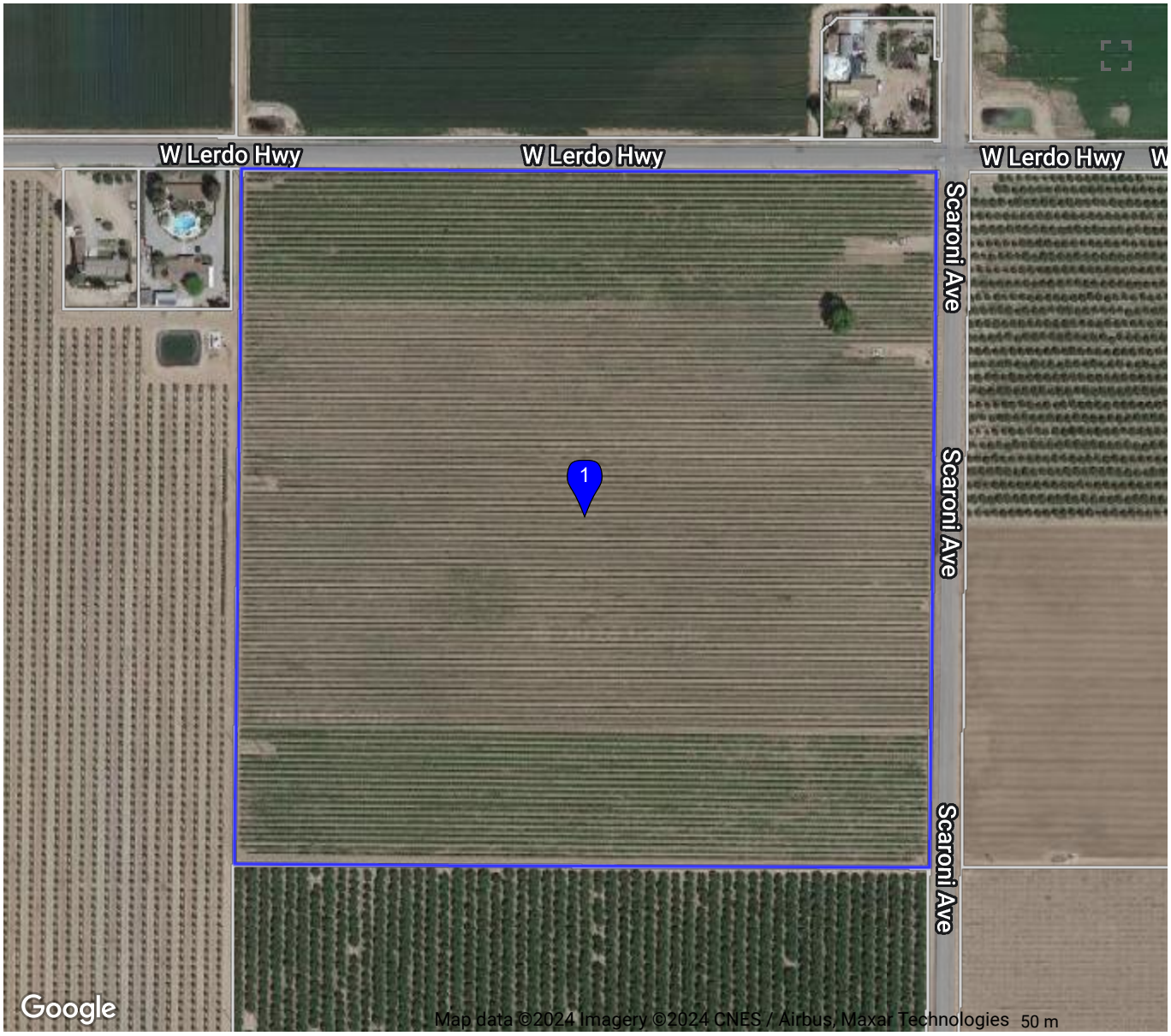


PARCELQUEST
LIST 1
DETAIL

☑ 1 Property Address:

Ownership

County:	**KERN, CA**
Assessor:	**LAURA AVILA, ASSESSOR**
Parcel # (APN):	**089-160-05-00-9**
Parcel Status:	**ACTIVE**
Owner Name:	**ATKINSON BROS FARMING LLC**
Mailing Address:	**PO BOX 20040 BAKERSFIELD CA 93390-0040**
Legal Description:	**S 18 T 28 R 25 *NE1/4 OF NE1/4 EXCL OF M.R. EXC RD 1.82A**

Assessment

Total Value:	**$542,421**	Use Code:	**4200**	Use Type:	**AGRICULTURAL**
Land Value:	**$341,420**	Tax Rate Area:	**089-003**	County Zoning Code:	**A**
Impr Value:	**$201,001**	Year Assd:	**2023**	Census Tract:	**40.01/1**
Other Value:		Property Tax:	**$10,478.89**	Price/SqFt:	
% Improved:	**37%**	Delinquent Yr:			
Exempt Amt:		HO Exempt:	**N**		

Sale History

	Sale 1	Sale 2	Sale 3	Transfer
Document Date:	**05/27/2011**	**11/06/1996**		**05/27/2011**
Document Number:	**211069923**	**196144296**		**211069923**
Document Type:	**GRANT DEED**	**GRANT DEED**		
Transfer Amount:	**$400,000**			
Seller (Grantor):	**ROBERTSON LINDA**			

Property Characteristics

Bedrooms:		Fireplace:		Units:	
Baths (Full):		A/C:		Stories:	
Baths (Half):		Heating:		Quality:	
Total Rooms:		Pool:		Building Class:	
Bldg/Liv Area:		Park Type:		Condition:	
Lot Acres:	**38.180**	Spaces:		Site Influence:	
Lot SqFt:	**1,663,120**	Garage SqFt:		Timber Preserve:	
Year Built:				Ag Preserve:	
Effective Year:					

10

Lerdo

Hwy.

Rd.

Ave.

Wasco

Scaroni

Riverside

St.

KERN COUNTY LAND CO.

SUBDIVISION

L.L.A. 28-18

1" = 800'

BK.88

BK.26

BK.90

(42) P.M.3312

(3)

(64) 1.05AC.

(5) 38.18AC.

(41) MR

(73) 254.72AC

(8) 39.55AC.

(70) 37.91AC.

(6) 39.09AC.

(9) 79.09AC.

(10) 106.60AC.

(75) MH

(17)

(69)

(12) 38.18AC.

(15) 39.09AC.

(45) 19.55AC

(71) 14.33AC.

(46) 34.09 AC.

(47) 4.09AC.

(13) 9.78A

(35) 9.78AC

(36) 19.55 AC.

(44) 19.55AC

(72) 14.67AC.

(18) 86.14AC.

(52) 57.75 AC.

(39) 39.09AC.

(28) 18.64AC.

(24) 19.55AC.

(38) 9.78AC.

(20) 9.78AC.

(27) 38.18AC.

(26) 19.55AC.

(25) 19.55AC.

(22) 19.55AC.

(76) 19.55AC.

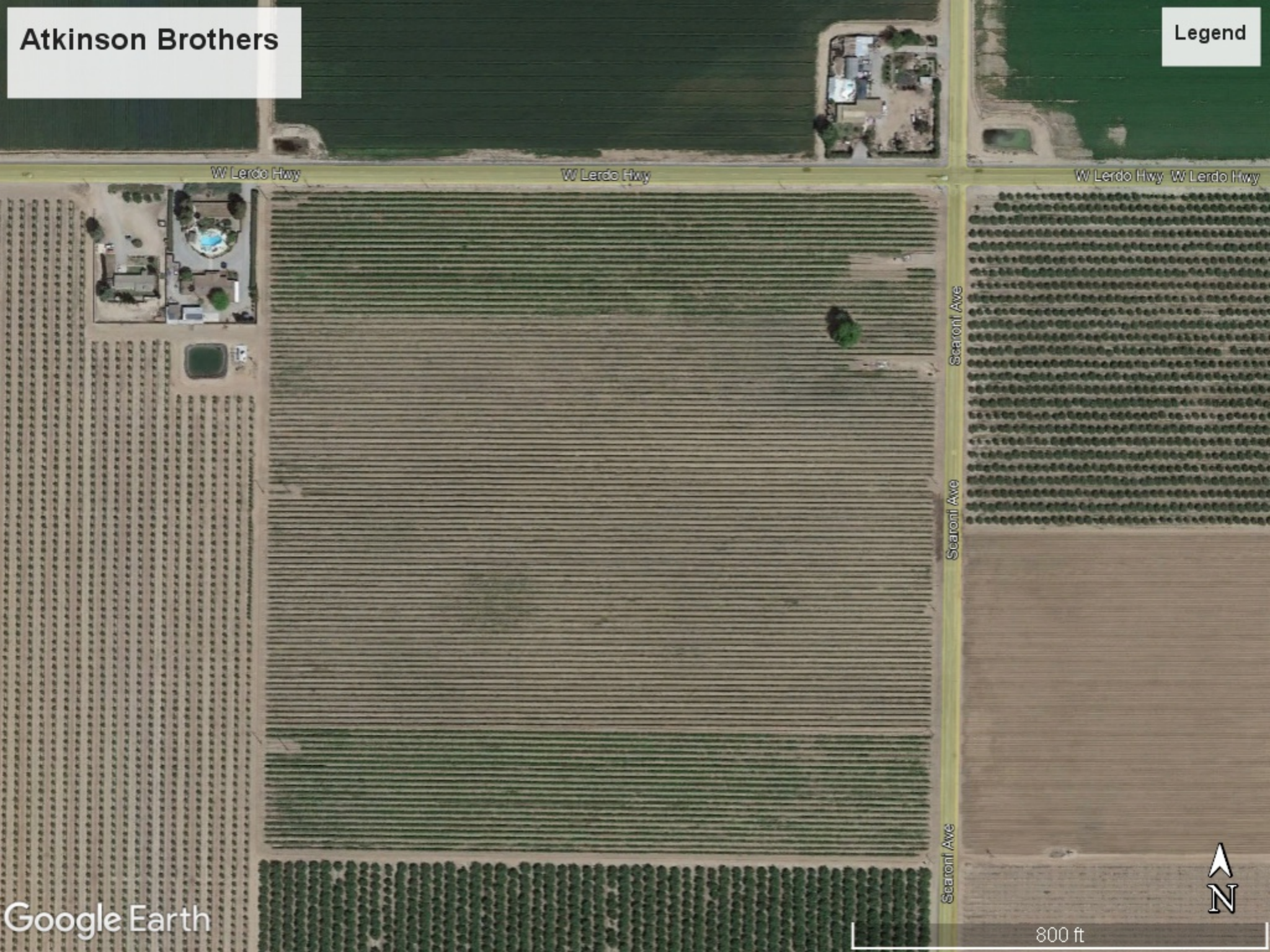
(77) 37.7AC.

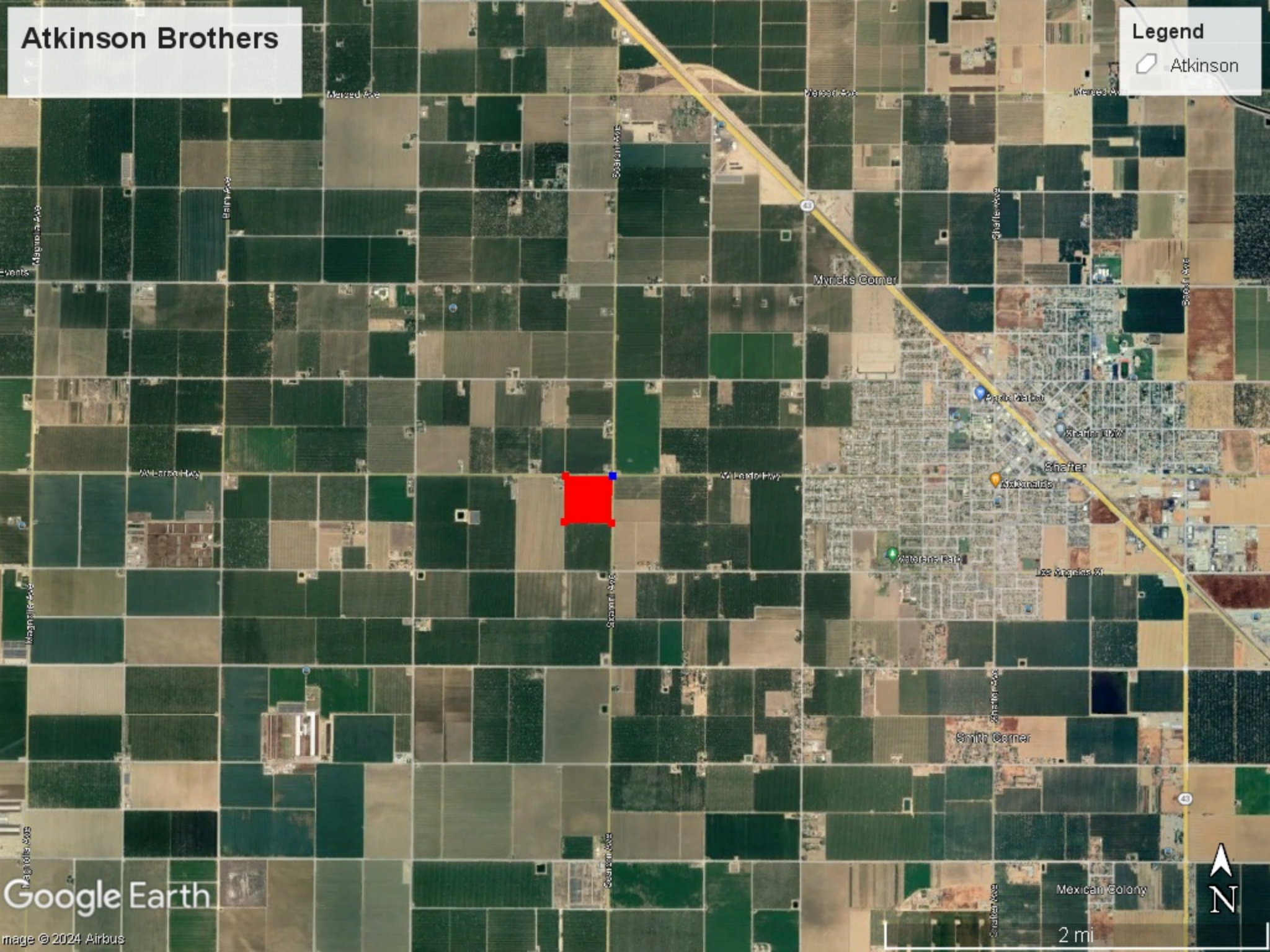
(78)

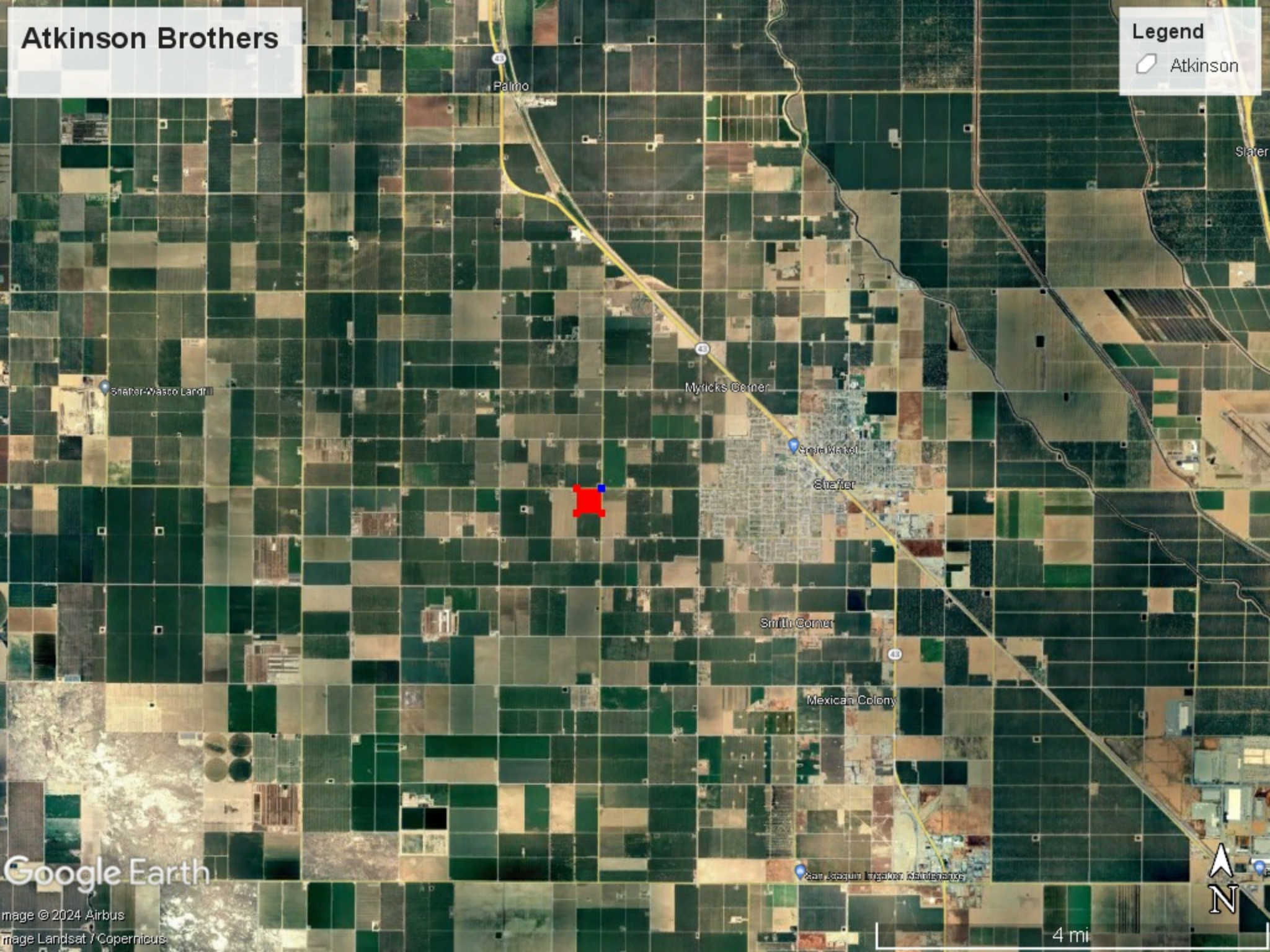
Note: This map is for assessment purposes only. It is not to be construed as portraying legal ownership or divisions of land for purposes of zoning or subdivision law.

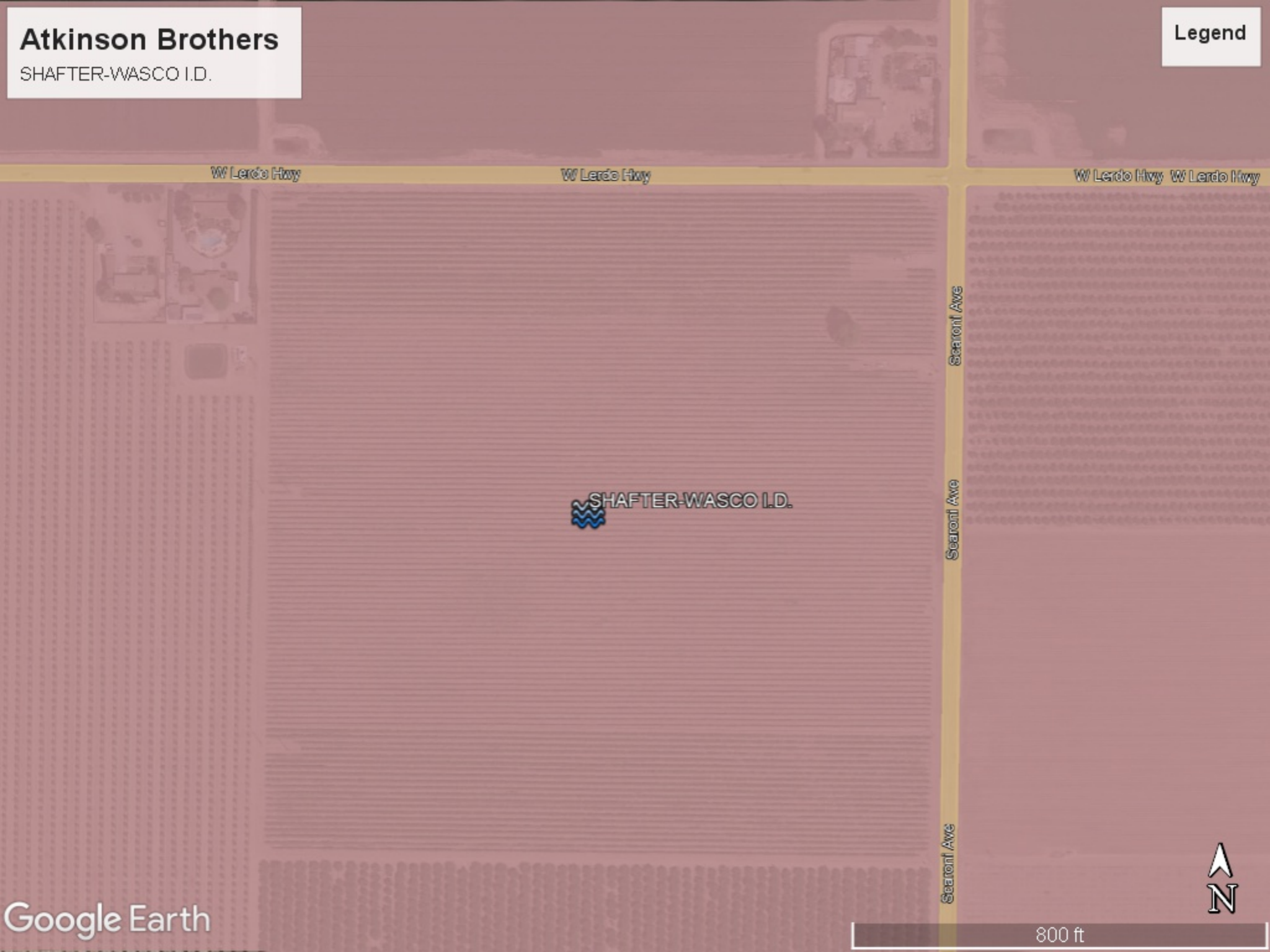
Revised: 09/28/2022

ASSESSORS MAP NO. 89-16
COUNTY OF KERN


Atkinson Brothers
Legend
W Lerdo Hwy
W Lerdo Hwy
W Lerdo Hwy
W Lerdo Hwy
Searoni Ave
Searoni Ave
Searoni Ave
N
800 ft
Google Earth


Atkinson Brothers
Legend
Atkinson
Merced Ave
Myricks Corner
Shafter
Smith Corner
Mexican Colony
Google Earth
2 mi
N


Atkinson Brothers
Legend
Atkinson
Palmo
Mylicks Corner
Shafter
Smith Corner
Mexican Colony
Google Earth
mage © 2024 Airbus
mage Landsat / Copernicus
4 mi
N


Atkinson Brothers
SHAFTER-WASCO I.D.
Legend
W Lerdo Hwy
W Lerdo Hwy
W Lerdo Hwy
W Lerdo Hwy
Searoni Ave
Searoni Ave
Searoni Ave
SHAFTER-WASCO I.D.
N
Google Earth
800 ft


Atkinson Brothers
Well NEQ
Legend
Google Earth
© 2024 Google
6.80 ft


Atkinson Brothers
District Tournout & Filtration
Legend
Google Earth
© 2024 Google
7.82 ft

Farm Pump & Irrigation Co. Inc.

535 N. Shafter Ave. Shafter CA 93263 (661) 746-3376 Fax (661) 746-1510

Pump Test Report

Name: **ATKINSON BROS.** Date: **4/12/23** Well No **GRAPES**

Mailing Address: _____ Acct. # _____

Pump Location: **S/W CORNER OF LERDO HWY & SCARONI** Meter # **1009847824**

MOTOR MAKE: **US** H.P. **100** RPM **1780** Serial # **X027641119**

VOLTS: **460** Frame No. **404TP** Head: _____ Amps. _____ _____ _____

Discharge I.D. **8** Discharge Area **53.456** Manometer Reading **11.7**

Pump Test Results

Standing Water Level		**371** Ft.
Draw Down (Standing to Pumping)		**4** Ft.
Pumping Water Level		**375** Ft.
Lift Above C/L Discharge Pipe		**0** Ft.
Discharge Pressure	**0** psi	**0** Ft.
Total Lift		**375** Ft.
Water Pumped		**625** G.P.M.
Yield of Well (G.P.M. Per Foot Draw Down)		**156.4** G.P.M./Ft.
Water Pumped in 24 Hours		**2.8** Acre/Ft.
Horsepower Input **21.6** Kh. **1** C **63** Rev's. **60** Sec.		**109.5** H.P.
Kilowatt Input		**81.7** K.W.
Kilowatt Hours per Acre Foot Pumped		**709.6** K.W.H./A.
Overall Plant Efficiency		**54.1%**
Cost per Acre Foot (Based on $ **0.10** per KWH)_ x kwh		**$70.96**

Remarks or Recommendations

RUNNING VOLTS 443v

PACIFIC SURVEYS

ELECTRIC LOG
GAMMA-RAY

Job No. 19395

Company FARM PUMP & IRRIGATION

Well ATKINSON BROTHERS

Field SHAFTER

County KERN State CA

File No.

Location

SW CORNER OF LERDO HWY & SCARONI AVE
GPS N 35o 29.968' W 119o 19.844'

Other Services

NONE

Sec. Twp. Rge.

Permanent Datum G.L. Elevation

Log Measured From G.L. 0' above perm datum

Drilling Measured From G.L.

Elevation
K.B.
D.F.
G.L.

Date	03-23-2015
Run Number	ONE
Depth Driller	880'
Depth Logger	887'
Bottom Logged Interval	887'
Top Log Interval	30'
Casing Driller	30" @ 40'
Casing Logger	40'
Bit Size	17.5"
Type Fluid in Hole	WATER
Density / Viscosity	N/A
pH / Fluid Loss	N/A
Source of Sample	PIT
Rm @ Meas. Temp	6.89 @ 70F
Rmf @ Meas. Temp	6.68 @ 70F
Rmc @ Meas. Temp	N/A
Source of Rmf / Rmc	MEASURE
Rm @ BHT	N/A
Time Circulation Stopped	1600
Time Logger on Bottom	2000
Max Recorded Temperature	N/A
Equipment Number	PS-5
Location	LA
Recorded By	SCHUMACHER
Witnessed By	-

<<< Fold Here >>>

Comments

Calibration Report

Database File	19395.db
Dataset Pathname	pass1
Dataset Creation	Mon Mar 23 20:07:50 2015

ELOG Calibration Report

Serial:	D4
Model:	DTQ
Shop Calibration Performed:	Tue Mar 03 16:25:53 2015
Before Survey Verification Performed:	Tue Mar 03 16:22:41 2015
After Survey Verification Performed:	Tue Mar 03 16:23:12 2015

Shop Calibration

	Readings Zero	Readings Cal		References Zero	References Cal		Results Gain	Results Offset
Short	9.332	100.892		10.200	102.200	Ohm-m	1.005	0.823
Long	9.764	99.525		10.200	102.200	Ohm-m	1.025	-17.000
IEE	220.940	8904.920	counts	0.242	9.746	A		
VSN	68.200	10148.760	counts	1.301	193.575	V		
VLN	87.620	2572.260	counts	1.671	49.063	V		

Before Survey Verification

	Readings Zero	Readings Cal		References Zero	References Cal		Results Gain	Results Offset
Short	26.077	101.434		27.475	101.439	Ohm-m	0.982	1.879
Long	144.935	102.833		102.842	102.842	Ohm-m	0.911	9.170
IEE	221.720	8915.120	counts	0.243	9.757	A		
VSN	64.960	10159.840	counts	1.239	193.787	V		
VLN	90.260	2575.000	counts	1.722	49.115	V		

After Survey Verification

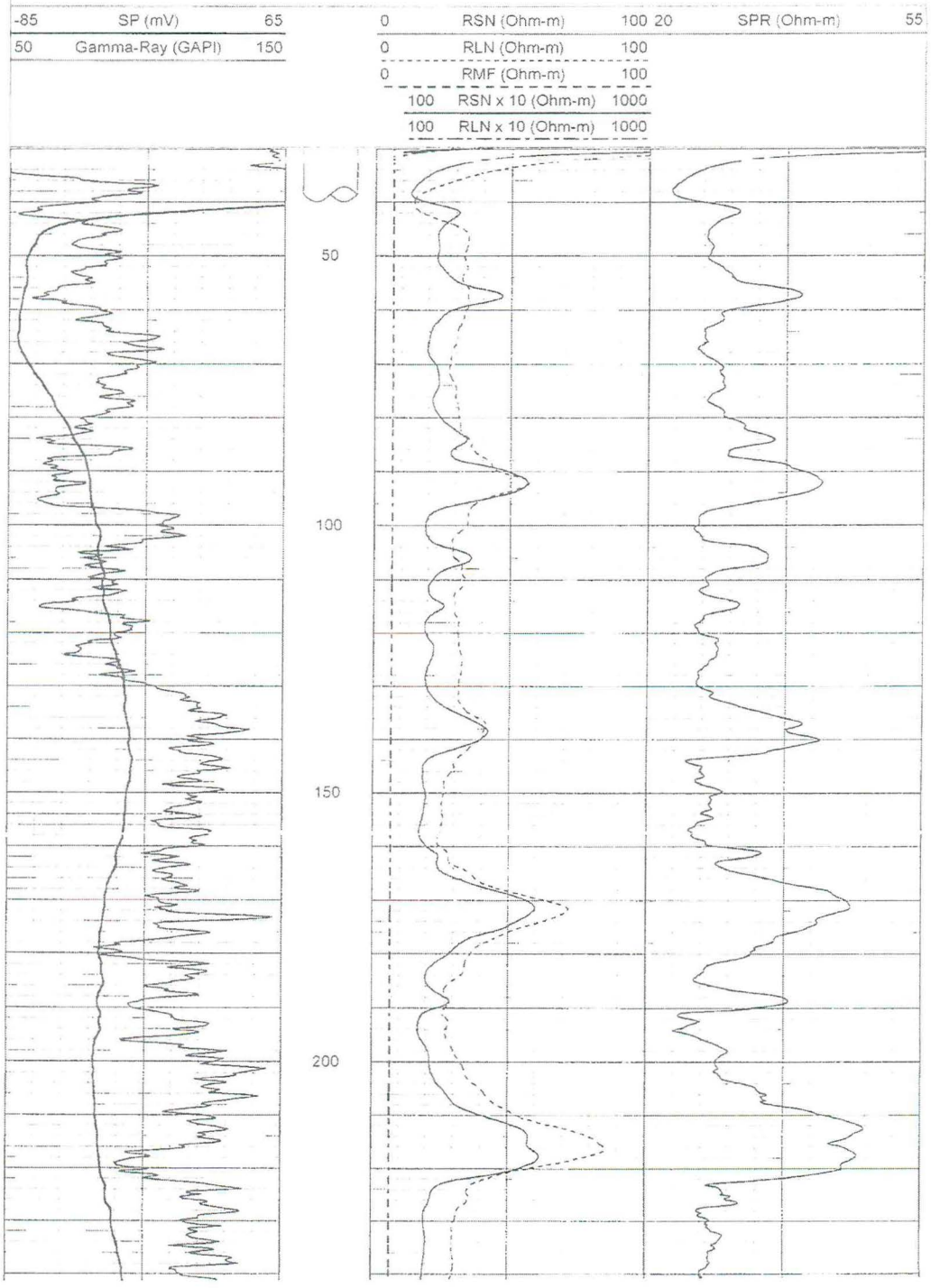
After Survey Verification compared to Before Survey Calibration

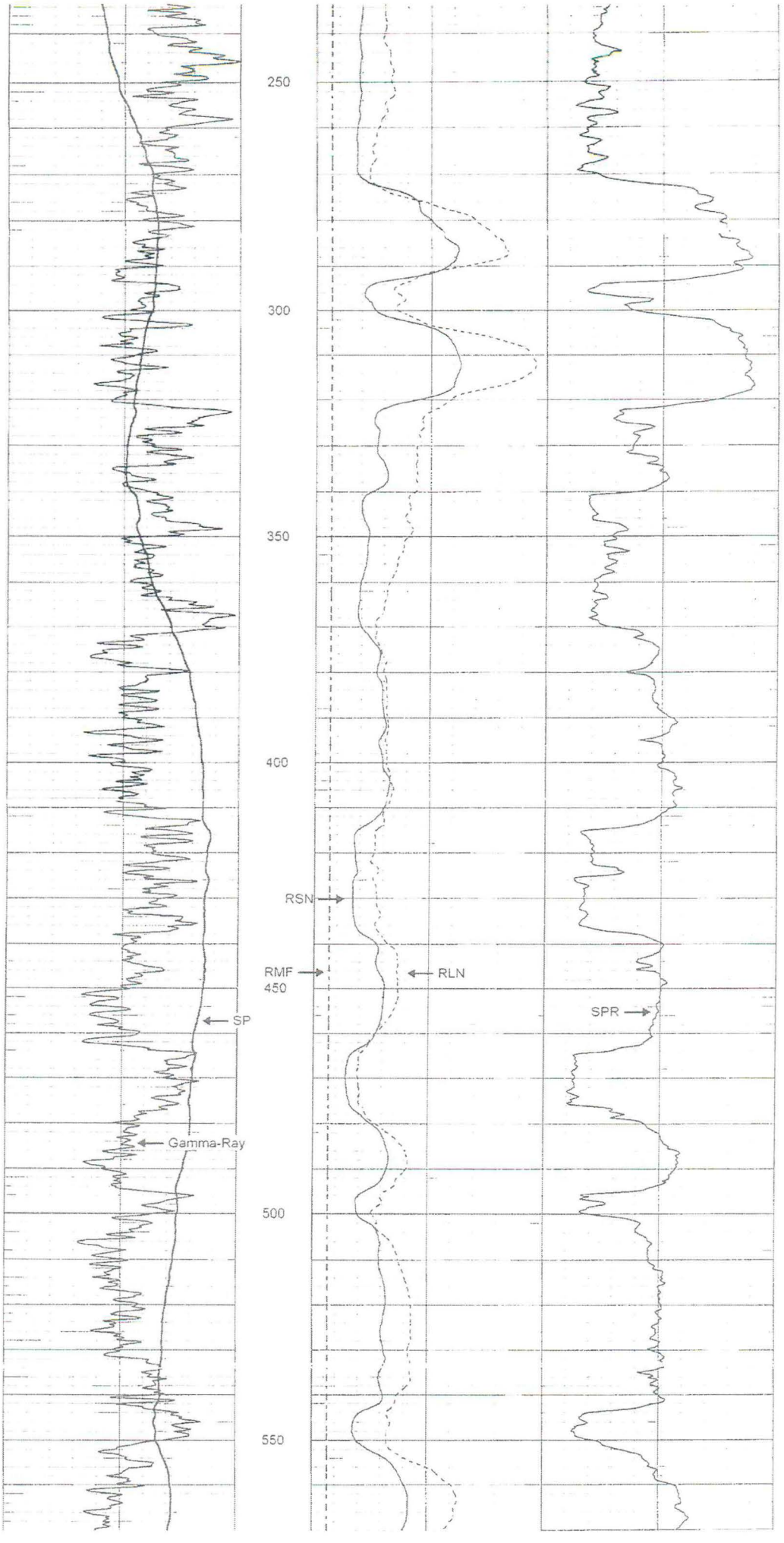
	Zero			Cal		
	Before	After		Before	After	
Short	27.475	26.077	Ohm-m	101.439	101.434	Ohm-m
Long	141.193	144.935	Ohm-m	102.842	102.833	Ohm-m

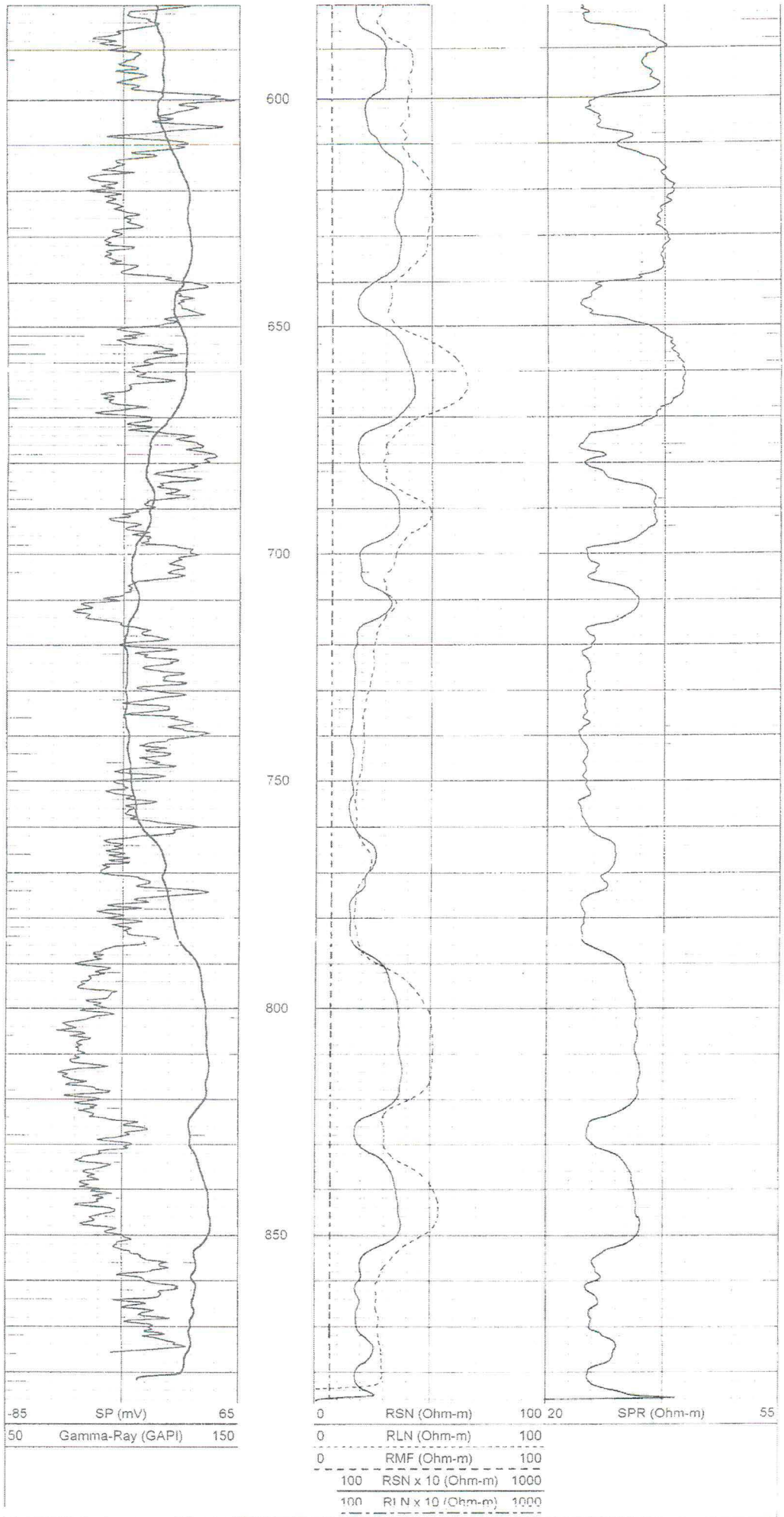
Gamma Ray Calibration Report

Serial Number:	D4	
Tool Model:	ELOG	
Performed:	Tue Mar 03 16:50:57 2015	
Calibrator Value:	162.0	GAPI
Background Reading:	124.7	cps
Calibrator Reading:	352.0	cps
Sensitivity:	0.7129	GAPI/cps

Database File	19395.db
Dataset Pathname	pass1
Presentation Format	elog
Dataset Creation	Mon Mar 23 20:07:50 2015
Charted by	Depth in Feet scaled 1:240




250
300
350
400
RSN
RMF
RLN
450
SP
SPR
Gamma-Ray
500
550


600
650
700
750
800
850
-85 SP (mV) 65
50 Gamma-Ray (GAPI) 150
0 RSN (Ohm-m) 100
0 RLN (Ohm-m) 100
0 RMF (Ohm-m) 100
100 RSN x 10 (Ohm-m) 1000
100 RLN x 10 (Ohm-m) 1000
20 SPR (Ohm-m) 55

Pacific Surveys

a full service geophysical well logging company

Water Quality Analysis

Company: Farm Pump & Irrigation
Well: Atkinson Brothers
Field: Shafter
State: California

Date: 23-Mar-15
Run: One
Job Ticket: 19395
Total Depth: 887 ft

Rmf @ Temp: 6.68 **Temp:** 70
Corrected Rmf @ 75 degree F: 6.27
Rm @ Temp: 6.89

Depth	S.P. mV	Rwe ohm-m	Rw *NaCl* ohm-m	Rw *NaHCO3* ohm-m	EC umhos *NaCl*	EC umhos *NaHCO3*	T.D.S *ppm* NaCl	T.D.S *ppm* $NaHCO_3$	Remarks
270 ft to 322 ft	-1.00	6.1	7.5	8.9	1325.9	1127.0	702.7	1127.0	Class II
322 ft to 415 ft	-3.00	5.7	7.0	8.2	1436.3	1220.8	761.2	1220.8	Class II
436 ft to 548 ft	2.00	6.7	8.5	10.0	1176.1	999.7	623.4	999.7	Class I & II
548 ft to 600 ft	5.00	7.4	9.6	11.3	1043.3	886.8	552.9	886.8	Class I & II
600 ft to 678 ft	10.00	8.7	11.7	13.8	854.3	726.2	452.8	726.2	Class I & II
678 ft to 700 ft	5.00	7.4	9.6	11.3	1043.3	886.8	552.9	886.8	Class I & II
784 ft to 856 ft	11.00	9.0	12.2	14.3	820.8	697.7	435.0	697.7	Class I

Class I : Less than *700* ppm (mg/l) Excellent to Good Quality
Class II : *700* to *2000* ppm (mg/l) Good to Injurious Quality
Class III: More than *2000* ppm (mg/l) Injurious to Unsatisfactory

800.919.7555
909.625.6262

4456 via St. ambrose
claremont ca 91711

fax: 909.399.3018

United States Department of Agriculture

NRCS

Natural Resources Conservation Service

A product of the National Cooperative Soil Survey, a joint effort of the United States Department of Agriculture and other Federal agencies, State agencies including the Agricultural Experiment Stations, and local participants

Custom Soil Resource Report for Kern County, California, Northwestern Part

Atkinson Brothers

June 22, 2024

Preface

Soil surveys contain information that affects land use planning in survey areas. They highlight soil limitations that affect various land uses and provide information about the properties of the soils in the survey areas. Soil surveys are designed for many different users, including farmers, ranchers, foresters, agronomists, urban planners, community officials, engineers, developers, builders, and home buyers. Also, conservationists, teachers, students, and specialists in recreation, waste disposal, and pollution control can use the surveys to help them understand, protect, or enhance the environment.

Various land use regulations of Federal, State, and local governments may impose special restrictions on land use or land treatment. Soil surveys identify soil properties that are used in making various land use or land treatment decisions. The information is intended to help the land users identify and reduce the effects of soil limitations on various land uses. The landowner or user is responsible for identifying and complying with existing laws and regulations.

Although soil survey information can be used for general farm, local, and wider area planning, onsite investigation is needed to supplement this information in some cases. Examples include soil quality assessments (http://www.nrcs.usda.gov/wps/portal/nrcs/main/soils/health/) and certain conservation and engineering applications. For more detailed information, contact your local USDA Service Center (https://offices.sc.egov.usda.gov/locator/app?agency=nrcs) or your NRCS State Soil Scientist (http://www.nrcs.usda.gov/wps/portal/nrcs/detail/soils/contactus/?cid=nrcs142p2_053951).

Great differences in soil properties can occur within short distances. Some soils are seasonally wet or subject to flooding. Some are too unstable to be used as a foundation for buildings or roads. Clayey or wet soils are poorly suited to use as septic tank absorption fields. A high water table makes a soil poorly suited to basements or underground installations.

The National Cooperative Soil Survey is a joint effort of the United States Department of Agriculture and other Federal agencies, State agencies including the Agricultural Experiment Stations, and local agencies. The Natural Resources Conservation Service (NRCS) has leadership for the Federal part of the National Cooperative Soil Survey.

Information about soils is updated periodically. Updated information is available through the NRCS Web Soil Survey, the site for official soil survey information.

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Contents

How Soil Surveys Are Made

Soil surveys are made to provide information about the soils and miscellaneous areas in a specific area. They include a description of the soils and miscellaneous areas and their location on the landscape and tables that show soil properties and limitations affecting various uses. Soil scientists observed the steepness, length, and shape of the slopes; the general pattern of drainage; the kinds of crops and native plants; and the kinds of bedrock. They observed and described many soil profiles. A soil profile is the sequence of natural layers, or horizons, in a soil. The profile extends from the surface down into the unconsolidated material in which the soil formed or from the surface down to bedrock. The unconsolidated material is devoid of roots and other living organisms and has not been changed by other biological activity.

Currently, soils are mapped according to the boundaries of major land resource areas (MLRAs). MLRAs are geographically associated land resource units that share common characteristics related to physiography, geology, climate, water resources, soils, biological resources, and land uses (USDA, 2006). Soil survey areas typically consist of parts of one or more MLRA.

The soils and miscellaneous areas in a survey area occur in an orderly pattern that is related to the geology, landforms, relief, climate, and natural vegetation of the area. Each kind of soil and miscellaneous area is associated with a particular kind of landform or with a segment of the landform. By observing the soils and miscellaneous areas in the survey area and relating their position to specific segments of the landform, a soil scientist develops a concept, or model, of how they were formed. Thus, during mapping, this model enables the soil scientist to predict with a considerable degree of accuracy the kind of soil or miscellaneous area at a specific location on the landscape.

Commonly, individual soils on the landscape merge into one another as their characteristics gradually change. To construct an accurate soil map, however, soil scientists must determine the boundaries between the soils. They can observe only a limited number of soil profiles. Nevertheless, these observations, supplemented by an understanding of the soil-vegetation-landscape relationship, are sufficient to verify predictions of the kinds of soil in an area and to determine the boundaries.

Soil scientists recorded the characteristics of the soil profiles that they studied. They noted soil color, texture, size and shape of soil aggregates, kind and amount of rock fragments, distribution of plant roots, reaction, and other features that enable them to identify soils. After describing the soils in the survey area and determining their properties, the soil scientists assigned the soils to taxonomic classes (units). Taxonomic classes are concepts. Each taxonomic class has a set of soil characteristics with precisely defined limits. The classes are used as a basis for comparison to classify soils systematically. Soil taxonomy, the system of taxonomic classification used in the United States, is based mainly on the kind and character of soil properties and the arrangement of horizons within the profile. After the soil

scientists classified and named the soils in the survey area, they compared the individual soils with similar soils in the same taxonomic class in other areas so that they could confirm data and assemble additional data based on experience and research.

The objective of soil mapping is not to delineate pure map unit components; the objective is to separate the landscape into landforms or landform segments that have similar use and management requirements. Each map unit is defined by a unique combination of soil components and/or miscellaneous areas in predictable proportions. Some components may be highly contrasting to the other components of the map unit. The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The delineation of such landforms and landform segments on the map provides sufficient information for the development of resource plans. If intensive use of small areas is planned, onsite investigation is needed to define and locate the soils and miscellaneous areas.

Soil scientists make many field observations in the process of producing a soil map. The frequency of observation is dependent upon several factors, including scale of mapping, intensity of mapping, design of map units, complexity of the landscape, and experience of the soil scientist. Observations are made to test and refine the soil-landscape model and predictions and to verify the classification of the soils at specific locations. Once the soil-landscape model is refined, a significantly smaller number of measurements of individual soil properties are made and recorded. These measurements may include field measurements, such as those for color, depth to bedrock, and texture, and laboratory measurements, such as those for content of sand, silt, clay, salt, and other components. Properties of each soil typically vary from one point to another across the landscape.

Observations for map unit components are aggregated to develop ranges of characteristics for the components. The aggregated values are presented. Direct measurements do not exist for every property presented for every map unit component. Values for some properties are estimated from combinations of other properties.

While a soil survey is in progress, samples of some of the soils in the area generally are collected for laboratory analyses and for engineering tests. Soil scientists interpret the data from these analyses and tests as well as the field-observed characteristics and the soil properties to determine the expected behavior of the soils under different uses. Interpretations for all of the soils are field tested through observation of the soils in different uses and under different levels of management. Some interpretations are modified to fit local conditions, and some new interpretations are developed to meet local needs. Data are assembled from other sources, such as research information, production records, and field experience of specialists. For example, data on crop yields under defined levels of management are assembled from farm records and from field or plot experiments on the same kinds of soil.

Predictions about soil behavior are based not only on soil properties but also on such variables as climate and biological activity. Soil conditions are predictable over long periods of time, but they are not predictable from year to year. For example, soil scientists can predict with a fairly high degree of accuracy that a given soil will have a high water table within certain depths in most years, but they cannot predict that a high water table will always be at a specific level in the soil on a specific date.

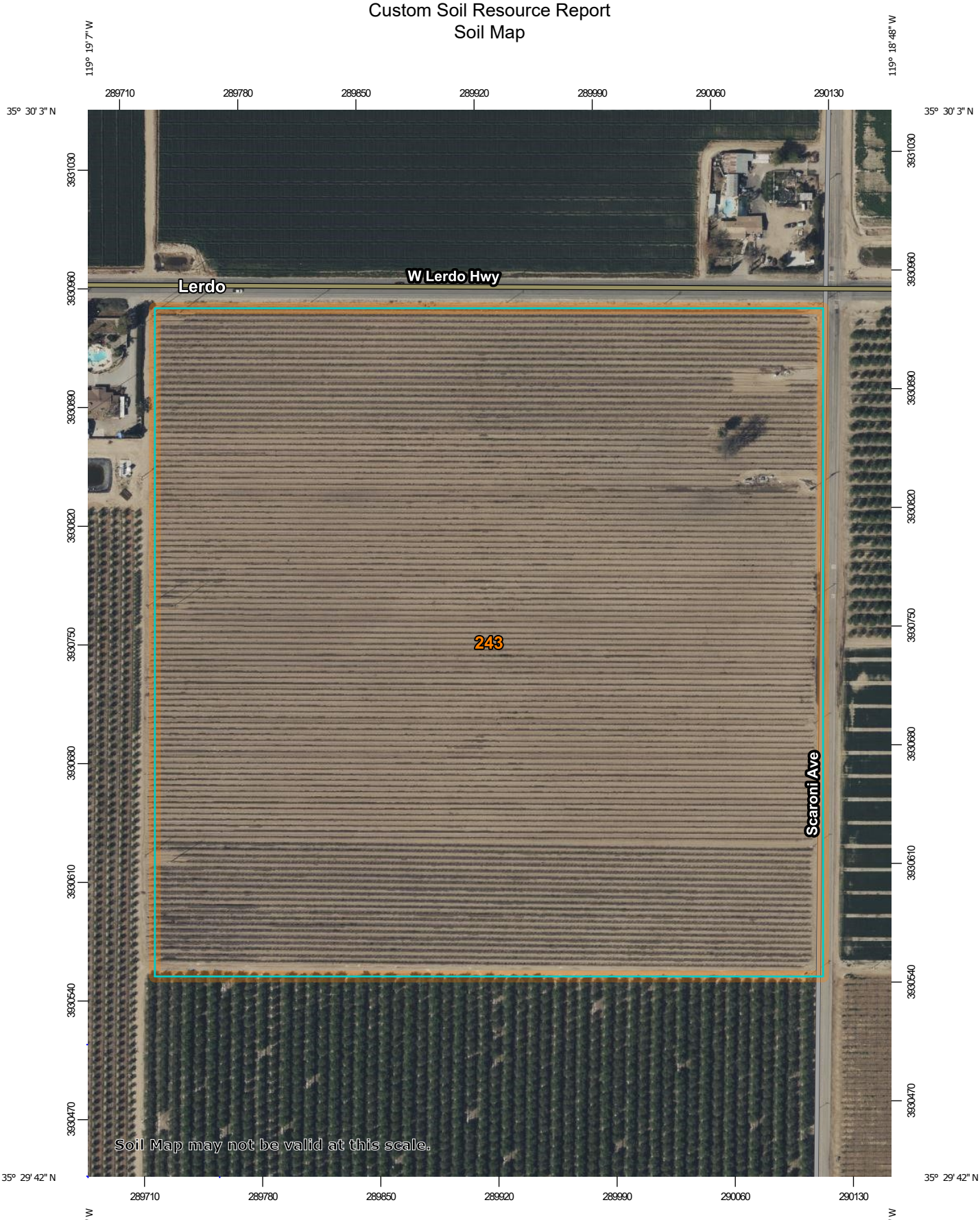
After soil scientists located and identified the significant natural bodies of soil in the survey area, they drew the boundaries of these bodies on aerial photographs and

identified each as a specific map unit. Aerial photographs show trees, buildings, fields, roads, and rivers, all of which help in locating boundaries accurately.

Soil Map

The soil map section includes the soil map for the defined area of interest, a list of soil map units on the map and extent of each map unit, and cartographic symbols displayed on the map. Also presented are various metadata about data used to produce the map, and a description of each soil map unit.

Custom Soil Resource Report
Soil Map



Map Scale: 1:3,070 if printed on A portrait (8.5" x 11") sheet.

N

Meters: 0 45 90 180 270

Feet: 0 100 200 400 600

Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 11N WGS84

MAP LEGEND

Area of Interest (AOI)
- Area of Interest (AOI)

Soils
- Soil Map Unit Polygons
- Soil Map Unit Lines
- Soil Map Unit Points

Special Point Features
- Blowout
- Borrow Pit
- Clay Spot
- Closed Depression
- Gravel Pit
- Gravelly Spot
- Landfill
- Lava Flow
- Marsh or swamp
- Mine or Quarry
- Miscellaneous Water
- Perennial Water
- Rock Outcrop
- Saline Spot
- Sandy Spot
- Severely Eroded Spot
- Sinkhole
- Slide or Slip
- Sodic Spot
- Spoil Area
- Stony Spot
- Very Stony Spot
- Wet Spot
- Other
- Special Line Features

Water Features
- Streams and Canals

Transportation
- Rails
- Interstate Highways
- US Routes
- Major Roads
- Local Roads

Background
- Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:24,000.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL:
Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Kern County, California, Northwestern Part
Survey Area Data: Version 16, Aug 31, 2023

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Mar 12, 2022—Mar 22, 2022

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
243	Wasco sandy loam	38.7	100.0%
Totals for Area of Interest		**38.7**	**100.0%**

Map Unit Descriptions

The map units delineated on the detailed soil maps in a soil survey represent the soils or miscellaneous areas in the survey area. The map unit descriptions, along with the maps, can be used to determine the composition and properties of a unit.

A map unit delineation on a soil map represents an area dominated by one or more major kinds of soil or miscellaneous areas. A map unit is identified and named according to the taxonomic classification of the dominant soils. Within a taxonomic class there are precisely defined limits for the properties of the soils. On the landscape, however, the soils are natural phenomena, and they have the characteristic variability of all natural phenomena. Thus, the range of some observed properties may extend beyond the limits defined for a taxonomic class. Areas of soils of a single taxonomic class rarely, if ever, can be mapped without including areas of other taxonomic classes. Consequently, every map unit is made up of the soils or miscellaneous areas for which it is named and some minor components that belong to taxonomic classes other than those of the major soils.

Most minor soils have properties similar to those of the dominant soil or soils in the map unit, and thus they do not affect use and management. These are called noncontrasting, or similar, components. They may or may not be mentioned in a particular map unit description. Other minor components, however, have properties and behavioral characteristics divergent enough to affect use or to require different management. These are called contrasting, or dissimilar, components. They generally are in small areas and could not be mapped separately because of the scale used. Some small areas of strongly contrasting soils or miscellaneous areas are identified by a special symbol on the maps. If included in the database for a given area, the contrasting minor components are identified in the map unit descriptions along with some characteristics of each. A few areas of minor components may not have been observed, and consequently they are not mentioned in the descriptions, especially where the pattern was so complex that it was impractical to make enough observations to identify all the soils and miscellaneous areas on the landscape.

The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The objective of mapping is not to delineate pure taxonomic classes but rather to separate the landscape into landforms or landform segments that have similar use and management requirements. The delineation of such segments on the map provides sufficient information for the development of resource plans. If intensive use of small areas is planned, however, onsite investigation is needed to define and locate the soils and miscellaneous areas.

An identifying symbol precedes the map unit name in the map unit descriptions. Each description includes general facts about the unit and gives important soil properties and qualities.

Soils that have profiles that are almost alike make up a *soil series*. Except for differences in texture of the surface layer, all the soils of a series have major horizons that are similar in composition, thickness, and arrangement.

Soils of one series can differ in texture of the surface layer, slope, stoniness, salinity, degree of erosion, and other characteristics that affect their use. On the basis of such differences, a soil series is divided into *soil phases*. Most of the areas shown on the detailed soil maps are phases of soil series. The name of a soil phase commonly indicates a feature that affects use or management. For example, Alpha silt loam, 0 to 2 percent slopes, is a phase of the Alpha series.

Some map units are made up of two or more major soils or miscellaneous areas. These map units are complexes, associations, or undifferentiated groups.

A *complex* consists of two or more soils or miscellaneous areas in such an intricate pattern or in such small areas that they cannot be shown separately on the maps. The pattern and proportion of the soils or miscellaneous areas are somewhat similar in all areas. Alpha-Beta complex, 0 to 6 percent slopes, is an example.

An *association* is made up of two or more geographically associated soils or miscellaneous areas that are shown as one unit on the maps. Because of present or anticipated uses of the map units in the survey area, it was not considered practical or necessary to map the soils or miscellaneous areas separately. The pattern and relative proportion of the soils or miscellaneous areas are somewhat similar. Alpha-Beta association, 0 to 2 percent slopes, is an example.

An *undifferentiated group* is made up of two or more soils or miscellaneous areas that could be mapped individually but are mapped as one unit because similar interpretations can be made for use and management. The pattern and proportion of the soils or miscellaneous areas in a mapped area are not uniform. An area can be made up of only one of the major soils or miscellaneous areas, or it can be made up of all of them. Alpha and Beta soils, 0 to 2 percent slopes, is an example.

Some surveys include *miscellaneous areas*. Such areas have little or no soil material and support little or no vegetation. Rock outcrop is an example.

Kern County, California, Northwestern Part

243—Wasco sandy loam

Map Unit Setting

National map unit symbol: hklx
Elevation: 250 to 3,700 feet
Mean annual precipitation: 4 to 7 inches
Mean annual air temperature: 61 to 64 degrees F
Frost-free period: 210 to 275 days
Farmland classification: Prime farmland if irrigated

Map Unit Composition

Wasco and similar soils: 85 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Wasco

Setting

Landform: Flood plains, alluvial fans
Landform position (three-dimensional): Tread, talf
Down-slope shape: Linear
Across-slope shape: Linear
Parent material: Alluvium derived from granite

Typical profile

Ap - 0 to 15 inches: sandy loam
C - 15 to 60 inches: sandy loam

Properties and qualities

Slope: 0 to 2 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Well drained
Runoff class: Very low
Capacity of the most limiting layer to transmit water (Ksat): High (1.98 to 5.95 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: Rare
Frequency of ponding: None
Calcium carbonate, maximum content: 5 percent
Maximum salinity: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)
Available water supply, 0 to 60 inches: Moderate (about 6.4 inches)

Interpretive groups

Land capability classification (irrigated): 2s
Land capability classification (nonirrigated): 7s
Hydrologic Soil Group: A
Ecological site: R017XY906CA - Non-Alkali San Joaquin Valley Desert
Hydric soil rating: No

Soil Information for All Uses

Suitabilities and Limitations for Use

The Suitabilities and Limitations for Use section includes various soil interpretations displayed as thematic maps with a summary table for the soil map units in the selected area of interest. A single value or rating for each map unit is generated by aggregating the interpretive ratings of individual map unit components. This aggregation process is defined for each interpretation.

Land Classifications

Land Classifications are specified land use and management groupings that are assigned to soil areas because combinations of soil have similar behavior for specified practices. Most are based on soil properties and other factors that directly influence the specific use of the soil. Example classifications include ecological site classification, farmland classification, irrigated and nonirrigated land capability classification, and hydric rating.

California Revised Storie Index (CA)

The Revised Storie Index is a rating system based on soil properties that govern the potential for soil map unit components to be used for irrigated agriculture in California.

The Revised Storie Index assesses the productivity of a soil from the following four characteristics:

- Factor A: degree of soil profile development

- Factor B: texture of the surface layer

- Factor C: steepness of slope

- Factor X: drainage class, landform, erosion class, flooding and ponding frequency and duration, soil pH, soluble salt content as measured by electrical conductivity, and sodium adsorption ratio

Revised Storie Index numerical ratings have been combined into six classes as follows:

- Grade 1: Excellent (81 to 100)

- Grade 2: Good (61 to 80)

- Grade 3: Fair (41 to 60)

- Grade 4: Poor (21 to 40)

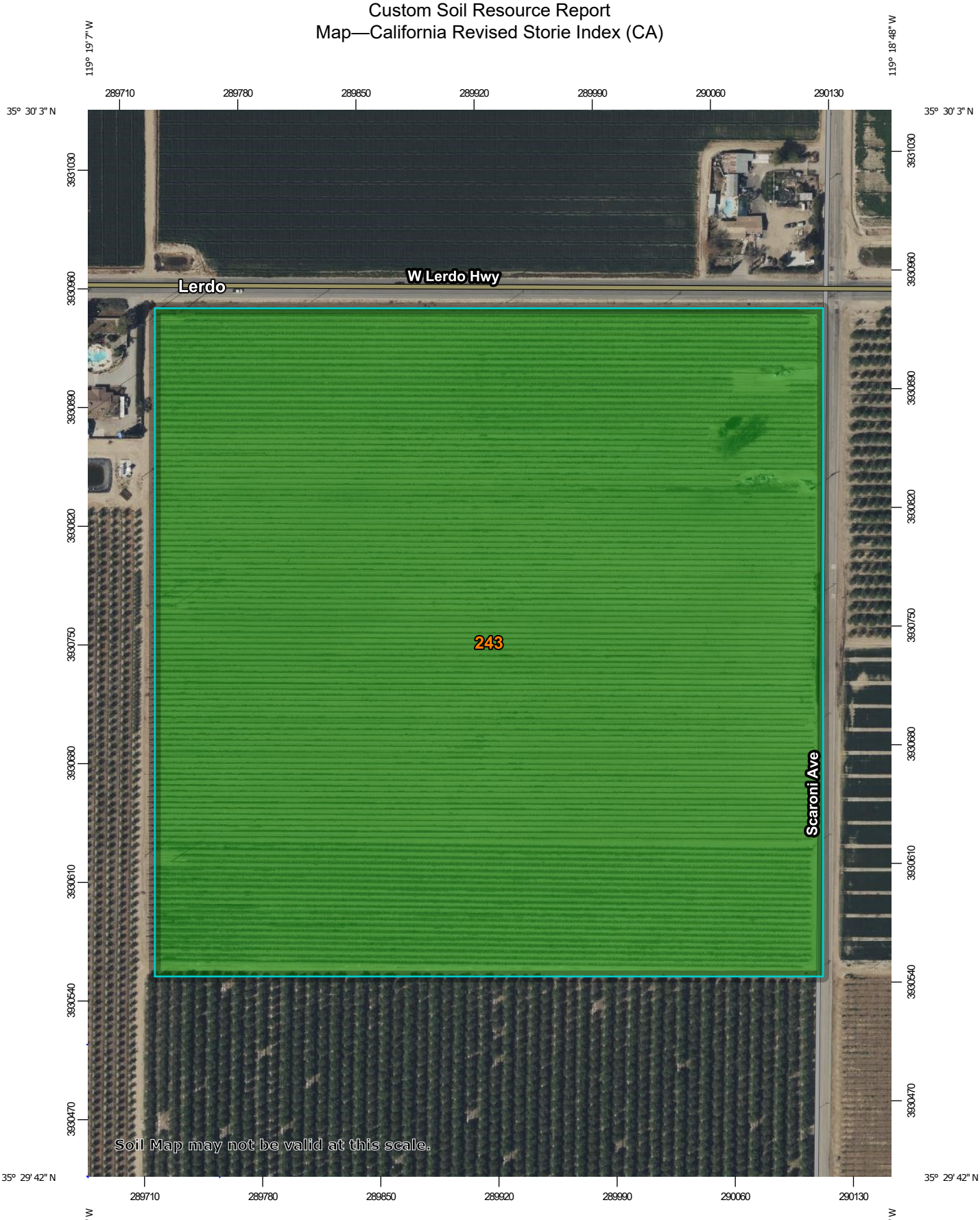
- Grade 5: Very poor (11 to 20)

- Grade 6: Nonagricultural (10 or less)

The components listed for each map unit in the accompanying Summary by Map Unit table in Web Soil Survey or the Aggregation Report in Soil Data Viewer are determined by the aggregation method chosen. An aggregated rating class is shown for each map unit. The components listed for each map unit are only those that have the same rating class as the one shown for the map unit. The percent composition of each component in a particular map unit is given to help the user better understand the extent to which the rating applies to the map unit.

Other components with different ratings may occur in each map unit. The ratings for all components, regardless the aggregated rating of the map unit, can be viewed by generating the equivalent report from the Soil Reports tab in Web Soil Survey or from the Soil Data Mart site. Onsite investigation may be needed to validate these interpretations and to confirm the identity of the soil on a given site.

Custom Soil Resource Report
Map—California Revised Storie Index (CA)



Map Scale: 1:3,070 if printed on A portrait (8.5" x 11") sheet.

N

Meters: 0 45 90 180 270

Feet: 0 100 200 400 600

Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 11N WGS84

MAP LEGEND

Area of Interest (AOI)

- Area of Interest (AOI)

Soils

Soil Rating Polygons

- Grade 1 - Excellent
- Grade 2 - Good
- Grade 3 - Fair
- Grade 4 - Poor
- Grade 5 - Very Poor
- Grade 6 - Nonagricultural
- Not rated
- Not rated or not available

Soil Rating Lines

- Grade 1 - Excellent
- Grade 2 - Good
- Grade 3 - Fair
- Grade 4 - Poor
- Grade 5 - Very Poor
- Grade 6 - Nonagricultural
- Not rated
- Not rated or not available

Soil Rating Points

- Grade 1 - Excellent
- Grade 2 - Good
- Grade 3 - Fair
- Grade 4 - Poor
- Grade 5 - Very Poor
- Grade 6 - Nonagricultural
- Not rated
- Not rated or not available

Water Features

- Streams and Canals

Transportation

- Rails
- Interstate Highways
- US Routes
- Major Roads
- Local Roads

Background

- Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:24,000.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL:
Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Kern County, California, Northwestern Part
Survey Area Data: Version 16, Aug 31, 2023

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Mar 12, 2022—Mar 22, 2022

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Table—California Revised Storie Index (CA)

Map unit symbol	Map unit name	Rating	Component name (percent)	Acres in AOI	Percent of AOI
243	Wasco sandy loam	Grade 1 - Excellent	Wasco (85%)	38.7	100.0%
Totals for Area of Interest				**38.7**	**100.0%**

Rating Options—California Revised Storie Index (CA)

Aggregation Method: Dominant Condition

Component Percent Cutoff: None Specified

Tie-break Rule: Lower

Soil Properties and Qualities

The Soil Properties and Qualities section includes various soil properties and qualities displayed as thematic maps with a summary table for the soil map units in the selected area of interest. A single value or rating for each map unit is generated by aggregating the interpretive ratings of individual map unit components. This aggregation process is defined for each property or quality.

Soil Physical Properties

Soil Physical Properties are measured or inferred from direct observations in the field or laboratory. Examples of soil physical properties include percent clay, organic matter, saturated hydraulic conductivity, available water capacity, and bulk density.

Saturated Hydraulic Conductivity (Ksat), Standard Classes

Saturated hydraulic conductivity (Ksat) refers to the ease with which pores in a saturated soil transmit water. The estimates are expressed in terms of micrometers per second. They are based on soil characteristics observed in the field, particularly structure, porosity, and texture. Saturated hydraulic conductivity is considered in the design of soil drainage systems and septic tank absorption fields.

For each soil layer, this attribute is actually recorded as three separate values in the database. A low value and a high value indicate the range of this attribute for the soil component. A "representative" value indicates the expected value of this attribute for the component. For this soil property, only the representative value is used.

The numeric Ksat values have been grouped according to standard Ksat class limits. The classes are:

Very low: 0.00 to 0.01

Low: 0.01 to 0.1

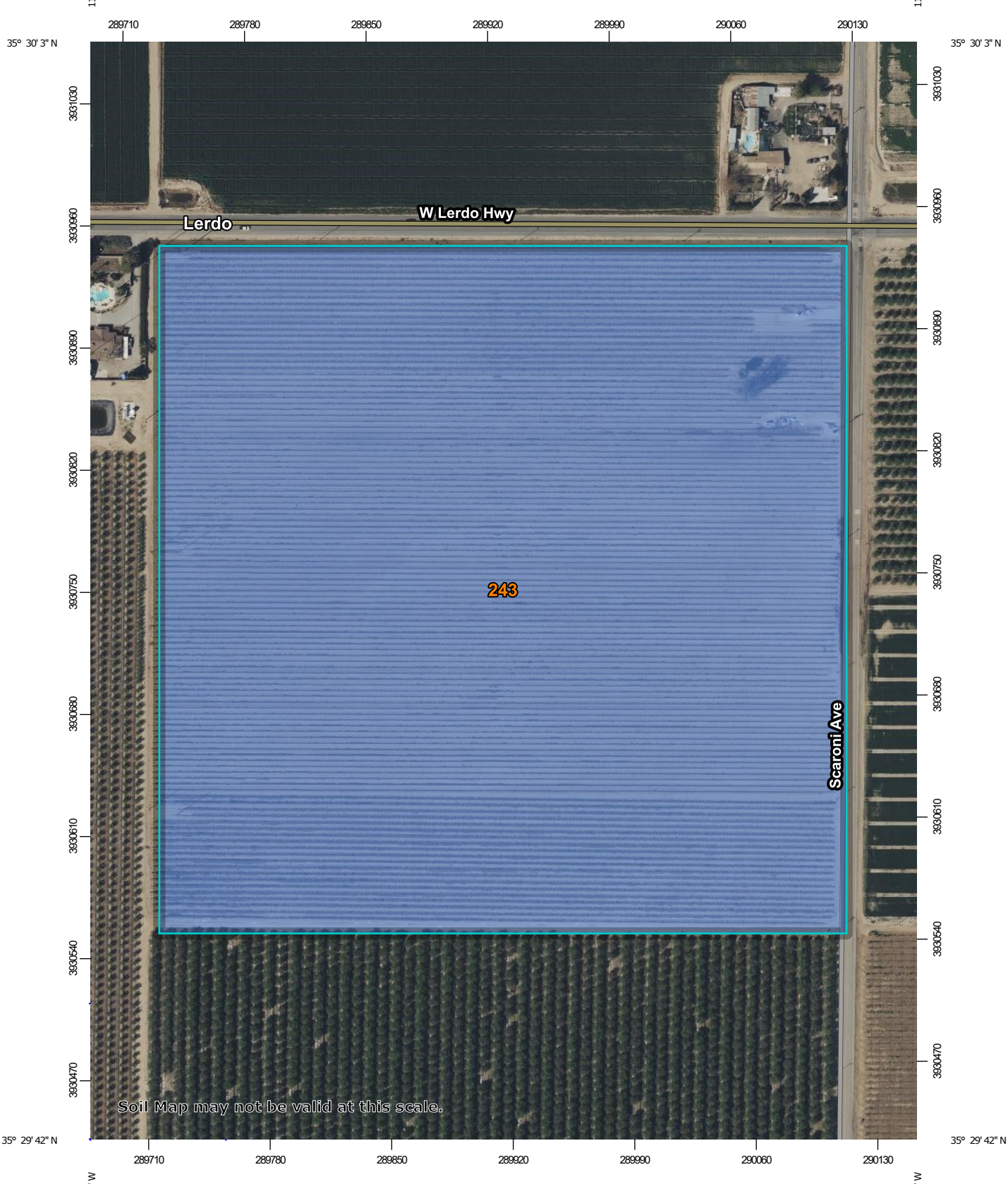
Moderately low: 0.1 to 1.0

Moderately high: 1 to 10

High: 10 to 100

Very high: 100 to 705

Custom Soil Resource Report
Map—Saturated Hydraulic Conductivity (Ksat), Standard Classes



Map Scale: 1:3,070 if printed on A portrait (8.5" x 11") sheet.

N

Meters
0 45 90 180 270

Feet
0 100 200 400 600

Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 11N WGS84

MAP LEGEND

Area of Interest (AOI)

- Area of Interest (AOI)

Soils

Soil Rating Polygons

- Very Low (0.0 - 0.01)
- Low (0.01 - 0.1)
- Moderately Low (0.1 - 1)
- Moderately High (1 - 10)
- High (10 - 100)
- Very High (100 - 705)
- Not rated or not available

Soil Rating Lines

- Very Low (0.0 - 0.01)
- Low (0.01 - 0.1)
- Moderately Low (0.1 - 1)
- Moderately High (1 - 10)
- High (10 - 100)
- Very High (100 - 705)
- Not rated or not available

Soil Rating Points

- Very Low (0.0 - 0.01)
- Low (0.01 - 0.1)
- Moderately Low (0.1 - 1)
- Moderately High (1 - 10)
- High (10 - 100)
- Very High (100 - 705)
- Not rated or not available

Water Features

- Streams and Canals

Transportation

- Rails
- Interstate Highways
- US Routes
- Major Roads
- Local Roads

Background

- Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:24,000.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL:
Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Kern County, California, Northwestern Part
Survey Area Data: Version 16, Aug 31, 2023

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Mar 12, 2022—Mar 22, 2022

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Table—Saturated Hydraulic Conductivity (Ksat), Standard Classes

Map unit symbol	Map unit name	Rating (micrometers per second)	Acres in AOI	Percent of AOI
243	Wasco sandy loam	28.0000	38.7	100.0%
Totals for Area of Interest			**38.7**	**100.0%**

Rating Options—Saturated Hydraulic Conductivity (Ksat), Standard Classes

Units of Measure: micrometers per second

Aggregation Method: Dominant Component

Component Percent Cutoff: None Specified

Tie-break Rule: Fastest

Interpret Nulls as Zero: No

Layer Options (Horizon Aggregation Method): Depth Range (Weighted Average)

Top Depth: 0

Bottom Depth: 60

Units of Measure: Inches

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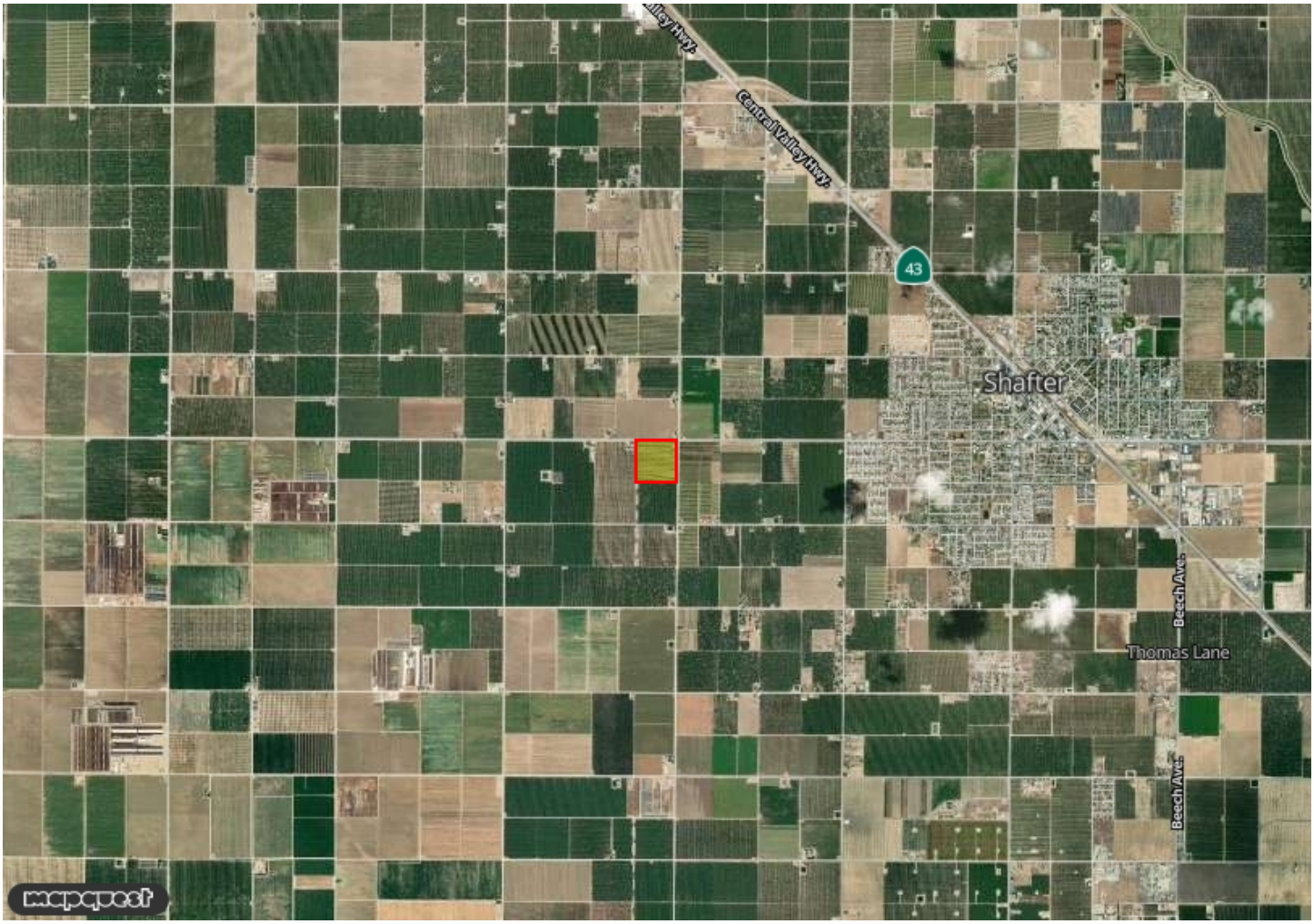
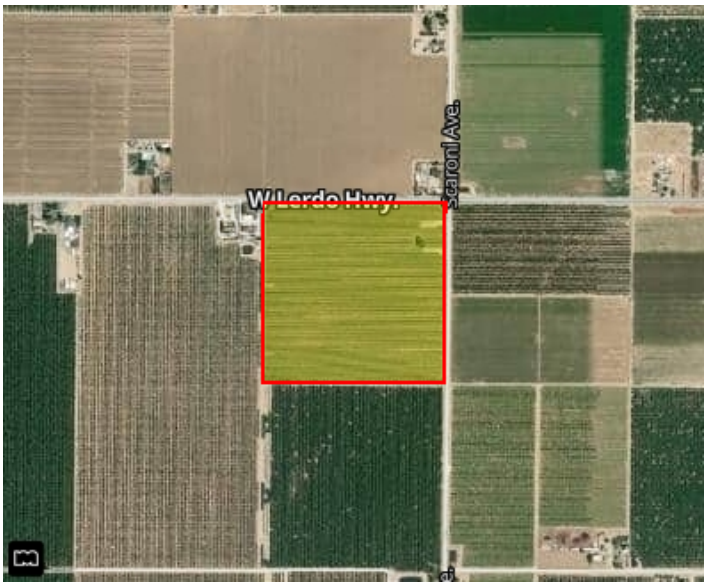
MULTI PARCEL SOILS REPORT





MULTI PARCEL SOILS REPORT

Multi Parcel Detail Summary

County: Kern, CA

Number of Parcels: 1

Total Parcel Acreage: 38.18

Parcels Included: 089-160-05-00-9

USDA Soils Legend

Symbol	Name	Slope Grade	Irr. Cap. Class	Non-Irr. Cap. Class	Storie Index	Acres	Parcel %
0243	Wasco sandy loam	1	2	7	90	38.429	100.00
					Total Soil Acres:	38.429	

SAGBI | Soil Agricultural Groundwater Banking Index