APPENDIX C

CAP WATER SALINITY DATA



IAS Laboratories

2515 East University Drive Phoenix, Arizona 85034 (602) 273-7248 Fax (602) 275-3836

COMPLETE WATER TEST W4: Irrigation Suitability & Evaluation

Report # 6615101

Page 1

Lab # 991

Date: 10/12/2001 Crop: Alfalfa

Received: 10/4/2001

Grower:

Bureau of Reclamation

Canal

Sender Sample ID:

Submitted By:

Send Report To:

Bureau of Reclamation

	PARTS PER	MILLI-EQUIVALENTS PER LITER	POUNDS APPLIED PER ACRE-FT.
ION TESTED	MILLION	E Saret & America	
	68.0	3.40	185.0
Calcium	35.0	2.87	95.2
Magnesium	91.0	3.96	247.5
Sodium		12	13.1
Potassium	4.8	.00	.0
Carbonate	.0	2.72	451.3
Bicarbonate	165.9	2.25	217.6
Chloride	80.0	4.81	209.4
Sulfate-S	77.0	.07	2.6
Nitrate-N	.9	.00	.24
Phosphate-P	.09	.00	.52
Boron	.19	.00	<u> </u>
Electrical conductivity, dS/m:		.90	
		8.30	
pH, units: Cation/Anion ratio:		1.05	
Cation/Anion ratio. Sodium adsorbtion ratio (SAR):		2.23	•
SELECTION OF THE PROPERTY OF T		4.51	
SAR adjusted:		2.42	*
Adjusted RNa:		38.23	
Soluble sodium percentage (SSP):		52.72	
Soluble sodium percentage possible (SSP pos):		522.94	
Total soluble salts, ppm:		1422.40	
Salt applied per acre	e-1000, IDS.	•2	\$
Sulfuric acid required (gal 95% acid/ac-ft to		22.52	•
neutralize 90% carbonate + bicarbonate): Calcium + Magnesium hardness (meq/l):		6.27	
Calcium + Magnesit	um hardness (meq/i):		
Gypsum required (lb of 100% gypsum/ac-ft)		.00	
to reach a desired	I SAR of 2.23:		
Leaching required (% additional irrigation)		11.25	
for leaching of sal	ts:	(1 time	a
Salinity hazard is his	gh, sodium hazard is low.		
U.S.D.A. classification of this water is C3 - S1		COMMENTS	

COMMENTS

This water should be used only on soils with no restricting layers so the leaching of salts can be accomplished. Plants with low salt tolerance, such as citrus and beans, should be avoided in the higher ranges of C3.

Both water tests are basically the same. Follow sulfuric acid requirement.



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COMPLETE WATER TEST W4: Irrigation Suitability & Evaluation

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Page 2

Lab # 992 **Bureau of Reclamation**

Date: 10/12/2001 Crop: Alfalfa

Received: 10/4/2001

Grower:

Sender Sample ID:

Resevoir

Submitted By:

Send Report To:

Bureau of Reclamation

Send Report To:	Buleau of recommend		POUNDS APPLIED
<u></u>	PARTS PER	MILLI-EQUIVALENTS	PER ACRE-FT.
	MILLION	PER LITER	PERACILETI
ON TESTED	WILLION		187.7
tes	60.0	3.45	95.2
Calcium	69.0	2.87	244.8
Magnesium	35.0	3.91	
Sodium ·	90.0	.12 ~	12.8
Potassium	4.7	.00	.0
Carbonate	.0	2.80	464.6
Bicarbonate	170.8	2.25	217.6
Chloride	0.08	4.75	206.7
Sulfate-S	76.0	.04	1.6
Nitrate-N	.6	.00	.24
Phosphate-P	.09	.00	.52
Boron	.19	.00	
		.90	
Electrical conductivity, dS/m:		8.20	
pH, units:		1.05	
Cation/Anion ratio:		2.20	
Sodium adsorbtion ratio (SAR):		4.48	
SAR adjusted:			
		2.39	
Adjusted RNa:	entage (SSP):	37.80	
Soluble sodium percentage (SSP): Soluble sodium percentage possible (SSP pos):		52.65	
Soluble sodium percentage possible (55)		526.35	
Total soluble salts, ppm:		1431.67	
Salt applied per acre	-1001, lbs.		8
Sulfuric acid required (gal 95% acid/ac-ft to		23.20	
neutralize 90% carbonate + bicarbonate): Calcium + Magnesium hardness (meq/l):		6.32	
Calcium + Magnesiu	im hardness (meq/i).		
Gypsum required (lb of 100% gypsum/ac-ft)		.00	
to reach a desired	SAR of 2.20:		
Leaching required (% additional irrigation)		11.25	
for toaching of sal	ts:		
Cattain, barard is his	nh, sodium hazaro is iow.		
U.S.D.A. classificati	on of this water is 60 " 0 "	COMMENTS	to a second
		COMMENTS Leting lovers so the leaching of salts can b	e accomplished. Plants with low sai

This water should be used only on soils with no restricting layers so the leaching of salts can be accomplished. Plants with low salt tolerance, such as citrus and beans, should be avoided in the higher ranges of C3.