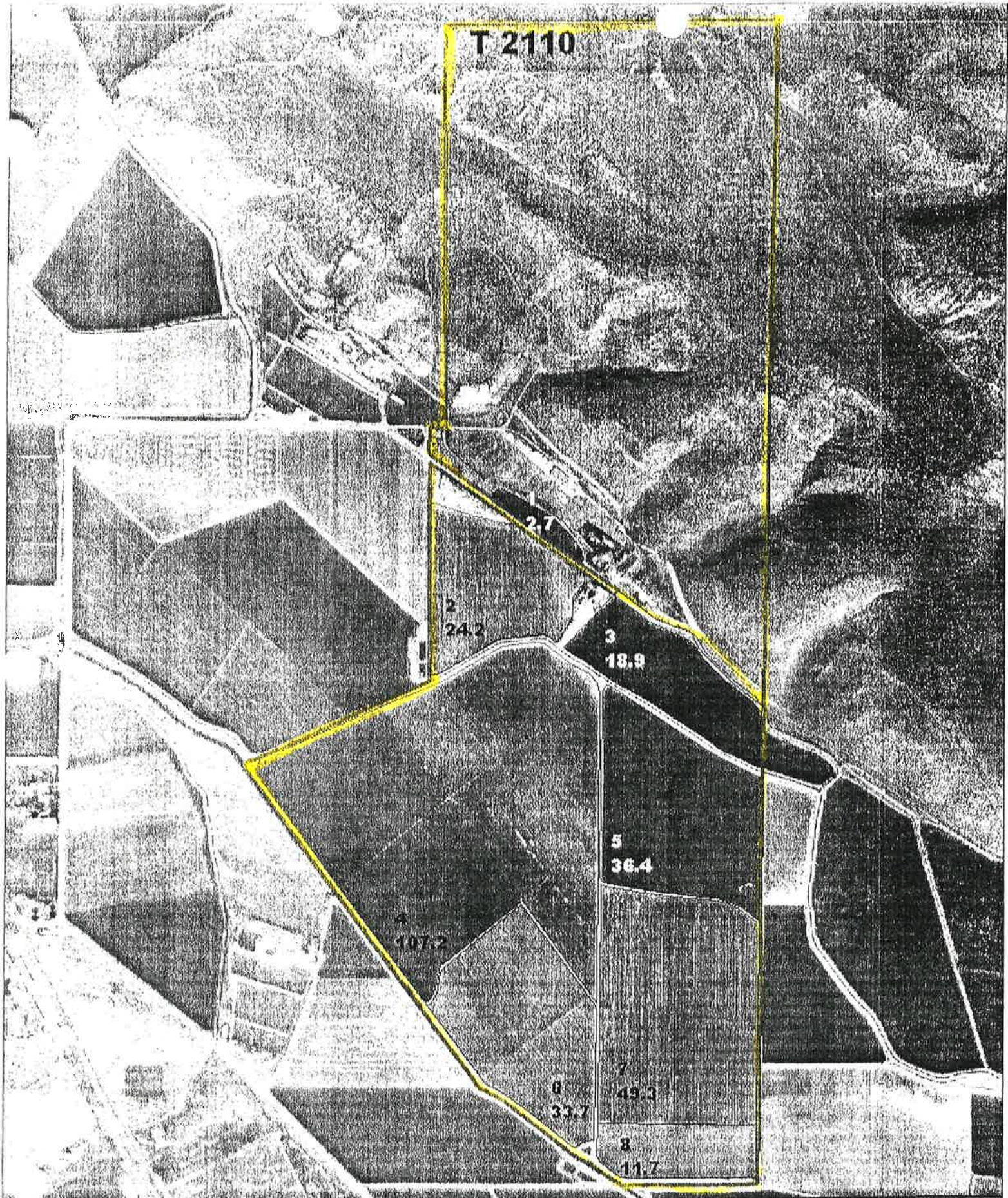
[Privacy Statement](#)

.../printimage.aspx?T=1&S=10&X=2334&Y=24447&Z=11&W=2&P=4+km+SE+of+Jamieson%2c+9/26/04



WARNER MAAG PROPERTY

<u>Field #</u>	<u>Acreage</u>	
#1	24.2	
#2	55.0	Total Irrigated Acres: 281.9
#3	50.0	Non-Irrigated Acres: 238.8
#4	33.7	TOTAL ACRES: 520.7
#5	11.7	
#6	49.3	
#7	36.4	
#8	18.9	
#9	2.7	



Map of Tract 2110
Mathews County

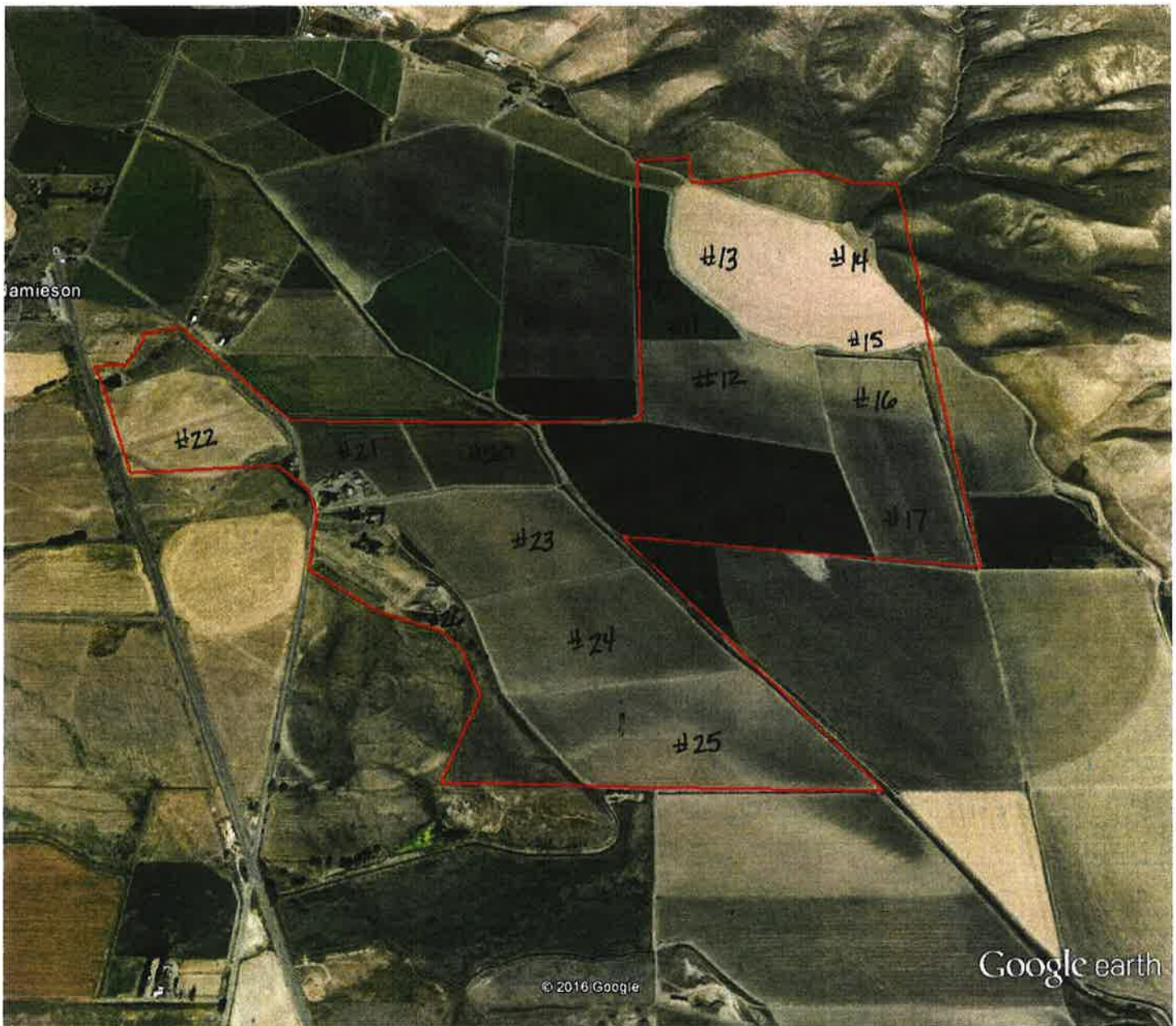
0 800 1600 Feet

0.0
HEL, NHEL

Calculated Acres
Status - NHEL
Wetland



Map Printed: Mar 11, 2004



Google earth

feet 3000
km 1



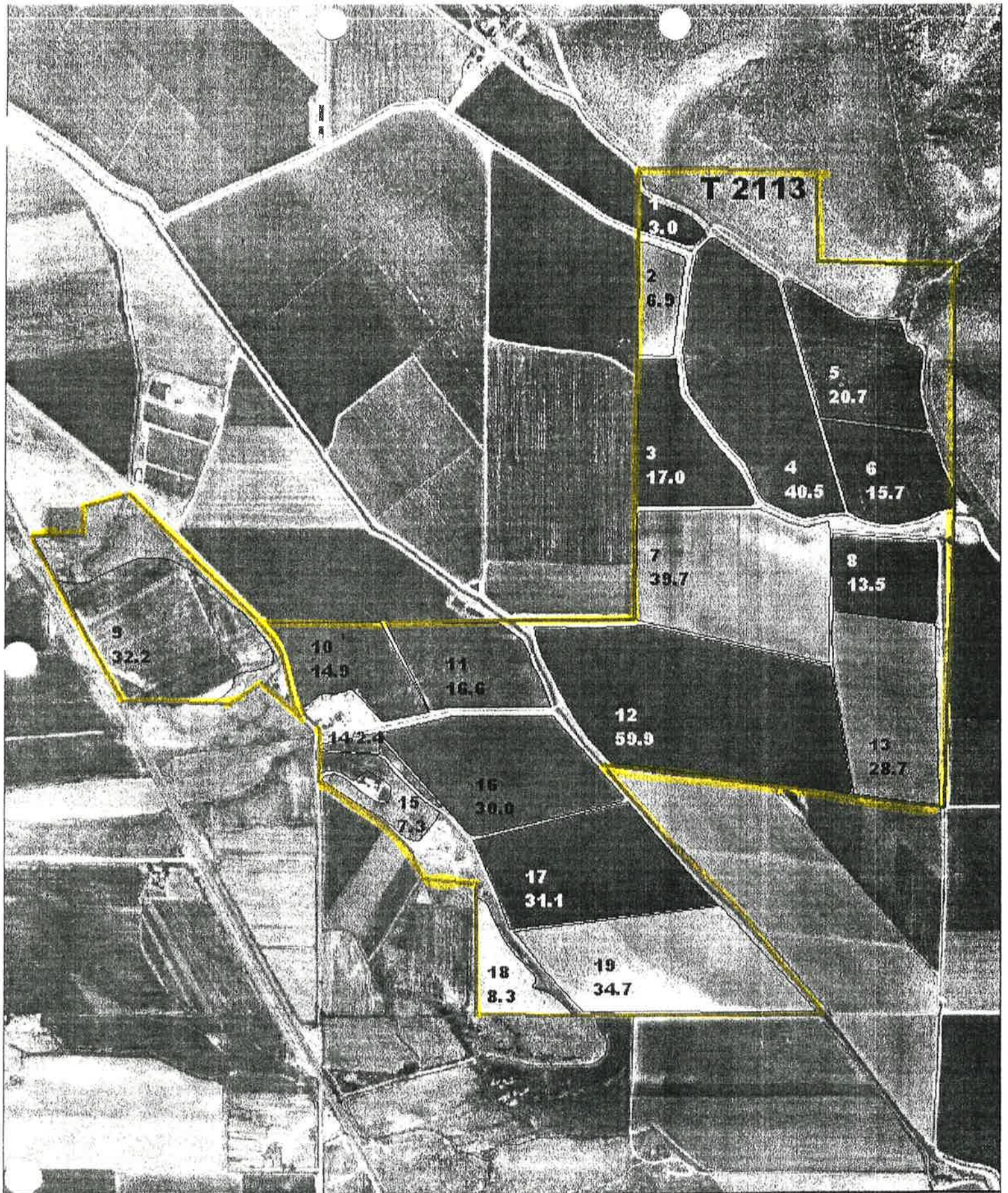
Y-1 PROPERTY

Field #	Acreage
#10	6.9
#11	17.0
#12	39.7
#13	40.5
#14	21.3
#15	15.7
#16	13.5
#17	28.7
#18-#19	59.9

Y-1 PROPERTY

Field #	Acreage
#20	6.9
#21	17.0
#22	39.7
#23	40.5
#24	21.3
#25	15.7
#26	13.5
#27	28.7

Total Irrigated Acres: 449.8
Non-Irrigated Acres: 93.2
TOTAL ACRES: 543.0



Map of Tract #2113

Matheur County

500 0 500 1000 Feet

0.0
HEL, NHEL



Calculated Acres
Status - NHEL
Wetland



Map Printed: Mar 11, 2004



Google earth



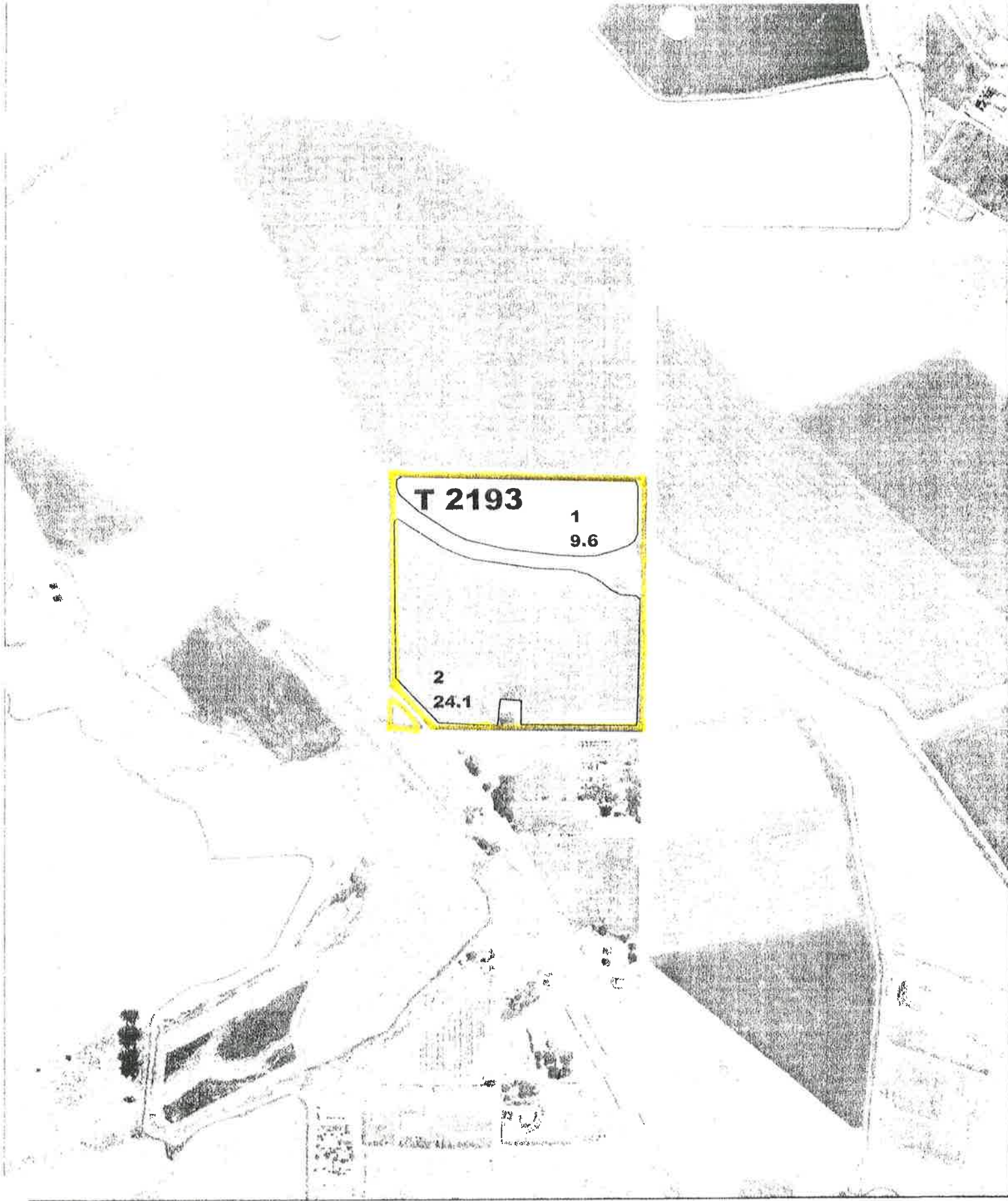
Y-1 PROPERTY Cont.

<u>Field #</u>	<u>Acreage</u>
#28	24.1
#29	9.6

Total Irrigated Acres: 449.8

Non-Irrigated Acres: 93.2

TOTAL ACRES: 543.0



T 2193

1
9.6

2
24.1

Map of Tract #2193
Malheur County



0.0
HEL, NHEL
Wetland

Calculated Acres
Status - NHEL
Wetland



Map Printed: Mar 18, 2004



Google earth



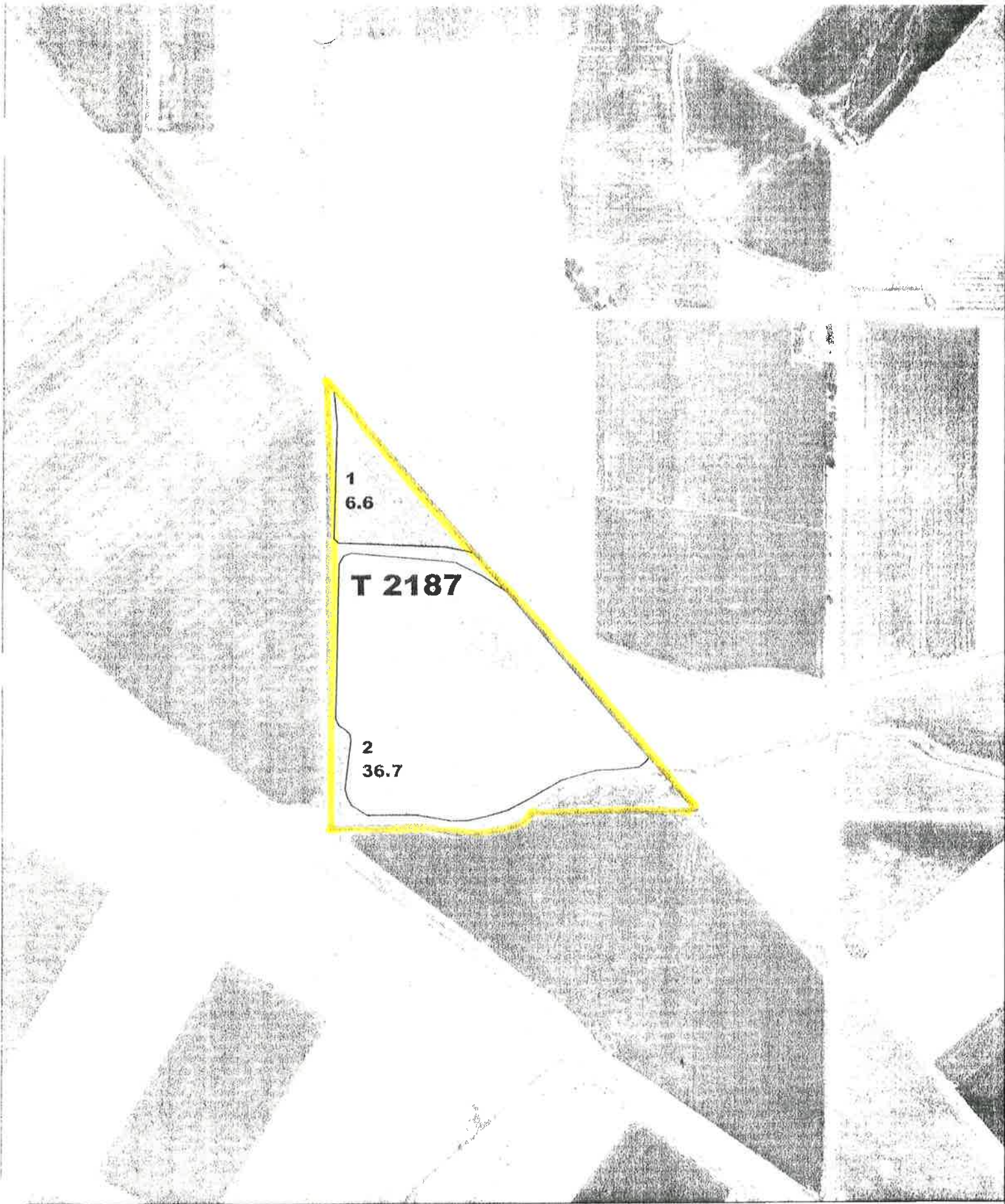
BOSTON PLACE

<u>Field #</u>	<u>Acreage</u>
#30	2.0
#31	36.7
#32	6.6

Total Irrigated Acres: 45.3

Non-Irrigated Acres: 4.2

TOTAL ACRES: 49.5



Map of Tract #2187
Malheur County

400 0 400 800 Feet

0.0
HEL, NHEL

Calculated Acres
Status - Undetermined
Wetland



Map Printed: Mar 18, 2004



Google earth

feet
meters



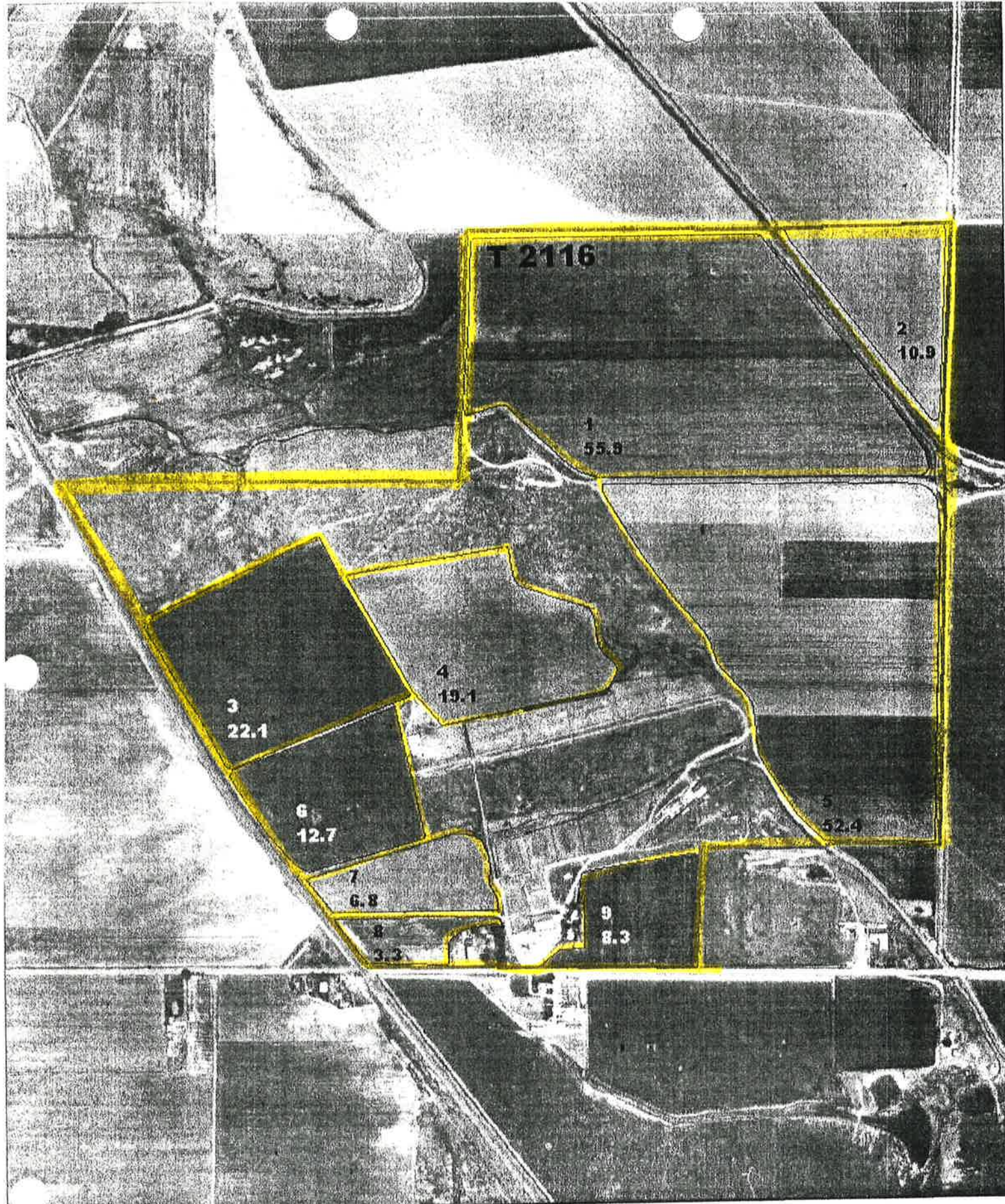
YOUNG PLACE

<u>Field #</u>	<u>Acreage</u>
#33	10.9
#34-35	55.9
#36	52.4
#37	8.6
#38	3.3
#39	6.8
#40	12.7
#41	23.2
#42	19.5

Total Irrigated Acres: 193.3

Non-Irrigated Acres: 90.0

TOTAL ACRES: 283.3

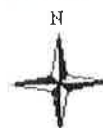


Map of Tract #2116
Malheur County

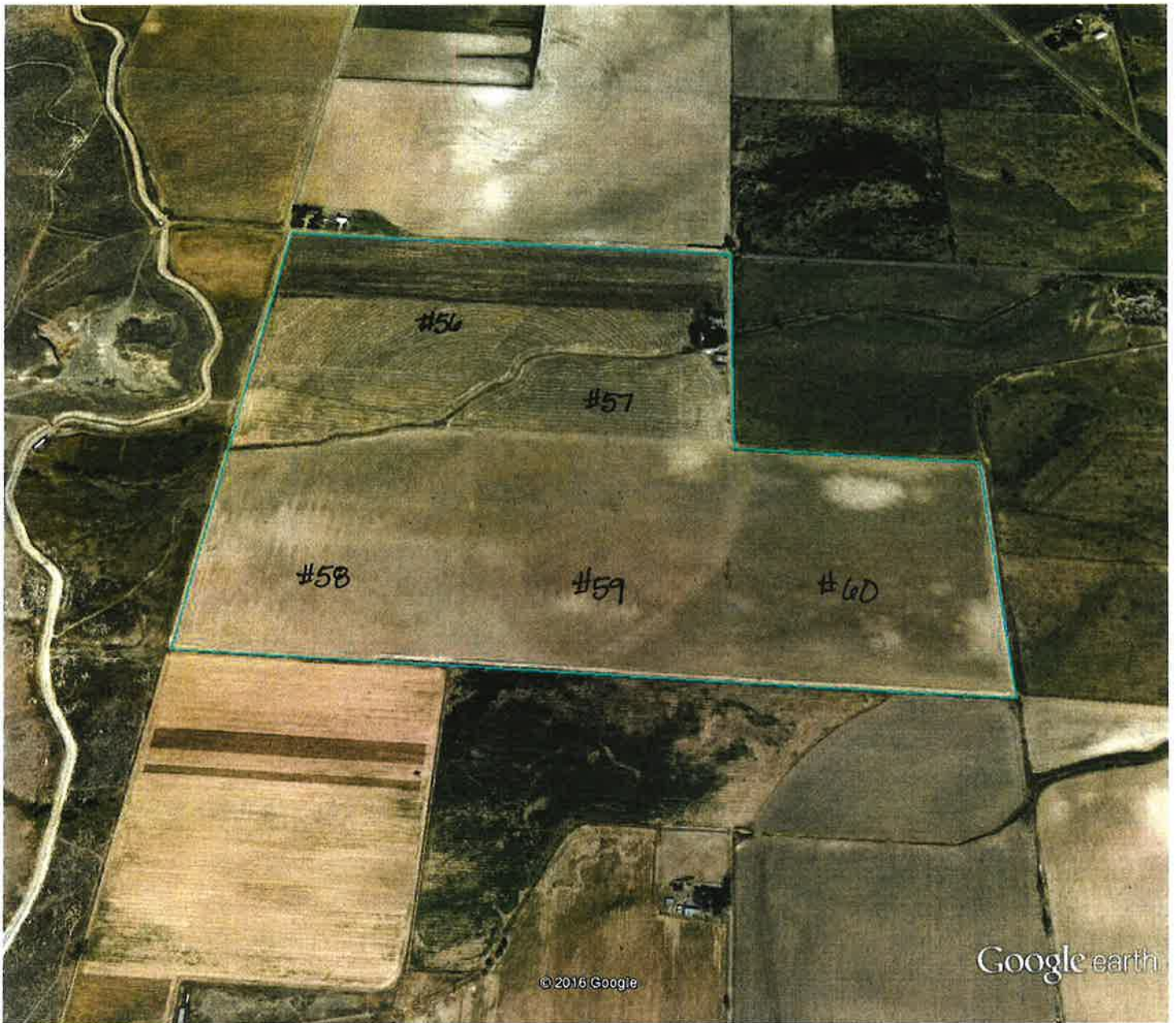
400 0 400 800 Feet

0.0
HEL, NHEL

Calculated Acres
Status - NHEL
Wetland



Map Printed: Mar 11, 2004



Google earth



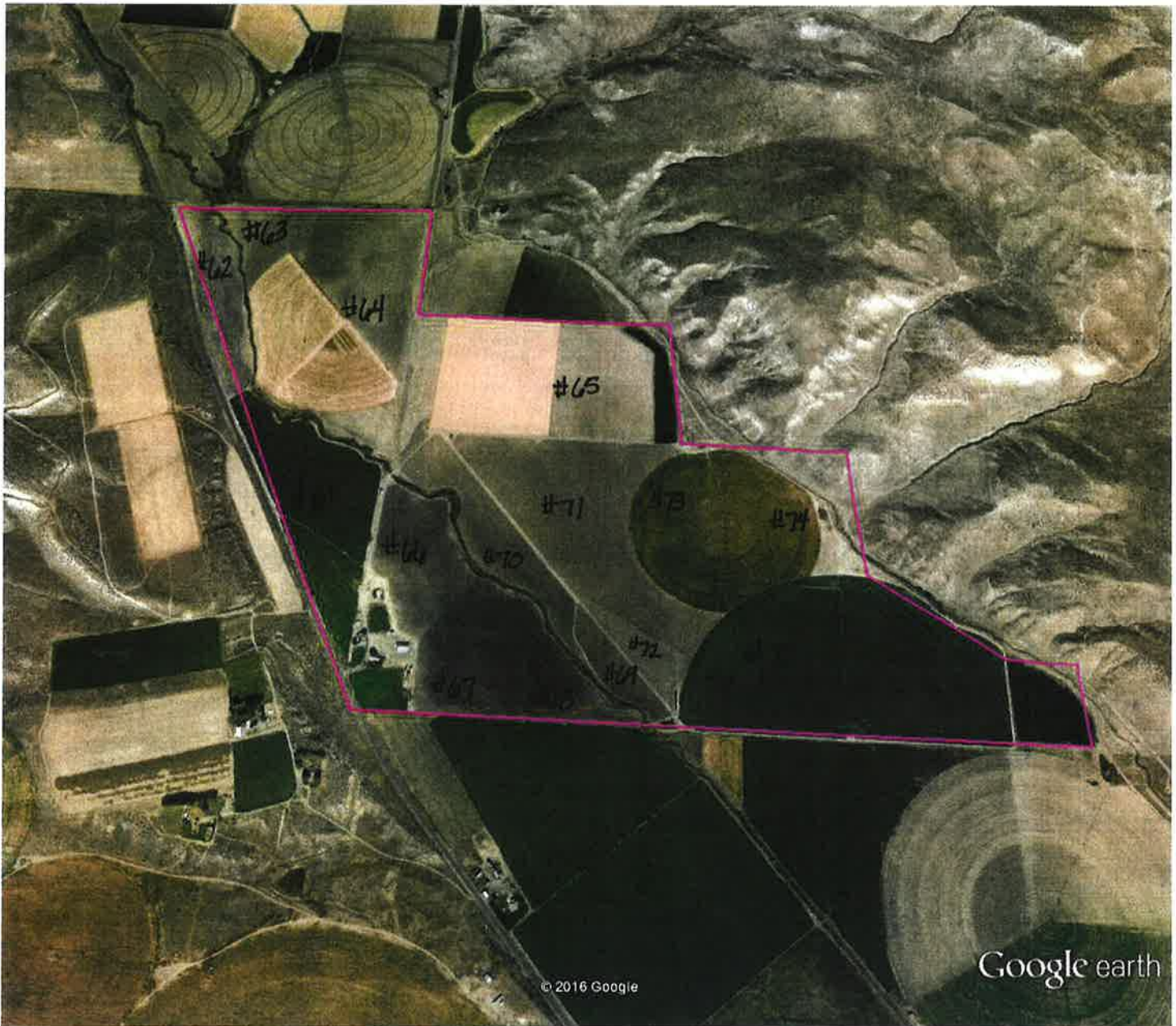
CAMPBELL PLACE

<u>Field #</u>	<u>Acreage</u>
#56	59.5
#57	11.6
#58	33.1
#59	36.7
#60	36.2

Total Irrigated Acres: 177.1

Non-Irrigated Acres: 13.3

TOTAL ACRES: 190.4



Google earth

feet 4000
km 1



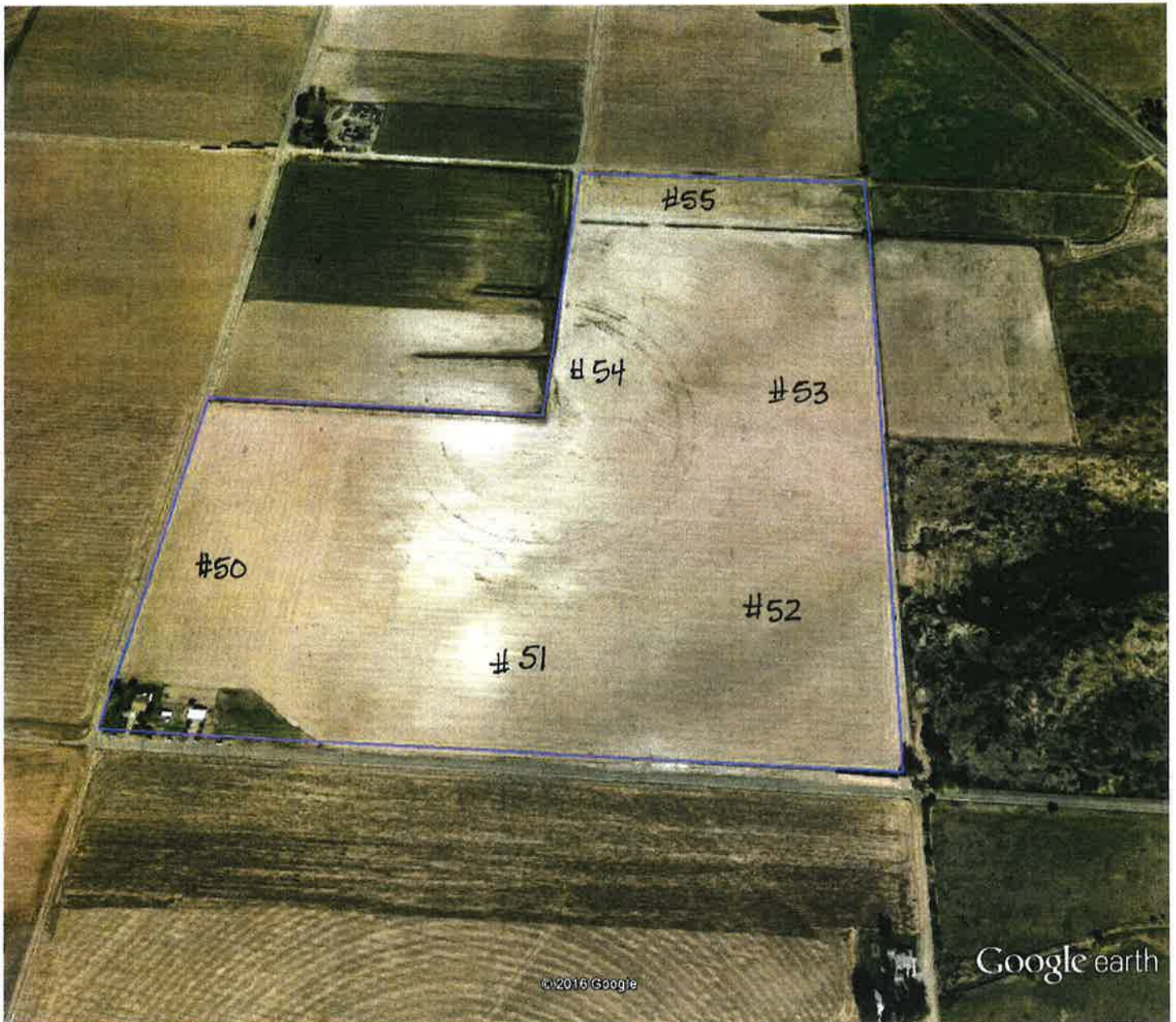
MICHAEL RIGGS PROPERTY

Field #	Acreage
#61	6.9
#62	17.0
#63	39.7
#64	40.5
#65	21.3
#66	15.7
#67	13.5
#68	28.7
#69	59.9

MICHAEL RIGGS PROPERTY

Field #	Acreage
#70	15.9
#71	38.9
#72	9.6
#73	19.4
#74	24.6
#75	39.9
#76	37.4

Total Irrigated Acres: 445.9
Non-Irrigated Acres: 56.9
TOTAL ACRES: 502.8



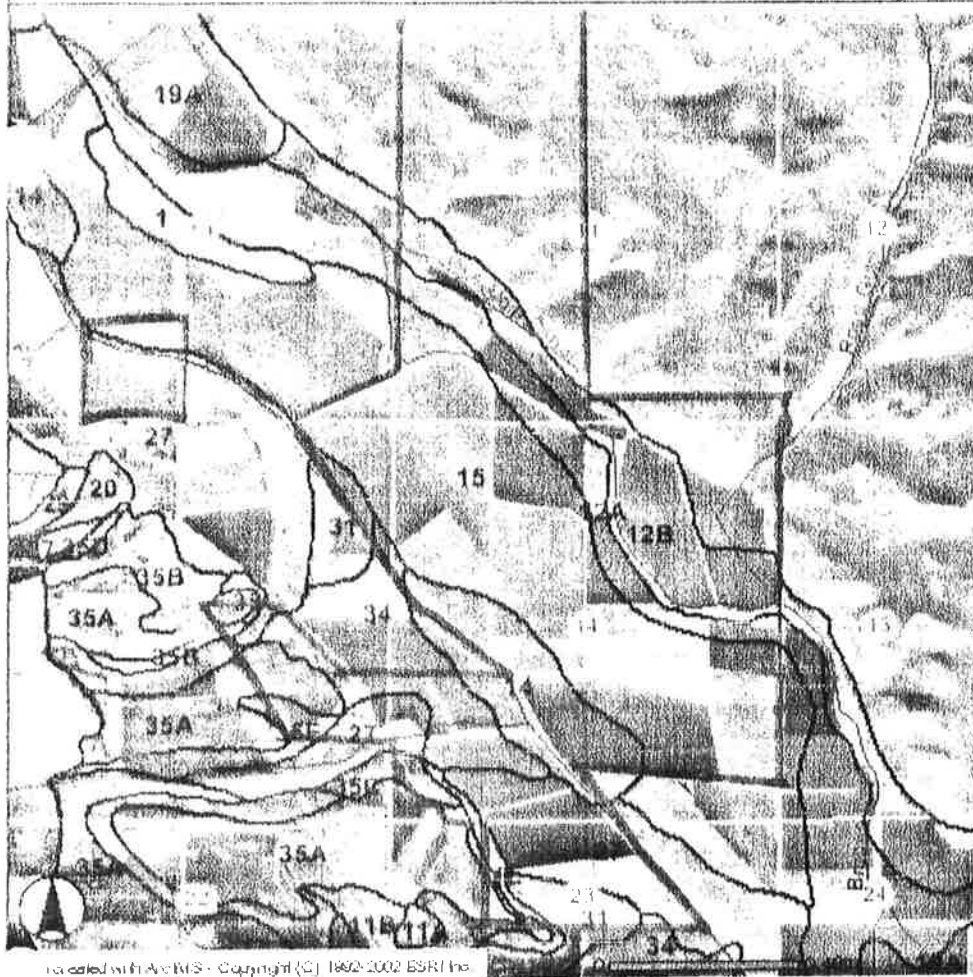
Google earth



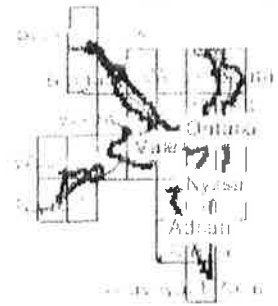
JIM GOETTSCHKE PROPERTY

Field #	Acreage	
#50	23.0	Total Irrigated Acres: 101.0 Non-Irrigated Acres: 17.2 TOTAL ACRES: 118.2
#51	20.7	
#52	22.7	
#53	20.0	
#54	7.0	
#55	7.6	

ArcIMS HTML Viewer Map

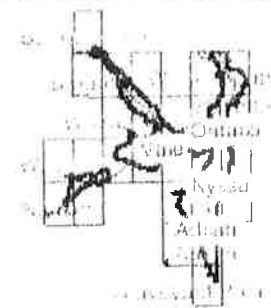
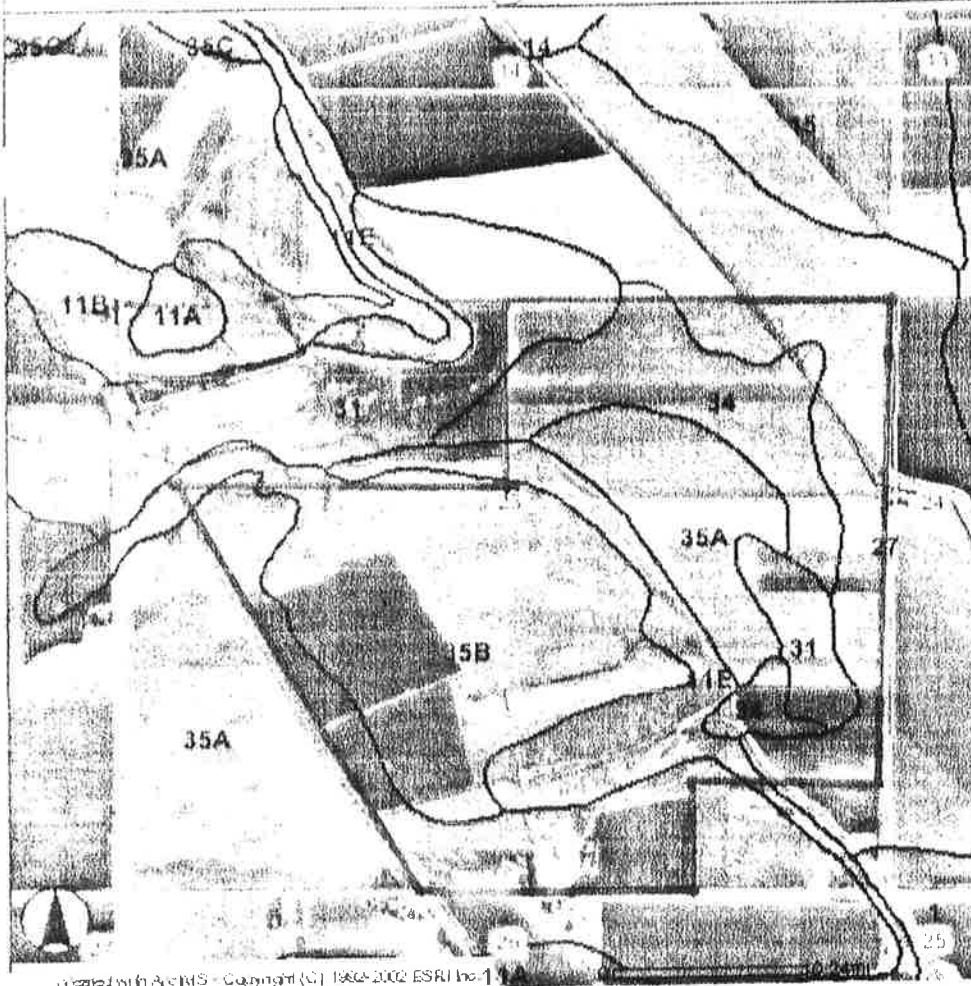


Generated with ArcIMS - Copyright (C) 1992-2002 ESRI Inc.

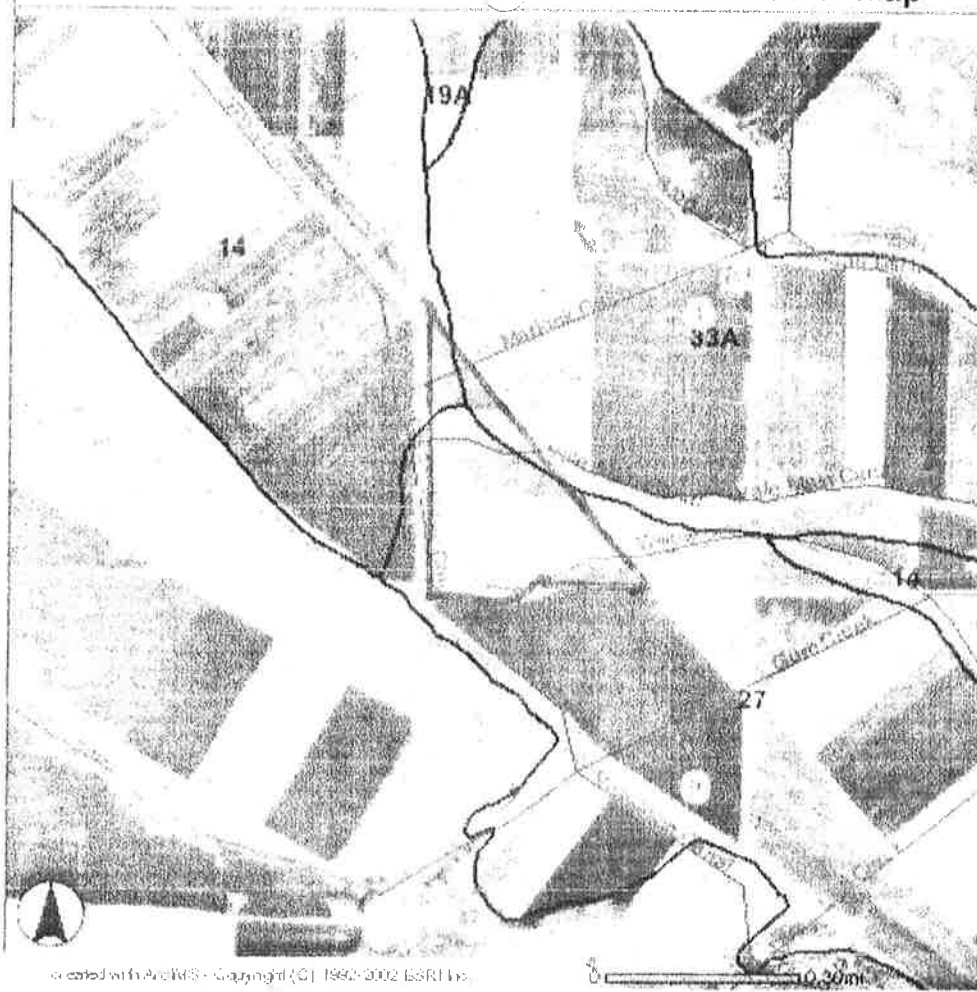


Legend

- roads
- paths
- streams
- airphoto, a.d



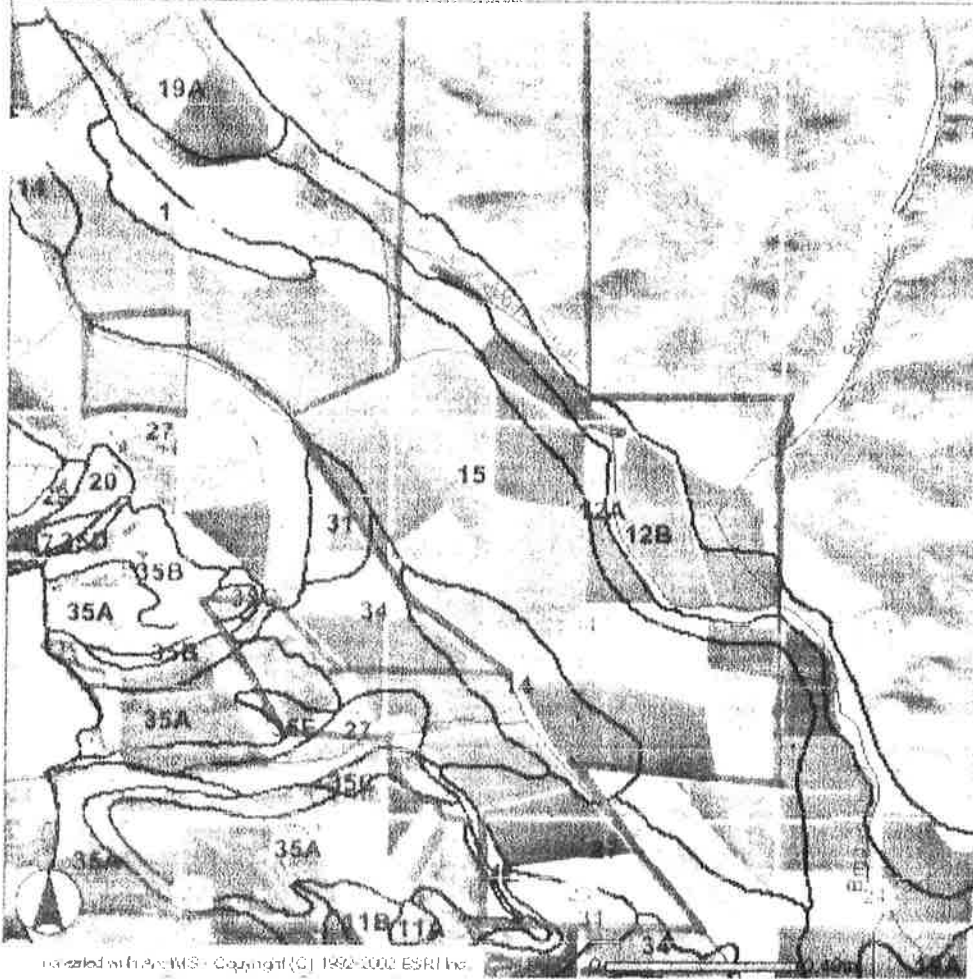
- Legend
-  soils
 -  pss
 -  streams
 -  topographic



Legend

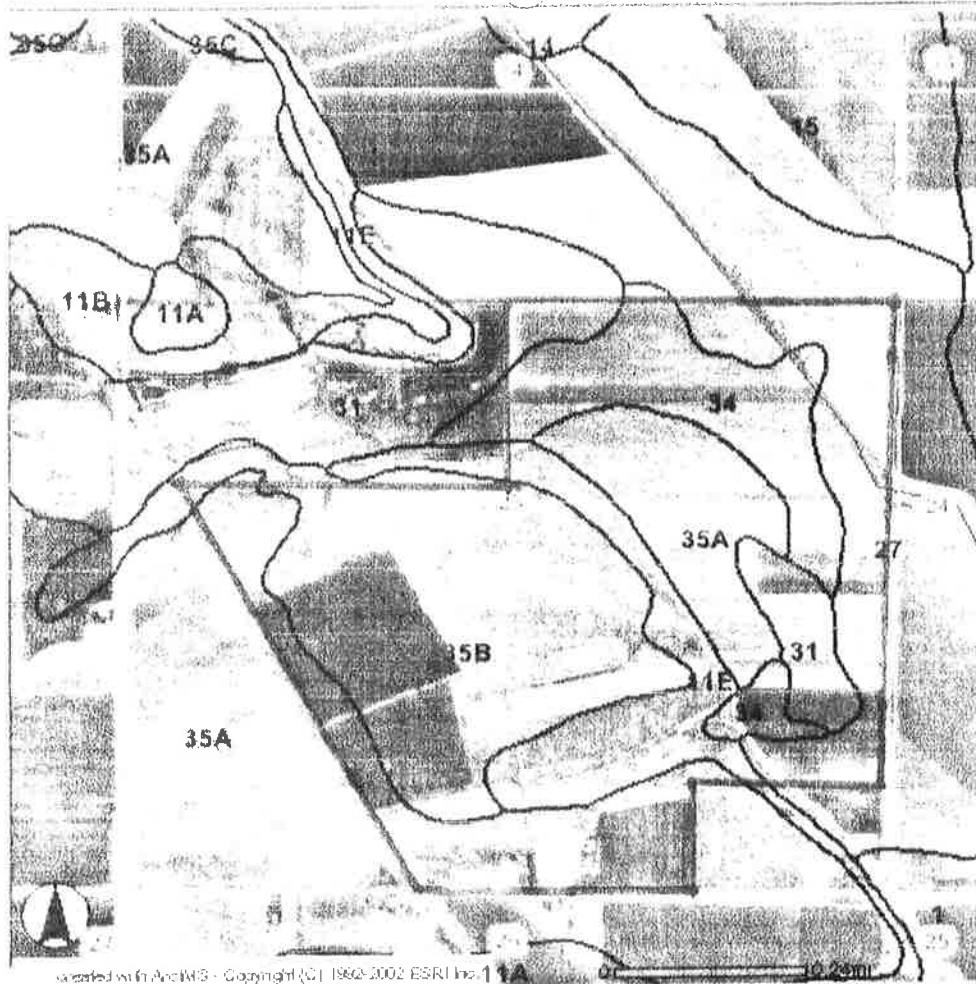
- 40.15
- 10.30
- streams
- asphalt road

cIMS HTML Viewer Map



- Legend
- zone
 - prop
 - ~ stream
 - ~ watershed

IMS HTML Viewer Map



- Legend
- area
 - area
 - area
 - unprocessed

[Send To Printer](#)

[Back To TerraServer](#)

[Change to 11x17 Print Size](#)

[Show Grid Lines](#)

[Change to Landscape](#)

USGS 2 km E of Jamieson, Oregon, United States 01 Jul 1990

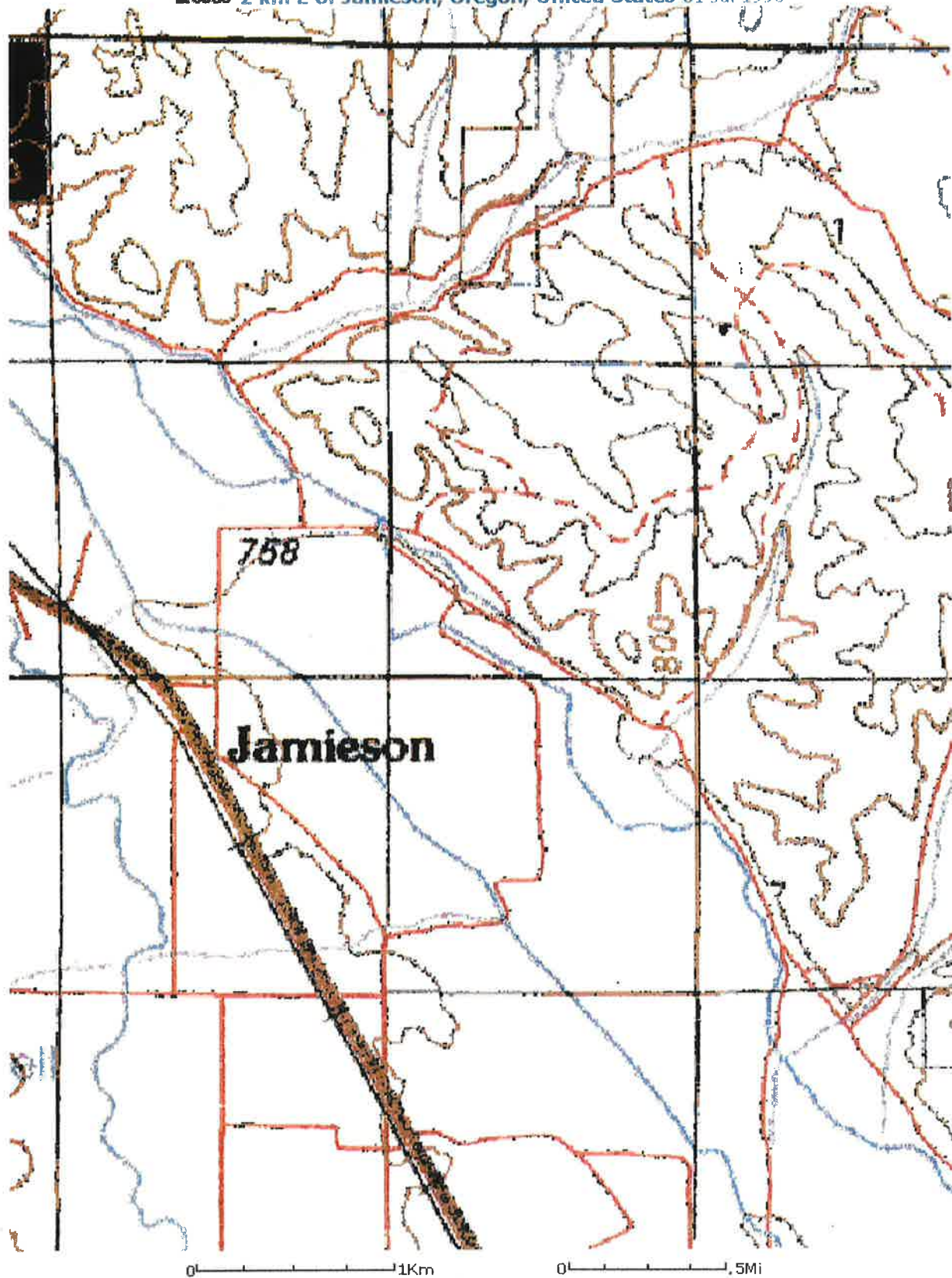


Image courtesy of the U.S. Geological Survey

© 2004 Microsoft Corporation.

[Terms of Use](#)

[Privacy Statement](#)

[Send To Printer](#)

[Back To TerraServer](#)

[Change to 11x17 Print Size](#)

[Show Grid Lines](#)

[Change to Landscape](#)

USGS 2 km E of Jamieson, Oregon, United States 01 Jul 1992

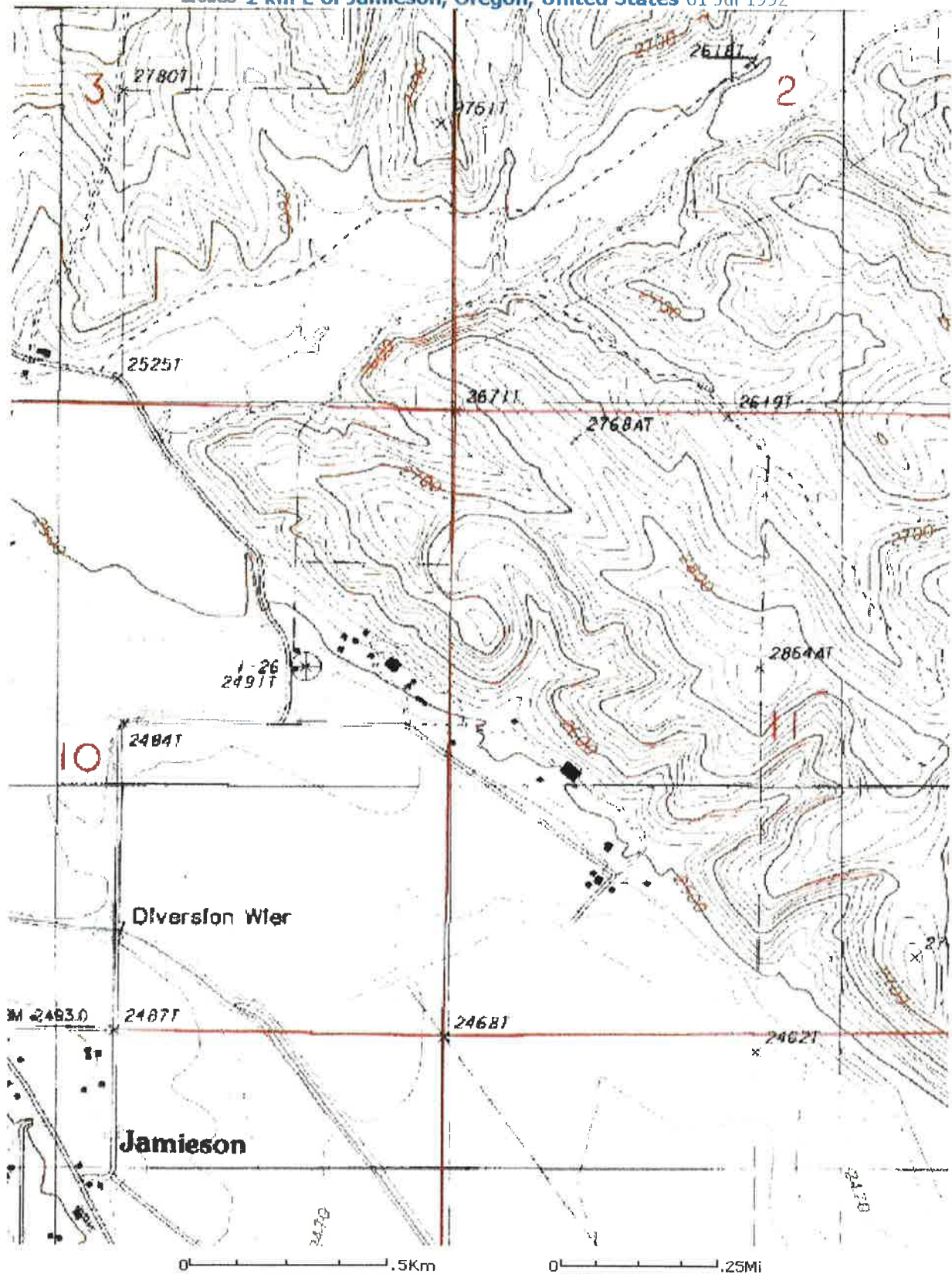


Image courtesy of the U.S. Geological Survey

© 2004 Microsoft Corporation.

[Terms of Use](#)

[Privacy Statement](#)

[Send To Printer](#)

[Back To TerraServer](#)

[Change to 11x17 Print Size](#)

[Show Grid Lines](#)

[Change to Landscape](#)

USGS 3 km E of Jamieson, Oregon, United States 01 Jul 1992

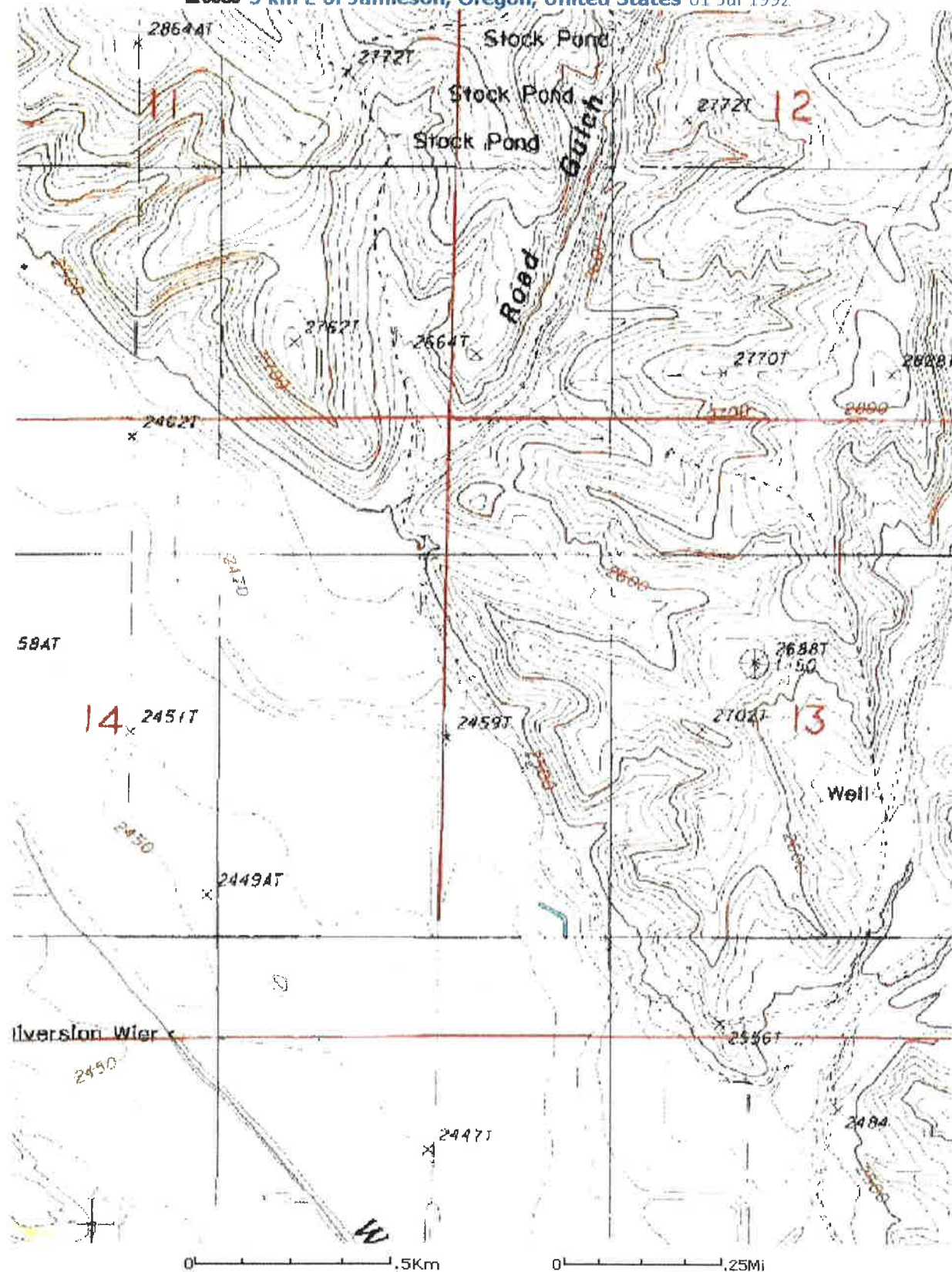


Image courtesy of the U.S. Geological Survey

© 2004 Microsoft Corporation.

[Terms of Use](#)

[Privacy Statement](#)

[Send To Printer](#)

[Back To TerraServer](#)

[Change to 11x17 Print Size](#)

[Show Grid Lines](#)

[Change to Landscape](#)

USGS 2 km NE of Jamieson, Oregon, United States 01 Jul 1992

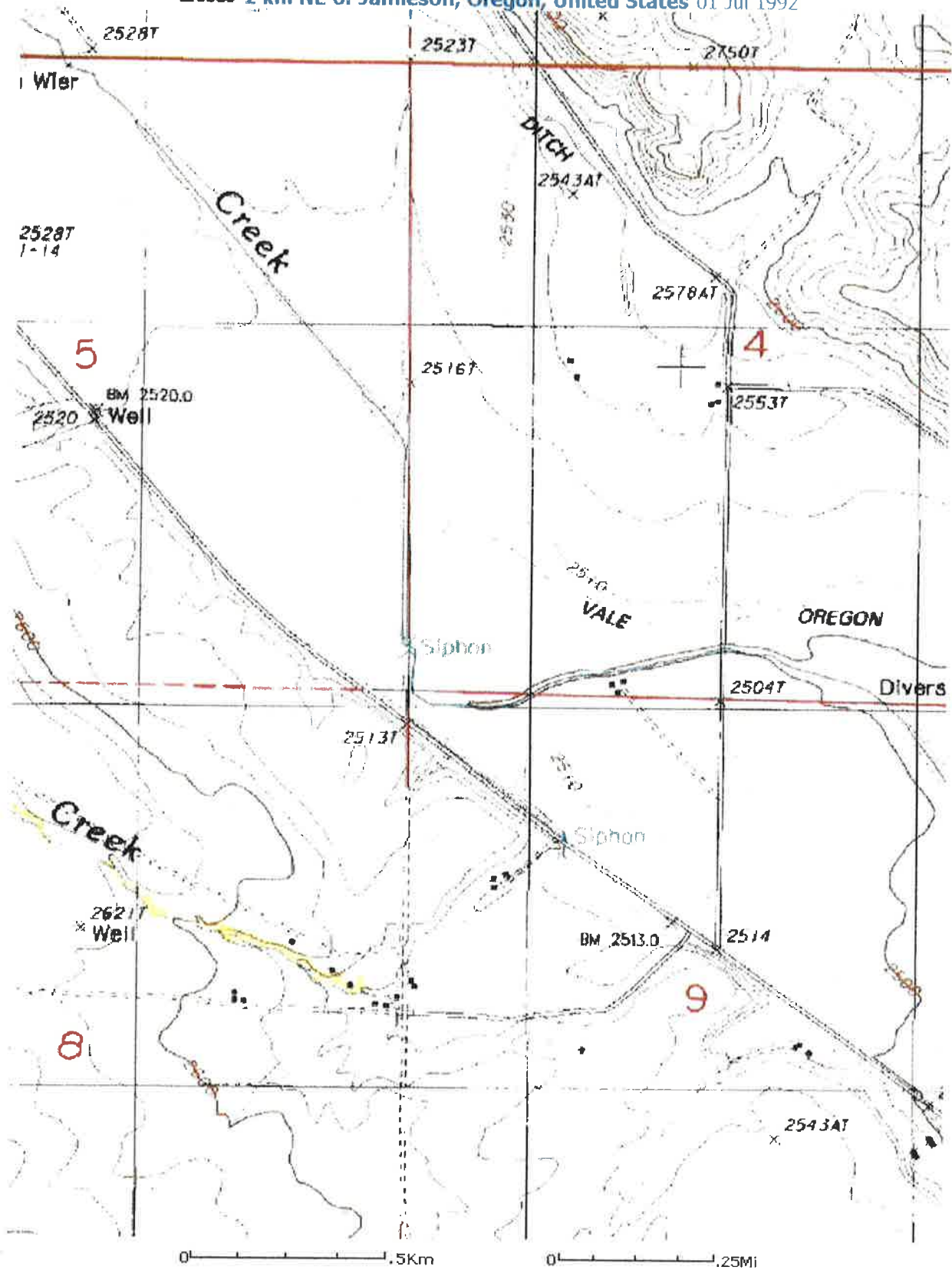


Image courtesy of the U.S. Geological Survey

© 2004 Microsoft Corporation.

[Terms of Use](#) [Privacy Statement](#)

.../printimage.aspx?T=2&S=12&X=578&Y=6117&Z=11&W=2&P=2+km+NE+of+Jamieson%2c+Or9/20/04

[Send To Printer](#)

[Back To TerraServer](#)

[Change to 11x17 Print Size](#)

[Show Grid Lines](#)

[Change to Landscape](#)

USGS 4 km SE of Jamieson, Oregon, United States 01 Jul 1992

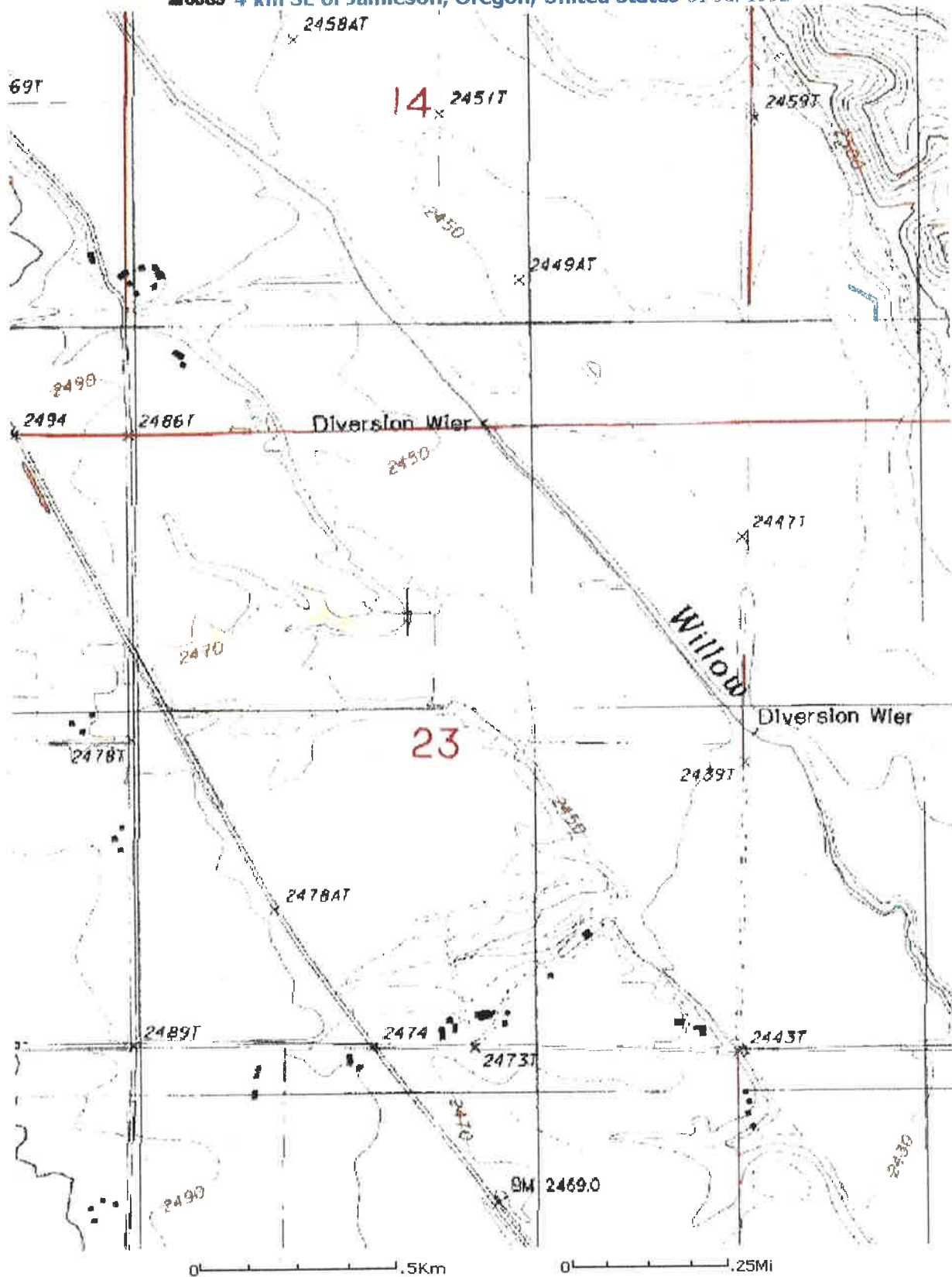


Image courtesy of the U.S. Geological Survey

© 2004 Microsoft Corporation.

[Terms of Use](#) [Privacy Statement](#)

.../printimage.aspx?T=2&S=12&X=583&Y=6112&Z=11&W=2&P=4+km+SE+of+Jamieson%2c+Or&9/26/04

Map Unit: 11E FROHMAN SILT LOAM, 12 TO 20 PERCENT SLOPES

Description Category: SOI

The Frohman soil is over 60 inches deep to bedrock, a hardpan is at 10 to 20 inches. It is loamy, well drained and occurs on plateaus. Water erosion is a potential hazard.

Map Unit: 12A GARBUTT SILT LOAM, 0 TO 2 PERCENT SLOPES

Description Category: SOI

The Garbutt soil is over 60 inches deep to bedrock. It is silty, well drained and occurs on fans and terraces. This soil is alkaline. Water erosion is a potential hazard.

Map Unit: 12B GARBUTT SILT LOAM, 2 TO 5 PERCENT SLOPES

Description Category: SOI

The Garbutt soil is over 60 inches deep to bedrock. It is silty, well drained and occurs on fans and terraces. This soil is alkaline. Water erosion is a potential hazard.

Map Unit: 15 HARANA SILTY CLAY LOAM

Description Category: SOI

The Harana soil is over 60 inches deep to bedrock. It is silty, moderately well drained and occurs on floodplains and fans. Permeability is slow. This soil is subject to flooding.

Map Unit: 27 POWDER SILT LOAM

Description Category: SOI

The Powder soil, rarely flooded phase, is over 60 inches deep to bedrock. It is silty, well drained and occurs on floodplains. This soil is subject to flooding. A water table is present during the winter and spring. Water and wind erosion are potential hazards.

Map Unit: 31 STANFIELD SILT LOAM

Description Category: SOI

The Stanfield soil is over 60 inches deep to bedrock, a cemented pan is at 20 to 40 inches. It is silty, moderately well drained and occurs on terraces. This soil is alkaline. A water table is present during the late winter, spring and early summer. Wind erosion is a potential hazard.

Map Unit: 34 UMAPINE SILT LOAM

Description Category: SOI

The Umapine soil, drained phase, is over 60 inches deep to bedrock. It is silty, moderately well drained and occurs on terraces and floodplains. This soil is subject to flooding. A water table is present during the winter and spring. Wind erosion is a potential hazard.

Map Unit: 35A VIRTUE SILT LOAM, 0 TO 2 PERCENT SLOPES

Description Category: SOI

The Virtue soil is over 60 inches deep to bedrock, a hardpan is at 20 to 40 inches. It is silty, well drained and occurs on fans and terraces. Water erosion is a potential hazard.

Map Unit: 35B VIRTUE SILT LOAM, 2 TO 5 PERCENT SLOPES

Description Category: SOI

The Virtue soil is over 60 inches deep to bedrock, a hardpan is at 20 to 40 inches. It is silty, well drained and occurs on fans and terraces. Water erosion is a potential hazard.

Map Unit: 35C VIRTUE SILT LOAM, 5 TO 8 PERCENT SLOPES

Description Category: SOI

Under 40 ± Tile Drain - Good Shape

PHOSPHORUS INDEX WORKSHEET - EASTERN OREGON

Producer: Y1 FARMS County: MAHEUR Tract No. ALL Field No(s). ALL Date: 9-20-04

Soil Map Unit(s): _____ Soil Test P: _____ ppm Lab. Method: _____ Sample Depth: _____

Crop Rotation: _____ Nutrient Application Method(s) _____

Planner: Doug May Notes: _____

PHOSPHORUS LOSS RATING							Weighted Rating Value	
TRANSPORT FACTORS	Factor Weight	None (0)	Low (1)	Medium (2)	High (4)	Very High (8)	Current	Planned
Soil Erosion – tons/ac/yr (RUSLE and/or WEQ)	1.50	< 1 (0)	1 – 3 (1.5)	4 – 6 (3.0)	7 – 15 (6.0)	> 15 (12.0)	<u>3</u>	<u> </u>
Soil Erosion from Sprinkler Irrigation	0.25	No sprinkler irrigation (0)	Application rate < infiltration rate OR No visible runoff at field borders (0.25)	Application rate = infiltration rate OR Little to no visible runoff at field borders (0.5)	Application rate > infiltration rate OR Visible runoff at field borders (2.0)	Application rate > infiltration rate OR Excessive runoff visible at field borders. Rills and gullies present. (4.0)	<u>.25</u>	<u> </u>
Soil Erosion from Surface Irrigation – tons/ac/yr (SISL)	1.00	< 1 (0)	1 – 3 OR tail water return flow in place (1.0)	4 – 6 (2.0)	7 – 15 (4.0)	> 15 (8.0)	<u>1</u>	<u> </u>
Runoff Class	1.00 – nonirrigated 0.50 – irrigated	Negligible (0)	Very low or low (0.5 IRR, 1.0 NIRR)	Medium (1.0 IRR, 2.0 NIRR)	High (2.0 IRR, 4.0 NIRR)	Very High (4.0 IRR, 8.0 NIRR)	<u>5-10</u>	<u> </u>
Distance to Perennial Surface Waters / Buffer Widths	0.50	> 500 feet OR buffer > 30 ft. wide (or meets NRCS standards) next to surface waters (0)	300 – 500 feet OR buffer 20 - 30 ft. wide next to surface waters (0.5)	200 – 299 feet OR buffer 10 - 19 ft. wide next to surface waters (1.0)	100 – 199 feet AND buffer < 10 ft. wide next to surface waters (2.0)	No buffer next to surface waters OR Return flow from surface irrigation occurs with no buffer (4.0)	<u>0</u>	<u> </u>

PHOSPHORUS INDEX WORKSHEET – EASTERN OREGON

October 2001 2

Subsurface Drainage	0.50	No tile drains (0)	Tile drains present Soil Test P (Olsen) < 40 ppm (0.5)	Tile drains present Soil Test P (Olsen) 40 - 120 ppm (1.0)	Tile drains present Soil Test P (Olsen) 121 - 170 ppm (2.0)	Tile drains present Soil Test P (Olsen) > 170 ppm (4.0)	<u>5</u>	
Transport Factors Subtotal (TFS)							5.25	

Tract _____ Fields _____

PHOSPHORUS LOSS RATING							Weighted Rating Value	
SOURCE FACTORS	Factor Weight	None (0)	Low (1)	Medium (2)	High (4)	Very High (8)	Current	Planned
Soil Test P – 0-12" ppm (Olsen NaHCO ₃)	1.00	(Soil Test P – 20) x 0.10 = <u>21</u> - 20 x 0.10 = <u>3</u> Soil Test P Assign 0 points if Soil Test P < 20 ppm					<u>1</u>	
Commercial P Fertilizer Application Rate	1.00	lbs/ac P ₂ O ₅ x 0.02 = <u>150</u> x 0.02 = <u>3</u> lbs/ac P ₂ O ₅					<u>3</u>	
Commercial P Fertilizer Application Method	1.00	None Applied (0)	Placed with planter OR Injected deeper than 2 inches OR Incorporated by plowing (1.0)	Incorporated deeper than 3 inches by disking, chiseling, etc. (2.0)	Incorporated less than 3 inches deep by harrowing, etc. (4.0)	Surface applied – not incorporated prior to irrigation or winter precipitation (8.0)	<u>1</u>	
Organic P Source Application Rate	1.00	lbs/ac P ₂ O ₅ x 0.02 = <u>0</u> x 0.02 = _____ lbs/ac P ₂ O ₅					<u>0</u>	
Organic P Source Application Method	1.00	None Applied (0)	Injected deeper than 2 inches OR Incorporated immediately (1.0)	Incorporated deeper than 3 inches by disking, chiseling, etc. within 5 days of application (2.0)	Incorporated less than 3 inches deep by harrowing, etc. within 21 days of application (4.0)	Surface applied – not incorporated prior to irrigation or winter precipitation (8.0)	<u>0</u>	

Total Rating Value TFS x SFS	Site Vulnerability Class
--	---------------------------------

Transport Factors Subtotal (TFS)	<u>5.25</u>
Source Factors Subtotal (SFS)	<u>5.0</u>

Current	Planned
----------------	----------------

OREGON

October 2001

< 30	Low
30 – 100	Medium
100 – 400	High
> 400	Very High

PHOSPHORUS INDEX WORKSHEET – EASTERN

2

Total Rating Value (TFS x SFS)	26.25	
Site Vulnerability Class	Low	

PHOSPHORUS INDEX WORKSHEET - EASTERN OREGON

Under 40 & Tile Drain - Good Shape

Producer: Y1 FARMSCounty: MAITRETract No. ALLField No(s). ALLDate: 9-26-04

Soil Map Unit(s): _____

Soil Test P: _____ ppm

Lab. Method: _____

Sample Depth: _____

Crop Rotation: _____

Nutrient Application Method(s) _____

Planner: DOUG MAA

Notes: _____

TRANSPORT FACTORS	Factor Weight	PHOSPHORUS LOSS RATING					Weighted Rating Value	
		None (0)	Low (1)	Medium (2)	High (4)	Very High (8)	Current	Planned
Soil Erosion - tons/ac/yr (RUSLE and/or WEQ)	1.50	< 1 (0)	1 - 3 (1.5)	4 - 6 (3.0)	7 - 15 (6.0)	> 15 (12.0)	<u>3</u>	
Soil Erosion from Sprinkler Irrigation	0.25	No sprinkler irrigation (0)	Application rate < infiltration rate OR No visible runoff at field borders (0.25)	Application rate = infiltration rate OR Little to no visible runoff at field borders (0.5)	Application rate > infiltration rate OR Visible runoff at field borders (2.0)	Application rate > infiltration rate OR Excessive runoff visible at field borders. Rills and gullies present. (4.0)	<u>.25</u>	
Soil Erosion from Surface Irrigation - tons/ac/yr (SISL)	1.00	< 1 (0)	1 - 3 OR tail water return flow in place (1.0)	4 - 6 (2.0)	7 - 15 (4.0)	> 15 (8.0)	<u>1</u>	
Runoff Class	1.00 - nonirrigated 0.50 - irrigated	Negligible (0)	Very low or low (0.5 IRR, 1.0 NIRR)	Medium (1.0 IRR, 2.0 NIRR)	High (2.0 IRR, 4.0 NIRR)	Very High (4.0 IRR, 8.0 NIRR)	<u>5 - 1.0</u>	
Distance to Perennial Surface Waters / Buffer Widths	0.50	> 500 feet OR buffer > 30 ft. wide (or meets NRCS standards) next to surface waters (0)	300 - 500 feet OR buffer 20 - 30 ft. wide next to surface waters (0.5)	200 - 299 feet OR buffer 10 - 19 ft. wide next to surface waters (1.0)	100 - 199 feet AND buffer < 10 ft. wide next to surface waters (2.0)	No buffer next to surface waters OR Return flow from surface irrigation occurs with no buffer (4.0)	<u>0</u>	

PHOSPHORUS INDEX WORKSHEET - EASTERN OREGON

October 2001

2

Subsurface Drainage	0.50	No tile drains (0)	Tile drains present Soil Test P (Olsen) < 40 ppm (0.5)	Tile drains present Soil Test P (Olsen) 40 - 120 ppm (1.0)	Tile drains present Soil Test P (Olsen) 121 - 170 ppm (2.0)	Tile drains present Soil Test P (Olsen) > 170 ppm (4.0)	<u>.5</u>	
Transport Factors Subtotal (TFS)							5.25	

Tract _____ Fields _____

PHOSPHORUS LOSS RATING							Weighted Rating Value	
SOURCE FACTORS	Factor Weight	None (0)	Low (1)	Medium (2)	High (4)	Very High (8)	Current	Planned
Soil Test P - 0-12" ppm (Olsen NaHCO ₃)	1.00	(Soil Test P - 20) x 0.10 = <u>(21 - 20) x 0.10 = .3</u> Assign 0 points if Soil Test P < 20 ppm					<u>1</u>	
Commercial P Fertilizer Application Rate	1.00	lbs/ac P ₂ O ₅ x 0.02 = <u>150</u> x 0.02 = <u>3</u>					<u>3</u>	
Commercial P Fertilizer Application Method	1.00	None Applied (0)	Placed with planter OR Injected deeper than 2 inches OR Incorporated by plowing (1.0)	Incorporated deeper than 3 inches by disking, chiseling, etc. (2.0)	Incorporated less than 3 inches deep by harrowing, etc. (4.0)	Surface applied - not incorporated prior to irrigation or winter precipitation (8.0)	<u>1</u>	
Organic P Source Application Rate	1.00	lbs/ac P ₂ O ₅ x 0.02 = <u>0</u> x 0.02 = _____					<u>0</u>	
Organic P Source Application Method	1.00	None Applied (0)	Injected deeper than 2 inches OR Incorporated immediately (1.0)	Incorporated deeper than 3 inches by disking, chiseling, etc. within 5 days of application (2.0)	Incorporated less than 3 inches deep by harrowing, etc. within 21 days of application (4.0)	Surface applied - not incorporated prior to irrigation or winter precipitation (8.0)	<u>0</u>	

Total Rating Value TFS x SFS	Site Vulnerability Class
--	---------------------------------

Current	Planned
Transport Factors Subtotal (TFS)	<u>5.25</u>
Source Factors Subtotal (SFS)	<u>5.0</u>

OREGON

October 2001

2

PHOSPHORUS INDEX WORKSHEET - EASTERN

< 30	Low
30 - 100	Medium
100 - 400	High
> 400	Very High

Total Rating Value (TFS x SFS)	26.25	
Site Vulnerability Class	Low	

ANIMAL WASTE MANAGEMENT SYSTEM INVENTORY

ANIMAL INVENTORY

Type of Animal	Number of Animals	Average Weight (lbs.)	Animal Units (1,000 lb.)	Nutrient Production						Annual		
				(lbs./day)						Manure CF/D/AU	Days Confined	Days Off Farm
				N	P	K	N	P	K			
FINISHING CATTLE	12,500	675	8,437.5	0.36	0.04	0.11	3037.50	371.25	928.13	1.24	365	0
Totals/Averages	12,500	675	8,437.5	0.36	0.04	0.11	3,037.5	371.3	928.1	1.2		

GRAZING PERIOD

[illegible]

WEATHER STATION

MALHEUR BRANCH EXP S

Lot Runoff Factors as

AREAS CONTRIBUTING RUNOFF TO LIQUID STORAGE FACILITY

Description of Runoff Area

1000

Area in SF

Version 5.1

Hilary Collinsworth

ANIMAL WASTE MANAGEMENT SYSTEM INVENTORY

[illegible]

	0%
--	----

Type of Water Use	Number of Animals	Number of Washes per Day	Gallons of Water Used
Animal Washwater			
Equipment Wash			
Flushwater			
Miscellaneous			
Total			

Percent Dry Matter (DM)	Yield Units	Target Yield	Nutrients Removed in Pounds per Acre			
			Nitrogen N	Phosphorous P ₂ O ₅	Potassium K ₂ O	
85%	Ton	9.00	490	140	387	
30%	Ton	6.50	49	18	47	
80%	Ton	200.00	10880	4399	8387	
30%	Ton	130.00	1611	447	2693	
	0.00		0	0	0	
12%	Ton		0	0	0	

[illegible]

Y-1 Farms, Inc.

Hilary Collinsworth

SOLIDS SEPARATION FACTOR

Type of Animal	Type of Separator	% Solids Separated	Volume of Solids Separated CF/Day	Volume of Solids in Liquids CF/Day	Volume of Manure in Liquids CF/Day	Volume of Manure in Solids CF/Day	Accumulated Sludge in Storage CF/Day	Density of Separated Solids Lbs/CF	Weight of Separated Solids Lbs/Day
FINISHING CATTLE	Dry Scrape System	75%	8,355	2,785	2,609	7,828	1,458	36	300,788
Totals			8,355	2,785	2,609	7,828	1,458		300,788

WATER, WASTE, AND NUTRIENT COMPUTATIONS

Number of Animals

	Animals	Avg. Weight lb	Total 1000# Animal Units	Confinement Period (Days)
1	2000	675	1350	200
2	1500	1000	1500	120
Total	3500	1675	2850	

Solid Storage (Feedlot pen size)

Pens 1-4	5	Acres
Pens 5-15	12	Acres
Pens 16-24	3	Acres
	0	Acres

Total acres

20

Evaporation Ponds for storm runoff

	Length in feet	Width in feet	Depth in feet	Total cubic feet	Acre Inches of Storage
Area 1	45	30	10	13500	3.72
Area 2	1000	20	8	160000	44.08
Area 3	590	200	1	118000	32.51
				0	0.00
Total				291500	80.30

Manure Produced

Total weight and volume of manure produced during confinement

*Estimated values from NRCS Agricultural Waste Management Handbook)

	lb/day/Animal Unit	Total Weight ton (as excreted)	Total Weight ton (at application)
1	58.2	7857	2357
2	59.1	5319	1596
Total		13176	3953

	Cu ft/day/Animal Unit	Total Volume Cu ft
1	0.93	251100
2	0.95	171000
Total		422100

Total Nutrient Production

*Estimated values from NRCS Agricultural Waste Management Handbook

	Nutrients Produced lb/day	Total Nutrients Produced lb
Nitrogen	0.31	139500
Phosphorus	0.11	49500
Potassium	0.24	108000

Nutrient Losses

*Estimate from NRCS ORAWM Program and OSU Extension Publication EC 1094

Loss	Remaining N	Remaining P	Remaining K
Storage	50%	70%	60%
Application	70%	100%	100%
Denitrification	95%	100%	100%

Loss	Remaining N lbs	Remaining P lbs	Remaining K lbs	
Storage	69750	34650	64800	
Application	48825	34650	64800	
Denitrification	46384	34650	64800	Available for crop production

Nutrients Utilized

*Estimate from NRCS ORAWM Program

Crop	Acres	Yield Units per acre	Yield	N Utilized (lbs/acre)	P Utilized (lbs/acre)	K Utilized (lbs/acre)
Alfalfa	150	ton	9	405	91	406
Corn, silage	150	ton	37	285	148	340
Corn, grain	100	bushel	200	258	103	77
Wheat, grain	150	bushel	130	130	69	31
Total	550					

Volume and Nutrients Exported

0% of manure is exported to neighboring farmers

Exported tons	N exported lbs	P exported lbs	K exported lbs
0	0	0	0

Nutrients remaining for crop production on farm **after** export

Remaining N lbs	Remaining P lbs	Remaining K lbs
46384	34650	64800

Crop Utilization

Crop	Acres needed	lbs of N applied	lbs of P applied	lbs of K applied
Alfalfa	150	60750	13650	60900
Corn, silage	150	42750	22200	51000
Corn, grain	100	25800	10300	7700
Wheat, grain	150	19500	10350	4650
Total	550	148800	56500	124250

Gross Nutrient Balance	Acres	lbs of N	lbs of P	lbs of K
	0	-102416	-21850	-59450

Climatic and Hydrologic Data

Climatic Station- Malheur Branch Experiment Station

25 year- 24 hour storm rainfall **1.8** inches

Month	Average Monthly in Inch Precipitation-			% Lot Runoff Factors	
	Precipitation	Evaporation	Evaporation	Concrete*	Unpaved
January	1.26	0.74	0.52	100	0
February	0.98	1.09	-0.11	100	0
March	0.92	2.06	-1.14	100	0
April	0.70	3.79	-3.09	100	0
May	0.98	5.12	-4.14	100	0
June	0.83	6.08	-5.25	100	0
July	0.19	7.62	-7.43	100	0
August	0.38	6.51	-6.13	100	0
September	0.49	4.03	-3.54	100	0
October	0.71	1.98	-1.27	100	0
November	1.21	0.50	0.71	100	0
December	1.32	0.71	0.61	100	0
Annual	9.97	40.23			

*No concrete lot runoff contributing to the manure system.

storage needed to contain the entire 25 year 24 hour event onsite

36	acre inches
3	acre feet
130680	cubic feet of storage

130680	minus existing storage=	Needed Storage
		-160820

Soil profile storage

WATER, WASTE, AND NUTRIENT COMPUTATIONS

Number of Animals

	Animals	Avg. Weight lb	Total 1000# Animal Units	Confinement Period (Days)
1	6000	675	4050	200
2	3000	1000	3000	120
Total	9000	1675	7050	

Solid Storage (Feedlot pen size)

		Total acres
Pens 1-14	21 Acres	42.5
Pens 15-19	5 Acres	
Pens 20-26	1.5 Acres	
Future Lots	15 Acres	

Evaporation Ponds for storm runoff

	Length in feet	Width in feet	Depth in feet	Total cubic feet	Acre Inches of Storage
Pond	480	100	10	480000	132.23
Ditch	750	12	3	27000	7.44
Holding Area	450	100	2	90000	24.79
				0	0.00
Total				597000	164.46

Manure Produced

Total weight and volume of manure produced during confinement

*Estimated values from NRCS Agricultural Waste Management Handbook)

	lb/day/Animal Unit	Total Weight ton (as excreted)	Total Weight ton (at application)
1	58.2	23571	7071
2	59.1	10638	3191
Total		34209	10263

	Cu ft/day/Animal Unit	Total Volume Cu ft
1	0.93	753300
2	0.95	342000
Total		1095300

Total Nutrient Production

*Estimated values from NRCS Agricultural Waste Management Handbook

	Nutrients Produced lb/day	Total Nutrients Produced lb
Nitrogen	0.31	362700
Phosphorus	0.11	128700
Potassium	0.24	280800

Nutrient Losses

*Estimate from NRCS ORAWM Program and OSU Extension Publication EC 1094

Loss	Remaining N	Remaining P	Remaining K
Storage	50%	70%	60%
Application	70%	100%	100%
Denitrification	95%	100%	100%

Loss	Remaining N lbs	Remaining P lbs	Remaining K lbs
Storage	181350	90090	168480
Application	126945	90090	168480
Denitrification	120598	90090	168480

Available for crop production

Nutrients Utilized

*Estimate from NRCS ORAWM Program

Crop	Acres	Yield Units per acre	Yield	N Utilized (lbs/acre)	P Utilized (lbs/acre)	K Utilized (lbs/acre)
Alfalfa	150	ton	9	405	91	406
Corn, silage	150	ton	37	285	148	340
Corn, grain	100	bushel	200	258	103	77
Wheat, grain	150	bushel	130	130	69	31
Total	550					

Volume and Nutrients Exported

70% of manure is packed as bedding

Exported tons	N exported lbs	P exported lbs	K exported lbs
7184	84418	63063	117936

Nutrients remaining for crop production on farm **after** export

Remaining N lbs	Remaining P lbs	Remaining K lbs
36179	27027	50544

Crop Utilization

Crop	Acres needed	lbs of N applied	lbs of P applied	lbs of K applied
Alfalfa	150	60750	13650	60900
Corn, silage	150	42750	22200	51000
Corn, grain	100	25800	10300	7700
Wheat, grain	150	19500	10350	4650
Total	550	148800	56500	124250

Gross Nutrient Balance	Acres	lbs of N	lbs of P	lbs of K
	0	-112621	-29473	-73706

Climatic and Hydrologic Data

Climatic Station- Malheur Branch Experiment Station

25 year- 24 hour storm rainfall **1.8** inches

Month	Average Monthly in Inches Precipitation-			% Lot Runoff Factors	
	Precipitation	Evaporation	Evaporation	Concrete*	Unpaved
January	1.26	0.74	0.52	100	0
February	0.98	1.09	-0.11	100	0
March	0.92	2.06	-1.14	100	0
April	0.70	3.79	-3.09	100	0
May	0.98	5.12	-4.14	100	0
June	0.83	6.08	-5.25	100	0
July	0.19	7.62	-7.43	100	0
August	0.38	6.51	-6.13	100	0
September	0.49	4.03	-3.54	100	0
October	0.71	1.98	-1.27	100	0
November	1.21	0.50	0.71	100	0
December	1.32	0.71	0.61	100	0
Annual	9.97	40.23			

*No concrete lot runoff contributing to the manure system.

storage needed to contain the entire 25 year 24 hour event onsite

76.5	acre inches
6.375	acre feet
277695	cubic feet of storage

277695	minus existing storage=	Needed Storage -319305
---------------	-------------------------	----------------------------------

Soil profile storage

MANURE APPLICATION RECORD SHEET

Field ID _____
Year _____

Nitrogen Requirement for Field

Phosphorous Requirement for Field

lb/ac/y

Application Basis (Circle One)

Nitrogen Phosphorus

Date Applied	Amount Applied (T)	x	Nitrogen Content per Unit	=	Nitrogen Applied		Amount Applied x Phosphorus Content per Unit	=	Phosphorus Applied	Total N Applied	Total P Applied
8/11/15	104	x	18.4	=	1913.6		25.6	=	2662.4	1913.6	2662.4
8/19/15	52	x	18.4	=	956.8		25.6	=	1331.2	956.8	1331.2
8/25/15	104	x	18.4	=	1913.6		25.6	=	2662.4	1913.6	2662.4
8/27/15	13	x	18.4	=	239.2		25.6	=	332.8	239.2	332.8
8/28/15	26	x	18.4	=	478.4		25.6	=	665.6	478.4	665.6
8/29/15	104	x	18.4	=	1913.6		25.6	=	2662.4	1913.6	2662.4
9/2/15	91	x	18.4	=	1674.4		25.6	=	2329.6	1674.4	2329.6
9/7/15	104	x	18.4	=	1913.6		25.6	=	2662.4	1913.6	2662.4
9/8/15	143	x	18.4	=	2631.2		25.6	=	3660.8	2631.2	3660.8
9/9/15	52	x	18.4	=	956.8		25.6	=	1331.2	956.8	1331.2
9/10/15	143	x	18.4	=	2631.2		25.6	=	3660.8	2631.2	3660.8
9/13/15	91	x	18.4	=	1674.4		25.6	=	2329.6	1674.4	2329.6
10/14/15	156	x	18.4	=	2870.4		25.6	=	3993.6	2870.4	3993.6
10/21/15	143	x	18.4	=	2631.2		25.6	=	3660.8	2631.2	3660.8
10/22/15	104	x	18.4	=	1913.6		25.6	=	2662.4	1913.6	2662.4
10/23/15	91	x	18.4	=	1674.4		25.6	=	2329.6	1674.4	2329.6
10/30/15	104	x	18.4	=	1913.6		25.6	=	2662.4	1913.6	2662.4
10/31/15	117	x	18.4	=	2152.8		25.6	=	2995.2	2152.8	2995.2
11/2/15	208	x	18.4	=	3827.2		25.6	=	5324.8	3827.2	5324.8
11/3/15	130	x	18.4	=	2392		25.6	=	3328	2392	3328
11/4/15	143	x	18.4	=	2631.2		25.6	=	3660.8	2631.2	3660.8
11/5/15	65	x	18.4	=	1196		25.6	=	1664	1196	1664
11/6/15	117	x	18.4	=	2152.8		25.6	=	2995.2	2152.8	2995.2
11/8/15	13	x	18.4	=	239.2		25.6	=	332.8	239.2	332.8
		x		=				=			
		x		=				=			
		x		=				=			
		x		=				=			
TOTAL	2418	x		=				=			

Additional:

[illegible]

ANIMAL WASTE MANAGEMENT SYSTEM PRODUCTION

MONTHLY VOLUMES

Month	Runoff in Cubic Feet				Facility Water Use Cubic Feet	Manure		Bedding		Solids Separated		Solids in Liquids		Total Solids Cubic Feet
	Roof Area Square Feet 0	Paved Slab Area Square Feet 2,732,500	Unpaved Lot Area Square Feet 0	Sillage Pit Surface Area, SF 0		Solids Cubic Feet	Liquids Cubic Feet	Cubic Feet	Pounds	Cubic Feet	Pounds			
October	0	44,241	0	12,627	38,503	285,050	21,797	784,688	259,012	9,324,442	86,337	3,108,147	259,012	
November	0	94,493	0	12,011	37,261	275,855	21,094	759,375	250,657	9,023,653	83,552	3,007,884	250,657	
December	0	78,272	0	12,627	38,503	285,050	21,797	784,688	259,012	9,324,442	86,337	3,108,147	259,012	
January	0	73,167	0	12,627	38,503	285,050	21,797	784,688	259,012	9,324,442	86,337	3,108,147	259,012	
February	0	58,988	0	11,395	34,777	287,465	19,688	708,750	233,947	8,422,076	77,982	2,807,359	233,947	
March	0	49,005	0	12,627	38,503	285,050	21,797	784,688	259,012	9,324,442	86,337	3,108,147	259,012	
April	0	47,644	0	12,011	37,261	275,855	21,094	759,375	250,657	9,023,653	83,552	3,007,884	250,657	
May	0	66,701	0	0	38,503	285,050	21,797	784,688	259,012	9,324,442	86,337	3,108,147	259,012	
June	0	60,349	0	0	37,261	275,855	21,094	759,375	250,657	9,023,653	83,552	3,007,884	250,657	
July	0	24,503	0	0	38,503	285,050	21,797	784,688	259,012	9,324,442	86,337	3,108,147	259,012	
August	0	25,864	0	0	38,503	285,050	21,797	784,688	259,012	9,324,442	86,337	3,108,147	259,012	
September	0	32,670	0	12,011	37,261	275,855	21,094	759,375	250,657	9,023,653	83,552	3,007,884	250,657	
Annual	0	655,896	0	97,934	453,339	3,356,234	256,641	9,239,063	3,049,661	109,787,780	1,016,554	36,595,927	3,049,661	
Annual Gallons	0	4,906,099	0	732,547	3,390,978	25,104,632	1,919,672		22,811,461				22,811,461	

DAILY NUTRIENT PRODUCTION

Type of Animal	Pounds/Day of Nutrients from LIQUIDS			Pounds/Day of Nutrients from SOLIDS			Pounds/Day of Nutrients from GRAZING			Grazing Manure	Confined Manure
	N	P2O5	K2O	N	P2O5	K2O	N	P2O5	K2O	Gallons/Yr	Cubic Feet/Yr
FINISHING CATTLE	759.38	212.63	279.60	2,278.13	637.90	838.79	0.00	0.00	0.00	0	3,809.573
	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0	0
	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0	0
	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0	0
	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0	0
	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0	0
	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0	0
	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0	0
	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0	0
	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0	0
	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0	0
	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0	0
	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0	0
	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0	0
	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0	0
	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0	0
	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0	0
	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0	0
	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0	0
	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0	0
	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0	0
	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0	0
	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0	0
	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0	0
	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0	0
	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0	0
	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0	0
	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0	0
	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0	0
	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0	0
	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0	0
	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0	0
	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0	0
	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0	0
	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0	0
	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0	0
	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0	0
	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0	0
	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0	0
	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0	0
	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0	0
	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0	0
	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0	0
	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0	0
	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0	0
	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0	0
	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0	0
	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0	0
	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0	0
	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0	0
	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0	0
	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0	0
	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0	0
	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0	0
	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0	0
	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0	0
	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0	0
	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0	0
	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0	0
	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0	0
	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0	0
	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0	0
	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0	0
	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0	0
	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0	0
	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0	0
	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0	0
	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0	0
	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0	0
	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0	0
	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0	0
	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0	0
	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0	0
	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0	0
	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0	0
	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0	0
	0.00	0.00	0.00								

OREGON ANIMAL WASTE MANAGEMENT DESIGN AID (ORAWM)

CLIENT: Y-1 Farms, Inc.
 ASSISTED BY: Hilary Collinsworth

Version 5.1

5/19/17

ANIMAL WASTE MANAGEMENT SYSTEM PRODUCTION

MONTHLY NUTRIENT PRODUCTION

Month	Pounds of Nutrients from LIQUIDS				Pounds of Nutrients from SOLIDS				Pounds of Nutrients from GRAZING				Total Pounds of Nutrients from ALL SOURCES			
	N	P ₂ O ₅	K ₂ O		N	P ₂ O ₅	K ₂ O		N	P ₂ O ₅	K ₂ O		N	P ₂ O ₅	K ₂ O	
October	23,541	6,592	8,668		70,622	19,775	26,003		0	0	0		94,163	26,367	34,670	
November	22,781	6,379	8,388		68,344	19,137	25,164		0	0	0		91,125	25,516	33,552	
December	23,541	6,592	8,668		70,622	19,775	26,003		0	0	0		94,163	26,367	34,670	
January	23,541	6,592	8,668		70,622	19,775	26,003		0	0	0		94,163	26,367	34,670	
February	21,263	5,954	7,829		63,788	17,861	23,486		0	0	0		85,050	23,815	31,315	
March	23,541	6,592	8,668		70,622	19,775	26,003		0	0	0		94,163	26,367	34,670	
April	22,781	6,379	8,388		68,344	19,137	25,164		0	0	0		91,125	25,516	33,552	
May	23,541	6,592	8,668		70,622	19,775	26,003		0	0	0		94,163	26,367	34,670	
June	22,781	6,379	8,388		68,344	19,137	25,164		0	0	0		91,125	25,516	33,552	
July	23,541	6,592	8,668		70,622	19,775	26,003		0	0	0		94,163	26,367	34,670	
August	23,541	6,592	8,668		70,622	19,775	26,003		0	0	0		94,163	26,367	34,670	
September	22,781	6,379	8,388		68,344	19,137	25,164		0	0	0		91,125	25,516	33,552	
Annual	277,172	77,611	102,053		831,516	232,834	306,159		0	0	0		1,108,688	310,445	408,213	

MONTHLY IMPORTS INTO STORAGE FACILITIES

Month	Liquids		Solids	
	Cubic Feet	Gallons	Cubic Feet	Tons
October	0	0	0	0
November	0	0	0	0
December	0	0	0	0
January	0	0	0	0
February	0	0	0	0
March	0	0	0	0
April	0	0	0	0
May	0	0	0	0
June	0	0	0	0
July	0	0	0	0
August	0	0	0	0
September	0	0	0	0
Totals-	0	0	0	0

Total Liquids
Cubic Feet
143,205
190,057
177,236
172,131
148,365
147,969
143,207
153,039
143,901
110,840
112,201
128,233
1,770,383
13,242,466

40



P.O. Box 1020
211 Highway 95
Parma, ID 83660

WESTERN LABORATORIES.COM

208-722-6564
800-658-3858
FAX 208-722-6550

Manure/Compost Testing

Dealer #: 2-4

Name: Farmers Supply Co-op
550 Harrison St. West

Grower: Y-1 Farms

Field ID: Manure Sample

Reported: 8/28/2015

Lab No: 311336

Vale

OR

97918

Test #: 15

	100% DRY	AS SPREAD	
pH	7.9	LBS/100 LBS	POUNDS/TON
EC - mmhos (SS)	4.25		
Dry Matter- Percent	85.3		
Moisture - Percent	14.7		
Carbon - Percent	7.3		
Nitrogen - Percent	1.08	0.92	18.40
Phosphate (P2O5) %	1.50	1.28	25.60
Potash (K2O) %	3.01	2.57	51.40
Calcium - Percent	2.10	1.79	35.80
Magnesium - Percent	0.32	0.27	5.40
Sodium - Percent	0.46	0.40	8.00
Sulfur- percent	0.44	0.38	7.60
Zinc - ppm	186	159	0.32
Copper - ppm	42	36	0.07
Manganese - ppm	434	370	0.74
Iron - ppm	13116	11188	22.38
Boron - ppm	29	25	0.05
Carbon to Nitrogen Ratio	Ideal 15:1	Yours 7:1	
Compost Maturity	MATURE		
Solvita Compost Stability Index			

John P. Taberna, Soil Scientist

**ANIMAL WASTE MANAGEMENT PLAN
MINIMUM REQUIRED ELEMENT**

ANIMAL MORTALITY

Management of Animal Mortalities for: **Y-1 FARMS, INC. (Feedlot #1)**
Name of Operation

Animal mortalities will be disposed of in a manner that will comply with local, state, and federal regulations. Please mark and describe the method(s) of animal mortality management used on this operation:

☒ **REMOVAL SERVICE:** _____

☐ **COMPOSTED:** _____

☐ **INCINERATED:** _____

☐ **BURIED:** _____

☐ **OTHER:** _____

Signature of Legally Authorized Representative: Y1 Farms Inc by Douglas Maag

Print Name: Douglas Maag Date: 9-26-04

RECORD KEEPING AND REPORTING

Soil samples will be taken in each field once every 5 years, and a manure sample will be taken yearly. Protocol for sampling and testing soil and manure is included in this Animal Waste Management Plan.

Y-1 Farms records date and amount of manure applied to each field. As a large Federal CAFO, the following inspections will occur and records kept:

<u>INSPECTIONS:</u>	FREQUENCY OF INSPECTIONS	ITEM(S) TO BE INSPECTED
	DAILY	• Water lines
	WEEKLY	• Storm water diversions • Run-off diversions • Waste transport • Storage structures • Storage structure volume
	PERIODIC	• Application equipment leaks

Record results of:

- 1) Daily inspections.
- 2) Weekly inspections.
- 3) Periodic inspections.
- 4) Corrective actions taken, explain those not corrected.
- 5) Expected crop yields
- 6) Weather conditions at the time of manure, litter or process water application and 24 hours before and after application.
- 7) Total amount of manure or wastewater transferred to other persons, including date and amount of each transfer and the name and address of each recipient. Nutrient content data will be given to the recipient.

Y-1 Farms Feedlot #1 will report any discharge within 24 hours to the Oregon Department of Agriculture. Annual reports including amount of manure and wastewater applied and exported will be submitted each year.

**ANIMAL WASTE MANAGEMENT PLAN
MINIMUM REQUIRED ELEMENT**

**RECORD KEEPING AND REPORTING TO OREGON DEPARTMENT OF
AGRICULTURE**

Y-1 FARMS, INC. (Feedlot #1)

Name of Operation

RECORD KEEPING:

- a) Applications of manure, litter and process waste will be kept, including the date and amount of N and P applied during each application.
- b) Records of exporting manure, litter and process waste will also be kept.

REPORTING TO OREGON DEPARTMENT OF AGRICULTURE (ODA):

- a) Any discharge will be reported orally to ODA within 24 hours. Within 5 days, a written statement describing this discharge will also be submitted to ODA.
- b) The amount of manure, litter or process waste applied will be reported annually.
- c) The amount of manure, litter or process waste exported will be reported annually.

Signature of Legally Authorized Representative: Y1 Farms Inc by Douglas Mang

Print Name: Douglas Mang Date: 9-26-04

**ANIMAL WASTE MANAGEMENT PLAN
MINIMUM REQUIRED ELEMENT**

ANIMAL MORTALITY

Management of Animal Mortalities for: **Y-1 FARMS, INC. (Feedlot #2)**
Name of Operation

Animal mortalities will be disposed of in a manner that will comply with local, state, and federal regulations. Please mark and describe the method(s) of animal mortality management used on this operation:

☒ **REMOVAL SERVICE:** _____

☐ **COMPOSTED:** _____

☐ **INCINERATED:** _____

☐ **BURIED:** _____

☐ **OTHER:** _____

Signature of Legally Authorized Representative: Y1 Farms Inc. by Douglas Maag

Print Name: Douglas Maag Date: 9-26-04

RECORD KEEPING AND REPORTING

Soil samples will be taken in each field once every 5 years, and a manure sample will be taken yearly. Protocol for sampling and testing soil and manure is included in this Animal Waste Management Plan.

Y-1 Farms records date and amount of manure applied to each field. As a large Federal CAFO, the following inspections will occur and records kept:

<u>INSPECTIONS:</u>	FREQUENCY OF INSPECTIONS	ITEM(S) TO BE INSPECTED
	DAILY	• Water lines
	WEEKLY	• Storm water diversions • Run-off diversions • Waste transport • Storage structures • Storage structure volume
	PERIODIC	• Application equipment leaks

Record results of:

- 1) Daily inspections.
- 2) Weekly inspections.
- 3) Periodic inspections.
- 4) Corrective actions taken, explain those not corrected.
- 5) Expected crop yields
- 6) Weather conditions at the time of manure, litter or process water application and 24 hours before and after application.
- 7) Total amount of manure or wastewater transferred to other persons, including date and amount of each transfer and the name and address of each recipient. Nutrient content data will be given to the recipient.

Y-1 Farms Feedlot #2 will report any discharge within 24 hours to the Oregon Department of Agriculture. Annual reports including amount of manure and wastewater applied and exported will be submitted each year.

**ANIMAL WASTE MANAGEMENT PLAN
MINIMUM REQUIRED ELEMENT**

**RECORD KEEPING AND REPORTING TO OREGON DEPARTMENT OF
AGRICULTURE**

Y-1 FARMS, INC. (Feedlot #2)

Name of Operation

RECORD KEEPING:

- a) Applications of manure, litter and process waste will be kept, including the date and amount of N and P applied during each application.
- b) Records of exporting manure, litter and process waste will also be kept.

REPORTING TO OREGON DEPARTMENT OF AGRICULTURE (ODA):

- a) Any discharge will be reported orally to ODA within 24 hours. Within 5 days, a written statement describing this discharge will also be submitted to ODA.
- b) The amount of manure, litter or process waste applied will be reported annually.
- c) The amount of manure, litter or process waste exported will be reported annually.

Signature of Legally Authorized Representative: Y1 Farms Inc by Douglas Maag

Print Name: Douglas Maag Date: 9-26-04

Manure Application Record Sheet

Field ID

Year

Nitrogen Requirement for Field

Phosphorus Requirement for Field

lb/ac/y**lb/ac/y****Application Basis (Circle One)**

Nitrogen

Phosphorus

[illegible]

Additional:

[illegible]

**ANIMAL WASTE MANAGEMENT PLAN
MINIMUM REQUIRED ELEMENT**

ADDITIONAL REQUIREMENTS FOR LARGE FEDERAL CAFOs

Y-1 FARMS, INC. (Feedlot #1)

Name of Operation

<u>A) INSPECTIONS:</u>	FREQUENCY OF INSPECTIONS	ITEM(S) TO BE INSPECTED
	DAILY	• Water lines
	WEEKLY	• Storm water diversions • Run-off diversions • Waste transport • Storage structures • Storage structure volume
	PERIODIC	• Application equipment leaks

B) RECORD KEEPING:

Record:

- 1) Daily inspections.
- 2) Weekly inspections.
- 3) Periodic inspections.
- 4) Corrective actions taken, explain those not corrected.
- 5) Expected crop yields (if not in the plan).
- 6) Weather conditions at the time of manure, litter or process waste application and 24 hours before and after application.
- 7) Total amount of manure or wastewater transferred to other persons, including date and amount of each transfer and the name and address of each recipient.

C) OPERATION REQUIREMENTS:

- 1) Must have depth markers in all surface liquid impoundments (i.e. lagoons, ponds, tanks). Markers must indicate:
 - a. Maximum design volume.
 - b. Minimum capacity necessary to contain 25-year, 24 hours rainfall event.
 - c. Depth of manure and process wastewater.
- 2) Maintain setback area within 100 feet of any down gradient surface water, open title line intake structure, sinkholes, agricultural wellheads, or other conduits to surface waters where manure, litter or process wastewater are prohibited. As a compliance alternative, and if demonstrated to the satisfaction of ODA, the permittee may:
 - a. Establish a 35ft. vegetated buffer where manure, litter or process wastewater are prohibited: or
 - b. Demonstrate that a setback or vegetated buffer is not necessary or may be reduced.

D) MONITORING:

- 1) Collect and analyze manure, litter and other process wastewater annually for nutrient content, including nitrogen and phosphorus.
- 2) At least once, during the term of the permit, collect and analyze representative soil samples for phosphorus and nitrogen content from all fields where manure, litter and other process wastewater are applied.

Signature of Legally Authorized Representative: YI Farms Inc by Douglas Maag

Print Name: Douglas Maag Date: 9-26-09

ANIMAL WASTE MANAGEMENT PLAN MINIMUM REQUIRED ELEMENT

ADDITIONAL REQUIREMENTS FOR LARGE FEDERAL CAFOs

Y-1 FARMS, INC. (Feedlot #2)

Name of Operation

<u>A) INSPECTIONS:</u>	FREQUENCY OF INSPECTIONS	ITEM(S) TO BE INSPECTED
	DAILY	• Water lines
	WEEKLY	• Storm water diversions • Run-off diversions • Waste transport • Storage structures • Storage structure volume
	PERIODIC	• Application equipment leaks

B) RECORD KEEPING:

Record:

- 1) Daily inspections.
- 2) Weekly inspections.
- 3) Periodic inspections.
- 4) Corrective actions taken, explain those not corrected.
- 5) Expected crop yields (if not in the plan).
- 6) Weather conditions at the time of manure, litter or process waste application and 24 hours before and after application.
- 7) Total amount of manure or wastewater transferred to other persons, including date and amount of each transfer and the name and address of each recipient.

C) OPERATION REQUIREMENTS:

- 1) Must have depth markers in all surface liquid impoundments (i.e. lagoons, ponds, tanks). Markers must indicate:
 - a. Maximum design volume.
 - b. Minimum capacity necessary to contain 25-year, 24 hours rainfall event.
 - c. Depth of manure and process wastewater.
- 2) Maintain setback area within 100 feet of any down gradient surface water, open title line intake structure, sinkholes, agricultural wellheads, or other conduits to surface waters where manure, litter or process wastewater are prohibited. As a compliance alternative, and if demonstrated to the satisfaction of ODA, the permittee may:
 - a. Establish a 35ft. vegetated buffer where manure, litter or process wastewater are prohibited: or
 - b. Demonstrate that a setback or vegetated buffer is not necessary or may be reduced.

D) MONITORING:

- 1) Collect and analyze manure, litter and other process wastewater annually for nutrient content, including nitrogen and phosphorus.
- 2) At least once, during the term of the permit, collect and analyze representative soil samples for phosphorus and nitrogen content from all fields where manure, litter and other process wastewater are applied.

Signature of Legally Authorized Representative: YI Farms Inc by Douglas Maag

Print Name: Douglas Maag Date: 9-26-04

Inspection Record Sheet

A check mark (✓) indicates a daily inspection was performed. A Plus sign (+) indicates a weekly inspection was performed. An astrix (*) indicates that a problem was found, see comments section for that date.

<u>Daily Inspections (✓)</u> Water Lines	<u>Weekly Inspections (+)</u> Storm Water Diversions Runoff Diversions Waste Transport System Storage Structures Storage Structure Content Level	<u>Periodical Inspections</u> Application Equipment
--	--	---

Month/Year _____

Date Submitted to ODA _____

Date and Inspections performed		Problems and Solutions
1		
2		
3		
4		
5		
6		
7		
8		
9		
10		
11		
12		
13		
14		
15		
16		
17		
18		
19		
20		
21		
22		
23		
24		
25		
26		
27		
28		
29		
30		
31		

Crop Yields

Crop _____

Year _____

<u>Field ID</u>	<u>Acres/Field</u>	<u>Yield</u>	<u>TOTAL</u>	<u>Date Submitted to ODA</u>

Total Acres/Crop

Total Yield/Year

Manure Application Record Sheet

Field ID

Year

Nitrogen Requirement for Field

Phosphorus Requirement for Field

lb/ac/y

lb/ac/y

Application Basis (Circle One)

Nitrogen

Phosphorus

[illegible]

Additional:

[illegible]