WARM SPRINGS VALLEY

GROUND WATER PUMPAGE INVENTORY

WATER YEAR 1998

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CONTENTS

		PAGE
I.	REPORT	1
II.	LEGEND	6
III.	NUMERICAL LISTING AND WATER PUMPAGE SUMMARY	8
IV.	PUMPAGE BY PERMIT	15
	A. CENTRAL AREA	16
	B. SOUTHERN AREA	35
	C. WESTERN AREA	40
V.	FIGURES	
	A. TOTAL PUMPAGE BY WATER YEAR	5
	B. PUMPAGE BY USE TYPE	5
	C. HYDROGRAPHS OF SELECTED WELLS	44
VI.	SELECTED BIBLIOGRAPHY	52
VII.	MAP	Back Cover

PURPOSE AND SCOPE

This document is intended to quantify groundwater use in Warm Springs Valley and inventory ground water resources allocated by the Nevada Division of Water Resources (Office of the State Engineer) for that period beginning October 1, 1997 and ending September 30, 1998 (hereinafter referred to as the 1998 water year).

Warm Springs Valley (AKA: Palomino Valley) lies north and east of the Reno-Sparks area approximately 12 miles along S.R. 445 (Pyramid Lake Highway) encompassing an area of about 250 square miles. Very little dependable surface water exists at the valley floor so underground sources provide the majority of the water placed to beneficial use. Warm Springs Creek from the north and Cottonwood Creek from the south drain into the valley from the surrounding mountains and are fully appropriated before they reach the valley floor. Mullen Creek intercepts drainage that overflows from Warm Springs Valley and conveys it to Pyramid Lake Valley on the northeast. Warm Springs and Cottonwood Creeks are perennial near the mountains but only reach the valley floor during periods of heavy runoff and, on rare occasion, overflow into Mullen Creek which is ephemeral.

SUB AREAS

The sub areas herein do not represent drainage sub basins as defined by the State Engineer. The boundaries of the sub areas were determined by the intensity of water use and physical features. The sub areas are: West (W), Central (C), and South (S) (see map).

PROCEDURES AND SUMMARY

The 1998 pumpage inventory was conducted primarily during September and October of 1998. All permitted and certificated water rights were also field checked at least once during the growing season to verify culture and estimate of water use. Those areas under irrigation from multiple rights from the same

well will have the total pumpage pro-rated over the entire area under irrigation regardless of culture. This means that the pumpage is divided up amongst the valid permits and uniformly "spread out" over the place of use actually irrigated. This becomes fairly complex when temporary rights enter the picture. In any event, the total pumpage will be as accurate as the meter readings can be.

Total pumpage from all sources, including domestic wells, was estimated as **3956** acre-feet (see pg. 5). The decrease from the 1997 pumping level reflected unseasonably low temperatures and high precipitation in the summer resulting in loss of down hay and a reduced need for irrigation on the row crops. The instances of pumping in excess of the allowed duty were decreased in this water year but irrigation of land from the wrong well increased.

Irrigation continues to represent the primary consumption of water with alfalfa, onion, garlic and turf as the major crops. A total of **3384** acre-feet was pumped to this use (see pg. 5). The greatest concentration of irrigated land lies east of the Pyramid Lake Highway in the central sub area on and near land formerly controlled by MCO Properties, Inc. The next largest area of irrigation is in the west sub area scattered along the Winnemucca Ranch Road north of Range Land Road and on the Winnemucca Ranch. Additional irrigated land lies scattered about the valley in 0.5 to 20.0 acre fields usually accompanied by single family dwellings.

Domestic pumpage was estimated from a count of domestic wells drilled in the valley at **383** acre-feet. The count was cross referenced to Washoe County Assessor's records for parcels with dwellings to increase accuracy. Since the landscaping is typically minimal unless a water right (permit) is attendant, the annual duty was estimated based upon a diversion rate of 1000 gallons per day. This yields an annual duty of 1.12 acre-feet annually per well in use.

Stock watering was estimated based upon the number of animals watered at **38** acre-feet.

Recreation accounted for under **1** acre-foot at the Washoe County Regional Shooting Facility and at the Air Sailing, Inc. glider strip.

Quasi-municipal use accounted for **62** acre-feet at the Reno-Sparks Indian Colony by Hungry Valley Utility District (H.V.U.D.), the volunteer fire station (T.M.F.P.D.) and Palomino Valley General Improvement District (P.V.G.I.D.).

Industrial and other uses accounted for just over **88** acre-feet with the major use being environmental remediation at the old Rocketdyne sites.

SUPPLEMENTAL RIGHTS

18.15 acres of the irrigated land on the Winnemucca Ranch are supplemental to Warm Springs Creek water in the amount of 64.60 acre-feet. There are also a few underground rights that are supplemental to other underground rights.

ERRATA

Certain lands in the central area formerly under the control of MCO Properties, Inc. have been stripped of their water rights by deed and the land sold to third parties. In subsequent years the third parties have consolidated their remaining water rights on the same lands. Although the land to which water is appurtenant under several portions of permits owned by second parties is irrigated, their water rights have not been exercised since January 15, 1992. The specific remaining certificated permits referred to are as follows: 28071, 28076, 28444, 28447, 30109, 30111, 30112 and 30119.

RECHARGE

The State Engineer maintains neither snow courses nor precipitation gauges in the mountains surrounding Warm Springs Valley. Stream flow measurements are also not regularly performed. Subsequently, recharge to Warm Springs Valley has been estimated by empirical methods as described in Report 43.

That estimate, by the Eakin method, was placed at 6,000 acre-feet annually[1].

Runoff was estimated by D. O. Moore in Report 43 as 14,000 acre-feet annually, primarily from Warm Springs Creek and Cottonwood Creek. Whereas Mullen Creek drains the valley only in the amount of about 70 acre-feet annually. No playa exists in Warm Springs Valley which leads one to believe that actual recharge from runoff my be somewhat higher than the Eakin method would otherwise suggest, at least to the near surface aquifer.

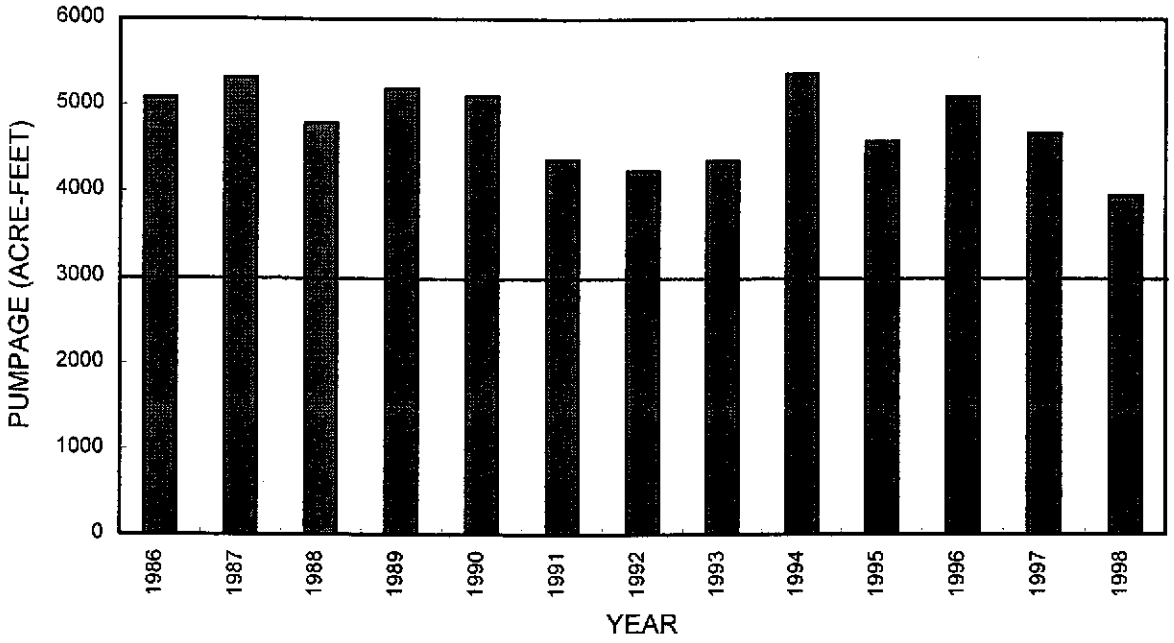
Recharge from irrigation is not readily estimated and is dependant upon several variables: rate of water application, total depth of wetting, direct evapotranspiration rates, crop type and infiltration and percolation rates which are in turn dependant upon soil type and structure. Based upon Report 43 the rate of recharge from irrigation is likely minimal.

A water budget assumes that for a steady state condition the total input of water must equal the total draw on the water. Therefore the actual recharge of the valley must not exceed the total draw on the groundwater of the valley in a steady state or "pre-development" condition. This assumption is the basis for any estimate of perennial yield from a given groundwater system. Using a water budget, Report 43 arrived at a perennial yield of **3000 acre-feet** annually due to the observed draws on the groundwater in Warm Springs Valley and the difficulty in capturing all of the water that is otherwise "lost" through natural evapotranspiration. This is the figure utilized by the State Engineer in water planning decisions.

A more recent series of studies have verified many of the assumptions that were made in Report 43 and confirmed that the methodology utilized was reasonably accurate[2].

[1] Please see entry (1) in the selected bibliography.
[2] Please see entries (2) and (3) in the selected bibliography.

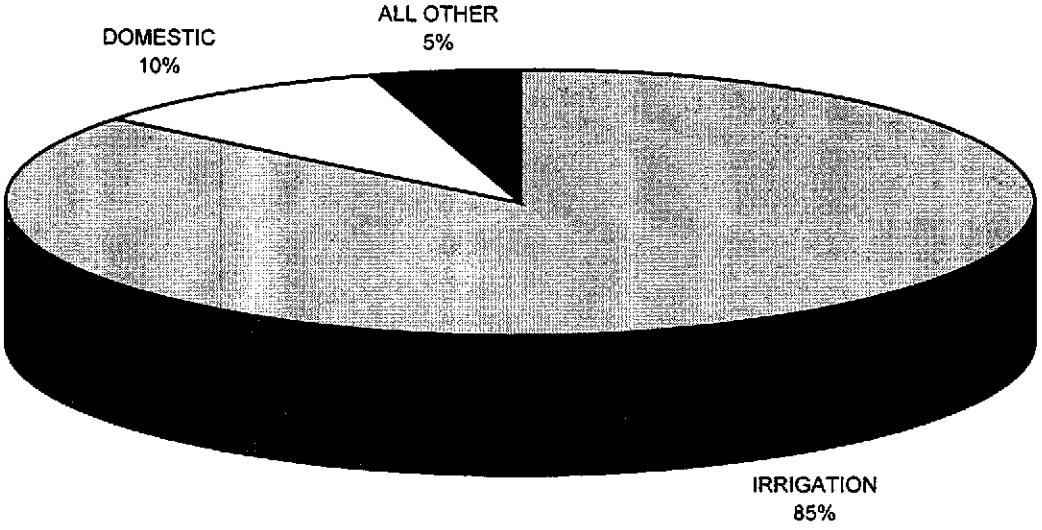
TOTAL PUMPAGE BY WATER YEAR



Perennial yield is estimated at 3,000 acre-feet

PUMPAGE BY USE TYPE

Water Year 1998



LEGEND

A number of abbreviations are used in the tables of this report. The following two pages are a brief discussion of the columns of the report and definitions of abbreviations utilized.

APPEARING IN THE WATER RIGHTS SUMMARY

COLUMN HEADING	DESCRIPTION
APP. NO.	Application number in the records of the State Engineer. If an application is issued this number becomes the permit number. AKA: File number.
STATUS	Status of the corresponding application at the end of the water year. See: Abbreviations.
DUTY	Amount of water requested in the application or allowed by the terms of the permit. All figures are in acre-feet annually (AFA).
USE	Type of beneficial use to which water is applied.
19**	Amount of water pumped under the corresponding application number. Figures are in acre-feet annually (AFA).

APPEARING IN THE PUMPAGE INVENTORY

PERMIT	See: "APP. NO." above.
STAT	See: "STATUS" above.
MOU	See: "USE" above.
PERMITTEE	Owner of record in the Office of the State Engineer. Not necessarily the actual owner of the land to which the water is appurtenant.
PLACE OF USE	Forty (40) acre subdivisions in which the water is permitted to be placed to beneficial use.
Q1 Q2 SEC T R	Abbreviation of "One quarter of one quarter of a Section in a Township and Range." AKA: Legal.
UNITS/ACRES	Number of units (head of stock, number of parcels, etc...) or acreage to be irrigated under the terms of the corresponding permit.
DUTY	Amount of water allowed to be pumped over the course of a year. All figures in acre-feet annually (AFA).
SUPP. ADJ.	Supplemental adjustment. The sum of this column is subtracted from the sum of the "DUTY" column to yield the actual committed resources. The permit corresponding to a figure in this column is considered to be supplemental to another permit in the amount indicated. Also used to account for the issuance of TEMPORARY permits changing (abrogating) existing permits during the water year.
UNITS USED	Actual number of units served or acres of land irrigated during the reported water year.
DUTY USED	Actual (metered or estimated) amount of water placed to beneficial use during the reported water year.
MCO PAR.#	Parcel number corresponding to the "Exhibit Map Supporting the Conveyance of Water Rights by MCO Properties, Inc." on file in the Office of the State Engineer. This column only pertains to certain areas in the Central area.
REMARKS/CULTURE	Self explanatory.

OTHER ABBREVIATIONS UTILIZED

CER	Certificated.
#####	Number appearing in a "STATUS" column indicates a certificate with number #####.
PER	Permitted.
RFA	Application that is Ready For Action, i.e. protest period has expired.
APP	Application prior to expiration of the protest period.
ABR	Abrogated, i.e. changed by subsequent application.
T-ABR	Abrogated by a temporary application.
WDN	Application, permit or certificate Withdrawn by applicant, agent or successor in interest.
EXP	Expired temporary permit. If used in remarks column date on which a temporary expires.
REL	Permit or certificate Relinquished to the state.
T-PER	Temporary permit. Valid for no longer than one year from date of issue.
IRR	Irrigation use.
I&D	Irrigation and domestic use.
STK	Stock watering use.
S&D	Stock watering and domestic use.
Q-M	Quasi-municipal use.
IND	Industrial use.
ENV	Environmental remediation use.
E-PER	Permitted for environmental remediation.
C-#####	Certificate number #####.
P-#####	Permit number #####.
POD	Point of diversion.
BLM	U.S.D.I. Bureau of Land Management.
GID	General Improvement District.
AF/ac.	Acre-feet per acre.
**	Quantity unable to fit format, usually extensive.

NUMERICAL LISTING BY

APPLICATION NUMBER

AND

WATER PUMPAGE SUMMARY

WARM SPRINGS VALLEY (PALOMINO VALLEY) UNDERGROUND WATER RIGHTS SUMMARY.

APP. NO.	STATUS 1998	DUTY (AFA)	USE	SUB AREA	DUTY USED BY WATER YEAR 1993	1994	1995	1996	1997	1998
23888	8283	477.80	IRR	C	475.90	536.73	161.50	385.02	357.67	228.35
24099	7599	4.00	STK	C	4.00	4.00	4.00	4.00	4.00	4.26
27395	9317	8.01	REC	W	0.60	0.56	0.35	0.86	0.49	0.42
28071	8628	6.38	IRR	C	0.00	0.00	0.00	0.00	0.00	0.00
28076	8518	7.50	IRR	C	0.00	0.00	0.00	0.00	0.00	0.00
28444	10632	12.12	IRR	C	0.00	0.00	0.00	0.00	0.00	0.00
28447	8634	6.00	I&D	C	0.00	0.00	0.00	0.00	0.00	0.00
30109	10579	5.00	IRR	C	0.00	0.00	0.00	0.00	0.00	0.00
30111	10581	40.00	IRR	C	0.00	0.00	0.00	0.00	0.00	0.00
30112	10582	0.00	IRR	C	0.00	0.00	0.00	0.00	0.00	0.00
30115	ABR	0.00	IRR	C	0.00	0.00	0.00	0.00	0.00	0.00
30118	ABR	0.00	IRR	C	0.00	0.00	0.00	0.00	0.00	0.00
30119	10589	14.00	IRR	C	0.00	0.00	0.00	0.00	0.00	0.00
32363	12348	24.00	IRR	C	13.00	13.00	23.38	11.89	11.79	12.00
34668	10495	8.00	I&D	S	8.00	1.00	3.23	4.21	4.37	2.30
34670	9862	40.00	IRR	C	33.33	17.70	22.32	20.93	6.19	14.21
35486	10034	8.00	IRR	C	8.00	8.00	8.00	8.00	8.00	8.00
35565	11087	0.16	REC	W	0.27	0.21	0.17	0.33	0.15	0.11
39166	10496	80.00	IRR	C	66.67	35.39	44.63	32.87	11.95	28.42
39167	10457	160.00	IRR	C	160.00	160.00	160.00	160.00	160.00	130.50
39593	PER	64.60	I&D	W	12.53	0.00	0.00	0.00	0.00	0.00
39849	PER	20.00	REC	W	0.42	0.48	0.73	1.04	0.56	0.22
40587	11180	80.00	IRR	C	0.00	0.00	0.00	0.00	0.00	0.00
42403	11875	0.02	Q-M	C	0.02	0.02	0.02	0.01	0.01	0.01
43005	11238	100.00	IRR	C	100.00	100.00	100.00	40.67	66.56	8.20
43006	11181	8.00	I&D	S	8.00	8.00	8.00	7.00	3.00	6.00
45095	10798	8.00	I&D	W	8.00	8.00	8.00	9.90	9.57	7.05
46199	13137	172.00	IRR	C	108.25	59.48	75.96	62.64	0.00	0.00
47562	12057	16.00	I&D	W	11.60	13.31	10.85	11.37	10.00	27.57
47599	13820	2.00	IRR	W	6.00	4.06	1.85	1.53	0.85	0.73
48819	12354	5.20	STK	W	0.00	5.00	7.84	2.85	2.35	1.42
49262	ABR	0.00	IRR	C	0.00	0.00	0.00	0.00	0.00	0.00
49445	13822	20.00	IRR	W	2.79	7.97	0.00	0.00	0.00	0.00
49530	ABR	0.00	IRR	C	0.00	0.00	0.00	0.00	0.00	0.00
49669	11974	235.40	IRR	W	0.00	70.00	144.30	48.50	139.35	96.67
49670	11975	300.00	IRR	W	0.00	86.00	184.70	61.82	117.38	70.35
50021	13542	29.87	STK	C	11.90	29.87	18.74	14.10	15.69	31.81
50054	13051	10.00	I&D	S	6.06	10.65	6.26	7.37	6.93	5.75

** NOTE: "DUTY" COLUMN IS AS OF 9-30-98. **

WARM SPRINGS VALLEY (PALOMINO VALLEY) UNDERGROUND WATER RIGHTS SUMMARY.

APP. NO.	STATUS 1998	DUTY (AFA)	USE	SUB AREA	DUTY USED BY WATER YEAR 1993	1994	1995	1996	1997	1998
50056	13610	4.00	I&D	S	1.83	1.45	0.41	0.54	0.50	0.00
50764	PER	24.00	I&D	S	0.00	0.00	0.00	28.65	7.84	0.00
51002	13241	12.00	I&D	W	16.74	17.30	11.47	14.85	14.36	10.57
51169	PER	8.00	I&D	C	2.49	3.70	3.70	3.80	2.61	2.29
51474	PER	7.00	I&D	C	2.17	3.24	3.24	3.33	2.29	2.00
52089	PER	18.38	Q-M	W	0.00	2.52	0.70	0.00	0.00	0.00
52202	13311	16.00	IRR	S	25.77	27.13	26.16	27.52	32.86	25.60
52708	ABR	4.00	IRR	C	0.00	0.00	0.00	0.00	2.87	0.00
52842	13312	4.00	I&D	S	6.44	6.78	6.54	6.88	8.21	6.40
52868	13916	52.00	I&D	S	55.89	52.00	36.15	42.65	50.95	39.60
52869	13917	28.00	I&D	S	30.10	28.00	18.93	22.96	27.43	21.32
52903	RFA		IRR	S					0.00	0.00
52904	RFA		IRR	S					0.00	0.00
53242	PER	20.00	IRR	C	6.00	6.00	5.53	6.81	6.96	3.64
53243	PER	1.00	IRR	S		0.00	0.00	0.00	0.00	0.00
53263	13918	20.00	I&D	S	21.50	20.00	13.52	16.40	19.59	15.23
53275	14073	4.00	I&D	S	0.32	4.00	1.38	2.91	2.48	3.27
53277	PER	8.00	IRR	S				0.00	0.00	0.00
53278	PER	5.00	IRR	S				0.00	0.00	0.00
53279	RFA		IRR	S					0.00	0.00
53303	12897	134.80	I&D	C	134.80	139.22	178.80	88.58	63.28	94.36
53304	12898	5.59	I&D	C	3.41	3.84	4.31	3.69	3.44	1.87
53305	12899	65.20	I&D	C	65.20	67.34	86.48	98.27	70.17	45.64
53306	12900	20.40	I&D	C	15.11	17.04	19.11	16.45	15.27	8.28
53307	12901	32.12	I&D	C	23.79	26.84	30.09	25.90	24.04	13.04
53308	12902	127.88	I&D	C	94.74	106.84	119.79	103.02	95.73	51.92
53313	PER	165.32	Q-M	W	22.65	37.23	32.56	44.22	47.66	50.99
53343	PER	16.00	I&D	S	0.00	0.00	0.00	2.40	0.56	0.44
53346	PER	4.00	IRR	W	0.00	0.00	0.95	1.79	1.91	2.28
53347	PER	6.00	I&D	S	0.00	0.00	0.00	0.20	0.20	0.00
53674	PER	4.00	IRR	C	0.00	0.00	0.00	0.00	0.00	4.03
53676	PER	4.00	IRR	S	0.00	0.00	0.00	0.09	0.10	0.17
53677	14074	5.20	IRR	W	7.12	1.11	1.57	1.05	0.00	0.00
53678	14075	66.80	IRR	W	91.46	14.29	20.13	13.54	0.00	0.00
53694	PER	9.50	IRR	S			0.00	0.00	0.00	0.00
53864	PER	4.00	IRR	S			0.00	1.57	2.09	1.28
53865	PER	20.00	IRR	C		20.00	20.00	0.00	20.00	0.00
54166	PER	12.00	I&D	W	0.00	0.00	0.00	0.00	0.00	0.00

** NOTE: "DUTY" COLUMN IS AS OF 9-30-98. **

WARM SPRINGS VALLEY (PALOMINO VALLEY) UNDERGROUND WATER RIGHTS SUMMARY.

APP. NO.	STATUS 1998	DUTY (AFA)	USE	SUB AREA	DUTY USED BY WATER YEAR 1993	1994	1995	1996	1997	1998
54167	PER	8.00	IRR	S		0.00	0.00	0.00	0.00	0.00
54169	PER	20.00	IRR	C		0.00	0.00	0.00	0.00	0.00
54265	PER	1.00	I&D	S	0.00	0.00	0.00	0.00	0.00	0.00
54411	PER	12.00	IRR	W		0.00	0.00	0.00	0.00	0.00
54412	PER	4.00	IRR	S	0.00	0.00	0.00	0.08	0.09	0.18
54413	PER	20.00	I&D	S	0.00	0.00	0.00	0.00	0.00	0.00
54461	ABR	0.00	IRR	C		0.00	0.00	0.00	0.00	0.00
54462	ABR	0.00	IRR	C		0.00	0.00	0.00	0.00	0.00
54463	PER	6.00	IRR	C		0.00	0.00	0.00	0.00	0.00
54464	ABR	0.00	IRR	C		0.00	0.00	0.00	0.00	0.00
54465	PER	16.00	IRR	C		0.00	0.00	0.00	0.00	0.00
54466	PER	11.50	IRR	C		0.00	0.00	0.00	0.00	0.00
54467	PER	4.00	IRR	C		0.00	0.00	0.00	0.00	0.00
54468	PER	16.00	IRR	C		0.00	0.00	0.00	0.00	0.00
54469	PER	16.00	IRR	C		0.00	0.00	0.00	0.00	0.00
54470	PER	16.00	IRR	C		0.00	0.00	0.00	0.00	0.00
54471	ABR	0.00	IRR	C		0.00	0.00	0.00	0.00	0.00
54614	PER	6.00	IRR	W			0.00	0.01	0.00	0.28
54615	PER	6.00	I&D	W	0.00	0.00	0.00	0.00	0.00	0.00
54616	PER	4.00	I&D	W	0.00	0.00	0.00	0.00	0.00	0.00
54889	14080	10.00	IRR	W	4.63	10.06	4.17	4.98	6.42	6.03
55118	PER	16.00	IRR	C			0.00	0.00	0.00	0.00
55119	PER	16.00	IRR	C			0.00	0.00	0.00	0.00
55326	PER	8.00	IRR	S		0.00	0.00	0.00	0.00	0.00
55483	PER	4.00	IRR	S		0.00	0.00	0.00	1.14	0.16
55603	14068	180.00	IRR	C	180.00	190.61	122.34	180.00	0.00	187.62
55604	14069	47.60	IRR	C	47.60	50.41	29.47	43.36	0.00	45.20
55605	14070	11.72	IRR	C	11.72	12.41	7.97	11.72	0.00	12.22
55606	14071	304.68	IRR	C	304.68	322.65	207.08	304.68	241.98	317.58
55607	14072	4.24	IRR	C	4.24	4.49	2.88	4.24	0.00	4.42
55608	ABR	0.00	I&D	C	78.49	193.80	186.71	127.40	130.69	0.00
55653	ABR	0.00	Q-M	C	0.00	0.00	0.00	7.60	10.00	0.00
55656	PER	4.00	IRR	S	2.00	2.20	2.91	2.66	3.87	2.46
55657	PER	4.00	I&D	C			0.00	0.00	0.00	3.65
55658	PER	28.00	IRR	C	0.00	0.00	0.00	0.00	0.00	25.54
55659	PER	4.00	IRR	C	0.00	0.00	0.00	0.00	0.00	3.65
55973	ABR	0.00	IRR	C			0.00	0.00	0.00	0.00
55975	ABR	0.00	IRR	C			0.00	0.00	0.00	0.00

** NOTE: "DUTY" COLUMN IS AS OF 9-30-98. **

WARM SPRINGS VALLEY (PALOMINO VALLEY) UNDERGROUND WATER RIGHTS SUMMARY.

APP. NO.	STATUS 1998	DUTY (AFA)	USE	SUB AREA	DUTY USED BY WATER YEAR 1993	1994	1995	1996	1997	1998
56164	PER	2.50	I&D	W	0.00	0.00	0.00	0.00	0.00	0.00
56284	PER	12.00	IRR	S		0.00	0.00	0.00	0.00	0.00
56472	PER	4.00	IRR	S	0.00	0.39	1.38	0.00	0.00	3.27
56576	PER	4.00	IRR	S	0.00	0.00	1.26	3.19	1.67	1.38
56927	PER	5.00	IRR	S	0.00	0.00	0.00	0.00	0.00	0.00
56929	PER	20.00	IRR	C			0.00	0.92	0.98	0.84
56930	PER	1.20	IRR	W	0.00	0.00	0.00	0.00	0.00	0.00
56931	PER	7.20	IRR	W	0.00	0.00	0.00	0.00	0.00	0.00
56932	PER	12.50	IRR	C	0.00	0.00	0.00	0.00	0.00	0.00
56933	PER	17.50	IRR	C	0.00	0.00	0.00	0.00	0.00	0.00
56934	PER	3.60	IRR	W	0.00	0.00	0.00	0.00	0.00	0.00
56963	PER	8.00	IRR	W	0.00	0.00	0.00	0.00	0.00	0.00
57084	14031	409.48	IRR	C	417.29	410.46	224.88	379.69	351.73	210.64
57085	14078	92.52	IRR	C	92.52	95.56	17.40	19.79	14.12	51.16
57086	14032	112.40	IRR	C	112.40	116.09	149.09	169.36	120.97	62.15
57087	14033	0.00	IRR	C	0.00	0.00	0.00	0.00	0.00	0.00
57088	14034	9.08	IRR	C	9.08	9.38	12.04	13.69	9.77	5.02
57089	14035	0.00	IRR	C	0.00	0.00	0.00	0.00	0.00	0.00
57090	14036	57.32	IRR	C	58.41	57.46	31.48	53.13	49.24	29.49
57091	14037	0.00	IRR	C	0.00	0.00	0.00	0.00	0.00	0.00
57092	14038	68.80	IRR	C	70.11	68.97	37.78	63.79	59.10	35.39
57093	14039	86.00	IRR	C	87.64	86.21	47.23	79.76	73.87	44.24
57094	14040	150.60	IRR	C	153.47	150.96	82.71	139.62	129.36	77.47
57095	14041	127.60	IRR	C	127.60	131.79	169.25	192.25	137.33	70.55
57175	PER	4.00	IRR	C			0.00	0.00	0.00	0.00
57202	PER	8.00	IRR	C	0.00	0.00	0.00	0.00	0.00	0.00
57444	PER	11.20	IRR	C	8.30	11.86	7.61	11.20	0.00	11.67
57445	PER	24.00	IRR	C	17.78	25.42	16.31	24.00	0.00	25.02
57446	PER	20.80	IRR	C	15.41	22.03	14.14	20.80	0.00	21.68
57447	PER	13.97	IRR	C	10.37	14.83	9.52	13.97	0.00	14.56
57448	PER	5.50	IRR	C	4.07	5.82	3.74	5.50	0.00	5.73
57526	PER	4.00	IRR	S	0.00	0.00	0.00	0.00	0.00	0.00
57664	PER	8.00	IRR	C	0.00	2.00	4.00	3.00	3.01	4.44
57899	E-PER	80.65	ENV	C	0.00	0.00	0.58	5.52	8.87	11.35
57983	PER	4.00	IRR	S			0.00	0.45	0.45	0.97
58057	PER	1.00	IRR	S	0.00	0.00	0.00	0.00	0.00	0.00
58290	ABR	0.00	IRR	S			0.00	0.00	0.00	0.00
58359	PER	5.00	IRR	S					0.00	0.00
58507	14042	8.96	IRR	C	5.06	9.25	11.88	13.49	9.64	4.95

** NOTE: "DUTY" COLUMN IS AS OF 9-30-98. **

WARM SPRINGS VALLEY (PALOMINO VALLEY) UNDERGROUND WATER RIGHTS SUMMARY.

APP. NO.	STATUS 1998	DUTY (AFA)	USE	SUB AREA	DUTY USED BY WATER YEAR 1993	1994	1995	1996	1997	1998
58508	14043	52.00	IRR	C	29.37	53.71	68.97	78.34	55.97	28.75
58509	14044	2.60	IRR	C	1.47	2.69	3.45	3.93	2.80	1.44
58918	PER	4.00	IRR	S					2.00	0.00
59853	RFA		IRR	S				0.00	0.00	0.00
59854	RFA		IRR	S				0.00	0.00	0.00
60214	PER	0.00	Q-M	W					0.00	0.00
60384	RFA		IND	W				0.00	0.00	0.00
60385	RFA		IND	W				0.00	0.00	0.00
60629	PER	8.00	IRR	S				0.00	0.00	0.00
60916	E-PER	322.87	ENV	C			0.00	2.55	17.12	44.21
60975	E-PER	16.13	ENV	S			0.18	0.48	0.77	0.65
61162	WDN	0.00	ENV	C			0.00	5.80	0.00	0.00
61923	PER	40.00	I&D	C				1.00	1.00	33.57
61942	ABR	0.00	IRR	C					0.00	0.00
62157	T-PER	4.50	IRR	C					4.17	0.33
62166	T-PER	255.00	IRR	C					236.13	18.87
62425	PER	40.00	IRR	S					141.78	60.00
62598	PER	8.00	IRR	C					0.00	0.00
62599	PER	8.00	IRR	C					0.00	0.00
62600	PER	8.00	IRR	C					0.00	0.00
62601	PER	60.00	IRR	C					0.00	50.35
62602	PER	13.16	IRR	C					0.00	11.04
62603	PER	0.84	IRR	C					0.00	0.70
62604	PER	40.00	IRR	C					0.00	33.57
62605	PER	20.00	IRR	C					0.00	16.78
62606	PER	20.00	IRR	C					0.00	14.45
62640	PER	2.00	IRR	C					0.00	0.00
62641	PER	10.00	IRR	C					0.00	0.00
62642	PER	2.00	IRR	W					1.00	1.00
62643	PER	5.00	IRR	S					0.00	0.00
62644	PER	10.00	IRR	S					0.00	0.00
62771	PER	47.82	IRR	C					0.00	34.55
62772	PER	8.08	IRR	C					0.00	5.84
62827	PER	8.00	I&D	W					4.00	1.56
62889	PER	80.00	IRR	C					77.59	81.93
62890	PER	540.00	IRR	C					523.72	553.04
62898	PER	4.00	I&D	C					0.00	0.00
63064	PER	8.00	I&D	C					0.00	0.00
63065	PER	11.00	I&D	C					0.00	0.00
63070	E-PER	48.39	ENV	C					0.00	11.45
63071	E-PER	48.39	ENV	C					0.00	20.51
63072	PER	4.00	IRR	C					0.00	0.00
63074	PER	6.00	IRR	C					0.00	0.00
63139	PER	8.00	IRR	S					0.00	0.00
63203	PER	192.00	IRR	C					0.00	144.94
63221	PER	4.50	IRR	S					0.00	0.00
63222	PER	19.00	IRR	S					0.00	0.00

** NOTE: "DUTY" COLUMN IS AS OF 9-30-98. **

WARM SPRINGS VALLEY (PALOMINO VALLEY) UNDERGROUND WATER RIGHTS SUMMARY.

APP. NO.	STATUS 1998	DUTY (AFA)	USE	SUB AREA	DUTY USED BY WATER YEAR 1993	1994	1995	1996	1997	1998
63223	PER	20.00	IRR	S					0.00	0.00
63309	PER	4.00	IRR	W					0.00	2.24
63350	WDN		IRR	C					0.00	0.00
63455	PER	20.00	IRR	S					0.00	0.00
63456	PER	4.00	IRR	S					0.00	0.00
63515	PER	4.00	Q-M	S						0.30
63516	RFA		Q-M	S						0.00
63517	PER	4.98	Q-M	S						0.37
63518	PER	8.00	Q-M	C						10.64
63519	PER	1.12	IRR	C						0.00
63520	PER	3.84	IRR	C						0.00
63708	PER	10.00	IRR	C						0.00
63782	PER	9.50	IRR	W						0.00
64011	RFA		IRR	S						0.00
64067	RFA		COM	S						0.00
64265	RFA		IRR	C						0.00
64266	RFA		IRR	C						0.00
64267	RFA		IRR	C						0.00
64268	RFA		IRR	C						0.00
64269	RFA		IRR	C						0.00
64270	RFA		IRR	C						0.00

PERMITTED DUTY 7208.09 PERMITTED PUMPAGE 3572.61

Note: The "Permitted Duty" shown above is too high by about 259.5 AF due to "doubling up" permits in the given water year.

** NOTE: "DUTY" COLUMN IS AS OF 9-30-98. **

PUMPAGE BY PERMIT

PUMPAGE SUMMARY BY SUB AREA
INCLUDING DOMESTIC USE ESTIMATE

CENTRAL	3199 Acre-feet
SOUTH	408 Acre-feet
WEST	349 Acre-feet

WARM SPRINGS VALLEY CENTRAL: 1998

PERMIT	STAT	MOU	PERMITTEE	PLACE OF USE Q1	Q2	SEC	T	R	UNITS/ ACRES	DUTY (AF)	SUPP ADJ.	UNITS USED	DUTY USED	MCO PAR. #	REMARKS / CULTURE
23888	8283	IRR	Tehama Holdings, Inc.	SE	SW	5	22	21				6.96	11.30		
23888	8283	IRR	Tehama Holdings, Inc.	NE	SE	5	22	21	1.69			1.69	2.74		
23888	8283	IRR	Tehama Holdings, Inc.	NW	SE	5	22	21	5.25			5.25	8.53		
23888	8283	IRR	Tehama Holdings, Inc.	SW	SE	5	22	21	39.40			39.40	63.99		
23888	8283	IRR	Tehama Holdings, Inc.	SE	SE	5	22	21	29.32			29.32	47.62		
23888	8283	IRR	Tehama Holdings, Inc.	NE	NE	8	22	21	20.88			20.88	33.91		
23888	8283	IRR	Tehama Holdings, Inc.	NW	NE	8	22	21	33.25			33.25	54.00		
23888	8283	IRR	Tehama Holdings, Inc.	NE	NW	8	22	21	3.85			3.85	6.25		
23888	8283	IRR							133.64	534.56		140.60	228.35		MCO well #3; Alfalfa
24099	7599	STK	U.S.D.I. - BLM	NW	NE	7	22	21	172	4.00		1610	4.26		Horses
28071	8628	IRR	Reno Sparks Indian Colony	NW	SW	4	22	21	0.97			0.00	0.00	39	
28071	8628	IRR	Washoe County	SE	NW	4	22	21	0.63			0.00	0.00	57	
28071	8628	IRR							1.60	6.38		0.00	0.00		MCO well #2
28076	8518	IRR	Washoe County	NW	NW	16	22	21	1.88			0.00	0.00	91	Actually 1.875 Acres
28076	ABR	IRR	Zenz, Donald J. & Donna R.	NW	NW	16	22	21	0.00			0.00	0.00	91	This por. ABR by 63221
28076	8518	IRR							1.88	7.50		0.00	0.00		MCO well #5
28444	10632	IRR	Reno Sparks Indian Colony	NE	NE	5	22	21	2.00			0.00	0.00	24	
28444	10632	IRR	Reno Sparks Indian Colony	NW	NE	5	22	21	1.03			0.00	0.00	38	
28444	10632	IRR							3.03	12.12		0.00	0.00		MCO well #1
28447	8634	I&D	Reno Sparks Indian Colony	SW	SW	4	22	21	1.50	6.00		0.00	0.00	49	MCO well #2
30109	ABR	IRR	Seher, Ray	SW	SW	32	23	21	0.00			0.00	0.00	4	This por. ABR by 63072
30109	10579	IRR	Washoe County	SW	SW	32	23	21	1.25			0.00	0.00	4	
30109	10579	IRR							1.25	5.00		0.00	0.00		MCO well #1
30111	10581	IRR	Miller, Marilyn B.	NW	NW	5	22	21	6.00			0.00	0.00	101	
30111	10581	IRR	Miller, Marilyn B.	NE	NE	6	22	21	4.00			0.00	0.00	101	Supplemental to 30112
30111	10581	IRR							10.00	40.00		0.00	0.00		MCO well #1
30112	10582	IRR	Miller, Marilyn B.	NW	NW	5	22	21	6.00			0.00	0.00	101	
30112	10582	IRR	Miller, Marilyn B.	NE	NE	6	22	21	4.00			0.00	0.00	101	Supplemental to 30111; Duty under 30111
30112	10582	IRR							10.00	40.00	40.00	0.00	0.00		MCO well #1

WARM SPRINGS VALLEY CENTRAL: 1998

PERMIT	STAT	MOU	PERMITTEE	PLACE OF USE Q1	Q2	SEC	T	R	UNITS/ ACRES	DUTY (AF)	SUPP ADJ.	UNITS USED	DUTY USED	MCO PAR. #	REMARKS / CULTURE
30115	ABR	IRR	Cochrane, Jack	NE	SE	9	22	21	0.00			0.00	0.00	71	This por. ABR by 62771
30115	ABR	IRR	Cochrane, Jack	NW	SE	9	22	21	0.00			0.00	0.00	87	This por. ABR by 62771
30115	ABR	IRR							0.00	0.00		0.00	0.00		MCO well #5; Duty = 3.99114 AF/ac.
30118	ABR	IRR	Cochrane, Jack	SE	NE	9	22	21	0.00	0.00		0.00	0.00	69	ABR by 62772
30119	FOR	IRR	Demopoulos, Gerald & Delores	SW	SW	4	22	21	0.00			0.00	0.00	43	FOR 05/06/98
30119	10589	IRR	Reno Sparks Indian Colony	SW	SW	4	22	21	3.50			0.00	0.00	48	
30119	10589	IRR							3.50	14.00		0.00	0.00		MCO well #2
32363	12348	IRR	Fischer, George J. & Ethellou	SW	SE	10	22	21	6.00	24.00		6.00	12.00		Model Farm
34670	9862	IRR	Pepple & Stewart	NE	SW	32	23	21	10.00	40.00		10.00	14.21		Garlic
35486	10034	IRR	Claypool, John G. & Susan D.	NW	SE	32	23	21	2.00	8.00		2.00	8.00		Pasture
39166	10496	IRR	Pepple & Stewart	NE	SW	32	23	21	15.70			15.70	22.31		
39166	10496	IRR	Pepple & Stewart	NW	SW	32	23	21	4.30			4.30	6.11		
39166	10496	IRR	Pepple & Stewart						20.00	80.00		20.00	28.42		Garlic
39167	10457	IRR	Douglas, Brent N.	NE	SE	4	22	21	5.60			5.20	17.30		
39167	10457	IRR	Douglas, Brent N. & Washoe County	NW	SE	4	22	21	34.40			34.00	113.20		Washoe Co. por. = 15 AFA
39167	10457	IRR							40.00	160.00		39.20	130.50		Alfalfa
40587	11180	IRR	Newell, George W. & Lolita L.	NE	SE	16	22	21	20.00	80.00		0.00	0.00		Fallow
42403	11875	Q-M	Truckee Meadows Fire Prot. District	NE	SE	6	22	21	**	0.02		**	0.01		Fire Station
43005	11238	IRR	Wells, Clifford E. & Jacquline C.	SE	NE	31	23	21	17.30			17.30	5.68		
43005	11238	IRR	Wells, Clifford E. & Jacquline C.	SW	NW	32	23	21	7.70			7.70	2.53		
43005	11238	IRR							25.00	100.00		25.00	8.20		Winter barley
46199	13137	IRR	Claypool, John G. Susan D.	NE	SE	32	23	21	19.00			0.00	0.00		
46199	13137	IRR	Claypool, John G. Susan D.	NW	SE	32	23	21	24.00			0.00	0.00		
46199	13137	IRR							43.00	172.00		0.00	0.00		Fallow
49262	ABR	IRR	Hayes, Hayes, Titus & Davis	SE	NW	32	23	21	0.00	0.00		0.00	0.00		ABR by 63309 & 63456

WARM SPRINGS VALLEY CENTRAL: 1998

PERMIT	STAT	MOU	PERMITTEE	PLACE OF USE Q1	Q2	SEC	T	R	UNITS/ ACRES	DUTY (AF)	SUPP ADJ.	UNITS USED	DUTY USED	MCO PAR. #	REMARKS / CULTURE
49530	ABR	IRR	Hayes, Edward J. & Constance G.	SE	NW	32	23	21	0.00	0.00		0.00	0.00		ABR by 63455
50021	13542	STK	U.S.D.I. - BLM	NW	NE	7	22	21	1500	29.87		1610	31.81		Horses - Same POD as 24099
51169	PER	I&D	Hemenway, Raymond F. & Gerda T.	SW	SE	14	22	21	2.00	8.00		2.00	2.29		Orchard: Same POD as 51474
51474	PER	I&D	Hemenway, Raymond F. & Gerda T.	SW	SE	14	22	21	1.75	7.00		1.75	2.00		Orchard: Same POD as 51169
52708	ABR	IRR	Palomino Valley G.I.D.	SE	SE	16	22	21	**	0.00		**	0.00		ABR by 63515
53242	PER	I&D	Bonham, Harold F. & Sally M.	NW	NW	13	22	21				0.00	0.00		
53242	PER	I&D	Bonham, Harold F. & Sally M.	SW	NW	13	22	21				0.45	0.82		Pasture grass, alfalfa & orchard
53242	PER	I&D	Bonham, Harold F. & Sally M.	SE	NW	13	22	21				0.30	0.55		Pasture grass, alfalfa & orchard
53242	PER	I&D	Bonham, Harold F. & Sally M.	NE	SW	13	22	21				0.25	0.46		Pasture grass, alfalfa & orchard
53242	PER	I&D	Bonham, Harold F. & Sally M.	NW	SW	13	22	21				1.00	1.82		Pasture grass, alfalfa & orchard
53242	PER	I&D	Bonham, Harold F. & Sally M.	SW	SW	13	22	21				0.00	0.00		
53242	PER	I&D							5.00	20.00		2.00	3.64		
53303	12897	I&D	Tehama Holdings, Inc.	NW	NW	4	22	21	33.70	134.80		33.70	94.36		Alfalfa and pasture grass; MCO well #2
53304	12898	I&D	Tehama Holdings, Inc.	SW	NE	5	22	21	1.15	5.59		1.15	1.87		Alfalfa; MCO well #3
53305	12899	I&D	Pratt, Tom & Lanette	NW	NW	4	22	21	5.90			5.90	16.52		
53305	12899	I&D	Pratt, Tom & Lanette	SW	NW	4	22	21	10.40			10.40	29.12		
53305	12899	I&D							16.30	65.20		16.30	45.64		Alfalfa and pasture grass; MCO well #2
53306	12900	I&D	Tehama Holdings, Inc.	SW	NE	5	22	21	5.10	20.40		5.10	8.28		Alfalfa; MCO well #3
53307	12901	I&D	Tehama Holdings, Inc.	NW	SE	5	22	21	8.03	32.12		8.03	13.04		Alfalfa; MCO well #3
53308	12902	I&D	Tehama Holdings, Inc.	NW	SE	5	22	21	11.97			11.97	19.44		
53308	12902	I&D	Tehama Holdings, Inc.	SE	SW	5	22	21	0.30			0.30	0.49		
53308	12902	I&D	Tehama Holdings, Inc.	NE	SW	5	22	21	15.70			15.70	25.50		
53308	12902	I&D	Tehama Holdings, Inc.	SE	NW	5	22	21	2.60			2.60	4.22		
53308	12902	I&D	Tehama Holdings, Inc.	SW	NE	5	22	21	1.40			1.40	2.27		
53308	12902	I&D							31.97	127.88		31.97	51.92		Alfalfa; MCO well #3
53674	PER	IRR	Malo, M. Daniel & Cheryl L.	NW	SE	15	22	21	1.00	4.00		7.50	4.03		

WARM SPRINGS VALLEY CENTRAL: 1998

PERMIT	STAT	MOU	PERMITTEE	PLACE OF USE Q1	Q2	SEC	T	R	UNITS/ ACRES	DUTY (AF)	SUPP ADJ.	UNITS USED	DUTY USED	MCO PAR. #	REMARKS / CULTURE
53865	PER	I&D	Meade, Lester E. & Donna M.	SE	NE	31	23	21				0.00	0.00		
53865	PER	I&D	Meade, Lester E. & Donna M.	SW	NW	32	23	21				0.00	0.00		
53865	PER	I&D							5.00	20.00		0.00	0.00		Fallow
54169	PER	I&D	Baptiste, Steven L.	NW	NW	14	22	21	5.00	20.00		0.00	0.00		Meter required
54461	ABR	I&D	Cochrane, Jack	NE	SE	9	22	21							
54461	ABR	I&D	Cochrane, Jack	SE	SE	9	22	21							
54461	ABR	I&D	Cochrane, Jack	NW	NW	10	22	21							
54461	ABR	I&D	Cochrane, Jack	SW	NW	15	22	21							
54461	ABR	I&D	Cochrane, Jack		SW	15	22	21							
54461	ABR	I&D	Cochrane, Jack	E2	NE	16	22	21							
54461	ABR	I&D	Cochrane, Jack	E2	SE	16	22	21							ABR by 62601
54461	ABR	I&D							0.00	0.00		0.00	0.00		Meter required
54462	ABR	I&D	Cochrane, Jack	NE	SE	9	22	21							
54462	ABR	I&D	Cochrane, Jack	SE	SE	9	22	21							
54462	ABR	I&D	Cochrane, Jack	NW	NW	10	22	21							
54462	ABR	I&D	Cochrane, Jack	SW	NW	15	22	21							
54462	ABR	I&D	Cochrane, Jack		SW	15	22	21							
54462	ABR	I&D	Cochrane, Jack	E2	NE	16	22	21							
54462	ABR	I&D	Cochrane, Jack	E2	SE	16	22	21							ABR by 62602
54462	ABR	I&D							0.00	0.00		0.00	0.00		Meter required
54463	PER	I&D	Fralick, Kathleen	NE	SE	9	22	21							
54463	PER	I&D	Fralick, Kathleen	SE	SE	9	22	21							
54463	PER	I&D	Fralick, Kathleen	NW	NW	10	22	21							
54463	PER	I&D	Fralick, Kathleen	SW	NW	15	22	21							
54463	PER	I&D	Fralick, Kathleen		SW	15	22	21							
54463	PER	I&D	Fralick, Kathleen	E2	NE	16	22	21							
54463	PER	I&D	Fralick, Kathleen	E2	SE	16	22	21							Por. ABR by 62603
54463	PER	I&D							1.50	6.00		0.00	0.00		Meter required
54464	ABR	I&D	Cochrane, Jack	NE	SE	9	22	21							
54464	ABR	I&D	Cochrane, Jack	SE	SE	9	22	21							
54464	ABR	I&D	Cochrane, Jack	NW	NW	10	22	21							
54464	ABR	I&D	Cochrane, Jack	SW	NW	15	22	21							

WARM SPRINGS VALLEY CENTRAL: 1998

PERMIT	STAT	MOU	PERMITTEE	PLACE OF USE Q1	Q2	SEC	T	R	UNITS/ ACRES	DUTY (AF)	SUPP ADJ.	UNITS USED	DUTY USED	MCO PAR. #	REMARKS / CULTURE
54464	ABR	I&D	Cochrane, Jack		SW	15	22	21							
54464	ABR	I&D	Cochrane, Jack	E2	NE	16	22	21							
54464	ABR	I&D	Cochrane, Jack	E2	SE	16	22	21							ABR by 62604
54464	ABR	I&D							0.00	0.00		0.00	0.00		Meter required
54465	PER	I&D	Washoe County	NE	SE	9	22	21							
54465	PER	I&D	Washoe County	SE	SE	9	22	21							
54465	PER	I&D	Washoe County	NW	NW	10	22	21							
54465	PER	I&D	Washoe County	SW	NW	15	22	21							
54465	PER	I&D	Washoe County		SW	15	22	21							
54465	PER	I&D	Washoe County	E2	NE	16	22	21							
54465	PER	I&D	Washoe County	E2	SE	16	22	21							
54465	PER	I&D							4.00	16.00		0.00	0.00		Meter required
54466	PER	I&D	Fralick, Kathleen & Washoe County	NE	SE	9	22	21							
54466	PER	I&D	Fralick, Kathleen & Washoe County	SE	SE	9	22	21							
54466	PER	I&D	Fralick, Kathleen & Washoe County	NW	NW	10	22	21							
54466	PER	I&D	Fralick, Kathleen & Washoe County	SW	NW	15	22	21							
54466	PER	I&D	Fralick, Kathleen & Washoe County		SW	15	22	21							
54466	PER	I&D	Fralick, Kathleen & Washoe County	E2	NE	16	22	21							
54466	PER	I&D	Fralick, Kathleen & Washoe County	E2	SE	16	22	21							
54466	PER	I&D							3.00	12.00		0.00	0.00		Meter required
54467	PER	IRR	Newell, George W. & Lolita L.	NE	SE	9	22	21							
54467	PER	IRR	Newell, George W. & Lolita L.	SE	SE	9	22	21							
54467	PER	IRR	Newell, George W. & Lolita L.	NW	NW	10	22	21							
54467	PER	IRR	Newell, George W. & Lolita L.	SW	NW	15	22	21							
54467	PER	IRR	Newell, George W. & Lolita L.		SW	15	22	21							
54467	PER	IRR	Newell, George W. & Lolita L.	E2	NE	16	22	21							
54467	PER	IRR	Newell, George W. & Lolita L.	E2	SE	16	22	21							
54467	PER	IRR							1.00	4.00		0.00	0.00		Meter required
54468	PER	IRR	Newell, George & Lolita & Washoe Co.	NE	SE	9	22	21							
54468	PER	IRR	Newell, George & Lolita & Washoe Co.	SE	SE	9	22	21							
54468	PER	IRR	Newell, George & Lolita & Washoe Co.	NW	NW	10	22	21							Washoe County por. is 15.0 Acre-feet
54468	PER	IRR	Newell, George & Lolita & Washoe Co.	SW	NW	15	22	21							
54468	PER	IRR	Newell, George & Lolita & Washoe Co.		SW	15	22	21							
54468	PER	IRR	Newell, George & Lolita & Washoe Co.	E2	NE	16	22	21							

WARM SPRINGS VALLEY CENTRAL: 1998

PERMIT	STAT	MOU	PERMITTEE	PLACE OF USE Q1	Q2	SEC	T	R	UNITS/ ACRES	DUTY (AF)	SUPP ADJ.	UNITS USED	DUTY USED	MCO PAR. #	REMARKS / CULTURE
54468	PER	IRR	Newell, George & Lolita & Washoe Co.	E2	SE	16	22	21							
54468	PER	IRR							4.00	16.00		0.00	0.00		Meter required
54469	ABR	I&D	Cochrane, Jack	NE	SE	9	22	21							
54469	ABR	I&D	Cochrane, Jack	SE	SE	9	22	21							
54469	ABR	I&D	Cochrane, Jack	NW	NW	10	22	21							
54469	ABR	I&D	Cochrane, Jack	SW	NW	15	22	21							
54469	ABR	I&D	Cochrane, Jack		SW	15	22	21							
54469	ABR	I&D	Cochrane, Jack	E2	NE	16	22	21							
54469	ABR	I&D	Cochrane, Jack	E2	SE	16	22	21							ABR by 62605
54469	ABR	I&D							0.00	0.00		0.00	0.00		Meter required
54470	PER	I&D	Washoe County	NE	SE	9	22	21							
54470	PER	I&D	Washoe County	SE	SE	9	22	21							
54470	PER	I&D	Washoe County	NW	NW	10	22	21							
54470	PER	I&D	Washoe County	SW	NW	15	22	21							
54470	PER	I&D	Washoe County		SW	15	22	21							
54470	PER	I&D	Washoe County	E2	NE	16	22	21							
54470	PER	I&D	Washoe County	E2	SE	16	22	21							
54470	PER	I&D							4.00	16.00		0.00	0.00		Meter required
54471	ABR	I&D	Cochrane, Jack	NE	SE	9	22	21							
54471	ABR	I&D	Cochrane, Jack	SE	SE	9	22	21							
54471	ABR	I&D	Cochrane, Jack	NW	NW	10	22	21							
54471	ABR	I&D	Cochrane, Jack	SW	NW	15	22	21							
54471	ABR	I&D	Cochrane, Jack		SW	15	22	21							
54471	ABR	I&D	Cochrane, Jack	E2	NE	16	22	21							
54471	ABR	I&D	Cochrane, Jack	E2	SE	16	22	21							ABR by 62606
54471	ABR	I&D							0.00	0.00		0.00	0.00		Meter required
55118	PER	I&D	Hayes & Washoe Co.	S2	NW	3	22	21	4.00	16.00		0.00	0.00		Meter required; Washoe Co. Por. = 7.5 AFA
55119	PER	I&D	Hayes & Washoe Co.	SE	NW	3	22	21	4.00	16.00		0.00	0.00		Meter required; Washoe Co. Por. = 3.5 AFA
55603	14068	IRR	Capurro, Capurro & Oppio	NE	SE	8	22	21	35.42			16.00	17.13		Turf
55603	14068	IRR	Capurro, Capurro & Oppio	NW	SE	8	22	21	1.74			0.00	0.00		
55603	14068	IRR	Capurro, Capurro & Oppio	SE	SE	8	22	21	12.05			4.00	4.28		Turf
55603	14068	IRR	Capurro, Capurro & Oppio	NE	SW	9	22	21	40.35			40.00	42.83		Onion

WARM SPRINGS VALLEY CENTRAL: 1998

PERMIT	STAT	MOU	PERMITTEE	PLACE OF USE Q1	Q2	SEC	T	R	UNITS/ ACRES	DUTY (AF)	SUPP ADJ.	UNITS USED	DUTY USED	MCO PAR. #	REMARKS / CULTURE
55603	14068	IRR	Capurro, Capurro & Oppio	NW	SW	9	22	21	40.39			25.00	26.77		Turf & onion
55603	14068	IRR	Capurro, Capurro & Oppio	SW	SW	9	22	21	40.26			38.00	40.69		Turf & onion
55603	14068	IRR	Capurro, Capurro & Oppio	SE	SW	9	22	21	40.24			1.50	1.61		Onion
55603	14068	IRR	Capurro, Capurro & Oppio	NW	SE	9	22	21	40.32			0.00	0.00		
55603	14068	IRR	Capurro, Capurro & Oppio	SW	SE	9	22	21	40.20			0.00	0.00		
55603	14068	IRR	Capurro, Capurro & Oppio	NE	NW	16	22	21	40.18			35.00	37.47		Garlic
55603	14068	IRR	Capurro, Capurro & Oppio	NW	NW	16	22	21	27.42			15.74	16.85		Garlic & turf
55603	14068	IRR							45.00	180.00		175.24	187.62		MCO well #5
55604	14069	IRR	Capurro, Capurro & Oppio	NE	SE	8	22	21	35.42			16.00	4.13		Turf
55604	14069	IRR	Capurro, Capurro & Oppio	NW	SE	8	22	21	1.74			0.00	0.00		
55604	14069	IRR	Capurro, Capurro & Oppio	SE	SE	8	22	21	12.05			4.00	1.03		Turf
55604	14069	IRR	Capurro, Capurro & Oppio	NE	SW	9	22	21	40.35			40.00	10.32		Onion
55604	14069	IRR	Capurro, Capurro & Oppio	NW	SW	9	22	21	40.39			25.00	6.45		Turf & onion
55604	14069	IRR	Capurro, Capurro & Oppio	SW	SW	9	22	21	40.26			38.00	9.80		Turf & onion
55604	14069	IRR	Capurro, Capurro & Oppio	SE	SW	9	22	21	40.24			1.50	0.39		Onion
55604	14069	IRR	Capurro, Capurro & Oppio	NW	SE	9	22	21	40.32			0.00	0.00		
55604	14069	IRR	Capurro, Capurro & Oppio	SW	SE	9	22	21	40.20			0.00	0.00		
55604	14069	IRR	Capurro, Capurro & Oppio	NE	NW	16	22	21	40.18			35.00	9.03		Garlic
55604	14069	IRR	Capurro, Capurro & Oppio	NW	NW	16	22	21	27.42			15.74	4.06		Garlic & turf
55604	14069	IRR							11.90	43.36		175.24	45.20		MCO well #5
55605	14070	IRR	Capurro, Capurro & Oppio	NE	SE	8	22	21	35.42			16.00	1.12		Turf
55605	14070	IRR	Capurro, Capurro & Oppio	NW	SE	8	22	21	1.74			0.00	0.00		
55605	14070	IRR	Capurro, Capurro & Oppio	SE	SE	8	22	21	12.05			4.00	0.28		Turf
55605	14070	IRR	Capurro, Capurro & Oppio	NE	SW	9	22	21	40.35			40.00	2.79		Onion
55605	14070	IRR	Capurro, Capurro & Oppio	NW	SW	9	22	21	40.39			25.00	1.74		Turf & onion
55605	14070	IRR	Capurro, Capurro & Oppio	SW	SW	9	22	21	40.26			38.00	2.65		Turf & onion
55605	14070	IRR	Capurro, Capurro & Oppio	SE	SW	9	22	21	40.24			1.50	0.10		Onion
55605	14070	IRR	Capurro, Capurro & Oppio	NW	SE	9	22	21	40.32			0.00	0.00		
55605	14070	IRR	Capurro, Capurro & Oppio	SW	SE	9	22	21	40.20			0.00	0.00		
55605	14070	IRR	Capurro, Capurro & Oppio	NE	NW	16	22	21	40.18			35.00	2.44		Garlic
55605	14070	IRR	Capurro, Capurro & Oppio	NW	NW	16	22	21	27.42			15.74	1.10		Garlic & turf
55605	14070	IRR							2.93	11.72		175.24	12.22		MCO well #5
55606	14071	IRR	Capurro, Capurro & Oppio	NE	SE	8	22	21	35.42			16.00	29.00		Turf
55606	14071	IRR	Capurro, Capurro & Oppio	NW	SE	8	22	21	1.74			0.00	0.00		
55606	14071	IRR	Capurro, Capurro & Oppio	SE	SE	8	22	21	12.05			4.00	7.25		Turf

WARM SPRINGS VALLEY CENTRAL: 1998

PERMIT	STAT	MOU	PERMITTEE	PLACE OF USE Q1	Q2	SEC	T	R	UNITS/ ACRES	DUTY (AF)	SUPP ADJ.	UNITS USED	DUTY USED	MCO PAR. #	REMARKS / CULTURE
55606	14071	IRR	Capurro, Capurro & Oppio	NE	SW	9	22	21	40.35			40.00	72.49		Onion
55606	14071	IRR	Capurro, Capurro & Oppio	NW	SW	9	22	21	40.39			25.00	45.31		Turf & onion
55606	14071	IRR	Capurro, Capurro & Oppio	SW	SW	9	22	21	40.26			38.00	68.87		Turf & onion
55606	14071	IRR	Capurro, Capurro & Oppio	SE	SW	9	22	21	40.24			1.50	2.72		Onion
55606	14071	IRR	Capurro, Capurro & Oppio	NW	SE	9	22	21	40.32			0.00	0.00		
55606	14071	IRR	Capurro, Capurro & Oppio	SW	SE	9	22	21	40.20			0.00	0.00		
55606	14071	IRR	Capurro, Capurro & Oppio	NE	NW	16	22	21	40.18			35.00	63.43		Garlic
55606	14071	IRR	Capurro, Capurro & Oppio	NW	NW	16	22	21	27.42			15.74	28.53		Garlic & turf
55606	14071	IRR							76.17	304.68		175.24	317.58		MCO well #5
55607	14072	IRR	Capurro, Capurro & Oppio	NE	SE	8	22	21	35.42			16.00	0.40		Turf
55607	14072	IRR	Capurro, Capurro & Oppio	NW	SE	8	22	21	1.74			0.00	0.00		
55607	14072	IRR	Capurro, Capurro & Oppio	SE	SE	8	22	21	12.05			4.00	0.10		Turf
55607	14072	IRR	Capurro, Capurro & Oppio	NE	SW	9	22	21	40.35			40.00	1.01		Onion
55607	14072	IRR	Capurro, Capurro & Oppio	NW	SW	9	22	21	40.39			25.00	0.63		Turf & onion
55607	14072	IRR	Capurro, Capurro & Oppio	SW	SW	9	22	21	40.26			38.00	0.96		Turf & onion
55607	14072	IRR	Capurro, Capurro & Oppio	SE	SW	9	22	21	40.24			1.50	0.04		Onion
55607	14072	IRR	Capurro, Capurro & Oppio	NW	SE	9	22	21	40.32			0.00	0.00		
55607	14072	IRR	Capurro, Capurro & Oppio	SW	SE	9	22	21	40.20			0.00	0.00		
55607	14072	IRR	Capurro, Capurro & Oppio	NE	NW	16	22	21	40.18			35.00	0.88		Garlic
55607	14072	IRR	Capurro, Capurro & Oppio	NW	NW	16	22	21	27.42			15.74	0.40		Garlic & turf
55607	14072	IRR							11.90	47.60	43.36	175.24	4.42		MCO well #5
55608	ABR	I&D	Fahnestock Enterprises, Inc.	S2	NE	8	22	21	0.00			0.00	0.00		
55608	ABR	I&D	Fahnestock Enterprises, Inc.	S2	N2	9	22	21	0.00			0.00	0.00		ABR by P-63203
55608	ABR	I&D							0.00	0.00		0.00	0.00		MCO well #6
55653	ABR	Q-M	Palomino Valley G.I.D.	EXTENSIVE					**	0.00		**	0.00		ABR by P-63518
55657	PER	I&D	Malo, M. Daniel & Cheryl L.	NW	SE	15	22	21	1.00	4.00		7.50	3.65		House & pasture; Same well as P-55659
55658	PER	IRR	Malo, M. Daniel & Cheryl L.	NW	SE	15	22	21	7.00	28.00		7.50	25.54		House & pasture; Same well as P-55657
55659	PER	IRR	Malo, M. Daniel & Cheryl L.	NW	SE	15	22	21	1.00	4.00		7.50	3.65		House & pasture; Same well as P- 55658
55973	ABR	IRR	Wright, Wanda C.	SW	NE	29	23	21							
55973	ABR	IRR	Wright, Wanda C.	S2	NW	29	23	21							
55973	ABR	IRR	Wright, Wanda C.	NE	SW	29	23	21							

WARM SPRINGS VALLEY CENTRAL: 1998

PERMIT	STAT	MOU	PERMITTEE	PLACE OF USE Q1	Q2	SEC	T	R	UNITS/ ACRES	DUTY (AF)	SUPP ADJ.	UNITS USED	DUTY USED	MCO PAR. #	REMARKS / CULTURE
55973	ABR	IRR	Wright, Wanda C.	NW	SE	29	23	21							ABR by P-63519
55973	ABR	IRR							0.00	0.00		0.00	0.00		Meter required
55975	ABR	IRR	Wright, Wanda C.	SW	NE	29	23	21							
55975	ABR	IRR	Wright, Wanda C.	S2	NW	29	23	21							
55975	ABR	IRR	Wright, Wanda C.	NE	SW	29	23	21							
55975	ABR	IRR	Wright, Wanda C.	NW	SE	29	23	21							ABR by P-63520
55975	ABR	IRR							0.00	0.00		0.00	0.00		Meter required
56929	PER	I&D	Pruitt, Leneaux & Washoe County	SW	SW	33	23	21	5.00	20.00		2.00	0.84		Domestic and garden; Wa.Co. por. = 15 AFA
56932	PER	IRR	Stinson, George W. & Washoe County		NE	3	22	21							Washoe County Por. = 10.0 AFA
56932	PER	IRR	Stinson, George W. & Washoe County	N2	SE	3	22	21							
56932	PER	IRR							3.13	12.50		0.00	0.00		Meter required; Actually 3.125 Ac.
56933	PER	IRR	Stinson, George W.	NW	NW	15	22	21	4.38	17.50		0.00	0.00		No meter; Domestic only; Actually 4.375 Ac.
57084	14031	IRR	Tehama Holdings, Inc.	NE	NW	5	22	21	10.23			10.23	21.05		
57084	14031	IRR	Tehama Holdings, Inc.	NW	NW	5	22	21	37.13			37.13	76.40		
57084	14031	IRR	Tehama Holdings, Inc.	SW	NW	5	22	21	12.61			12.61	25.95		
57084	14031	IRR	Tehama Holdings, Inc.	SW	NW	5	22	21	0.04			0.04	0.08		
57084	14031	IRR	Tehama Holdings, Inc.	NE	SE	31	23	21	0.10			0.10	0.21		
57084	14031	IRR	Tehama Holdings, Inc.	SE	SE	31	23	21	0.86			0.86	1.77		
57084	14031	IRR	Tehama Holdings, Inc.	NW	SW	32	23	21	0.46			0.46	0.95		
57084	14031	IRR	Tehama Holdings, Inc.	SW	SW	32	23	21	36.00			36.00	74.08		
57084	14031	IRR	Tehama Holdings, Inc.	SE	SW	32	23	21	4.94			4.94	10.16		
57084	14031	IRR							102.37	409.48		102.37	210.64		MCO well #1; Alfalfa
57085	14078	IRR	Tehama Holdings, Inc.	NW	NE	5	22	21	5.38			5.38	11.90		
57085	14078	IRR	Tehama Holdings, Inc.	NE	NW	5	22	21	4.08			4.08	9.02		
57085	14078	IRR	Tehama Holdings, Inc.	SE	SW	32	23	21	6.33			6.33	14.00		
57085	14078	IRR	Tehama Holdings, Inc.	SW	SE	32	23	21	7.34			7.34	16.23		
57085	14078	IRR							23.13	92.52		23.13	51.16		MCO well #2; Alfalfa
57086	14032	IRR	Tehama Holdings, Inc.	NW	NE	5	22	21	7.20			7.20	15.92		
57086	14032	IRR	Tehama Holdings, Inc.	SW	NE	5	22	21	0.36			0.36	0.80		
57086	14032	IRR	Tehama Holdings, Inc.	NE	NW	5	22	21	17.60			17.60	38.93		
57086	14032	IRR	Tehama Holdings, Inc.	SE	NW	5	22	21	2.94			2.94	6.50		MCO well #2; Alfalfa

WARM SPRINGS VALLEY CENTRAL: 1998

PERMIT	STAT	MOU	PERMITTEE	PLACE OF USE Q1	Q2	SEC	T	R	UNITS/ ACRES	DUTY (AF)	SUPP ADJ.	UNITS USED	DUTY USED	MCO PAR. #	REMARKS / CULTURE
57086	14032	IRR							28.10	112.40		28.10	62.15		Supplemental to P-57087
57087	14033	IRR	Tehama Holdings, Inc.	NW	NE	5	22	21	7.20			7.20	0.00		
57087	14033	IRR	Tehama Holdings, Inc.	SW	NE	5	22	21	0.36			0.36	0.00		
57087	14033	IRR	Tehama Holdings, Inc.	NE	NW	5	22	21	17.60			17.60	0.00		Certificated duty = 3.64733 AF/ac.
57087	14033	IRR	Tehama Holdings, Inc.	SE	NW	5	22	21	2.94			2.94	0.00		MCO well #2; Alfalfa
57087	14033	IRR							28.10	102.49	102.49	28.10	0.00		Supplemental to P-57086
57088	14034	IRR	Tehama Holdings, Inc.	NW	NE	5	22	21	0.39			0.39	0.86		
57088	14034	IRR	Tehama Holdings, Inc.	SW	SE	32	23	21	1.88			1.88	4.16		MCO well #2; Alfalfa
57088	14034	IRR							2.27	9.08		2.27	5.02		Supplemental to 57089
57089	14035	IRR	Tehama Holdings, Inc.	NW	NE	5	22	21	0.39			0.39	0.00		
57089	14035	IRR	Tehama Holdings, Inc.	SW	SE	32	23	21	1.88			1.88	0.00		MCO well #2; Alfalfa
57089	14035	IRR							2.27	9.08	9.08	2.27	0.00		Supplemental to 57088
57090	14036	IRR	Tehama Holdings, Inc.	NW	NW	5	22	21	1.94			1.94	3.99		
57090	14036	IRR	Tehama Holdings, Inc.	SW	NW	5	22	21	0.66			0.66	1.36		
57090	14036	IRR	Tehama Holdings, Inc.	NE	NE	6	22	21	4.62			4.62	9.51		
57090	14036	IRR	Tehama Holdings, Inc.	SE	NE	6	22	21	7.11			7.11	14.63		MCO well #1; Alfalfa
57090	14036	IRR							14.33	57.32		14.33	29.49		Supplemental to 57091
57091	14037	IRR	Tehama Holdings, Inc.	NW	NW	5	22	21	1.94			1.94	0.00		
57091	14037	IRR	Tehama Holdings, Inc.	SW	NW	5	22	21	0.66			0.66	0.00		
57091	14037	IRR	Tehama Holdings, Inc.	NE	NE	6	22	21	4.62			4.62	0.00		
57091	14037	IRR	Tehama Holdings, Inc.	SE	NE	6	22	21	7.11			7.11	0.00		MCO well #1; Alfalfa
57091	14037	IRR							14.33	57.32	57.32	14.33	0.00		Supplemental to & duty under 57090
57092	14038	IRR	Tehama Holdings, Inc.	NW	NW	5	22	21	0.19			0.19	0.39		
57092	14038	IRR	Tehama Holdings, Inc.	NE	NE	6	22	21	13.89			13.89	28.58		
57092	14038	IRR	Tehama Holdings, Inc.	SE	NE	6	22	21	3.12			3.12	6.42		
57092	14038	IRR							17.20	68.80		17.20	35.39		MCO well #1; Alfalfa
57093	14039	IRR	Tehama Holdings, Inc.	NW	NW	5	22	21	0.12			0.12	0.25		
57093	14039	IRR	Tehama Holdings, Inc.	NE	NE	6	22	21	17.51			17.51	36.03		
57093	14039	IRR	Tehama Holdings, Inc.	NW	NE	6	22	21	3.58			3.58	7.37		
57093	14039	IRR	Tehama Holdings, Inc.	SW	SE	31	23	21	0.22			0.22	0.45		
57093	14039	IRR	Tehama Holdings, Inc.	SE	SE	31	23	21	0.07			0.07	0.14		

WARM SPRINGS VALLEY CENTRAL: 1998

PERMIT	STAT	MOU	PERMITTEE	PLACE OF USE Q1	Q2	SEC	T	R	UNITS/ ACRES	DUTY (AF)	SUPP ADJ.	UNITS USED	DUTY USED	MCO PAR. #	REMARKS / CULTURE
57093	14039	IRR							21.50	86.00		21.50	44.24		MCO well #1; Alfalfa
57094	14040	IRR	Tehama Holdings, Inc.	NW	NW	5	22	21	0.57			0.57	1.17		
57094	14040	IRR	Tehama Holdings, Inc.	NE	NE	6	22	21	3.17			3.17	6.52		
57094	14040	IRR	Tehama Holdings, Inc.	SW	SE	31	23	21	1.06			1.06	2.18		
57094	14040	IRR	Tehama Holdings, Inc.	SE	SE	31	23	21	32.22			32.22	66.30		
57094	14040	IRR	Tehama Holdings, Inc.	NE	SE	31	23	21	0.09			0.09	0.19		
57094	14040	IRR	Tehama Holdings, Inc.	SW	SW	32	23	21	0.54			0.54	1.11		
57094	14040	IRR							37.65	150.60		37.65	77.47		MCO well #1; Alfalfa
57095	14041	IRR	Tehama Holdings, Inc.	NE	NE	5	22	21	2.07			2.07	4.58		
57095	14041	IRR	Tehama Holdings, Inc.	NW	NE	5	22	21	13.61			13.61	30.10		
57095	14041	IRR	Tehama Holdings, Inc.	SW	NE	5	22	21	14.72			14.72	32.56		
57095	14041	IRR	Tehama Holdings, Inc.	SE	NE	5	22	21	1.30			1.30	2.88		
57095	14041	IRR	Tehama Holdings, Inc.	SE	NW	5	22	21	0.20			0.20	0.44		
57095	14041	IRR							31.90	127.60		31.90	70.55		MCO well #2; Alfalfa
57175	PER	I&D	Washoe County	SE	NW	3	22	21	1.00	4.00		0.00	0.00		Meter required
57202	PER	I&D	Cobb, John & Susan		SW	34	23	21							
57202	PER	I&D	Cobb, John & Susan	N2	SE	33	23	21							
57202	PER	I&D							2.00	8.00		0.00	0.00		Meter required
57444	PER	IRR	Carr, Fred M.	NW	SE	8	22	21				16.00	1.07		Turf
57444	PER	IRR	Carr, Fred M.	NE	SE	8	22	21				0.00	0.00		
57444	PER	IRR	Carr, Fred M.	SE	SE	8	22	21				4.00	0.27		Turf
57444	PER	IRR	Carr, Fred M.	NW	SW	9	22	21				40.00	2.66		Onion
57444	PER	IRR	Carr, Fred M.	NE	SW	9	22	21				25.00	1.67		Turf & onion
57444	PER	IRR	Carr, Fred M.	SW	SW	9	22	21				38.00	2.53		Turf & onion
57444	PER	IRR	Carr, Fred M.	SE	SW	9	22	21				1.50	0.10		Onion
57444	PER	IRR	Carr, Fred M.	NW	SE	9	22	21				0.00	0.00		
57444	PER	IRR	Carr, Fred M.	SW	SE	9	22	21				0.00	0.00		
57444	PER	IRR	Carr, Fred M.	NW	NW	16	22	21				35.00	2.33		Garlic
57444	PER	IRR	Carr, Fred M.	NE	NW	16	22	21				15.74	1.05		Garlic & turf
57444	PER	IRR							2.80	11.20		175.24	11.67		MCO well #5 (pumpage under P-55606)
57445	PER	I&D	Carr, Mark C. & Wilma F.	NW	SE	8	22	21				16.00	2.28		
57445	PER	I&D	Carr, Mark C. & Wilma F.	NE	SE	8	22	21				0.00	0.00		Turf

WARM SPRINGS VALLEY CENTRAL: 1998

PERMIT	STAT	MOU	PERMITTEE	PLACE OF USE Q1	Q2	SEC	T	R	UNITS/ ACRES	DUTY (AF)	SUPP ADJ.	UNITS USED	DUTY USED	MCO PAR. #	REMARKS / CULTURE
57445	PER	I&D	Carr, Mark C. & Wilma F.	SE	SE	8	22	21				4.00	0.57		
57445	PER	I&D	Carr, Mark C. & Wilma F.	NW	SW	9	22	21				40.00	5.71		Turf
57445	PER	I&D	Carr, Mark C. & Wilma F.	NE	SW	9	22	21				25.00	3.57		Onion
57445	PER	I&D	Carr, Mark C. & Wilma F.	SW	SW	9	22	21				38.00	5.42		Turf & onion
57445	PER	I&D	Carr, Mark C. & Wilma F.	SE	SW	9	22	21				1.50	0.21		Turf & onion
57445	PER	I&D	Carr, Mark C. & Wilma F.	NW	SE	9	22	21				0.00	0.00		Onion
57445	PER	I&D	Carr, Mark C. & Wilma F.	SW	SE	9	22	21				0.00	0.00		
57445	PER	I&D	Carr, Mark C. & Wilma F.	NW	NW	16	22	21				35.00	5.00		
57445	PER	I&D	Carr, Mark C. & Wilma F.	NE	NW	16	22	21				15.74	2.25		Garlic
57445	PER	I&D							6.00	24.00		175.24	25.02		Garlic & turf
57446	PER	I&D	Carr, Fred & Carr, Mark & Wilma	NW	SE	8	22	21				16.00	1.98		Turf
57446	PER	I&D	Carr, Fred & Carr, Mark & Wilma	NE	SE	8	22	21				0.00	0.00		
57446	PER	I&D	Carr, Fred & Carr, Mark & Wilma	SE	SE	8	22	21				4.00	0.49		Turf
57446	PER	I&D	Carr, Fred & Carr, Mark & Wilma	NW	SW	9	22	21				40.00	4.95		Onion
57446	PER	I&D	Carr, Fred & Carr, Mark & Wilma	NE	SW	9	22	21				25.00	3.09		Turf & onion
57446	PER	I&D	Carr, Fred & Carr, Mark & Wilma	SW	SW	9	22	21				38.00	4.70		Turf & onion
57446	PER	I&D	Carr, Fred & Carr, Mark & Wilma	SE	SW	9	22	21				1.50	0.19		Onion
57446	PER	I&D	Carr, Fred & Carr, Mark & Wilma	NW	SE	9	22	21				0.00	0.00		
57446	PER	I&D	Carr, Fred & Carr, Mark & Wilma	SW	SE	9	22	21				0.00	0.00		
57446	PER	I&D	Carr, Fred & Carr, Mark & Wilma	NW	NW	16	22	21				35.00	4.33		Garlic
57446	PER	I&D	Carr, Fred & Carr, Mark & Wilma	NE	NW	16	22	21				15.74	1.95		Garlic & turf
57446	PER	I&D							5.20	20.80		175.24	21.68		MCO well #5 (pumpage under P-55606)
57447	PER	IRR	Carr, Mark C. & Wilma F.	NW	SE	8	22	21				16.00	1.33		Turf
57447	PER	IRR	Carr, Mark C. & Wilma F.	NE	SE	8	22	21				0.00	0.00		
57447	PER	IRR	Carr, Mark C. & Wilma F.	SE	SE	8	22	21				4.00	0.33		Turf
57447	PER	IRR	Carr, Mark C. & Wilma F.	NW	SW	9	22	21				40.00	3.32		Onion
57447	PER	IRR	Carr, Mark C. & Wilma F.	NE	SW	9	22	21				25.00	2.08		Turf & onion
57447	PER	IRR	Carr, Mark C. & Wilma F.	SW	SW	9	22	21				38.00	3.16		Turf & onion
57447	PER	IRR	Carr, Mark C. & Wilma F.	SE	SW	9	22	21				1.50	0.12		Onion
57447	PER	IRR	Carr, Mark C. & Wilma F.	NW	SE	9	22	21				0.00	0.00		
57447	PER	IRR	Carr, Mark C. & Wilma F.	SW	SE	9	22	21				0.00	0.00		
57447	PER	IRR	Carr, Mark C. & Wilma F.	NW	NW	16	22	21				35.00	2.91		Garlic
57447	PER	IRR	Carr, Mark C. & Wilma F.	NE	NW	16	22	21				15.74	1.31		Garlic & turf
57447	PER	IRR							3.50	13.97		175.24	14.56		MCO well #5; Duty of base rt. = 3.99114 AF/ac
57448	PER	I&D	Carr, Mark C. & Wilma F.	NW	SE	8	22	21				16.00	0.52		Turf

WARM SPRINGS VALLEY CENTRAL: 1998

PERMIT	STAT	MOU	PERMITTEE	PLACE OF USE Q1	Q2	SEC	T	R	UNITS/ ACRES	DUTY (AF)	SUPP ADJ.	UNITS USED	DUTY USED	MCO PAR. #	REMARKS / CULTURE
57448	PER	I&D	Carr, Mark C. & Wilma F.	NE	SE	8	22	21				0.00	0.00		
57448	PER	I&D	Carr, Mark C. & Wilma F.	SE	SE	8	22	21				4.00	0.13		Turf
57448	PER	I&D	Carr, Mark C. & Wilma F.	NW	SW	9	22	21				40.00	1.31		Onion
57448	PER	I&D	Carr, Mark C. & Wilma F.	NE	SW	9	22	21				25.00	0.82		Turf & onion
57448	PER	I&D	Carr, Mark C. & Wilma F.	SW	SW	9	22	21				38.00	1.24		Turf & onion
57448	PER	I&D	Carr, Mark C. & Wilma F.	SE	SW	9	22	21				1.50	0.05		Onion
57448	PER	I&D	Carr, Mark C. & Wilma F.	NW	SE	9	22	21				0.00	0.00		
57448	PER	I&D	Carr, Mark C. & Wilma F.	SW	SE	9	22	21				0.00	0.00		
57448	PER	I&D	Carr, Mark C. & Wilma F.	NW	NW	16	22	21				35.00	1.14		Garlic
57448	PER	I&D	Carr, Mark C. & Wilma F.	NE	NW	16	22	21				15.74	0.51		Garlic & turf
57448	PER	I&D							1.38	5.50		175.24	5.73		MCO well #5; Actually 1.375 ac.
57664	PER	I&D	Cieri, Diane & Richard J.	NW	SE	16	22	21	2.00	8.00		1.00	4.44		House, garden and landscaping
57899	E-PER	ENV	Rockwell International Corporation		E2	12	22	21	**	80.65		**	11.35		Meter and monthly reporting required
58507	14042	IRR	Tehama Holdings, Inc.	NE	NE	5	22	21	1.46			1.46	3.23		
58507	14042	IRR	Tehama Holdings, Inc.	NW	NE	5	22	21	0.78			0.78	1.73		
58507	14042	IRR							2.24	8.96		2.24	4.95		MCO well #2; Alfalfa
58508	14043	IRR	Tehama Holdings, Inc.	NE	NE	5	22	21	8.43			8.43	18.64		
58508	14043	IRR	Tehama Holdings, Inc.	NW	NE	5	22	21	4.57			4.57	10.11		
58508	14043	IRR							13.00	52.00		13.00	28.75		MCO well #2; Alfalfa
58509	14044	IRR	Tehama Holdings, Inc.	NE	NE	5	22	21	0.37			0.37	0.82		
58509	14044	IRR	Tehama Holdings, Inc.	NW	NE	5	22	21	0.28			0.28	0.62		
58509	14044	IRR							0.65	2.60		0.65	1.44		MCO well #2; Alfalfa
60916	E-PER	ENV	Rockwell International Corporation			7	22	22							
60916	E-PER	ENV	Rockwell International Corporation		E2	12	22	21							
60916	E-PER	ENV	Rockwell International Corporation		SW	12	22	21							
60916	E-PER	ENV	Rockwell International Corporation		SE	11	22	21							
60916	E-PER	ENV	Rockwell International Corporation		N2	13	22	21							
60916	E-PER	ENV	Rockwell International Corporation		NE	14	22	21							
60916	E-PER	ENV							**	322.87		**	44.21		Meter and monthly reporting required
61162	WDN	ENV	Rockwell International Corporation		SE	18	22	22	**	16.13		**	0.00		Meter and monthly reporting required

WARM SPRINGS VALLEY CENTRAL: 1998

PERMIT	STAT	MOU	PERMITTEE	PLACE OF USE Q1	Q2	SEC	T	R	UNITS/ ACRES	DUTY (AF)	SUPP ADJ.	UNITS USED	DUTY USED	MCO PAR. #	REMARKS / CULTURE
61923	PER	I&D	Cochrane, Jack	NE	SE	9	22	21				40.00	33.57		Diversion from MCO well #5; Garlic
61923	PER	I&D	Cochrane, Jack	NW	NW	10	22	21				0.00	0.00		
61923	PER	I&D	Cochrane, Jack	NE	NE	16	22	21				0.00	0.00		
61923	PER	I&D	Cochrane, Jack	SE	NE	16	22	21				0.00	0.00		
61923	PER	I&D	Cochrane, Jack	SW	NW	15	22	21				0.00	0.00		
61923	PER	I&D	Cochrane, Jack	NE	SW	15	22	21				0.00	0.00		
61923	PER	I&D	Cochrane, Jack	NW	SW	15	22	21				0.00	0.00		
61923	PER	I&D	Cochrane, Jack	SW	SW	15	22	21				0.00	0.00		
61923	PER	I&D	Cochrane, Jack	SE	SW	15	22	21				0.00	0.00		
61923	PER	I&D							10.00	40.00		40.00	33.57		
61942	ABR	I&D	Hayes, Edward J. & Constance G.	NE	SE	16	22	21							
61942	ABR	I&D	Hayes, Edward J. & Constance G.	SE	SE	16	22	21							ABR by P-63223
61942	ABR	I&D							0.00	0.00		0.00	0.00		Meter required
62157	T-PER	I&D	Zenz, Donald J. and Donna R.	NE	SE	9	22	21	40.00			0.00	0.00		
62157	T-PER	I&D	Zenz, Donald J. and Donna R.	E2	NE	16	22	21	80.00			0.00	0.00		
62157	T-PER	I&D	Zenz, Donald J. and Donna R.	NE	SE	8	22	21	35.42			0.00	0.00		
62157	T-PER	I&D	Zenz, Donald J. and Donna R.	NW	SE	8	22	21	1.74			0.00	0.00		
62157	T-PER	I&D	Zenz, Donald J. and Donna R.	SE	SE	8	22	21	12.05			0.00	0.00		
62157	T-PER	I&D	Zenz, Donald J. and Donna R.	NE	SW	9	22	21	40.35			0.00	0.00		
62157	T-PER	I&D	Zenz, Donald J. and Donna R.	NW	SW	9	22	21	40.39			0.00	0.00		
62157	T-PER	I&D	Zenz, Donald J. and Donna R.	SW	SW	9	22	21	40.26			0.00	0.00		
62157	T-PER	I&D	Zenz, Donald J. and Donna R.	SE	SW	9	22	21	40.24			0.00	0.00		
62157	T-PER	I&D	Zenz, Donald J. and Donna R.	NW	SE	9	22	21	40.32			0.00	0.00		
62157	T-PER	I&D	Zenz, Donald J. and Donna R.	SW	SE	9	22	21	40.20			0.00	0.00		
62157	T-PER	I&D	Zenz, Donald J. and Donna R.	NE	NW	16	22	21	40.18			0.00	0.00		
62157	T-PER	I&D	Zenz, Donald J. and Donna R.	NW	NW	16	22	21	27.42			5.26	0.33		Garlic & turf
62157	T-PER	I&D							1.13	4.50	4.50	5.26	0.33		MCO well #5; EXPIRES 10-27-97
62166	T-PER	I&D	Intermountain Land Company	NE	SE	9	22	21	40.00			0.00	0.00		
62166	T-PER	I&D	Intermountain Land Company	E2	NE	16	22	21	80.00			0.00	0.00		
62166	T-PER	I&D	Intermountain Land Company	NE	SE	8	22	21	35.42			0.00	0.00		
62166	T-PER	I&D	Intermountain Land Company	NW	SE	8	22	21	1.74			0.00	0.00		
62166	T-PER	I&D	Intermountain Land Company	SE	SE	8	22	21	12.05			0.00	0.00		
62166	T-PER	I&D	Intermountain Land Company	NE	SW	9	22	21	40.35			0.00	0.00		
62166	T-PER	I&D	Intermountain Land Company	NW	SW	9	22	21	40.39			0.00	0.00		
62166	T-PER	I&D	Intermountain Land Company	SW	SW	9	22	21	40.26			0.00	0.00		

WARM SPRINGS VALLEY CENTRAL: 1998

PERMIT	STAT	MOU	PERMITTEE	PLACE OF USE Q1	Q2	SEC	T	R	UNITS/ ACRES	DUTY (AF)	SUPP ADJ.	UNITS USED	DUTY USED	MCO PAR. #	REMARKS / CULTURE
62166	T-PER	I&D	Intermountain Land Company	SE	SW	9	22	21	40.24			0.00	0.00		
62166	T-PER	I&D	Intermountain Land Company	NW	SE	9	22	21	40.32			0.00	0.00		
62166	T-PER	I&D	Intermountain Land Company	SW	SE	9	22	21	40.20			0.00	0.00		
62166	T-PER	I&D	Intermountain Land Company	NE	NW	16	22	21	40.18			0.00	0.00		
62166	T-PER	I&D	Intermountain Land Company	NW	NW	16	22	21	27.42			5.26	18.87		Garlic & turf
62166	T-PER	I&D							63.75	255.00	255.00	5.26	18.87		MCO well #5; EXPIRES 10-27-97
62598	PER	IRR	Washoe County	E2	SE	9	22	21							
62598	PER	IRR	Washoe County	NW	NW	10	22	21							
62598	PER	IRR	Washoe County	SW	NW	15	22	21							
62598	PER	IRR	Washoe County		SW	15	22	21							
62598	PER	IRR	Washoe County	E2	E2	16	22	21							
62598	PER	IRR							2.00	8.00		0.00	0.00		Meter required
62599	PER	IRR	Palomino Valley Estates & Washoe Co.	E2	SE	9	22	21							
62599	PER	IRR	Palomino Valley Estates & Washoe Co.	NW	NW	10	22	21							
62599	PER	IRR	Palomino Valley Estates & Washoe Co.	SW	NW	15	22	21							
62599	PER	IRR	Palomino Valley Estates & Washoe Co.		SW	15	22	21							
62599	PER	IRR	Palomino Valley Estates & Washoe Co.	E2	E2	16	22	21							
62599	PER	IRR							2.00	8.00		0.00	0.00		Meter required
62600	PER	IRR	Palomino Valley Estates, Inc.	E2	SE	9	22	21							
62600	PER	IRR	Palomino Valley Estates, Inc.	NW	NW	10	22	21							
62600	PER	IRR	Palomino Valley Estates, Inc.	SW	NW	15	22	21							
62600	PER	IRR	Palomino Valley Estates, Inc.		SW	15	22	21							
62600	PER	IRR	Palomino Valley Estates, Inc.	E2	E2	16	22	21							
62600	PER	IRR							2.00	8.00		0.00	0.00		Meter required
62601	PER	IRR	Cochrane, Jack	NE	SE	9	22	21				40.00	50.35		Diversion from MCO well #5; Garlic
62601	PER	IRR	Cochrane, Jack	NW	NW	10	22	21				0.00	0.00		
62601	PER	IRR	Cochrane, Jack	NE	NE	16	22	21				0.00	0.00		
62601	PER	IRR	Cochrane, Jack	SE	NE	16	22	21				0.00	0.00		
62601	PER	IRR	Cochrane, Jack	SW	NW	15	22	21				0.00	0.00		
62601	PER	IRR	Cochrane, Jack	NE	SW	15	22	21				0.00	0.00		
62601	PER	IRR	Cochrane, Jack	NW	SW	15	22	21				0.00	0.00		
62601	PER	IRR	Cochrane, Jack	SW	SW	15	22	21				0.00	0.00		
62601	PER	IRR	Cochrane, Jack	SE	SW	15	22	21				0.00	0.00		
62601	PER	IRR							15.00	60.00		40.00	50.35		

WARM SPRINGS VALLEY CENTRAL: 1998

PERMIT	STAT	MOU	PERMITTEE	PLACE OF USE Q1	Q2	SEC	T	R	UNITS/ ACRES	DUTY (AF)	SUPP ADJ.	UNITS USED	DUTY USED	MCO PAR. #	REMARKS / CULTURE
62602	PER	IRR	Cochrane, Jack	NE	SE	9	22	21				40.00	11.04		Diversion from MCO well #5; Garlic
62602	PER	IRR	Cochrane, Jack	NW	NW	10	22	21				0.00	0.00		
62602	PER	IRR	Cochrane, Jack	NE	NE	16	22	21				0.00	0.00		
62602	PER	IRR	Cochrane, Jack	SE	NE	16	22	21				0.00	0.00		
62602	PER	IRR	Cochrane, Jack	SW	NW	15	22	21				0.00	0.00		
62602	PER	IRR	Cochrane, Jack	NE	SW	15	22	21				0.00	0.00		
62602	PER	IRR	Cochrane, Jack	NW	SW	15	22	21				0.00	0.00		
62602	PER	IRR	Cochrane, Jack	SW	SW	15	22	21				0.00	0.00		
62602	PER	IRR	Cochrane, Jack	SE	SW	15	22	21				0.00	0.00		
62602	PER	IRR							3.29	13.16		40.00	11.04		
62603	PER	IRR	Cochrane, Jack	NE	SE	9	22	21				40.00	0.70		Diversion from MCO well #5; Garlic
62603	PER	IRR	Cochrane, Jack	NW	NW	10	22	21				0.00	0.00		
62603	PER	IRR	Cochrane, Jack	NE	NE	16	22	21				0.00	0.00		
62603	PER	IRR	Cochrane, Jack	SE	NE	16	22	21				0.00	0.00		
62603	PER	IRR	Cochrane, Jack	SW	NW	15	22	21				0.00	0.00		
62603	PER	IRR	Cochrane, Jack	NE	SW	15	22	21				0.00	0.00		
62603	PER	IRR	Cochrane, Jack	NW	SW	15	22	21				0.00	0.00		
62603	PER	IRR	Cochrane, Jack	SW	SW	15	22	21				0.00	0.00		
62603	PER	IRR	Cochrane, Jack	SE	SW	15	22	21				0.00	0.00		
62603	PER	IRR							0.21	0.84		40.00	0.70		
62604	PER	IRR	Cochrane, Jack	NE	SE	9	22	21				40.00	33.57		Diversion from MCO well #5; Garlic
62604	PER	IRR	Cochrane, Jack	NW	NW	10	22	21				0.00	0.00		
62604	PER	IRR	Cochrane, Jack	NE	NE	16	22	21				0.00	0.00		
62604	PER	IRR	Cochrane, Jack	SE	NE	16	22	21				0.00	0.00		
62604	PER	IRR	Cochrane, Jack	SW	NW	15	22	21				0.00	0.00		
62604	PER	IRR	Cochrane, Jack	NE	SW	15	22	21				0.00	0.00		
62604	PER	IRR	Cochrane, Jack	NW	SW	15	22	21				0.00	0.00		
62604	PER	IRR	Cochrane, Jack	SW	SW	15	22	21				0.00	0.00		
62604	PER	IRR	Cochrane, Jack	SE	SW	15	22	21				0.00	0.00		
62604	PER	IRR							10.00	40.00		40.00	33.57		
62605	PER	IRR	Cochrane, Jack	NE	SE	9	22	21				40.00	16.78		Diversion from MCO well #5; Garlic
62605	PER	IRR	Cochrane, Jack	NW	NW	10	22	21				0.00	0.00		
62605	PER	IRR	Cochrane, Jack	NE	NE	16	22	21				0.00	0.00		
62605	PER	IRR	Cochrane, Jack	SE	NE	16	22	21				0.00	0.00		

WARM SPRINGS VALLEY CENTRAL: 1998

PERMIT	STAT	MOU	PERMITTEE	PLACE OF USE Q1	Q2	SEC	T	R	UNITS/ ACRES	DUTY (AF)	SUPP ADJ.	UNITS USED	DUTY USED	MCO PAR. #	REMARKS / CULTURE
62605	PER	IRR	Cochrane, Jack	SW	NW	15	22	21				0.00	0.00		
62605	PER	IRR	Cochrane, Jack	NE	SW	15	22	21				0.00	0.00		
62605	PER	IRR	Cochrane, Jack	NW	SW	15	22	21				0.00	0.00		
62605	PER	IRR	Cochrane, Jack	SW	SW	15	22	21				0.00	0.00		
62605	PER	IRR	Cochrane, Jack	SE	SW	15	22	21				0.00	0.00		
62605	PER	IRR							5.00	20.00		40.00	16.78		
62606	PER	IRR	Cochrane, Jack	NE	SE	9	22	21				0.00	0.00		
62606	PER	IRR	Cochrane, Jack	NW	NW	10	22	21				0.00	0.00		
62606	PER	IRR	Cochrane, Jack	NE	NE	16	22	21				0.00	0.00		
62606	PER	IRR	Cochrane, Jack	SE	NE	16	22	21				0.00	0.00		
62606	PER	IRR	Cochrane, Jack	SW	NW	15	22	21				30.00	14.45		Garlic
62606	PER	IRR	Cochrane, Jack	NE	SW	15	22	21				0.00	0.00		
62606	PER	IRR	Cochrane, Jack	NW	SW	15	22	21				0.00	0.00		
62606	PER	IRR	Cochrane, Jack	SW	SW	15	22	21				0.00	0.00		
62606	PER	IRR	Cochrane, Jack	SE	SW	15	22	21				0.00	0.00		
62606	PER	IRR							5.00	20.00		30.00	14.45		
62640	PER	IRR	Phungphiphadhana, Steph & Spence	NE	SE	14	22	21							
62640	PER	IRR	Phungphiphadhana, Steph & Spence	NW	SE	14	22	21							
62640	PER	IRR							0.50	2.00		0.00	0.00		No well; Meter required
62641	PER	IRR	Phungphiphadhana, Steph & Spence	NE	SE	14	22	21							
62641	PER	IRR	Phungphiphadhana, Steph & Spence	NW	SE	14	22	21							
62641	PER	IRR							2.50	10.00		0.00	0.00		No well; Meter required
62771	PER	IRR	Cochrane, Jack	NE	SE	9	22	21				0.00	0.00		
62771	PER	IRR	Cochrane, Jack	NW	NW	10	22	21				0.00	0.00		
62771	PER	IRR	Cochrane, Jack	NE	NE	16	22	21				0.00	0.00		
62771	PER	IRR	Cochrane, Jack	SE	NE	16	22	21				0.00	0.00		
62771	PER	IRR	Cochrane, Jack	SW	NW	15	22	21				30.00	34.55		Garlic
62771	PER	IRR	Cochrane, Jack	NE	SW	15	22	21				0.00	0.00		
62771	PER	IRR	Cochrane, Jack	NW	SW	15	22	21				0.00	0.00		
62771	PER	IRR	Cochrane, Jack	SW	SW	15	22	21				0.00	0.00		
62771	PER	IRR	Cochrane, Jack	SE	SW	15	22	21				0.00	0.00		
62771	PER	IRR							11.96	47.82		30.00	34.55		
62772	PER	IRR	Cochrane, Jack	NE	SE	9	22	21				0.00	0.00		

WARM SPRINGS VALLEY CENTRAL: 1998

PERMIT	STAT	MOU	PERMITTEE	PLACE OF USE Q1	Q2	SEC	T	R	UNITS/ ACRES	DUTY (AF)	SUPP ADJ.	UNITS USED	DUTY USED	MCO PAR. #	REMARKS / CULTURE
62772	PER	IRR	Cochrane, Jack	NW	NW	10	22	21				0.00	0.00		
62772	PER	IRR	Cochrane, Jack	NE	NE	16	22	21				0.00	0.00		
62772	PER	IRR	Cochrane, Jack	SE	NE	16	22	21				0.00	0.00		
62772	PER	IRR	Cochrane, Jack	SW	NW	15	22	21				30.00	5.84		Garlic
62772	PER	IRR	Cochrane, Jack	NE	SW	15	22	21				0.00	0.00		
62772	PER	IRR	Cochrane, Jack	NW	SW	15	22	21				0.00	0.00		
62772	PER	IRR	Cochrane, Jack	SW	SW	15	22	21				0.00	0.00		
62772	PER	IRR	Cochrane, Jack	SE	SW	15	22	21				0.00	0.00		
62772	PER	IRR							2.02	8.08		30.00	5.84		
62889	PER	IRR	Tehama Holdings Inc.	SW	NE	8	22	21	21.87			6.00	2.33		Turf
62889	PER	IRR	Tehama Holdings Inc.	SE	NE	8	22	21	40.26			30.00	11.65		Turf
62889	PER	IRR	Tehama Holdings Inc.	NE	NW	9	22	21	35.00			30.00	11.65		Turf
62889	PER	IRR	Tehama Holdings Inc.	NW	NW	9	22	21	35.00			30.00	11.65		Turf
62889	PER	IRR	Tehama Holdings Inc.	S2	N2	9	22	21	161.81			115.00	44.65		Turf
62889	PER	IRR							20.00	80.00		211.00	81.93		
62890	PER	IRR	Fahnestock Enterprises, Inc.	SW	NE	8	22	21	21.87			6.00	15.73		Turf
62890	PER	IRR	Fahnestock Enterprises, Inc.	SE	NE	8	22	21	40.26			30.00	78.63		Turf
62890	PER	IRR	Fahnestock Enterprises, Inc.	NE	NW	9	22	21	35.00			30.00	78.63		Turf
62890	PER	IRR	Fahnestock Enterprises, Inc.	NW	NW	9	22	21	35.00			30.00	78.63		Turf
62890	PER	IRR	Fahnestock Enterprises, Inc.	S2	N2	9	22	21	161.81			115.00	301.42		Turf
62890	PER	IRR							135.00	540.00		211.00	553.04		
62898	PER	I&D	Lopez-Gonzalez, Max & Gail	SW	NE	4	22	21	1.00	4.00		0.00	0.00		No well; Meter required
63064	PER	I&D	Hayes, Edward J. & Constance G.	NW	NE	9	22	21	2.00	8.00		0.00	0.00		Well drilled and metered
63065	PER	I&D	Hayes, Edward J. & Constance G.	NW	NE	9	22	21	2.75	11.00		0.00	0.00		Well drilled and metered
63070	E-PER	ENV	Rockwell International Corporation		SE	18	22	22	**	48.39		**	11.45		Meter and reporting required
63071	E-PER	ENV	Rockwell International Corporation		SE	18	22	22	**	48.39		**	20.51		Meter and reporting required
63072	PER	IRR	Seher, Ray	NW	NE	9	22	21	1.00	4.00		0.00	0.00		Well drilled and metered
63074	PER	IRR	Hayes, Edward J. & Constance G.	NW	NE	9	22	21	1.50	6.00		0.00	0.00		Well drilled and metered

WARM SPRINGS VALLEY CENTRAL: 1998

PERMIT	STAT	MOU	PERMITTEE	PLACE OF USE Q1	Q2	SEC	T	R	UNITS/ ACRES	DUTY (AF)	SUPP ADJ.	UNITS USED	DUTY USED	MCO PAR. #	REMARKS / CULTURE
63203	PER	IRR	Fahnestock Enterprises, Inc.	SW	NE	8	22	21	21.87			6.00	4.12		Turf
63203	PER	IRR	Fahnestock Enterprises, Inc.	SE	NE	8	22	21	40.26			30.00	20.61		Turf
63203	PER	IRR	Fahnestock Enterprises, Inc.	NE	NW	9	22	21	35.00			30.00	20.61		Turf
63203	PER	IRR	Fahnestock Enterprises, Inc.	NW	NW	9	22	21	35.00			30.00	20.61		Turf
63203	PER	IRR	Fahnestock Enterprises, Inc.	S2	N2	9	22	21	161.81			115.00	78.99		Turf
63203	PER	IRR							135.00	540.00		211.00	144.94		
63518	PER	Q-M	Palomino Valley G.I.D.	NW	SE	32	23	21	**	8.00		**	10.64		Road maintenance
63519	PER	IRR	Wright, Wanda C.	SW	SW	29	23	21	0.28	1.12		0.00	0.00		Well drilled; Meter required
63520	PER	IRR	Wright, Wanda C.	SW	SW	29	23	21	0.96	3.84		0.00	0.00		Well drilled; Meter required
63708	PER	IRR	Hayes, Edward J. & Constance G.	NW	NE	9	22	21	2.50	10.00		0.00	0.00		Well drilled and metered
				DOMESTIC WELLS					92				103.04		Duty = 1.12 acre-feet per well (1000 gal./day)
				COLUMN TOTALS						6323.31	511.75		3199.07		
				DUTY TOTALS						5812			3199		

WARM SPRINGS VALLEY SOUTH: 1998

PERMIT	STAT	MOU	OWNER	PLACE OF USE Q1	Q2	SEC	T	R	UNITS	DUTY (AF)	SUPP ADJ.	UNITS USED	DUTY USED	REMARKS
34668	10495	I&D	Gariador Brothers		NE	25	22	20	2.00	8.00		0.25	2.30	Alfalfa; ½ Ac. trees not in POU
43006	11181	I&D	Sendall Family Trust	NE	NW	34	22	21	2.00	8.00		2.00	6.00	Pasture & rye; Meter required
50054	13051	I&D	McGuire, Kenneth L. & Sue C.	SE	NW	27	22	21	2.50	10.00		2.50	5.75	Alfalfa
50056	13610	I&D	Washoe County	SE	SE	36	22	20	1.00	4.00		0.00	0.00	Domestic and landscaping only.
50764	PER	I&D	Meredith, Marjorie	SW	NW	3	21	22						
50764	PER	I&D	Meredith, Marjorie	NW	SW	3	21	22				2.00	0.00	
50764	PER	I&D							6.00	24.00		2.00	0.00	Meter required
52202	13311	IRR	Avila, Robert J.	NW	SE	22	22	21	4.00	16.00		4.00	25.60	Alfalfa; Same well as 52842; Estimate, meter broken
52842	13312	I&D	Avila, Robert J.	NW	SE	22	22	21	1.00	4.00		1.00	6.40	Alfalfa; Same well as 52202; Estimate, meter broken
52868	13916	I&D	Wendland, Dave & Donna	NW	NE	21	22	21	13.00	52.00		13.00	39.60	Alfalfa; Same well as 52869 & 53263
52869	13917	I&D	Wendland, Dave & Donna	NW	NE	21	22	21	7.00	28.00		7.00	21.32	Alfalfa; Same well as 52868 & 53263
53243	PER	IRR	Palomino Valley GID	NE	NW	23	22	21	0.25	1.00		0.00	0.00	Meter required
53263	13918	I&D	Champion, Milton E. & Phyllis C.	NW	NE	21	22	21	5.00	20.00		5.00	15.23	Alfalfa; Same well as 52868 & 52869
53275	14073	I&D	Solari, John A. & Sheila L.	NE	NW	30	22	21	1.00	4.00		1.00	3.27	Pasture grass; Same well as 56472
53277	PER	I&D	Rowe, Evelyn K. & Richard J.	SW	SW	30	22	21	2.00	8.00		0.00	0.00	Meter required
53278	PER	IRR	Gleason, Gleason & Speck	SW	SW	30	22	21	2.50	10.00		0.00	0.00	Meter required
53343	PER	I&D	Walker, Urton & Washoe County	NW	SE	30	22	22				0.25	0.22	
53343	PER	I&D	Walker, Urton & Washoe County	SW	SE	30	22	22				0.25	0.22	12.5 AFA dedicated to Washoe County
53343	PER	I&D							4.00	16.00		0.50	0.44	Pasture
53347	PER	I&D	Macaluso, Guiseppe & Mary	NE	NW	24	22	20						
53347	PER	I&D	Macaluso, Guiseppe & Mary	NW	NW	24	22	20						
53347	PER	I&D							1.50	6.00		0.00	0.00	Domestic use apparently not metered.

WARM SPRINGS VALLEY SOUTH: 1998

PERMIT	STAT	MOU	OWNER	PLACE OF USE Q1	Q2	SEC	T	R	UNITS	DUTY (AF)	SUPP ADJ.	UNITS USED	DUTY USED	REMARKS
53676	PER	I&D	Lee, Wallace & Clara	SE	SE	25	22	20	1.00	4.00		0.50	0.17	Same well as 54412
53694	ABR	I&D	Jones, Gregory W. & Laura	SW	SE	24	22	20						
53694	ABR	I&D	Jones, Gregory W. & Laura	SE	SE	24	22	20						Actually 2.375 acres
53694	ABR	I&D							2.38	9.50		0.00	0.00	ABR by P-63782
53864	PER	I&D	Washoe County	NE	SE	19	22	22						
53864	PER	I&D	Washoe County	NE	SW	19	22	22						
53864	PER	I&D	Washoe County	NW	SW	19	22	22				0.20	1.28	
53864	PER	I&D							1.00	4.00		0.20	1.28	House, corrals and landscaping.
54165	ABR	I&D	McQuatters, Paula R. & William F.	NW	SE	21	22	21						
54165	ABR	I&D	McQuatters, Paula R. & William F.	NW	SE	21	22	21						ABR by P-60629
54165	ABR	I&D							0.00	0.00		0.00	0.00	Meter required; Well plugged
54167	PER	I&D	Chang, Cherk H. & Jirovsky, James C.		SE	13	22	20	2.00	8.00		0.00	0.00	Meter required
54265	PER	I&D	Washoe County	NW	NW	25	22	21	0.25	1.00		0.00	0.00	Meter required; Domestic use only from well.
54412	PER	I&D	Lee, Wallace & Clara	SE	SE	25	22	20	1.00	4.00		0.50	0.18	Same well as 53676
54413	PER	I&D	Palimino Valley Estates, Inc.	SW	SE	36	22	20						
54413	PER	I&D	Palimino Valley Estates, Inc.	NW	SE	36	22	20						
54413	PER	I&D	Palimino Valley Estates, Inc.	NE	SW	36	22	20						
54413	PER	I&D	Palimino Valley Estates, Inc.	SE	SW	36	22	20						
54413	PER	I&D							5.00	20.00		0.00	0.00	Meter required
55326	PER	I&D	Hallbauer, John B. & Sybal I.	NE	NE	21	22	21	2.00	8.00		0.00	0.00	Meter required
55483	PER	I&D	Brown, Donald & Carmen & Washoe Co.	SE	SW	25	22	20						
55483	PER	I&D	Brown, Donald & Carmen & Washoe Co.	SW	SE	25	22	20						
55483	PER	I&D	Brown, Donald & Carmen & Washoe Co.	NW	NE	36	22	20				0.50	0.16	
55483	PER	I&D	Brown, Donald & Carmen & Washoe Co.	NE	NW	36	22	20						Washoe County por. is 2.5 acre-feet
55483	PER	I&D							1.00	4.00		0.50	0.16	Meter required
55656	PER	IRR	Iacometti, Patrick R. Patricia A.	SW	NE	24	22	20				1.00	0.35	
55656	PER	IRR	Iacometti, Patrick R. Patricia A.	SE	NE	24	22	20				6.00	2.11	
55656	PER	IRR							1.00	4.00		7.00	2.46	Orchard & garden

WARM SPRINGS VALLEY SOUTH: 1998

PERMIT	STAT	MOU	OWNER	PLACE OF USE Q1	Q2	SEC	T	R	UNITS	DUTY (AF)	SUPP ADJ.	UNITS USED	DUTY USED	REMARKS
56284	PER	I&D	Newell Revocable Living Trust	NW	SE	6	21	22						
56284	PER	I&D	Newell Revocable Living Trust	SW	SE	6	21	22						
56284	PER	I&D	Newell Revocable Living Trust	NW	NE	7	21	22						
56284	PER	I&D	Newell Revocable Living Trust	SW	NE	7	21	22						
56284	PER	I&D							3.00	12.00		0.00	0.00	Meter required
56472	PER	I&D	Solari, John A. & Sheila L.	NE	NW	30	22	21	1.00	4.00		1.00	3.27	Planted in pasture grass; Same well as 53275
56576	PER	I&D	Watkins, John L.	SW	NW	25	22	21						
56576	PER	I&D	Watkins, John L.	NW	SW	25	22	21				0.75	1.38	
56576	PER	I&D							1.00	4.00		0.75	1.38	Pasture grass
56927	PER	I&D	Washoe County	NE	NW	30	22	22						
56927	PER	I&D	Washoe County	SE	NW	30	22	22						
56927	PER	I&D	Washoe County	NE	SW	30	22	22						
56927	PER	I&D							1.25	5.00		0.00	0.00	Meter required; House stables & landscaping
57526	PER	I&D	Washoe County	NE	NE	1	21	20						
57526	PER	I&D	Washoe County	NW	NE	1	21	20						
57526	PER	I&D	Washoe County	NE	NW	1	21	20						
57526	PER	I&D							1.00	4.00		0.00	0.00	Meter required
57983	PER	I&D	Shreck, James L. & Connie M.	W2	SW	9	21	22						
57983	PER	I&D	Shreck, James L. & Connie M.	SE	SW	9	21	22						
57983	PER	I&D	Shreck, James L. & Connie M.	SE	SE	8	21	22						
57983	PER	I&D	Shreck, James L. & Connie M.	N2	NW	16	21	22						
57983	PER	I&D	Shreck, James L. & Connie M.	SW	NW	16	21	22						
57983	PER	I&D	Shreck, James L. & Connie M.	N2	SW	16	21	22						
57983	PER	I&D	Shreck, James L. & Connie M.	NE	NE	17	21	22						
57983	PER	I&D	Shreck, James L. & Connie M.	SW	NE	17	21	22						
57983	PER	I&D	Shreck, James L. & Connie M.	SE	NE	17	21	22				1.00	0.97	
57983	PER	I&D							1.00	4.00		1.00	0.97	Pasture, several bldgs. & ranch yard
58057	PER	I&D	Washoe County	NE	NE	1	21	20						
58057	PER	I&D	Washoe County	NW	NE	1	21	20						
58057	PER	I&D	Washoe County	NE	NW	1	21	20						
58057	PER	I&D							0.25	1.00		0.00	0.00	Meter required

WARM SPRINGS VALLEY SOUTH: 1998

PERMIT	STAT	MOU	OWNER	PLACE OF USE Q1	Q2	SEC	T	R	UNITS	DUTY (AF)	SUPP ADJ.	UNITS USED	DUTY USED	REMARKS
58290	ABR	IRR	Hayes, Constance G. & Edward J.	SE	SW	6	21	22						
58290	ABR	IRR	Hayes, Constance G. & Edward J.	N2	NW	7	21	22						
58290	ABR	IRR							2.50	10.00		0.00	0.00	Meter required; ABR by P-63708
58359	PER	IRR	Speck, Gene E.	NE	NE	20	22	21						
58359	PER	IRR	Speck, Gene E.	NW	NE	20	22	21						
58359	PER	IRR	Speck, Gene E.	NE	NW	20	22	21						
58359	PER	IRR	Speck, Gene E.	NW	NW	20	22	21						
58359	PER	IRR							1.25	5.00		0.00	0.00	Meter required
58918	PER	I&D	Walker, Ramon G., et al	NE	NE	12	21	21						
58918	PER	I&D	Walker, Ramon G., et al	SE	NE	12	21	21				1.00	0.00	No well
58918	PER	I&D							1.00	4.00		1.00	0.00	Pasture being irrigated from Cottonwood Ck.
60629	PER	IRR	McQuatters, Paula R. & William F.	NE	NE	34	22	21						
60629	PER	IRR	McQuatters, Paula R. & William F.	NE	NE	34	22	21				0.00	0.00	Well installed; Locked shed.
60629	PER	IRR	McQuatters, Paula R. & William F.	NE	NE	34	22	21	2.00	8.00		0.00	0.00	Meter required
60975	E-PER	ENV	Rockwell International Corporation		SW	28	22	21						
60975	E-PER	ENV	Rockwell International Corporation	NE	SE	29	22	21						
60975	E-PER	ENV							**	16.13		**	0.65	Pumpage reported quarterly
62425	PER	I&D	Capurro, George J. & Elaine Kinerson	SW	NE	25	22	20				15.00	33.33	Grass hay and stockwater
62425	PER	I&D	Capurro, George J. & Elaine Kinerson	SE	NE	25	22	20				12.00	26.67	Grass hay and stockwater
62425	PER	I&D							10.00	40.00		27.00	60.00	
62643	PER	IRR	Messenger Molding, Inc.	SW	SE	24	22	20	1.25	5.00		0.00	0.00	Meter required
62644	PER	IRR	Messenger Molding, Inc.	SW	SE	24	22	20	2.50	10.00		0.00	0.00	Meter required
63139	PER	IRR	Maykovich, John & Minako	NE	SE	7	21	22						
63139	PER	IRR	Maykovich, John & Minako	NW	SE	7	21	22						
63139	PER	IRR	Maykovich, John & Minako	SW	SE	7	21	22						
63139	PER	IRR	Maykovich, John & Minako	SE	SE	7	21	22						
63139	PER	IRR							2.00	8.00		0.00	0.00	Meter required
63221	PER	IRR	Zenz, Donald J. & Donna R.	SE	SW	23	22	21						

WARM SPRINGS VALLEY SOUTH: 1998

PERMIT	STAT	MOU	OWNER	PLACE OF USE Q1	Q2	SEC	T	R	UNITS	DUTY (AF)	SUPP ADJ.	UNITS USED	DUTY USED	REMARKS
63221	PER	IRR	Zenz, Donald J. & Donna R.	SE	SW	23	22	21						
63221	PER	IRR	Zenz, Donald J. & Donna R.	SE	SW	23	22	21	1.13	4.50		0.00	0.00	Meter required; Well & pump installed.
63222	PER	IRR	Hayes, Constance G. & Edward J.	NW	NE	9	22	21	4.75	19.00		0.00	0.00	Well & meter installed
63223	PER	IRR	Hayes, Constance G. & Edward J.	NW	NE	9	22	21	5.00	20.00		0.00	0.00	Well & meter installed
63455	PER	IRR	Hayes, Constance G. & Edward J.	NW	NE	9	22	21	5.00	20.00		0.00	0.00	Well & meter installed
63456	PER	IRR	Hayes, Constance G. & Edward J.	NW	NE	9	22	21	1.00	4.00		0.00	0.00	Well & meter installed
63515	PER	Q-M	Palomino Valley G.I.D.	NW	NE	21	22	21		4.00			0.30	Same well as P-52868, et.al.
63517	PER	Q-M	Palomino Valley G.I.D.	NW	NE	21	22	21		4.98			0.37	Same well as P-52868, et.al.
				DOMESTIC WELLS					188				210.56	Duty = 1.12 AF per well (1000 gal./day)
				COLUMN TOTALS						425.63	0.00		407.64	
				DUTY TOTALS						426			408	

WARM SPRINGS VALLEY WEST: 1998

PERMIT	STAT	MOU	PERMITTEE	PLACE OF USE Q1	Q2	SEC	T	R	UNITS/ ACRES	DUTY (AF)	SUPP ADJ.	UNITS USED	DUTY USED	REMARKS
27395	9317	REC	Air Sailing, Inc.	SW	SE	11	23	20		8.01		10	0.42	Travel trailers and shop (same POD as 35565).
35565	11087	REC	Air Sailing, Inc.	SW	SE	11	23	20		0.16			0.11	Same service and POD as 27395.
39593	PER	I&D	Marshall, Robert W. & Nanette	NW	SW	29	24	20						
39593	PER	I&D	Marshall, Robert W. & Nanette	S2	SW	29	24	20						
39593	PER	I&D	Marshall, Robert W. & Nanette	S2	NW	29	24	20						
39593	PER	I&D	Marshall, Robert W. & Nanette		E2	30	24	20						Supplemental to
39593	PER	I&D	Marshall, Robert W. & Nanette		N2	32	24	20						surface rights
39593	PER	I&D	Marshall, Robert W. & Nanette	S2	NW	33	24	20						
39593	PER	I&D	Marshall, Robert W. & Nanette		S2	33	24	20						
39593	PER	I&D	Marshall, Robert W. & Nanette	NW	NE	4	23	20						
39593	PER	I&D							850.00	64.60		0.00	0.00	
39849	PER	REC	Washoe County	NE	SE	18	23	21		20.00			0.22	Regional shooting facility.
45095	10798	I&D	Hildenbrand, Thomas R. & Jacqueline	NE	NE	2	22	20	2.00	8.00		2.00	7.05	Alfalfa; Same POD as 51002
47562	12057	I&D	Bailey, Wayne E.	NE	SE	35	23	20	4.00	16.00		4.00	27.57	Pasture and wood lot.
47599	13820	IRR	Polizzi, Lewis H. & Nora	NW	SW	1	22	20	3.29	2.00		3.29	0.73	Orchard, reduced duty; Por. ABR by 63074, 9/3/97
48819	12354	STK	Intermountain Land Company	SW	SW	8	21	20	350	5.20		350	1.42	Cattle: Oct. 1 to May 30.
49445	13822	IRR	Moore, Dennis R. - et.al.	NE	SE	15	22	20	5.00	20.00		0.00	0.00	Alfalfa.
49669	11974	IRR	Intermountain Land Company	NW	NE	22	23	20	5.20			0.00	0.00	Supplemental to 49670
49669	11974	IRR	Intermountain Land Company	SW	NE	22	23	20	33.26			33.26	36.67	Alfalfa
49669	11974	IRR	Intermountain Land Company	SE	NE	22	23	20	2.40			2.40	2.44	Alfalfa
49669	11974	IRR	Intermountain Land Company	NE	NW	22	23	20	46.62			0.00	0.00	
49669	11974	IRR	Intermountain Land Company	SE	NW	22	23	20	46.37			46.37	57.56	Alfalfa
49669	11974	IRR							133.85	235.40		82.03	96.67	Certificated duty = 1.7587 AF/ac.
49670	11975	IRR	Intermountain Land Company	NW	NE	22	23	20	5.20			0.00	0.00	Supplemental to 49669
49670	11975	IRR	Intermountain Land Company	SW	NE	22	23	20	33.26			30.50	31.05	Alfalfa; Por. ABR by 62166-T, exp. 10-27-97
49670	11975	IRR	Intermountain Land Company	SE	NE	22	23	20	2.40			2.40	2.44	Alfalfa
49670	11975	IRR	Intermountain Land Company	NE	NW	22	23	20	46.62			0.00	0.00	
49670	11975	IRR	Intermountain Land Company	SE	NW	22	23	20	46.37			36.20	36.85	Alfalfa

WARM SPRINGS VALLEY WEST: 1998

PERMIT	STAT	MOU	PERMITTEE	PLACE OF USE Q1	Q2	SEC	T	R	UNITS/ ACRES	DUTY (AF)	SUPP ADJ.	UNITS USED	DUTY USED	REMARKS
49670	11975	IRR							133.85	300.00		69.10	70.35	Certificated duty = 2.2413 AF/ac.
51002	13241	I&D	Hildenbrand, Thomas R. & Jacqueline	NE	NE	2	22	20	3.00	12.00		3.00	10.57	Same POD as 45095
52089	PER	Q-M	Reno-Sparks Indian Colony	SE	NW	4	21	20		18.38		149	0.00	Supplemental to 53313 & 60214
53313	PER	Q-M	Reno-Sparks Indian Colony	NE	NW	4	21	20		183.70	18.38	149	50.99	Supplemental to 52089 & 60214
53346	PER	I&D	Carter & Washoe County	NE	SW	12	22	20						
53346	PER	I&D	Carter & Washoe County	NW	SW	12	22	20						
53346	PER	I&D							1.00	4.00		0.50	2.28	Landscaping, no crop
53677	14074	IRR	Wyatt, Dennis D.	SW	SW	26	23	20	1.30	5.20		0.00	0.00	No crop, alligator cribs; Same POD as 53678
53678	14075	IRR	Wyatt, Dennis D.	SW	SW	26	23	20	16.70	66.80		0.00	0.00	No crop, alligator cribs; Same POD as 53677
54166	PER	I&D	Guidera, Leslie C.	SE	SE	35	23	20	3.00	12.00		0.00	0.00	Meter required
54411	PER	I&D	Hayes, Constance G. & Edward J.	SE	NW	30	23	21						
54411	PER	I&D	Hayes, Constance G. & Edward J.	NE	SW	30	23	21						
54411	PER	I&D	Hayes, Constance G. & Edward J.	SE	SW	30	23	21						
54411	PER	I&D							3.00	12.00		0.00	0.00	Meter required
54614	PER	I&D	Herold, Carl & Lurinda	E2	NE	14	23	20	1.50	6.00		0.00	0.28	Shed with some landscaping.
54615	PER	I&D	Fischer, Frances J.	NE	NE	14	23	20						
54615	PER	I&D	Fischer, Frances J.	SE	NE	14	23	20						
54615	PER	I&D							1.50	6.00		0.00	0.00	Meter required
54616	PER	I&D	Fischer, Frances J.	NE	NE	14	23	20						
54616	PER	I&D	Fischer, Frances J.	SE	NE	14	23	20						
54616	PER	I&D							1.00	4.00		0.00	0.00	Meter required
54889	14080	IRR	Dennis, Gregory E. & Michele C.	SW	NE	36	23	20	2.50	10.00		2.50	6.03	House and landscaping
56164	PER	I&D	Washoe County	SE	SW	12	22	20						
56164	PER	I&D	Washoe County	SW	SW	12	22	20						
56164	PER	I&D	Washoe County	SW	SE	12	22	20						

WARM SPRINGS VALLEY WEST: 1998

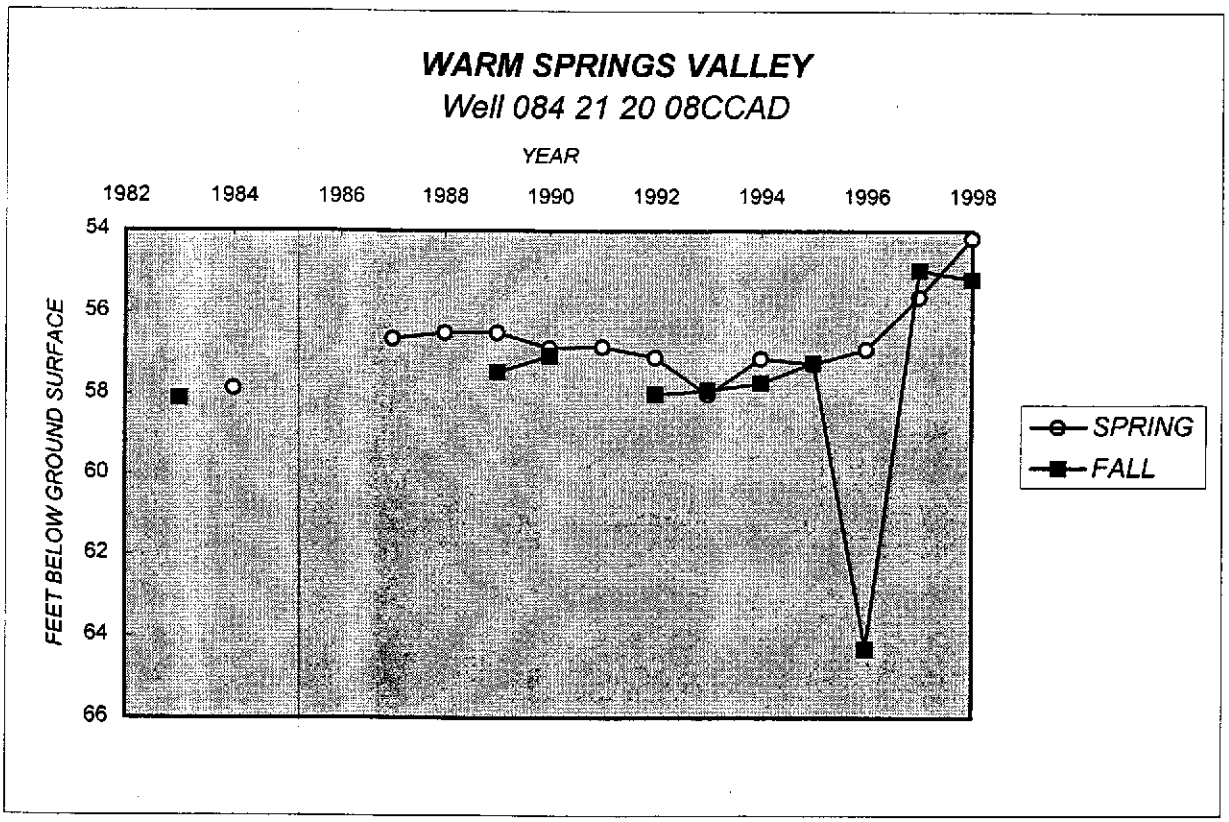
PERMIT	STAT	MOU	PERMITTEE	PLACE OF USE Q1	Q2	SEC	T	R	UNITS/ ACRES	DUTY (AF)	SUPP ADJ.	UNITS USED	DUTY USED	REMARKS
56164	PER	I&D	Washoe County	SE	SE	12	22	20						
56164	PER	I&D							0.63	2.50		0.00	0.00	Meter required
56930	PER	IRR	Stinson, George W.	NW	NE	6	22	21						
56930	PER	IRR	Stinson, George W.	SW	NE	6	22	21						
56930	PER	IRR	Stinson, George W.	NE	NW	6	22	21						
56930	PER	IRR	Stinson, George W.	SW	NW	6	22	21						
56930	PER	IRR	Stinson, George W.	SE	NW	6	22	21						
56930	PER	IRR							0.30	1.20		0.00	0.00	Meter required
56931	PER	IRR	Stinson, George W.	NW	NE	6	22	21						
56931	PER	IRR	Stinson, George W.	SW	NE	6	22	21						
56931	PER	IRR	Stinson, George W.	NE	NW	6	22	21						
56931	PER	IRR	Stinson, George W.	SW	NW	6	22	21						
56931	PER	IRR	Stinson, George W.	SE	NW	6	22	21						
56931	PER	IRR							1.80	7.20		0.00	0.00	Meter required
56934	PER	IRR	Stinson, George W.	NW	NE	6	22	21						
56934	PER	IRR	Stinson, George W.	SW	NE	6	22	21						
56934	PER	IRR	Stinson, George W.	NE	NW	6	22	21						
56934	PER	IRR	Stinson, George W.	SW	NW	6	22	21						
56934	PER	IRR	Stinson, George W.	SE	NW	6	22	21						
56934	PER	IRR							0.90	3.60		0.00	0.00	Meter required
56963	PER	IRR	Stinson, George W.	NW	NE	6	22	21						
56963	PER	IRR	Stinson, George W.	SW	NE	6	22	21						
56963	PER	IRR	Stinson, George W.	NE	NW	6	22	21						
56963	PER	IRR	Stinson, George W.	SW	NW	6	22	21						
56963	PER	IRR	Stinson, George W.	SE	NW	6	22	21						
56963	PER	IRR							2.00	8.00		0.00	0.00	Meter required
60214	PER	Q-M	Reno-Sparks Indian Colony	NE	NW	4	21	20		165.32	165.32	149	0.00	Supplemental to 52089 & 53313
62642	PER	IRR	Jorgensen, Jerry R. & Laury R.	NE	NW	1	22	20						
62642	PER	IRR	Jorgensen, Jerry R. & Laury R.	NW	NW	1	22	20						
62642	PER	IRR	Jorgensen, Jerry R. & Laury R.	SW	NW	1	22	20						
62642	PER	IRR	Jorgensen, Jerry R. & Laury R.	SE	NW	1	22	20						
									0.50	2.00		0.10	1.00	Shop & landscaping; Estimate, no well @ POD

WARM SPRINGS VALLEY WEST: 1998

PERMIT	STAT	MOU	PERMITTEE	PLACE OF USE Q1	Q2	SEC	T	R	UNITS/ ACRES	DUTY (AF)	SUPP ADJ.	UNITS USED	DUTY USED	REMARKS
62827	PER	I&D	Dalton, Janet L.	SE	SW	36	23	20	2.00	8.00		1.00	1.56	Trees, domestic & greenhouse
63309	PER	IRR	Davis, Donna M. & Titus, Annette Y.	NW	SE	3	22	20	1.00	4.00		0.50	2.24	Landscaping and two houses; Estimate, no meter yet
63782	PER	IRR	Jones, Gregory W. & Laura	SW	SW	2	22	20						
63782	PER	IRR	Jones, Gregory W. & Laura	SE	SW	2	22	20						
63782	PER	IRR							2.38	9.50		0.00	0.00	Meter required; No development
				DOMESTIC WELLS					62				69.44	Duty = 1.12 AF per well (1000 GPD)
				COLUMN TOTALS						1230.77	183.70		348.93	
				DUTY TOTALS						1047			349	

HYDROGRAPHS OF SELECTED WELLS

(1983 TO PRESENT)


WARM SPRINGS VALLEY
Well 084 21 20 08CCAD
YEAR
1982
1984
1986
1988
1990
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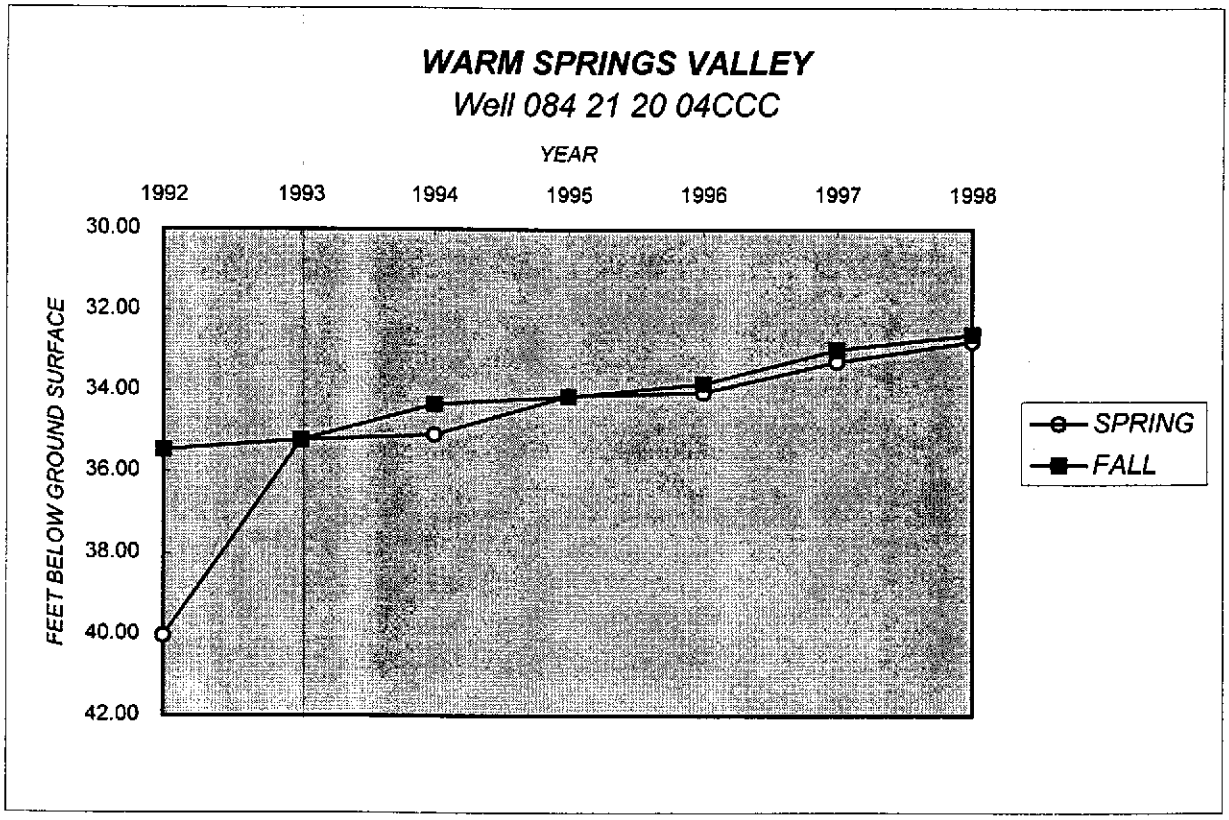
1994
1996
1998
FEET BELOW GROUND SURFACE
54
56
58
60
62
64
66
SPRING
FALL


WARM SPRINGS VALLEY
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YEAR
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1993
1994
1995
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30.00
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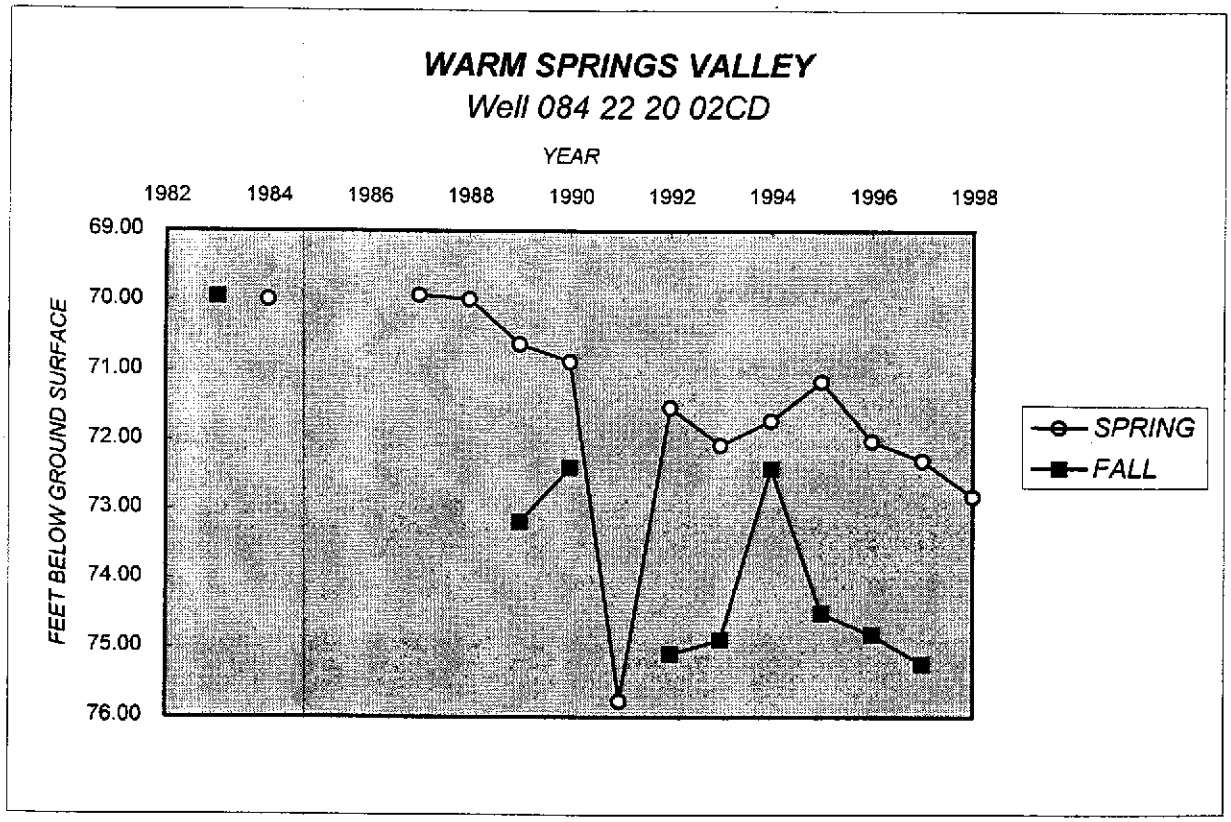
38.00
40.00
42.00
SPRING
FALL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YEAR
1982
1984
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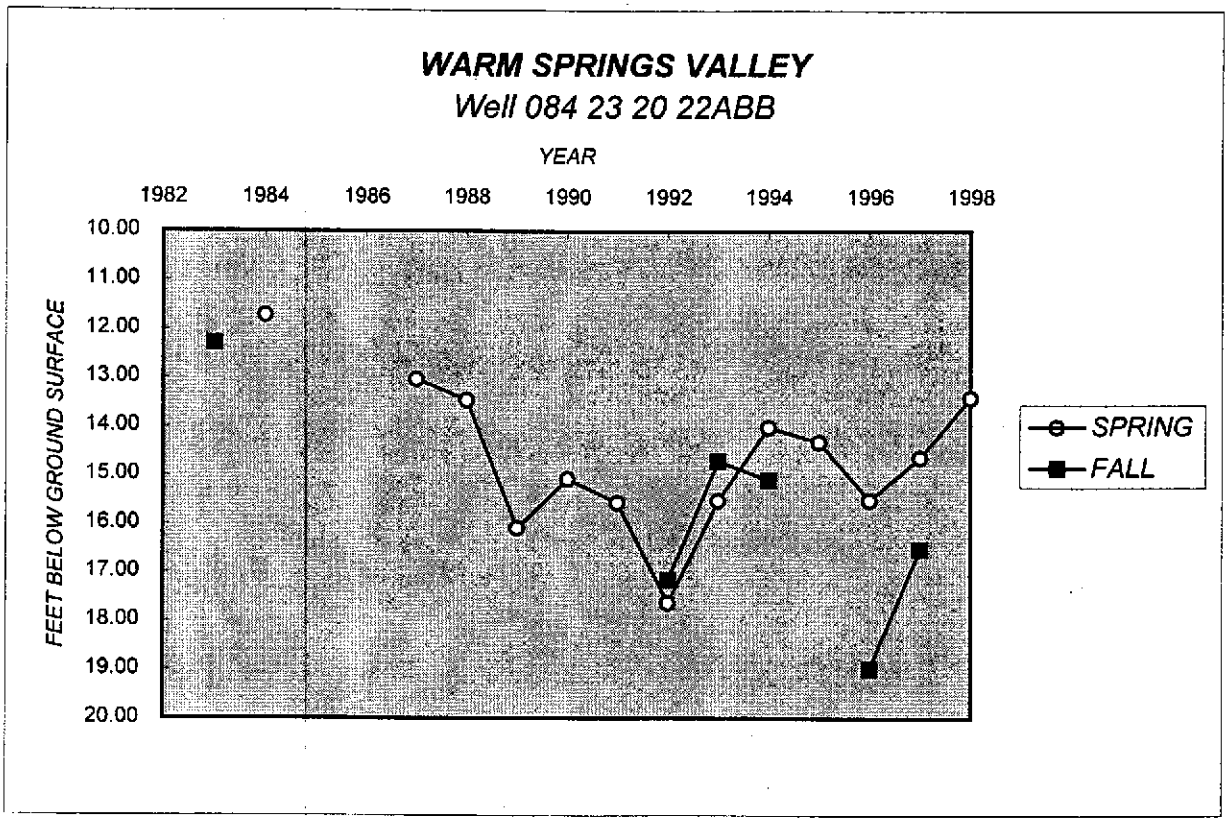
72.00
73.00
74.00
75.00
76.00
FEET BELOW GROUND SURFACE
SPRING
FALL


WARM SPRINGS VALLEY
Well 084 23 20 22ABB
YEAR
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1984
1986
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1990
1992
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1998
10.00
11.00
12.00
13.00
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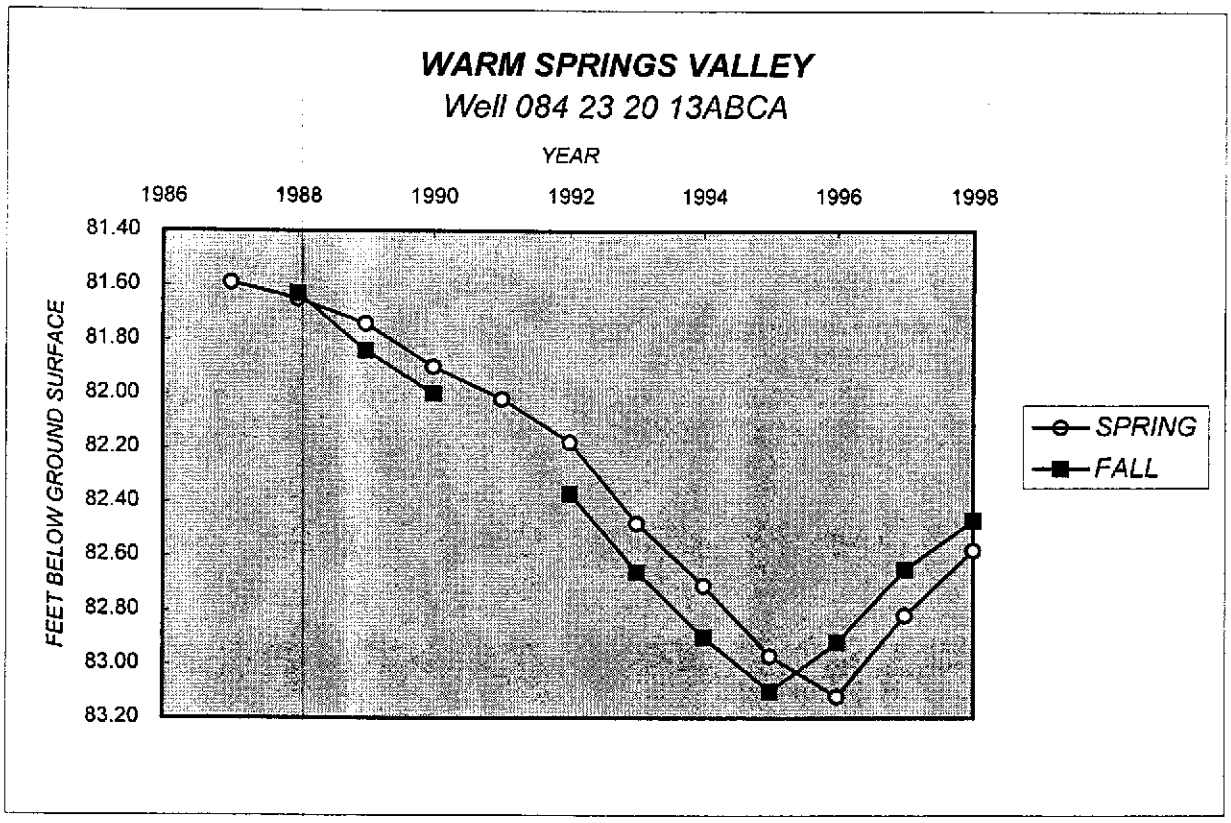
16.00
17.00
18.00
19.00
20.00
FEET BELOW GROUND SURFACE
SPRING
FALL


WARM SPRINGS VALLEY
Well 084 23 20 13ABCA
YEAR
1986
1988
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1992
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1996
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FEET BELOW GROUND SURFACE
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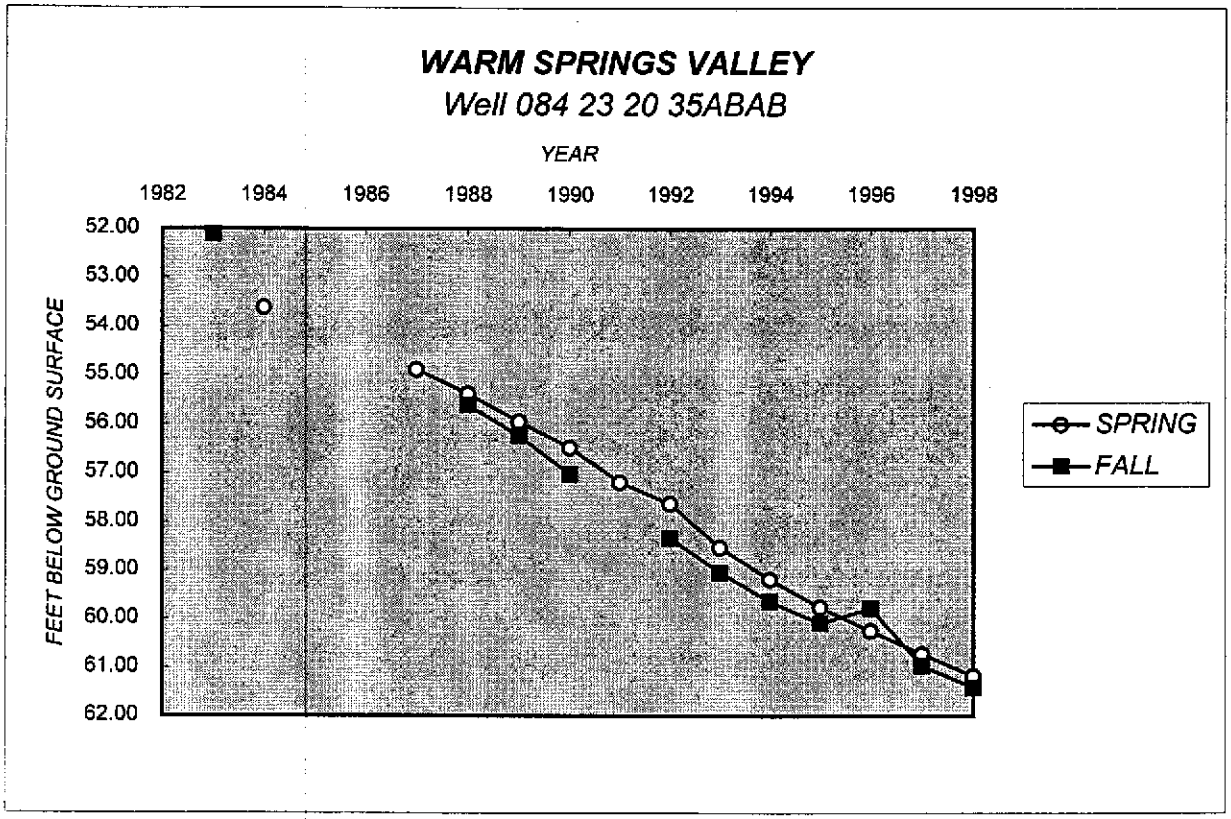
83.00
83.20
SPRING
FALL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52.00
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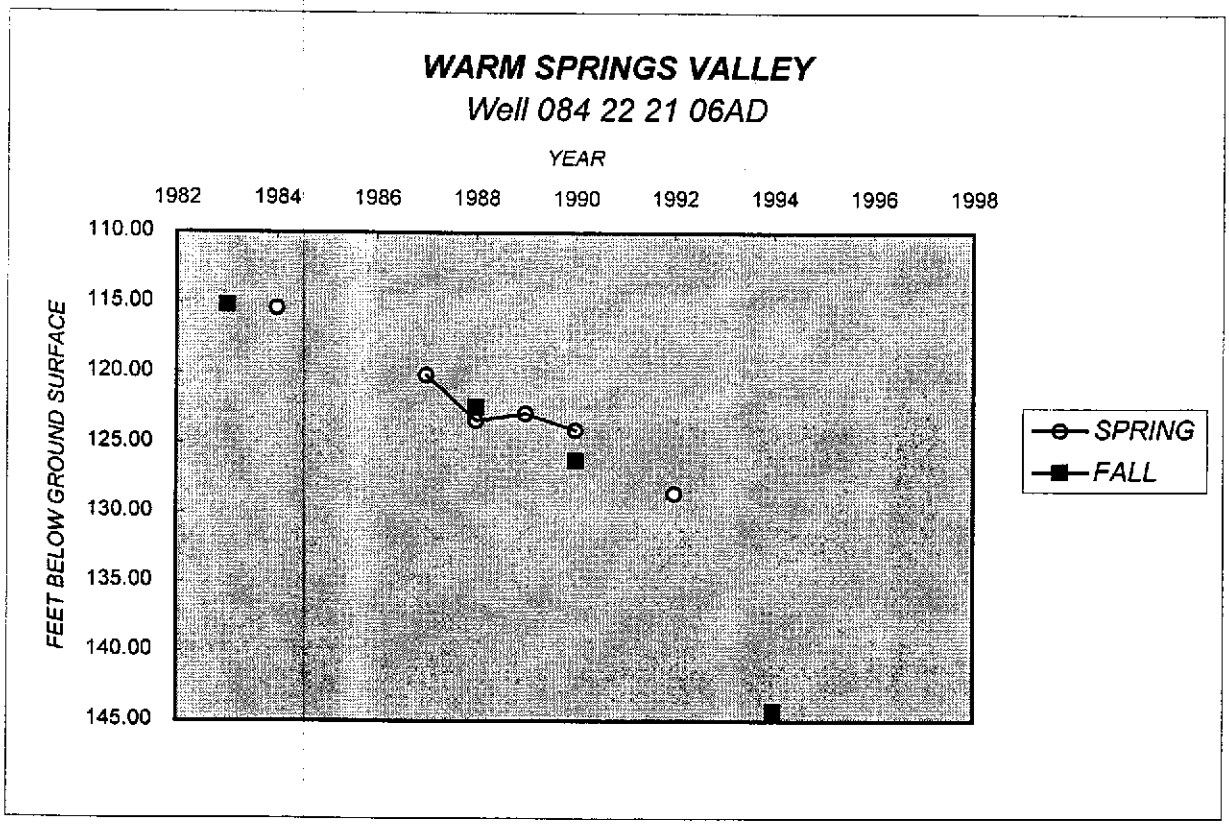
FALL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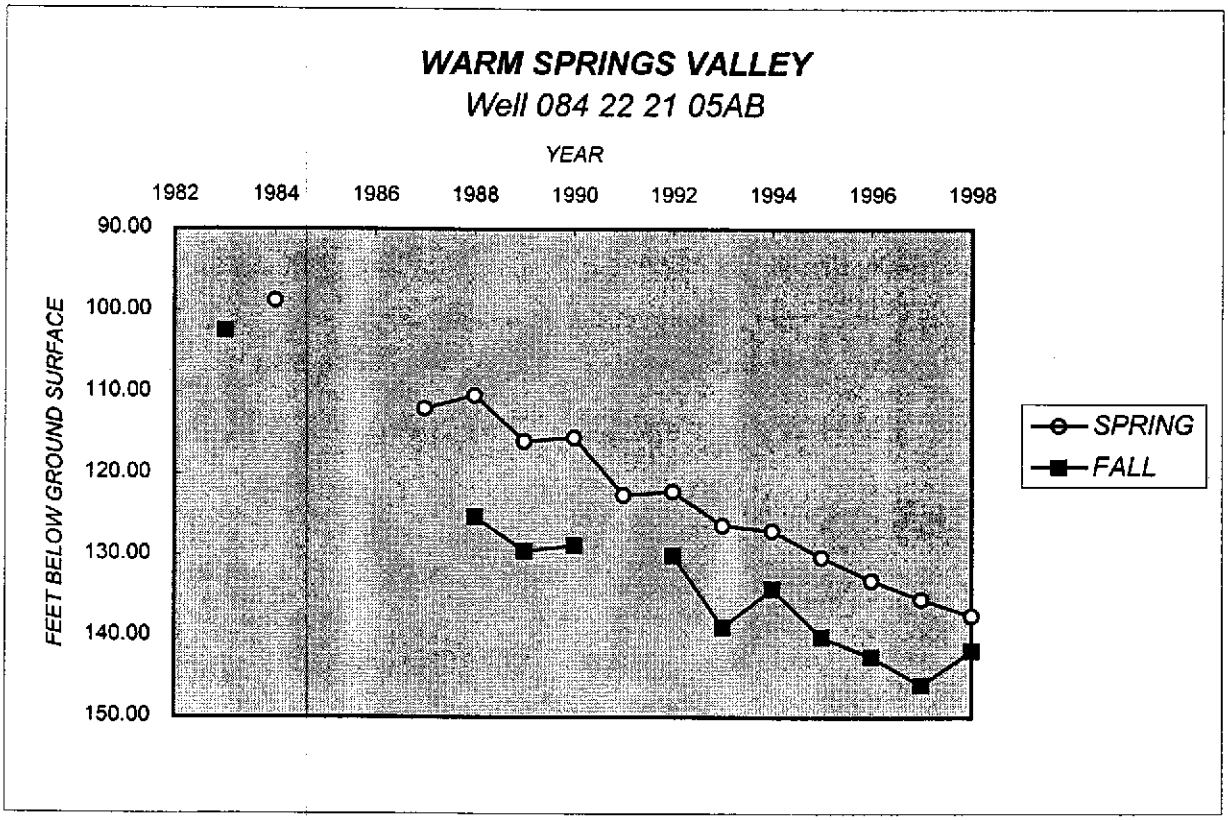
SPRING
FALL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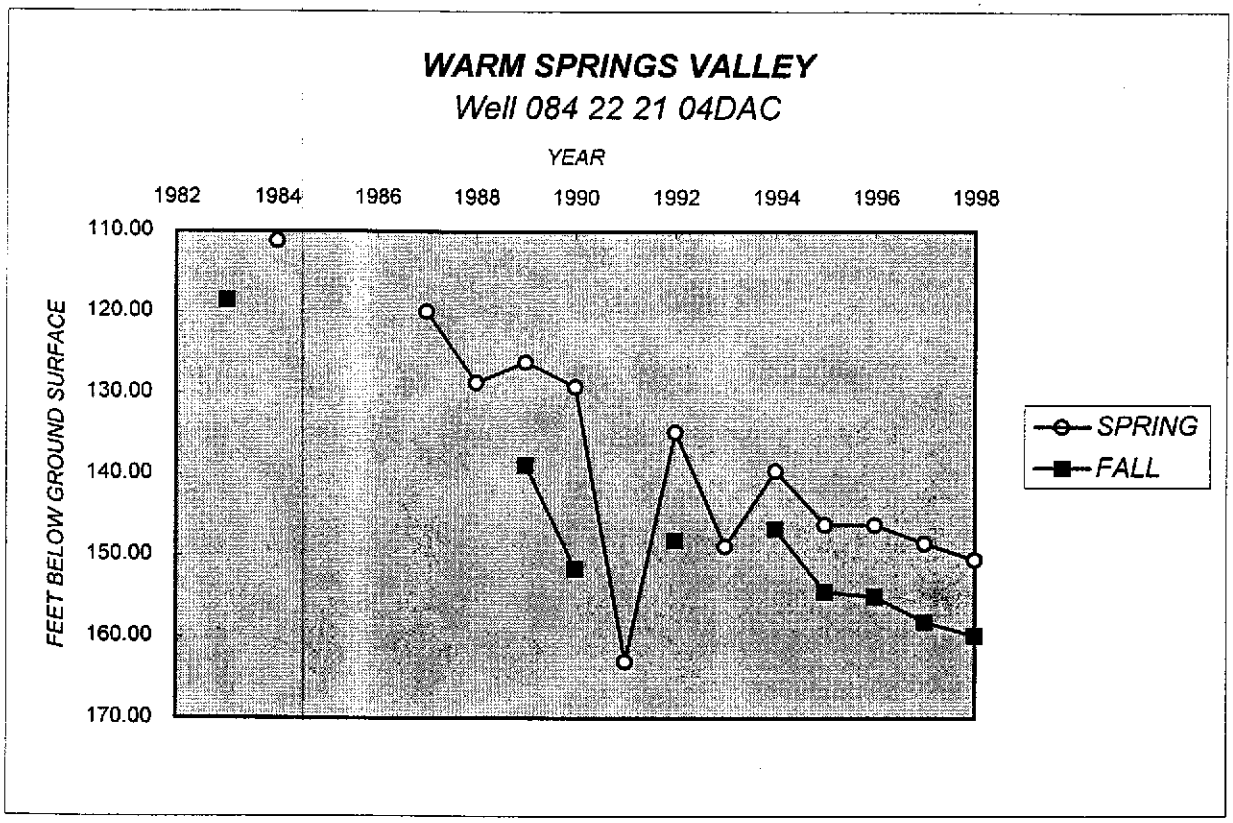
FEET BELOW GROUND SURFACE
SPRING
FALL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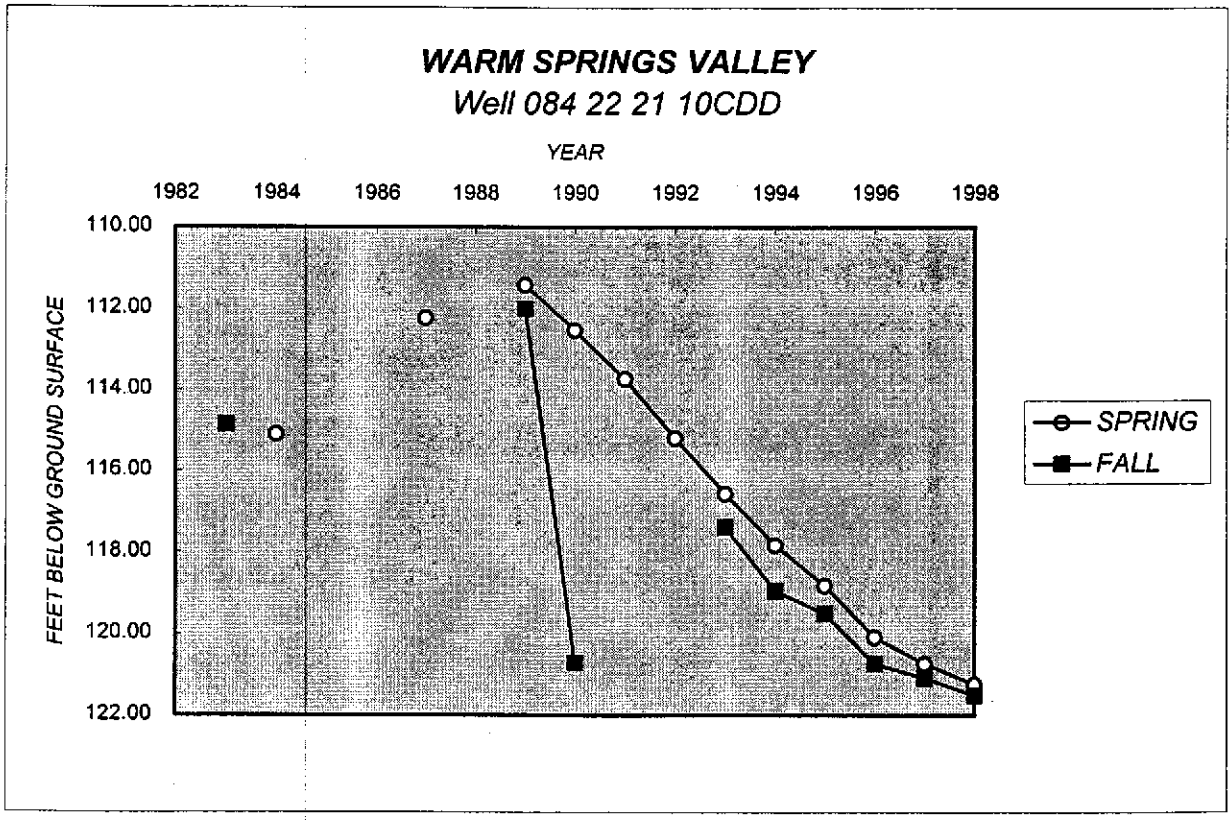
FEET BELOW GROUND SURFACE
SPRING
FALL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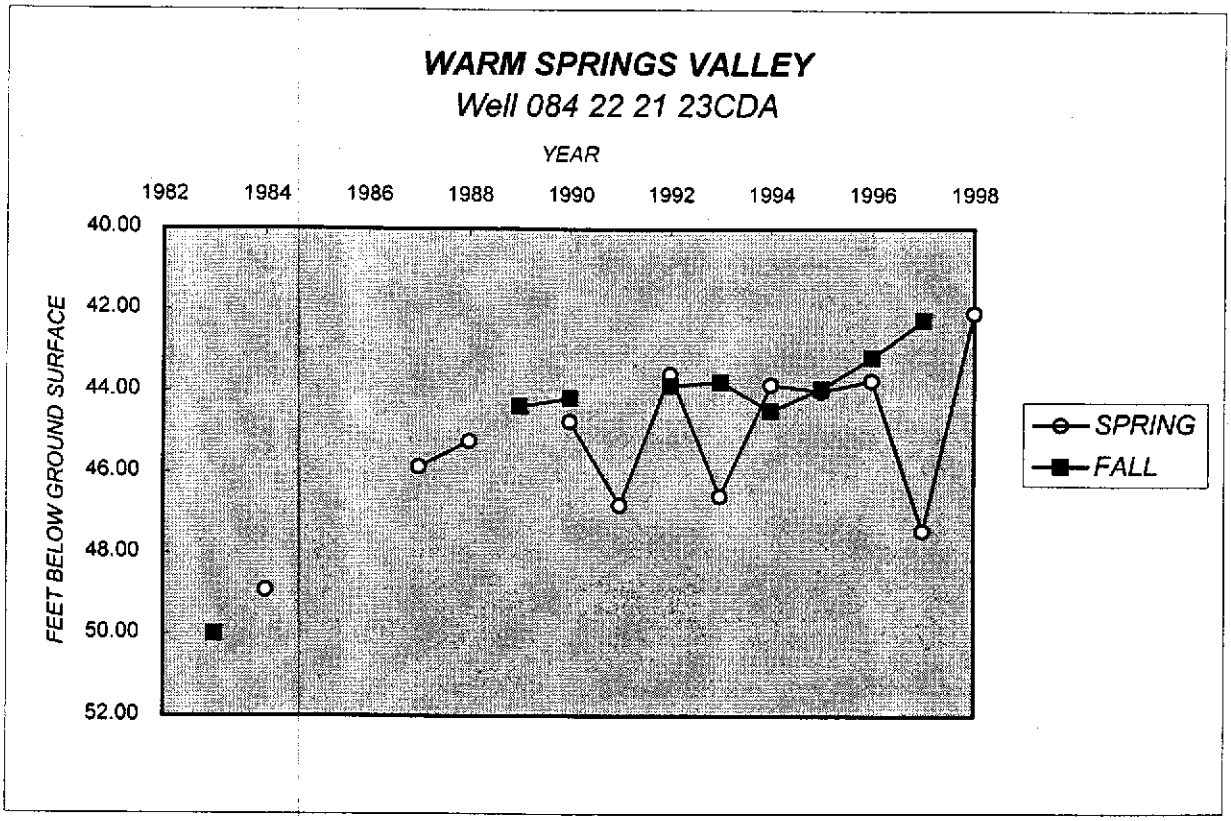
SPRING
FALL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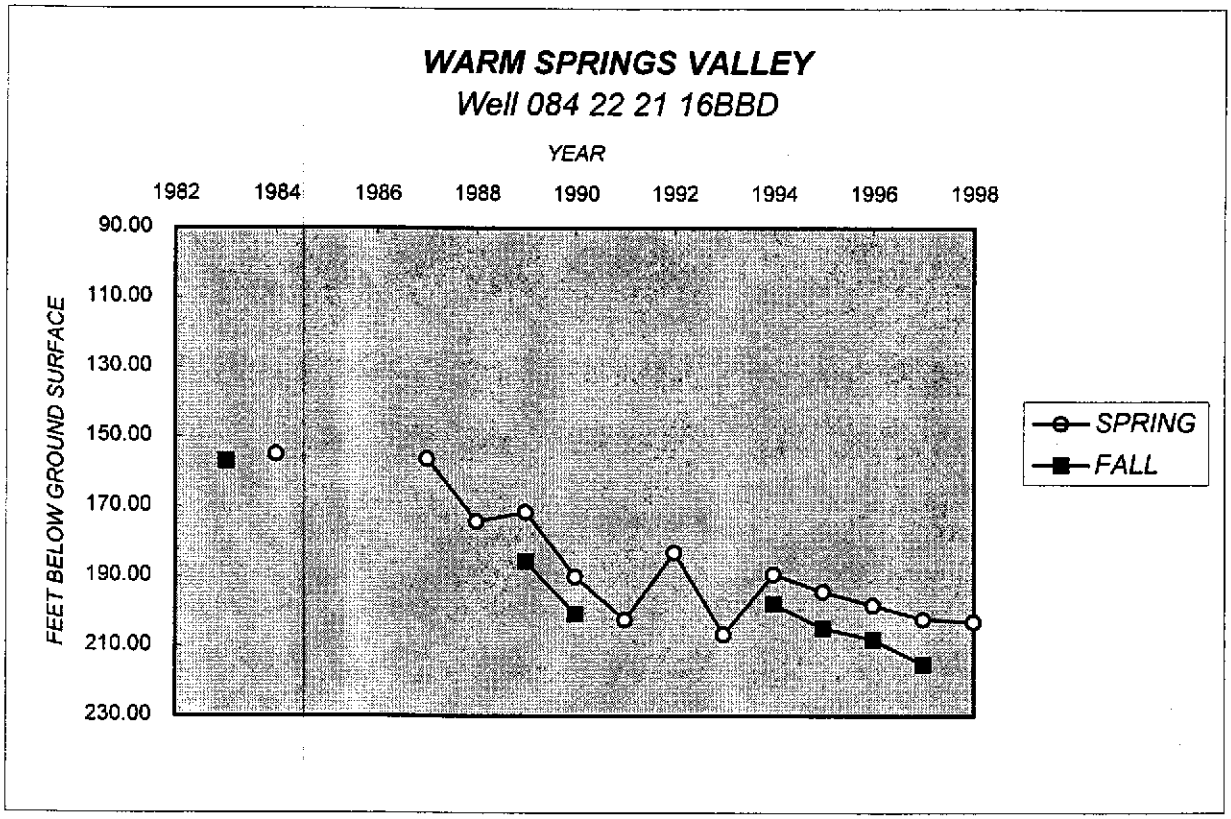
FALL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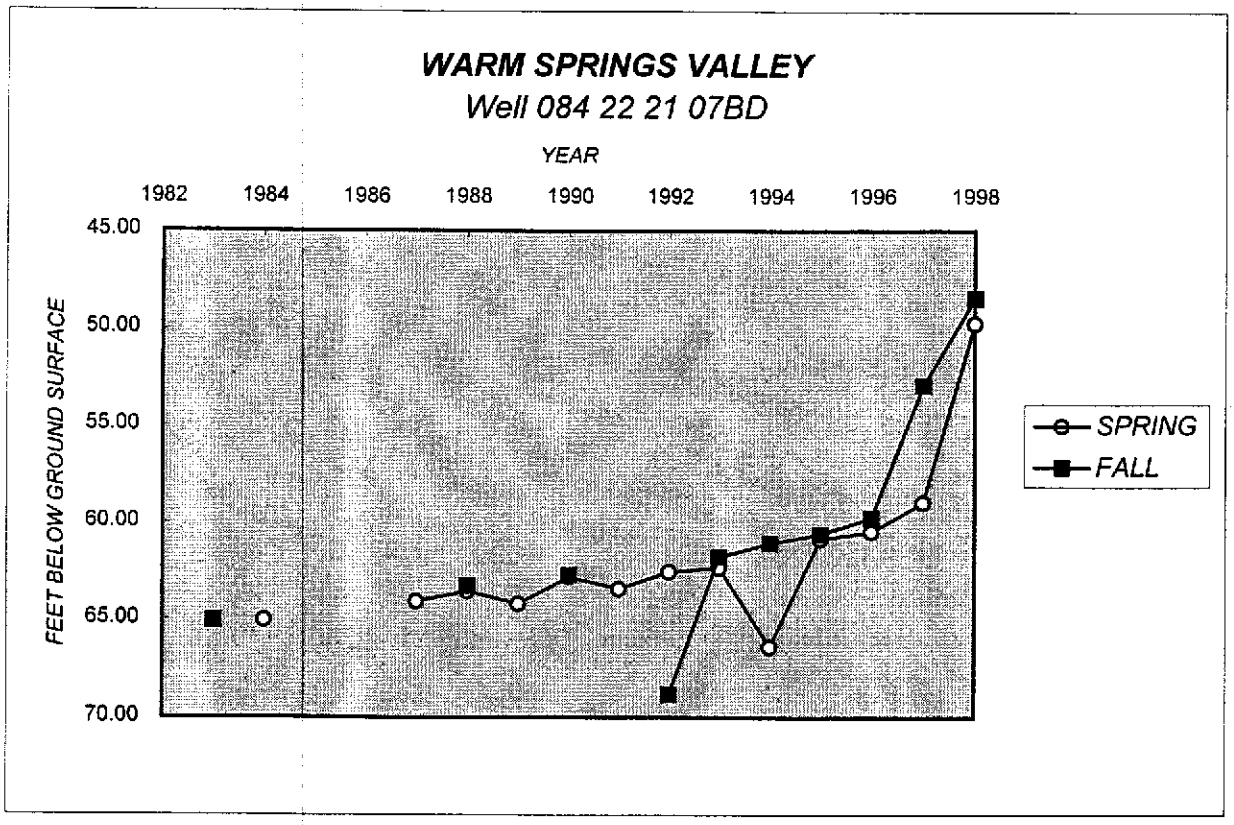
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45.00
50.00
55.00
60.00
65.00
70.00
FEET BELOW GROUND SURFACE
SPRING
FALL

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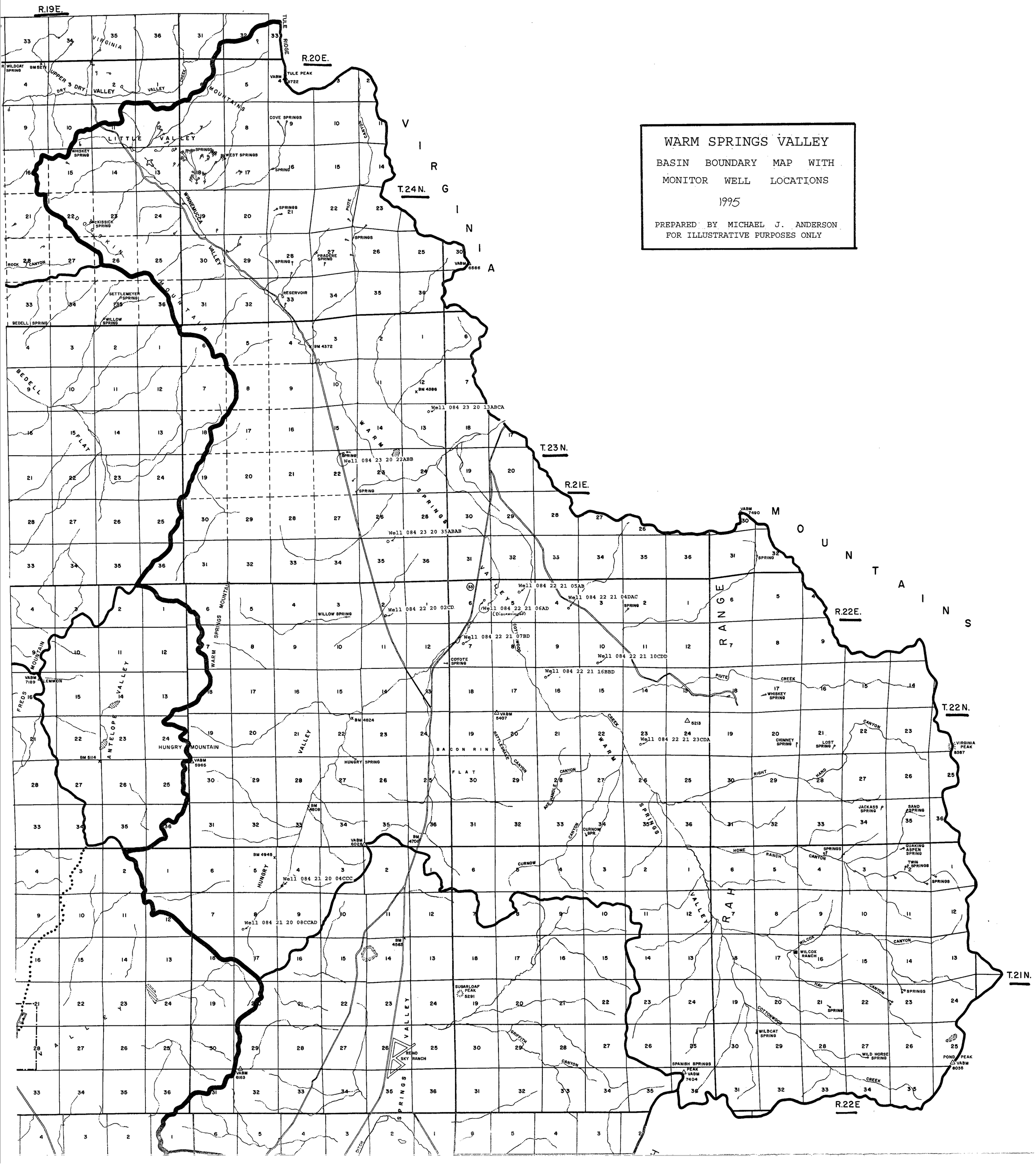
2) Ross, W.C., 1997, Hydrology and Simulated Effects of Development in Warm Springs Valley, Washoe County, Nevada: Washoe County Department of Water Resources.

3) Katzer, T., 1997, Hydrogeology of Warm Springs Valley and Feasibility of Aquifer Recharge, Storage, and Recovery with Emphases (sic.) on the Marshall and Winnemucca Ranch Areas, Washoe County, Nevada: Prepared for Robert W. Marshall.


WARM SPRINGS VALLEY
BASIN BOUNDARY MAP WITH
MONITOR WELL LOCATIONS
1995
PREPARED BY MICHAEL J. ANDERSON
FOR ILLUSTRATIVE PURPOSES ONLY
R.19E.
R.20E.
R.21E.
R.22E.
T.24N.
T.23N.
T.22N.
T.21N.
VIRGINIA MOUNTAINS
WARM SPRINGS VALLEY
Well 084 23 20 13ABCA
Well 084 23 20 22ABB
Well 084 23 20 35ABAB
Well 084 22 20 02CD
Well 084 22 21 05AB
Well 084 22 21 04DAC
Well 084 22 21 06AD
(Discontinued)
Well 084 22 21 07BD
Well 084 22 21 10CDD
Well 084 22 21 16BBD
Well 084 22 21 23CDA
Well 084 21 20 04CCC
Well 084 21 20 08CCAD
TULE PEAK
COVE SPRINGS
WHISKEY SPRING
WEST SPRINGS
MCKISSICK SPRING
SETTLEMEYER SPRING
WILLOW SPRING
BEDELL SPRING
RESERVOIR
PRADERE SPRING
COYOTE SPRING
WILLOW SPRING
HUNGRY SPRING
BACON RIND FLAT
SUGARLOAF PEAK
RENO SKY RANCH
SPANISH SPRINGS PEAK
WILCOX RANCH
WILDCAT SPRING
WILD HORSE SPRING
POND PEAK
VIRGINIA PEAK
CHIMNEY SPRING
LOST SPRING
JACKASS SPRING
SAND SPRING
QUAKING ASPEN SPRING
TWIN SPRINGS
CURNOW SPR.
HUNGRY MOUNTAIN
ANTELOPE VALLEY
FREDS MOUNTAIN
WARM SPRINGS MOUNTAIN
LITTLE VALLEY
UPPER DRY VALLEY
WINNEMUCCA VALLEY
BEDELL FLAT
COTTONWOOD CANYON
PIUTE CREEK
RIGHT HAND CANYON
HOME RANCH CANYON
WILCOX CANYON
HAY CANYON
GRIFFITH CANYON
RATTLESNAKE CANYON
AXE HANDLE CANYON
CURNOW CANYON
R.22E