TESTIMONY OF KURT SHARP
STATE WATER RESOURCES CONTROL BOARD
HEARING ON DELTA SALINITY DRAFT CDOs AND WQRP

I am one of the managers of R C Farms, Inc.

R C Farms, Inc. is the owner of land riparian to the San Joaquin River on Lower Roberts Island downstream of the confluence with Old River and upstream from the confluence with Turner Cut and Middle River. Said land is within the Central Delta Water Agency. Attached hereto as Exhibit A is a map showing the land. CDWA-4 is a chain of title prepared for said land. The land currently abuts the San Joaquin River and it is my understanding of the documents in the chain of title that the land has never been separated from the San Joaquin River.

As an owner of said riparian lands, R C Farms, Inc. is entitled to divert waters from the San Joaquin River for reasonable beneficial uses upon those lands. R C Farms, Inc. and its predecessors in interest have so used said waters for irrigation at various times of the year and in various quantities for a period extending back to the late 1800's.

R C Farms, Inc. was formed April 17, 1973, and shortly thereafter commenced diverting water from the San Joaquin River for irrigation of row and field crops. The amount of water used has not been measured but varies with crops and climatic conditions. Last year (2004) there were 100± acres of asparagus and 140± acres of field corn. This year (2005) there are 71± acres planted to alfalfa and 169± acres planted to field corn. Such lands of R C Farms, Inc. are below sea level and all water which is not evaporated or used for the evapotranspiration needs of the crops is pumped back into the Delta by way of the Reclamation District canals and pumping plants. Depending upon crops and climatic conditions, evaporation and/or evapotranspiration

CDWA-8

take place throughout the year. Water from the San Joaquin River constantly seeps into the land, thereby at times providing water for crops through natural sub-irrigation. Additional water is applied to crops by way of siphons. Siphons are used to supplement the irrigation of corn from near the end of June through September and to supplement the irrigation of alfalfa starting in April or May and continuing through September. "Winter" flooding of corn ground is typically in November and December. Attached hereto is Table A-5 from DWR Bulletin 168 showing estimated crops Et Values for the Delta Service Area for 1976-77. Although climatic conditions including precipitation will vary so as to change the amount of applied water required for any particular crops in any given year, Table A-5 provides a reasonable tool for estimating actual diversions and water use. Average annual precipitation in the Central Delta is in the range of 12 to 14 inches.

The points of diversion for R C Farms, Inc. are located in Sections 28 and 29, T. 2 N., R. 5 E., M.D.B. & M.

The months of special concern for R C Farms, Inc. on the San Joaquin River are April through August, the peak irrigation months, and water quality is of great concern to R C Farms, Inc. because it impacts the crops that R C Farms, Inc. grows.

Salt in the irrigation water adds to the salt in the soil and soil water. When the concentration of salts in the root zone of growing plants reaches a high enough level the plants suffer and in some cases die. Because of different soil and drainage conditions in the fields the salt problem varies. Some of the fields have areas which are already high in salts. Adding additional salt will increase the salt accumulation in the soil and damage the crops. Both the degree of impact and the area affected increase as salinity of the water entering the field

increases. There is also a problem at the time of seed germination if there is too much salt in the soil. The adverse effects of the salt on the crops is visually apparent.

Attached hereto as Exhibit B are the results of a February 7, 2003 soil sampling on the subject R C Farms, Inc. land. Sample #3 which was taken from the field in the northwest portion of the land shows a high level of sodium.

The northerly 71± acres of the property are presently planted to alfalfa and the balance of the acres are planted to field corn.

Because the surface of the land is substantially below the water level in the San Joaquin River which abuts the property the fields are constantly receiving water which "seeps" from the river. We attempt to hold the water table below the ground surface by way of drainage ditches from which the excess water flows into the Reclamation District 684 canals and then is pumped back into the Delta.

With the alfalfa we apply water from the San Joaquin River through siphons so as to flood irrigate between ridges in the fields. Typically the irrigation starts in April or May depending upon weather and continues after each cutting through September. The portions of the fields near the river receive sufficient subirrigation from seepage. The fields planted to field corn are irrigated starting near the end of June and continuing on about ten day intervals into late August or September and then the fields are flooded in November and December. The "winter" flooding of the field corn ground is a customary practice which I believe is intended to facilitate leaching of salts from the ground by the rain or at the very least drive down the salts.

The customary practices are no longer sufficient to control the salt buildup in the problem areas of the fields. Artificial leaching such as is customary for potatoes is costly and

economically infeasible for the crops which are grown.

R C Farms, Inc. has farmed said land for over twenty (20) years. The water quality at Vernalis affects the quality of the water in the San Joaquin River abutting said lands. The water from the San Joaquin River seeps into and is also applied to the lands of R C Farms, Inc. Typically higher salinity in the San Joaquin River at Vernalis are particularly at Brandt Bridge means higher salinity in the R C Farms, Inc. irrigation water.

As salinity in the seepage and applied irrigation water increases, the salinity in the soil and soil water increases thereby adversely impacting the crop production.

My family and I live in the vicinity of the R C Farms, Inc. land and boat, fish, swim and water ski in the Delta channels including the San Joaquin river along the R C Farms, Inc. land. Higher salinity water from the San Joaquin River entering the Ship Channel at Stockton, California, not only reduces the general quality of water in the San Joaquin River along the R C Farms, Inc. land but also reduces the quality in adjoining channels.

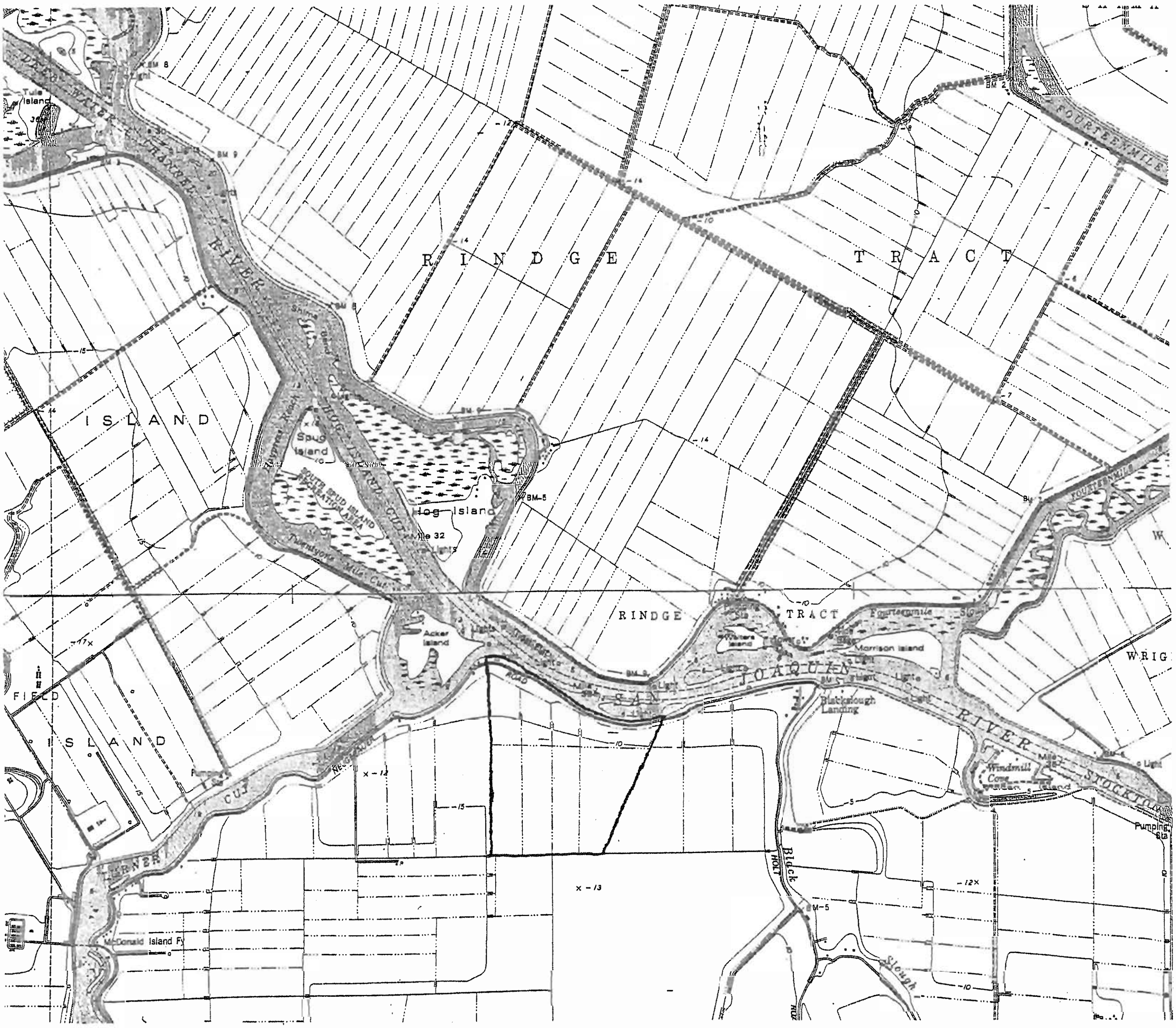

RINDGE TRACT
ISLAND
Spud Island
Hog Island
Acker Island
RINDGE
TRACT
Morrison Island
SAN JOAQUIN RIVER
Blackslough Landing
Windmill Cove
FIELD
ISLAND
McDonald Island Fy
Black Slough
FOURTEENMILE
Pumping Sta

EXHIBIT - A

EXHIBIT - B

Precision Agri Lab

24730 Avenue 13 Madera, CA 93637 Phone: 559-661-6386 FAX: 559-661-6135 email: pal@mail.agdecision.net

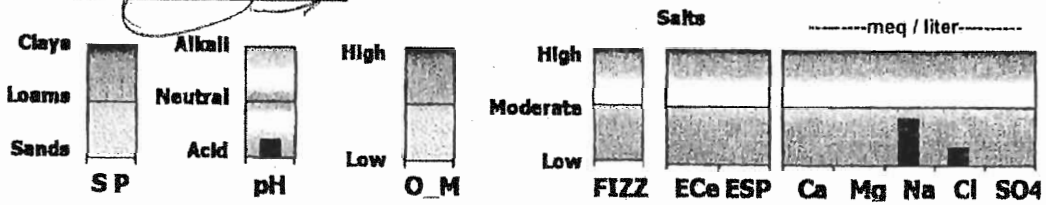
SOIL ANALYSIS REPORT

CONRAD SILVA

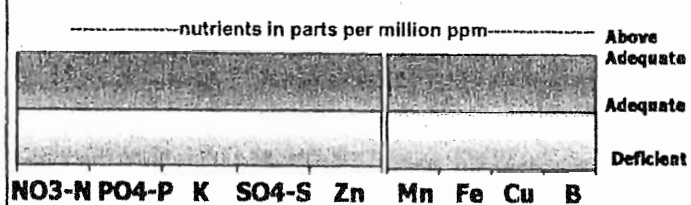
BRANCH NAME	WALNUT GROVE-W	**TEST ID #** 2456	**DATE SAMPLED:** 2/ 7/03
FIELDMAN	DON JOHNSON	**LOG IN #**	**DATE SUBMITTED:** 2/11/03
CROP	ASPARAGUS	**232078**	**DATE REPORTED:** 2 /17/03

ID# 1 **DESCRIPTION** RC-1

Physical And Chemical Properties

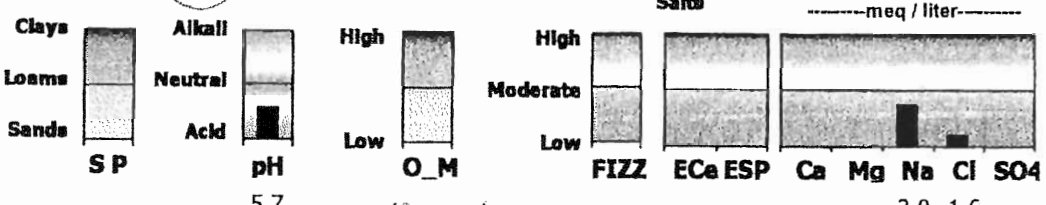


Soil Nutrition

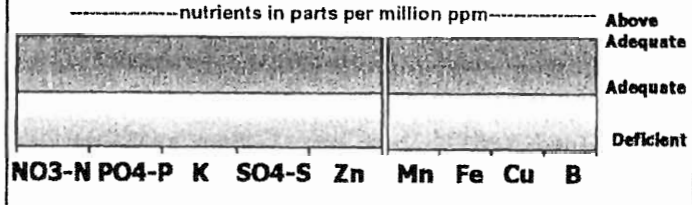


ID# 2 **DESCRIPTION** RC-2

Physical And Chemical Properties

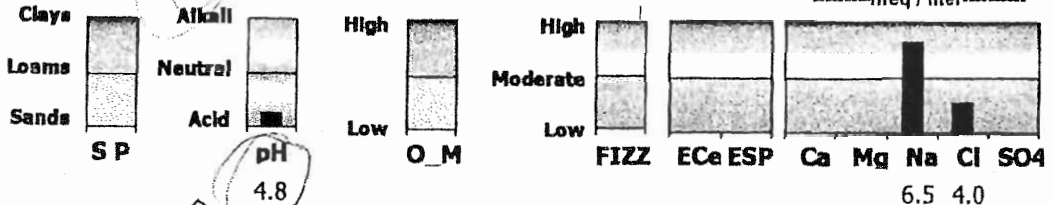


Soil Nutrition

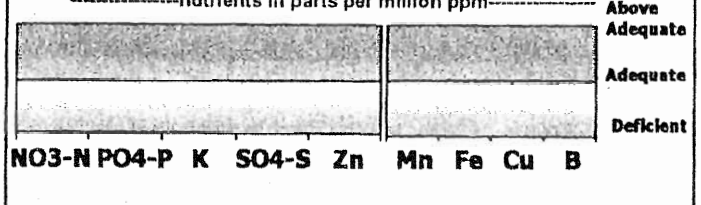


ID# 3 **DESCRIPTION** RC-3

Physical And Chemical Properties



Soil Nutrition



APPROVED:_____

Precision Agri Lab

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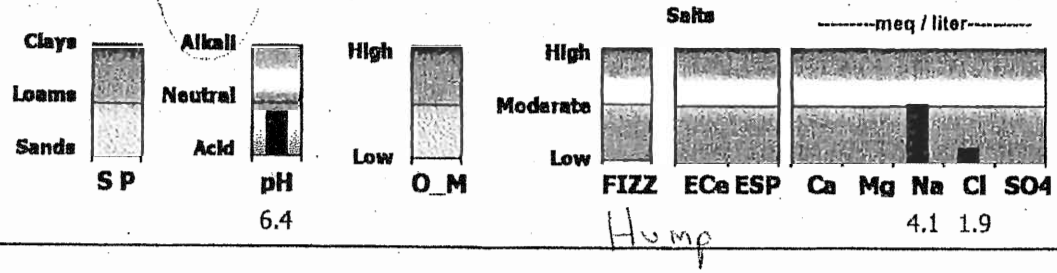
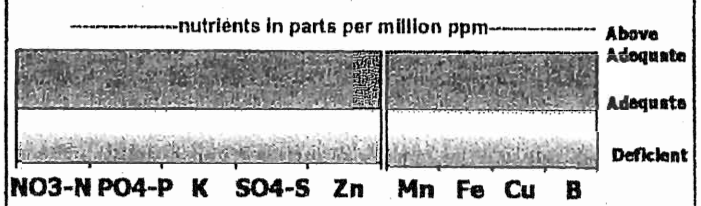
ID#	DESCRIPTION
4	RC-4

Physical And Chemical Properties

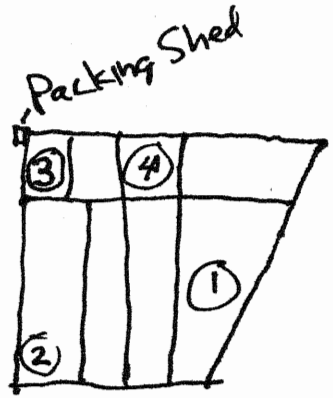


Soil Nutrition



All Ph Low

Salts are high to Asp next to Packing Shed



APPROVED:_____