

C.4 - Paleontological Records Search Results

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September 11, 2016

Dana DePietro
FirstCarbon Solutions
1350 Treat Boulevard, Suite 380
Walnut Creek, CA 94597

Re: Paleontological Records Search: Recology BVON Project (4875.0001), Stanislaus and San Joaquin Counties, California

Dear Dr. DePietro:

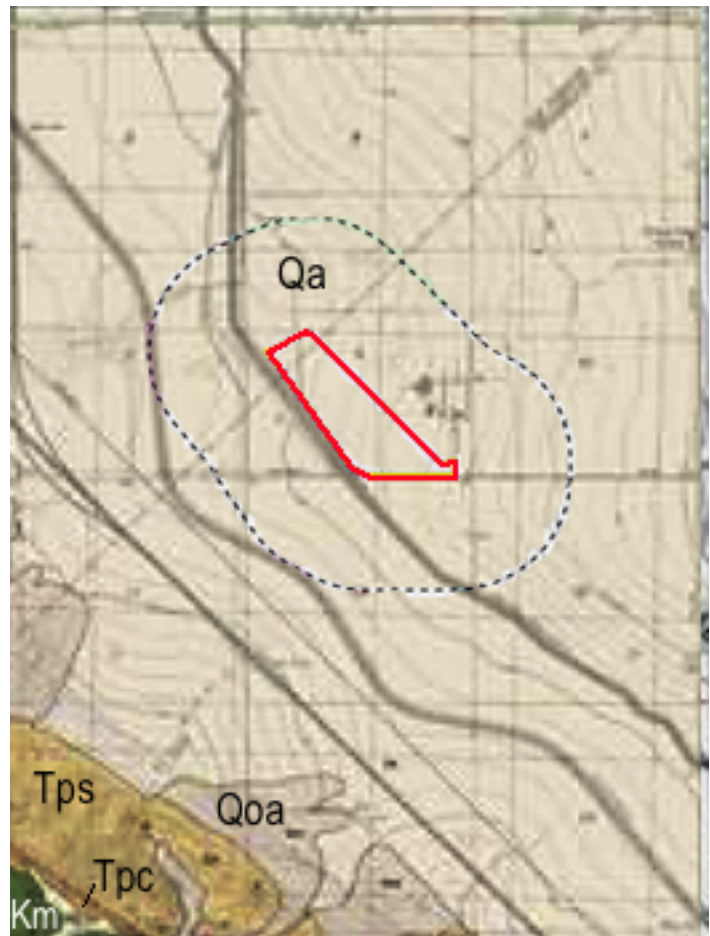
As per your request, I have performed a records search on the University of California Museum of Paleontology (UCMP) database for the Recology BVON Project in Stanislaus and San Joaquin counties along the side of the Great Valley. The project site is located in the Solyo quadrangle (1971 USGS 7.5-series topographic map) on relatively flat terrain. Google Earth imagery shows this site has been heavily disturbed by agricultural development.

Geologic Units

According to the part of geologic map of Dibblee (2007) shown here, the surface of the area of the project site is well within an extensive deposit of young alluvium (Qa).

Key to geologic units on map

Qa Holocene alluvium
Qoa Late Pleistocene older alluvium
Tps Pliocene? nonmarine sand & gravel
Tpc Pliocene? nonmarine clay & mud
Km Cretaceous Moreno Formation



The older alluvium (Qoa), Pliocene? nonmarine deposits, and Cretaceous Moreno Formation, all of which are mapped southwest of the project site are units with the potential of yielding significant paleontological resources, and they most likely extend northeast in the subsurface below the younger alluvium at the project site.

UCMP Records Search

I performed a records search of the University of California Museum of Paleontology database on September 10, 2016. Of the 126 vertebrate fossil localities listed, 22 of are in late Pleistocene deposits that yielded elements of the Rancholabrean fauna.

Remarks and Recommendations

There are no potentially fossiliferous sedimentary deposits on or adjacent to the project site. The distance between their nearest exposures and the project site indicates that the younger alluvium within the search area is likely to extend deeper in the subsurface than the depth of project-related exvations; thus, it is also highly unlikely that they will impact potentially fossiliferous late Pleistocene deposits in the subsurface. In conclusion, neither a pre-construction paleontological walkover survey or paleontological monitoring during earth-disturbing activities are warranted. Thus, this report completes the paleontological mitigation for this project.

Sincerely,



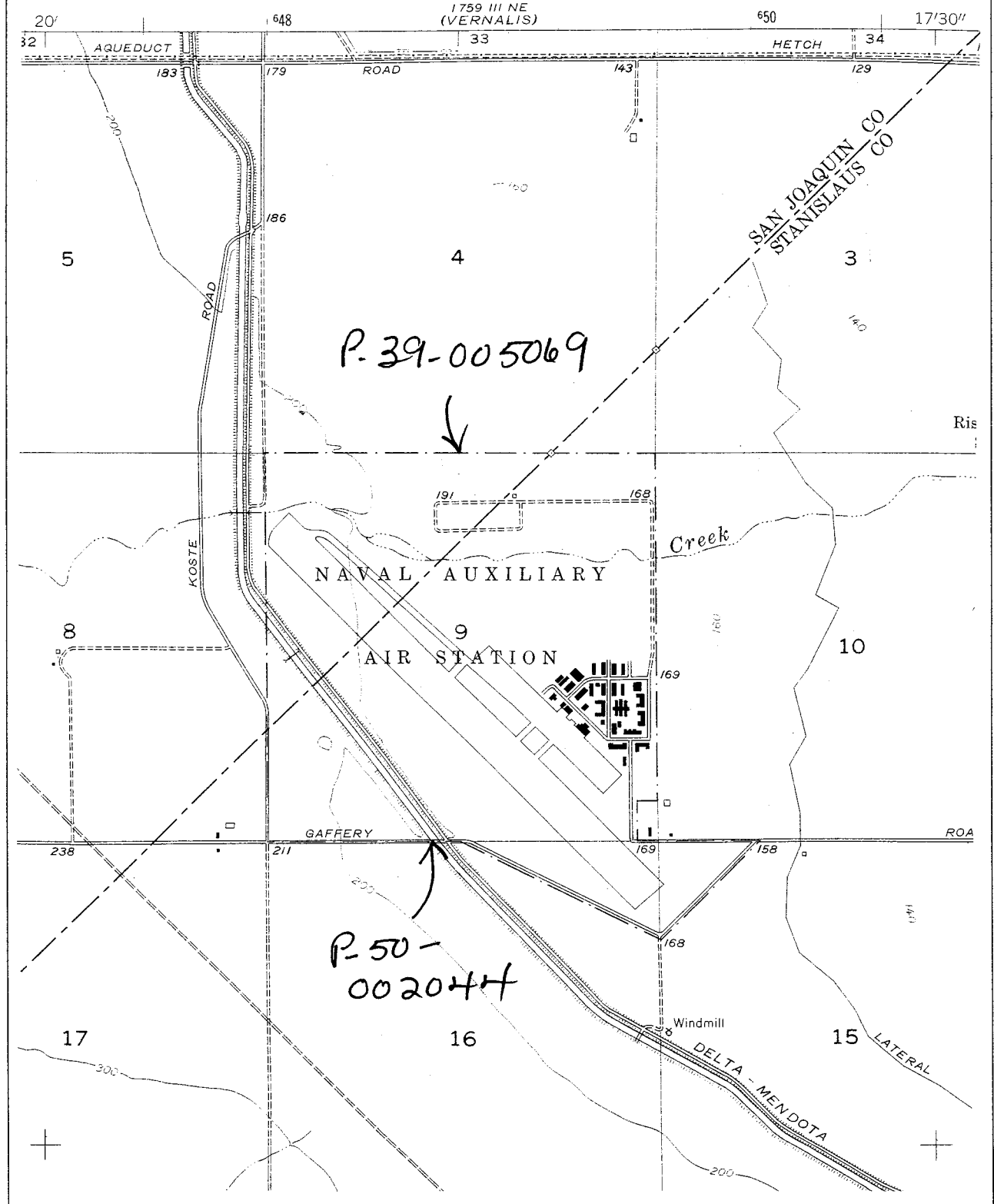
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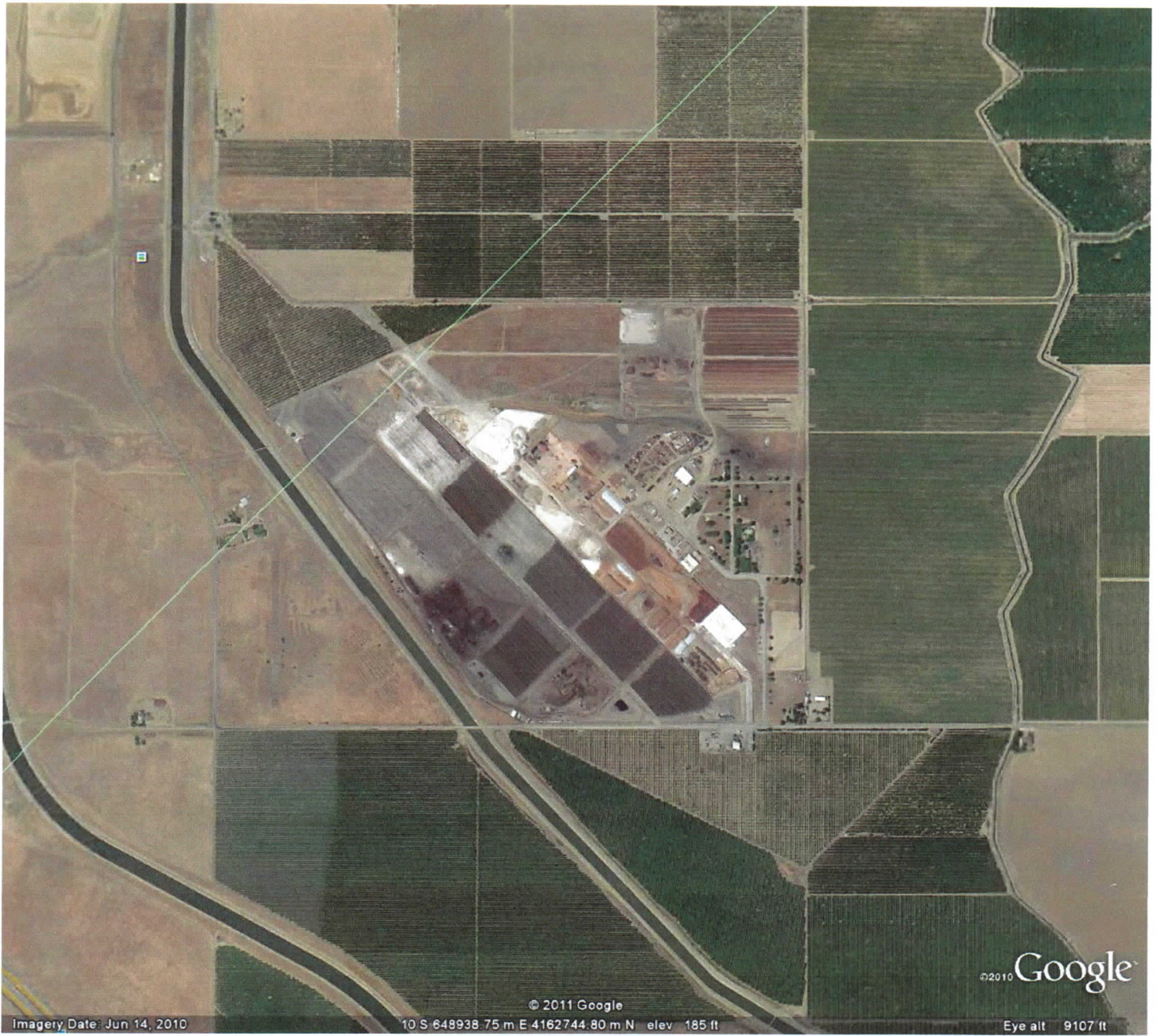
Dibblee, T.W., Jr.; edited by Minch, J.A. 2007. Geologic map of the Solyo and Westley quadrangles, San Joaquin and Stanislaus counties, California. Dibblee Geology Center, map no. DF-340; scale 1:24,000.

C.5 - Department of Parks and Recreation (DPR) 523 Forms

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 FRANK B. DURKEE, DIRECTOR OF PUBLIC WORKS
 A. D. EDMONSTON, STATE ENGINEER





VERNALIS NAVAL AUXILIARY AIR STATION, GOOGLE EARTH MAP



The California State Military Museum

Preserving California's Military Heritage



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P-39-005069

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Historic California Posts

Naval Auxiliary Air Station, Vernalis

(Naval Auxiliary Air Facility, Vernalis; Vernalis Geophysics Annex)

[Naval Auxiliary Air Station, Vernalis](#) by M.L. Shettle, Jr.

[Naval Auxiliary Air Station, Vernalis](#) by Paul Freeman

Naval Auxiliary Air Station, Vernalis

by M.L. Shettle, Jr.

In late 1942, the Navy started work on two auxiliary stations in the San Joaquin Valley near the small and isolated communities of Vernalis and [Crows Landing](#). At Vernalis, 16 miles west of Modesto, 700 acres were purchased for \$33,300 to build a base to support two multi-engine patrol squadrons. The Navy commissioned NAAF Vernalis on June 8, 1943, as an auxiliary of Alameda with one 4,000 x 500-ft. tarmac runway.

In November, a project began to extend the existing runway to 7000 ft., as well as add buildings and gasoline storage capacity. In the meantime, Vernalis's designation changed to an NAAS. During this time, VB-148 and VB-150 were aboard. In the spring of 1944, the Navy realized that Crows Landing, 18 miles to the southeast with concrete runways, would be better suited for the heavier multiengine types. The two stations swapped missions. Thereafter, Vernalis hosted carrier squadrons. With the arrival of carrier units, Vernalis added a 160 acre dive bombing range and commissioned CASU 63 in support. Due to the limited crosswind landing capability of Navy carrier aircraft, \$240,000 was spent on the addition of a 4000 x 150-ft. crosswind runway. Further improvements included \$16,000 in permanent runway lighting and a Seabee installed catapult and arresting gear. At a strafing range on the Diablo Mountain Range to the west, a silhouette of a submarine was painted on rocks for strafing practice.

Vernalis proper consisted of a single country store that also served as a Post Office. One local resident remembers that a visitor once walked out of the store and asked: "How do you get out of town?" -- the supreme insult! To keep the sailors entertained, Vernalis ran a liberty bus service to Modesto. German POWs arrived late in the war, constructed an Olympic-sized swimming pool, and worked on local farms. The base had a quarter-mile field track and an ice hockey team that played in Modesto.

Vernalis had daily afternoon logistic aircraft service from Alameda that brought mail, personnel, and aircraft parts. One morning, the passenger manifest for the afternoon flight, received by teletype, listed Admiral Dewey Bluit as a passenger. The C.O. alerted the troops, who policed the base, neatly parked the aircraft in one direction, and decked out in dress uniform for the occasion. The C.O. and an honor guard met the flight when it arrived. Off the PBY stepped Admiral Dewey Bluit -- a black Seaman First Class! Presumably, Bluit's father had been a Navy man who named his son after the famous Admiral Dewey.

After the war, Vernalis initially was chosen to remain open; however, Crows Landing received the nod due to its concrete runways. On October 15, 1945, Vernalis was placed on caretaker status and abandoned three months later. In the 1950's, the Air Force used the airfield to launch 300-ft. diameter balloons that carried electronic equipment for experiments in the stratosphere. In recent years, the property has been used for sun-drying of agricultural products and the storage of cannery waste that is subject to spontaneous combustion. Locals claim the former base is haunted by a ghost, known as "the Colonel." The ghost is alleged to be a former military man who was murdered and dismembered on the base. Another explanation might be a tragic accident that occurred during the war. A cable broke on the catapult and arresting gear system killing two men -- decapitating one. The decapitated man was working in place of another man who had a date. Could this man be the ghost in question?

Naval Auxiliary Air Station, Vernalis

by Paul Freeman

P-50-2044

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The Navy purchased 700 acres in 1942 to build a base to support two multi-engine patrol squadrons. It was commissioned as Naval Auxiliary Air Facility Vernalis in 1943. It would serve as an auxiliary of [Alameda NAS](#), and initially had a single 4,000' x 500' tarmac runway.

Later that same year, the runway was extended to 7,000', and the field was redesignated as a Naval Auxiliary Air Station. In 1944, the patrol aircraft were shifted to Crows Landing, and Vernalis became host to carrier squadrons. A 160 acre dive bombing range was added to support the carrier squadrons. Due to the limited crosswind capability of the smaller carrier aircraft, a 4,000' crosswind runway was added. Runway lighting was installed, as well as carrier catapult & arresting gear.

According to Michael Guerin (whose father was at Vernalis & Crows Landing during World War II), at one point early steam catapults were tested at Vernalis,

and there were some bad accidents/explosions, in which there were injuries & deaths.

At a strafing range on the Diablo Mountains to the west, a silhouette of a submarine was painted on the rocks to be used as a target. German POWs were housed at the base late in the war, and assisted in construction projects.

After the end of World War II, Crows Landing was chosen to remain open (due to its more substantial concrete runways), and Vernalis was closed in 1945. It was still labeled as "Vernalis (Navy)" on the 1955 & 1956 San Francisco Sectional Charts (according to Chris Kennedy), but the Aerodromes table on the chart included the remarks, "Closed. Emergency only."

Vernalis was used by the Air Force in the 1950s to launch 300' diameter balloons that performed "experiments" in the stratosphere. According to Scott Murdock, it was listed as the "Vernalis Geophysics Annex".

The Vernalis airfield was no longer depicted at all on the 1965 San Francisco Sectional Chart (courtesy of Chris Kennedy). However, it was still depicted as "Auxiliary #2" on the 1969 USGS topographic map.

In recent years, the property has been used for various agricultural purposes. The Delta Mendota Canal has been built over the western portion of the former airfield, running through the middle of the crosswind runway. The street grid, some buildings, the ramp area & portions of taxiways still exist. The outline of a portion of the primary runway is still visible, as well as the outline of the crosswind runway, extending south from the canal.

Jack Daley reported in 2003 that "There is a large gravel washer & loading operation on the northern area of the former base, and a wood recycling operation located on the former ramp area. The old POW camp - which was both on the base itself & out along Highway 33 near the village - has finally had the last of its guard towers torn down. The asphalt runways - what's left of them - occasionally have a trainer shoot touch & go's. But since NASA closed nearby Crows Landing those concrete runways are more attractive. Such as they are."

The Vernalis site was also visited by Tim Tyler & John 'Boss' Voss in 2003. Tim's report:

"The former NAAS is now approximately 5 different separate businesses sharing the former airfield - scrap metal, scrap wood processing, and fertilizer manufacturing businesses, all with large piles of their material along the old runway & ramp areas. Numerous farm & construction heavy machinery seemed to be stored on the grounds as well, and there were numerous 18-wheelers driving all over the place, loading & unloading material. There are several concrete foundations probably remaining from the World War 2-era, one or two small concrete buildings (which probably dated back to the USAF use of the site in the 1950s), and runway/ramp area remaining, but none of the old barracks,

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Historic California Posts: Naval Au...

admin buildings, etc. There are numerous newer (but still old) buildings on site. The flagpole is intact along the access road, with nothing else around it.

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We didn't see any structures that looked to be of World War 2 vintage, however there were two concrete buildings. Other than numerous concrete foundations and the runway/ramp area, the sole (as far as we could see) remaining structure from the WW2 NAAS days was the wooden flag pole along the entrance road to the site. There was nothing around it, nor was a flag flying."

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"We had spoken with a man on the site who was hosing off a bulldozer and his understanding was that the businesses had been located on the site for approximately 10 years. He knew it had been some sort of old airfield, but wasn't aware at all of the history. He'd never observed any special remains or other items of historical significance in the couple of years he'd worked there. We asked him where the office was, so we could explain ourselves & formally ask for permission to explore the grounds. He pointed to a mobile home located in the center of the site, near some other old (but not military related) buildings, and John & I did plan on stopping there. As it turned out, a few minutes later, a Silver Suburban started following us, and when we stopped & explained our quest, we were told to leave, the reason being that sometime in the past, other people had been poking around the site, collided with one of the numerous 18-wheeler trucks, and then the vehicle's occupants sued!"

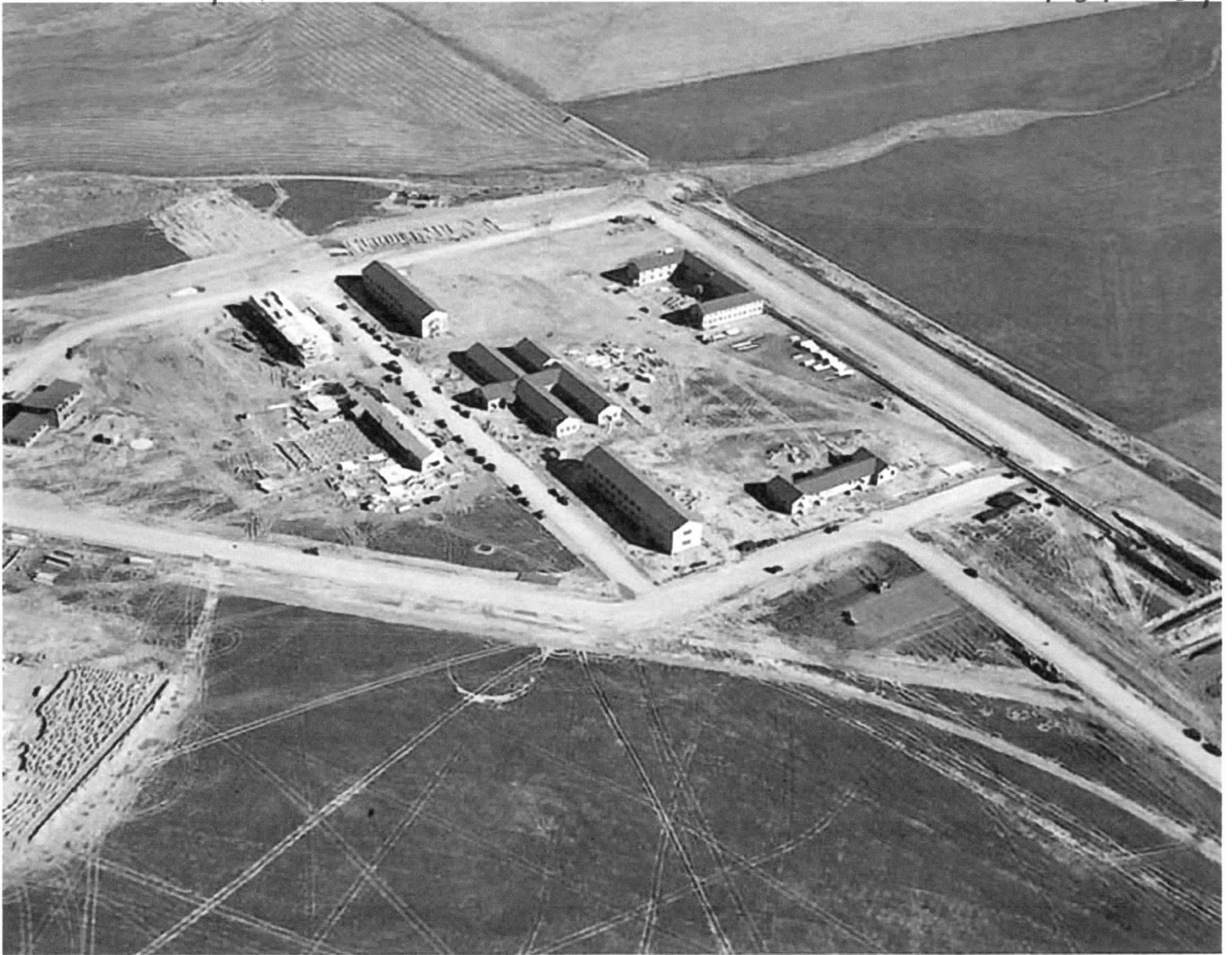
Tim commented about how another reader of the web site purported that small planes still occasionally shoot touch & goes there. "Based on what I saw on Wednesday, there's no way any non-suicidal pilots would do that."

The site is located northeast of the intersection of Gaffery Road & Koster Road.

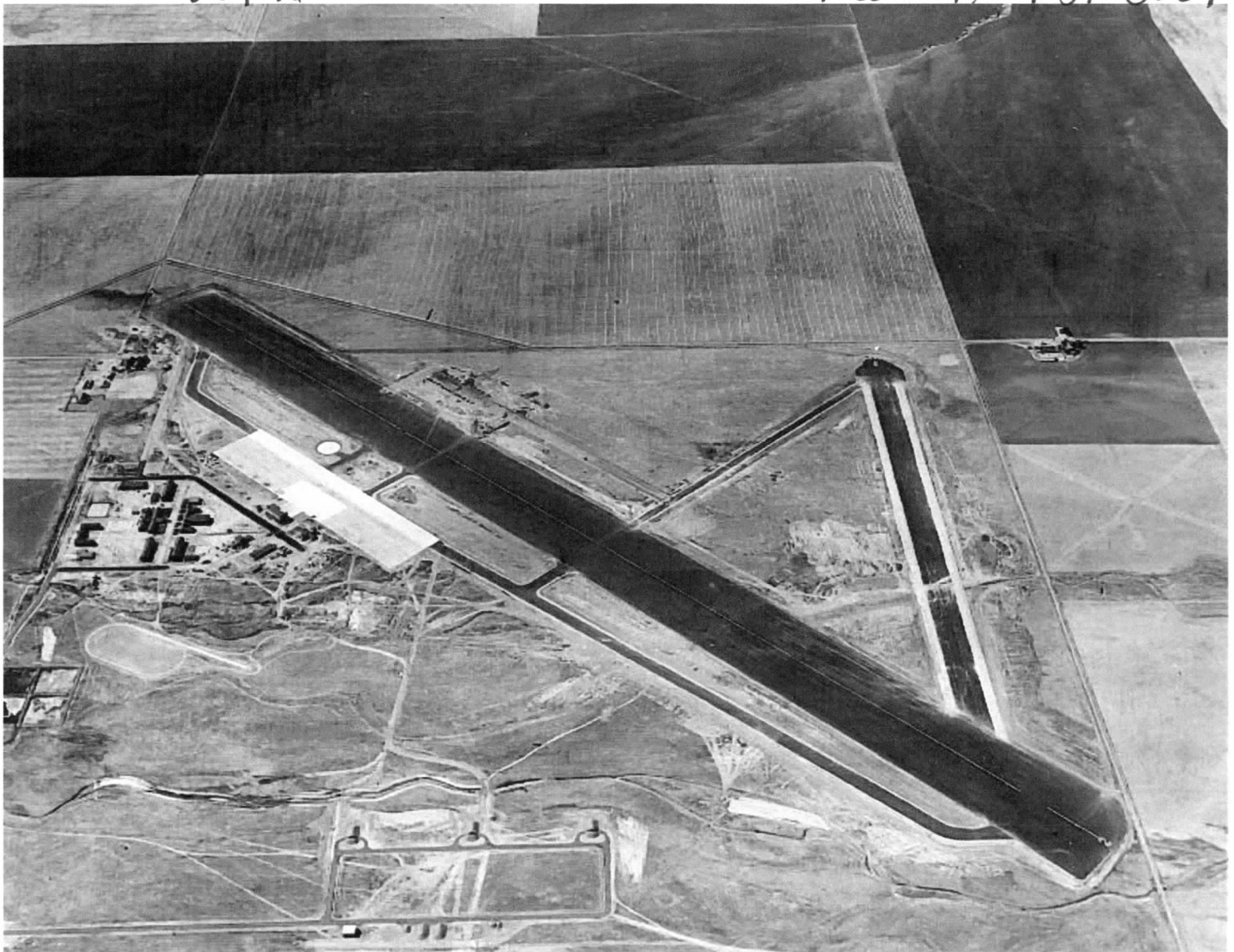
Extracted with permission from [Abandoned and Little Known Airfields](#)

World War II Images

Images from the National Archives, College Park, Maryland



NAAS Vernalis under construction



NAAS Vernalis soon after being commissioned



NAAS Vernalis in 1943. By the end of the war, the number of barracks and officer's quarter would more than triple.

Surviving Military Structures

Images courtesy of CSM Dan Sebby



The station's flagpole



This building is shown on the 1946 station map as the station's brig and according to the owners, the building still has cells inside.



The station's swimming pool



Pump house



One of three 50,000 gallon underground concrete storage tanks

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An unidentified building believed to be from the Air Force period.



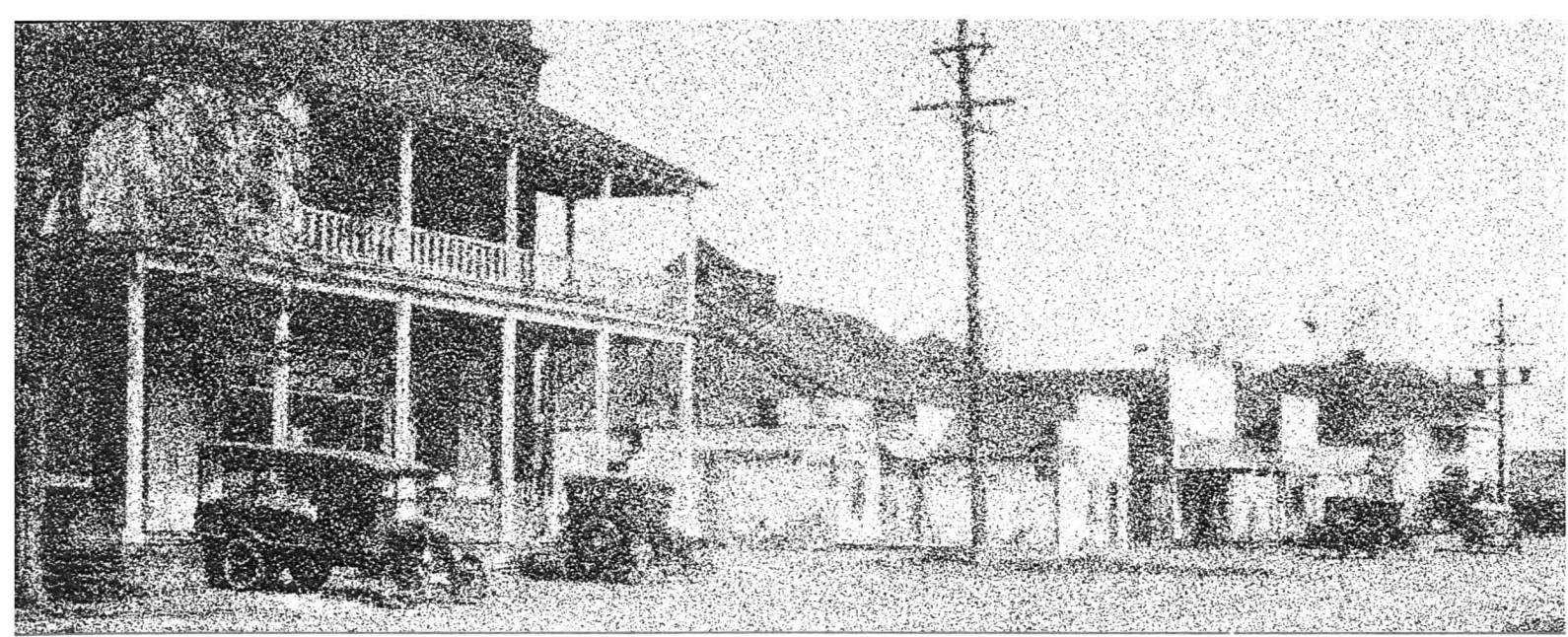
Although recently resided, the station's storehouse still serves it's original purpose.

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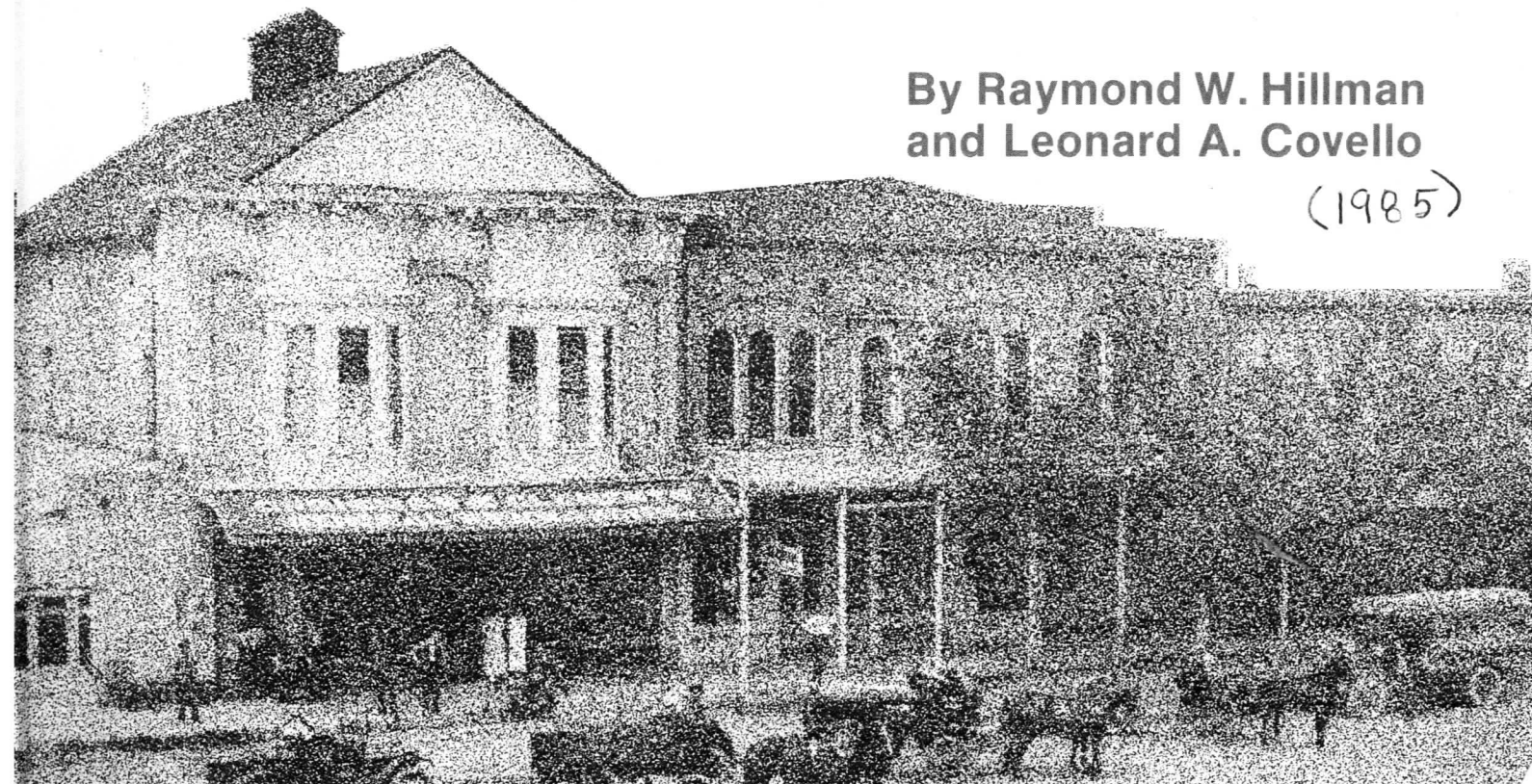


Cities & Towns of San Joaquin County

— ❖ since 1847 ❖ —

By Raymond W. Hillman
and Leonard A. Covello

(1985)



Army Hospital of Modesto. Men were sent from the camp to work on local farms, including some with crops of guayule, an alternate source of rubber. After the war, the barracks were again a home for foreign farm workers. These Mexican Nationals, all participants in the United States government sanctioned Bracero Program, comprised the principal source of agricultural labor until 1964. After this time, the barracks and all other facilities were dismantled. Today, there is nothing standing but the wall of the handball court; the remainder of the site is an almond orchard.

Of greater importance was the Vernalis Naval Air Station, established in 1942 and a center of sporadic activity for decades. Activity here was extensive enough for the base to have its own post office, in service from February 1944 to January 1946.

Extensive training with navy fighters took place here, with countless flights from carriers moored at Alameda, California, headquarters for aircraft patrols over the Pacific. Starting in 1953, this obscure site became part of an extensive study of the stratosphere. This project, Operation Sky Hook, was done by the Cambridge Research Center of the United States Air Force. Balloons 300 feet long and 200 feet in diameter were equipped with electronic gear sending signals to ground stations from points in the stratosphere 50,000 to 100,000 feet above the earth's surface. More than twelve of these balloons were launched from Vernalis; some landed as far away as Spain. The base at Gaffery and Koster roads has been abandoned, and the remaining 5,000-foot section of the air strip is used to dry cannery waste for cattle feed.

The largest employer in Vernalis is Trinkle and Boys Agricultural Flying. There are ten employees, including six pilots and an equal number of planes. Founded by Carl Trinkle and George Boys, the firm has been part of Vernalis since 1950 and serves a region extending from Ripon to Tracy and from Mossdale across the county line to Westley. The firm has been particularly innovative to the agricultural flying industry in performing the first alfalfa seeding by air as well as pollination of trees by aerial application. During the mid 1960s, when air pollution controls dictated the change from dry to wet chemicals, Trinkle and Boys did significant work in developing new equipment for the planes.

Just south of the prisoner of war camp site is a firm important to Vernalis, Western Farm Service.



VERNALIS GENERAL STORE AND POST OFFICE, DECEMBER 1983

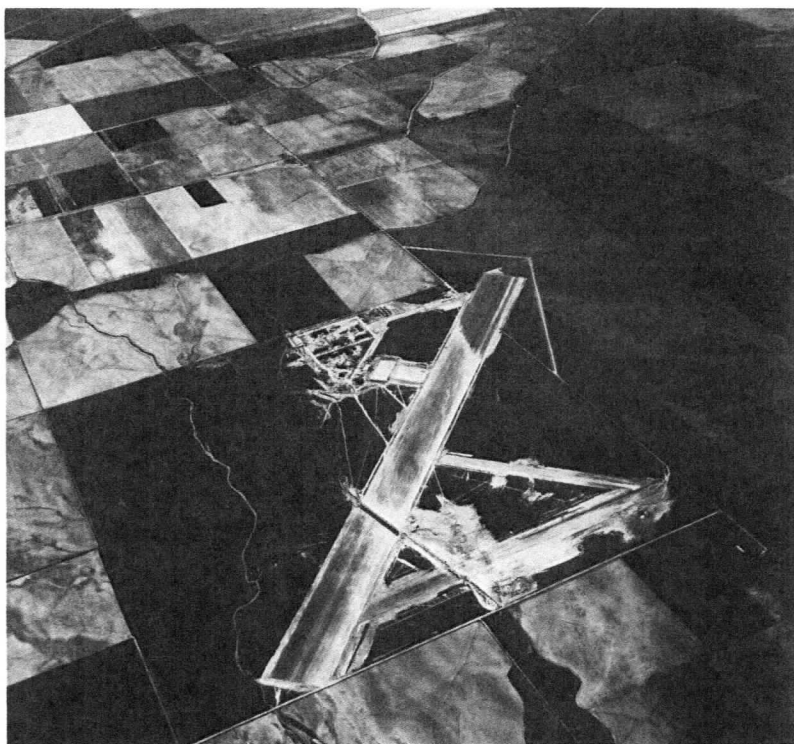
At present this is the last general store remaining in San Joaquin County with a post office operating in one corner, a once common combination. Inside, the old, varnished oak partition and wicket of the post office blend well with the atmosphere of the store constructed by Jacob Ohm in 1912.

This was once a two-story building; the now dismantled second floor was the regional social center. The Vernalis Social Club held its monthly pot luck dinners and dances there. The lively dancing made big beams tremble in the ceiling of the store.

For thirty-six years, starting in 1920, this business, including the post office, was operated by M. A. Schaeffer, his wife, Abbie, and son, Noel. (Photograph by Raymond W. Hillman)

This Walnut Creek based operation established one of its Central Valley Division agencies here about 1968. Agricultural chemicals are supplied to Trinkle and Boys in addition to that provided for ground preparation operations over a wide area of the San Joaquin Valley extending from Gustine and Madera to Lodi. The firm offers commercial service to the area, with six ground applicators and a "Big A" open ground spray truck. The latter covers 400 acres a day. In addition, a nitrogen phosphate liquid fertilizer is manufactured here known as 10-34-0; this clear chemical is marketed in California, Oregon and Washington and is also shipped to pineapple and sugar cane plantations in Hawaii via the Port of Richmond, California. There are eight year round employees plus a seasonal crew.

Today, Vernalis is strung over several square miles of the West Side of the San Joaquin Valley. Though widely separated, each of the above firms helps maintain an identity for this community.



NAVAL AIR STATION, VERNALIS,
MARCH 15, 1943

A United States Navy photographer flying at 7,000 feet recorded these facilities, which are shown from a point looking northeast. A confidential photograph until 1957, this view shows the paved air strip, which was 500 feet wide and 7,000 feet long; the structures included two hangars, ready rooms, headquarters and barracks. In October 1945, famous band leader Louie Armstrong and his orchestra played here.

None of the buildings remains at the base site today, Gaffery and Koster roads. (Collection of the National Archives, Washington, D.C.)



THE ORCHARD, 1983

A rest stop and attraction for travelers on Highway 132 near Vernalis features the c. 1890 Southern Pacific station from Newman in Stanislaus County. The venerable structure was purchased from the Southern Pacific Transportation Company for the remarkable figure of \$156.00 and moved nearly twenty-five miles to its present location in 1980.

The Orchard, a development of long time area residents Albert and George Bogetti, occupies a site that the family has maintained for the sale of fresh produce since about 1964. While produce is still featured, growth in the late 1970s expanded operations into a restaurant, deli, weekly flea market, large water slide and an eighty-eight space recreational vehicle park. (Photograph by Raymond W. Hillman)

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