STATE OF NEVADA
DEPARTMENT OF CONSERVATION AND NATURAL RESOURCES

DIVISION OF WATER RESOURCES

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STATE ENGINEER

BUENA VISTA VALLEY (HYDROGRAPHIC BASIN 10-129)

CROP INVENTORY

2012

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ABSTRACT

This inventory represents the status and usage of all permitted and certificated groundwater rights for irrigation purposes located within Buena Vista Valley, Hydrographic Basin 10-129, for the year 2012. **Only those groundwater rights associated with irrigation purposes are represented in this report**. For a listing and summary of all other manners of use within the basin please refer to the Nevada Division of Water Resources Hydrographic Basin Summary.

The data presented are valid for the time period of this report and may vary from previously published figures as water rights within the basin are subject to administrative actions, such as certification, cancellation, forfeiture or withdrawal on a continuing basis.

For the year 2012, the permitted and certificated groundwater rights for irrigation purposes totaled **5,798 acres** with a total duty of 20,106 acre-feet within Buena Vista Valley. An estimated **3,326 acres** were irrigated and 13,000 acre-feet were pumped during 2012.

HYDROGRAPHIC BASIN SUMMARY

HYDROGRAPHIC BASIN NUMBER	129, REGION 10
HYDROGRAPHIC BASIN NAME	BUENA VISTA VALLEY
COUNTIES	CHURCHILL, PERSHING
MAJOR COMMUNITIES	UNIONVILLE
DESIGNATED BASIN	YES
DENIALS BASED UPON WATER AVAILABILITY	IRR
ESTIMATED IRRIGATION PUMPAGE 2012 (ACRE-FEET)	13,000*
STATE ENGINEER'S ORDERS	
NO. 732 – DESIGNATION OF BASIN	October 2, 1979

COMMITTED GROUNDWATER RESOURCE FOR IRRIGATION PURPOSES: 20,106 ACRE-FEET
DATE: APRIL 2013

NOTE: Committed groundwater resource data are accurate for April 2013. Rights may be subject to change applications, certification, withdrawals, forfeiture and cancellations; each of these circumstances could impact the duty, diversion rate and acreage associated with a given right. Be advised this report acknowledges that other manner of uses may be present in the basin; however, only those groundwater rights associated with irrigation purposes are represented in this report.

* Acreage represented in this report may have surface water rights appurtenant. This report acknowledges those acres with surface water rights but is not intended to quantify, nor present any definitive use of those surface water rights. The data represent only the pumping of groundwater and the acreage to which it is applied.

PURPOSE AND SCOPE

The purpose of this report is to inventory all of the groundwater resources allocated to irrigation and described by the Office of the State Engineer, Nevada Division of Water Resources, and to estimate the amount of groundwater pumped for irrigation purposes within the Buena Vista Valley Hydrographic Basin 10-129 for the year 2012.

DESCRIPTION OF THE STUDY AREA

The Buena Vista Valley Hydrographic Basin is located in north central Nevada (Figure 1). Buena Vista Valley occupies approximately 742 square miles in Pershing and Churchill Counties. The adjacent hydrographic basins are Grass Valley (4-071) to the north and east, Imlay Area (8-072) to the north and west, Lovelock Valley (8-073) and Oreana Subarea (073a) to the west, Carson Desert Packard Valley Subarea (8-101A) to the south and west, Dixie Valley (8-128) to the south and east and Pleasant Valley (8-130) to the east.

Buena Vista Valley is open ended in the north and south but is bounded, to the east by the lower lying East and Stillwater Ranges and to the west by the northern echelon of the Humboldt Range. The valley is approximately 22 miles wide by 55 miles long with basin elevations ranging from approximately 5,000 feet above mean sea level on its expansive playa to approximately 9,000 feet above mean sea level in the surrounding mountains. Irrigation occurs primarily in the north portion of the basin (Figure 2).

FIGURE 1. LOCATION MAP OF BUENA VISTA VALLEY, BASIN 10-129

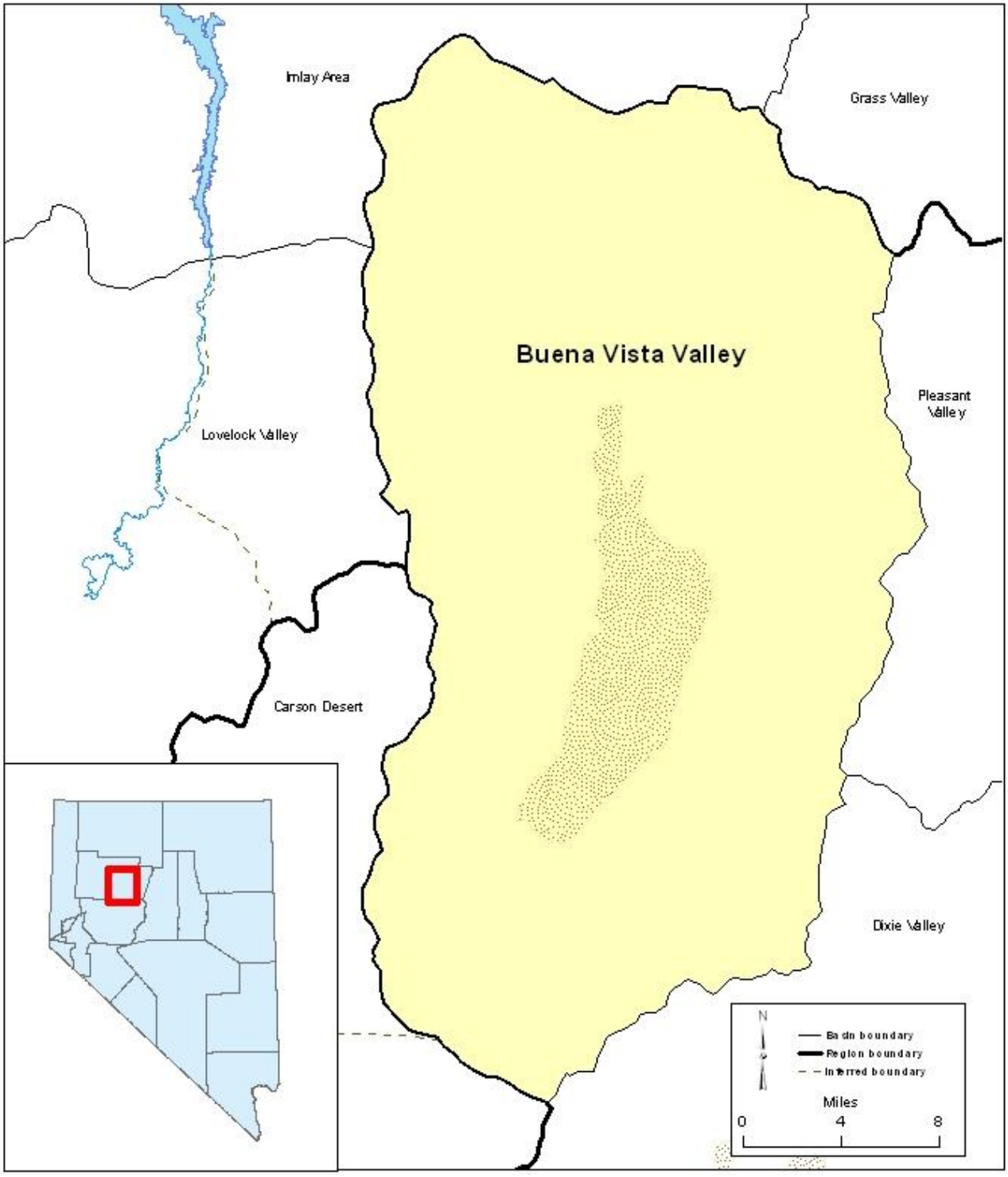


FIGURE 2. MAP OF BUENA VISTA VALLEY IRRIGATED ACREAGE

NATIONAL AGRICULTURAL IMAGERY PROGRAM (NAIP) 2010

METHODS TO ESTIMATE IRRIGATED ACREAGE

This report estimates the number of acres irrigated by the groundwater pumped under permits and certificates issued by the State Engineer. The following methods were used to arrive at the estimated acreage:

- Field inspection of the place of use was conducted to estimate the number of acres under cultivation.
- In cases where field inspection of the place of use is not practical, aerial and/or satellite imagery are analyzed to determine acreages.

METHODS TO ESTIMATE PUMPAGE

This report estimates the amount of groundwater pumped under permits and certificates issued by the State Engineer. The following methods were used to arrive at the estimated use:

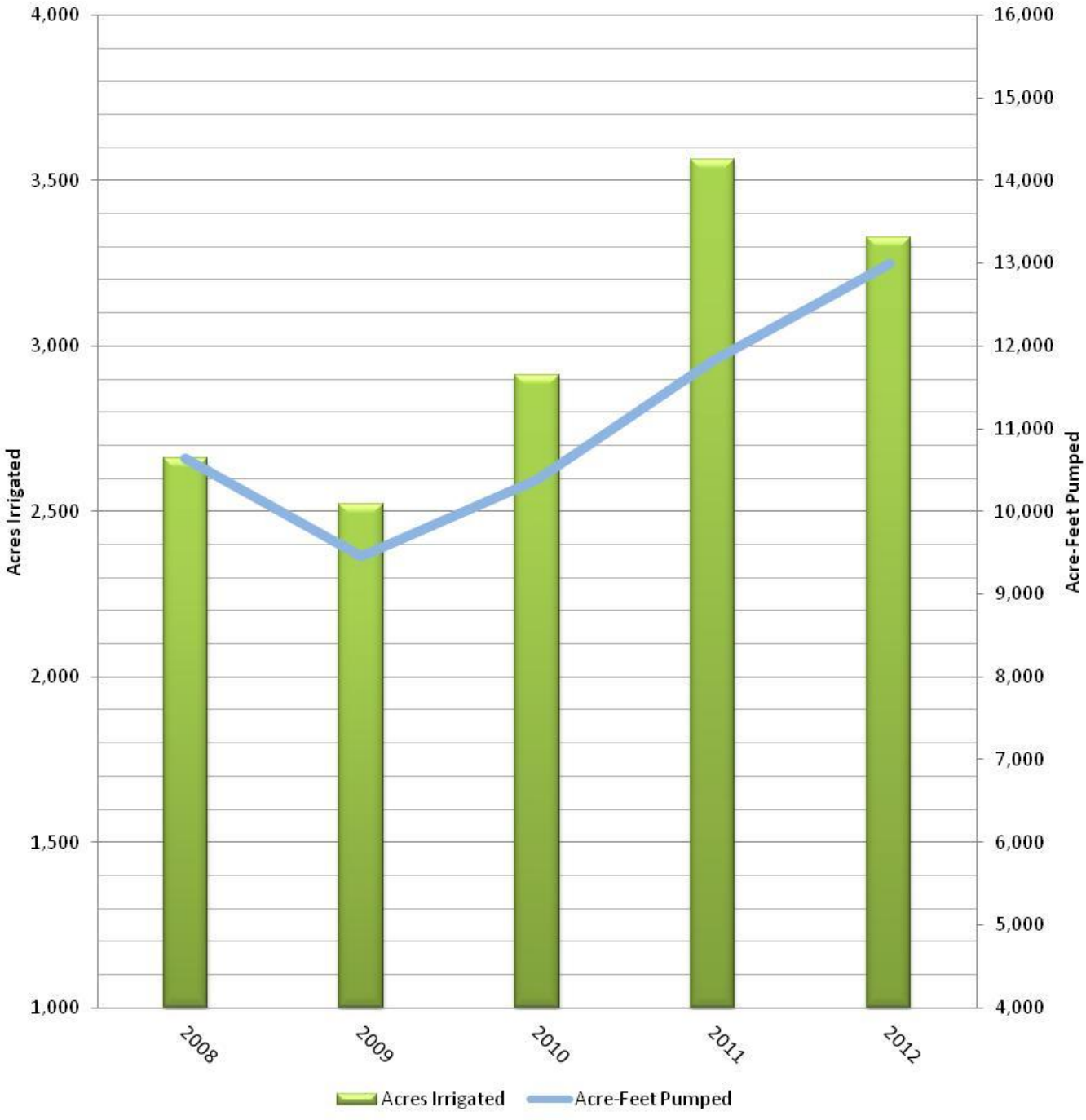
- Where totalizing meters were in place, meter readings were taken and compared with previous data (if available).
- Where meters were not in place, the place of use was inspected to estimate the amount of acreage under cultivation. The number of acres under cultivation was then multiplied by certificated or permitted duty rate associated with that acreage.
- If there were no acres under cultivation, zero pumpage was recorded.

APPENDIX A

BUENA VISTA VALLEY HISTORICAL CROP INVENTORY

HISTORICAL CROP INVENTORY

Year	2008	2009	2010	2011	2012
Acres Irrigated	2,660	2,520	2,911	3,562	3,326
Acre-Feet Pumped	10,642	9,458	10,382	11,829	13,000



Note: Historical pumpage data modified from previously published data.

APPENDIX B

BUENA VISTA VALLEY CROP INVENTORY

EXPLANATION OF COLUMN HEADINGS

BASIN	The hydrographic basin in which the water right resides.
APP	The file number of the Application to Appropriate/Change Water or the Claim of Vested of Right.
CERT	The certificate number that was issued under the Application to Appropriate/Change Water.
FILE DATE	The date when the Application to Appropriate/Change Water or the Claim of Vested Right was filed in the Office of the State Engineer.
SOURCE	States the source of water: underground (UG), stream (STR), or spring (SPR).
STATUS	Indicates the status of an application: Permit (PER), Certificated, or a Claim of Vested Right (VST).
QTR	The quarter-quarter of the Section in which the point of diversion is located.
QTR	The quarter of the Section in which the point of diversion is located.
SEC	The Section in which the point of diversion is located.
TWN	The Township in which the point of diversion is located.
RNG	The Range in which the point of diversion is located.
SUP	Indicates whether the groundwater right is part of a group of groundwater rights used to irrigate all or a portion of the same acreage (supplemental). A "Y" in this column signifies the groundwater right is supplemental.
SUP PERMIT NO.	The application number(s) of the water right(s) that are supplemental.
PERMITTED ACRES	The number of acres defined by the permit or certificate that are eligible to be irrigated.
DUTY	The amount of water that may be pumped in a given year, or season, as defined by the permit, certificate, or claim of vested right. If there is a supplemental group, the total combined duty may be listed at the end of the supplemental group in **bold.**
UNITS	The units associated with the duty, expressed as acre-feet annually (AFA) or acre-feet per season (AFS).
COUNTY	The County in which the point of diversion is located.

OWNER OF RECORD	The owner of the water right as recorded in the records of the State Engineer. A water right may have more than one owner of record. Only the first, alphabetically, is listed in this table.
CROP Y/N	Indicates whether or not a crop was in production during the water year. A "Y" in this column signifies a crop was in production while a "N" signifies no crop was in production.
TYPE	The common name description of the plants under cultivation (e.g. alfalfa).
IRR	The method by which the water is applied to the crop and ground (e.g. pivot).
IRR ACRES	The estimate of the number of acres irrigated associated with a particular water right.
DUTY USED/ PUMPAGE	The estimate of the amount of water pumped under a particular water right, expressed in acre-feet. One acre-foot equals 325,851 gallons.

BUENA VISTA VALLEY CROP INVENTORY

Basin	App	Cert	File Date	Status	Source	Qtr	Qtr	Sec	Twn	Rng	Sup	Permit No	Acres	Duty	Units	County	Owner of Record	Crop	Type	Irrigation	Irr Acre	Pumpage (acre-feet)
129	50920	13854	5/11/87	CER	UG	NW	SW	4	30N	35E	Y	50920-50924	890.60	396.71	AFS	PE	Huntsman Ranch LLC	Y	Alfalfa	Pivots	375	2069.66
129	50921	13855	5/11/87	CER	UG	SE	SE	5	30N	35E	Y	50920-50924	890.60	1,094.20	AFA	PE	Huntsman Ranch LLC	Y	Alfalfa	Pivots	250	686.44
129	50922	13856	5/11/87	CER	UG	NW	SW	4	30N	35E	Y	Coyote Creek Coyote Creek	890.60	1,094.20	AFA	PE	Huntsman Ranch LLC	N				
129	50923	13857	5/11/87	CER	UG	NW	NW	9	30N	35E	Y	50920-50924	890.60	3,554.80	AFA	PE	Huntsman Ranch LLC	Y	Alfalfa	Pivot	125	400.33
																			Alfalfa	Pivot	60	
129	50924	13858	5/11/87	CER	UG	NW	SW	9	30N	35E	Y		890.60	3,554.80	AFA	PE	Huntsman Ranch LLC					
												Supplemental Total	***890.60***	***3,813.68***	***AFA***							
129	47575	12230	1/16/84	CER	UG	SW	NW	16	30N	35E	N	47577	640.00	2,068.00	AFA	PE	Evert, Gary & Magdalena	Y	Alfalfa	Pivot	120	960.00
																			Alfalfa	Pivot	120	
129	47577	12231	1/16/84	CER	UG	NW	SW	16	30N	35E	Y	47575	640.00	2,560.00	AFA	PE	Evert, Gary & Magdalena	Y	Grain	Pivot	122	488
												Supplemental Total	***640.00***	***2,560.00***	***AFA***							
129	13264	7846	2/14/50	CER	UG	SW	NW	21	30N	35E	Y	28267	322.76	1,291.04	AFA	PE	Mike F. Maestri Trust	Y	Alfalfa	Pivot	123	492
																			Grass Hay	Pivot	56	224
129	28267	9004	4/18/74	CER	UG	NW	NW	21	30N	35E	Y	13264	584.16	2,336.64	AFA	PE	Mike F. Maestri Trust	Y	Alfalfa	Pivot	258	1032
												Supplemental Total	***584.16***	***2,336.64***	***AFA***							
129	29524	10682	7/2/75	CER	UG	SW	NW	22	30N	35E	Y	43403, 43405	124.90	262.73	AFA	PE	Harmon, John R. & Peggy J.	N				0
129	43403	10698	3/27/81	CER	UG	NW	NW	22	30N	35E	Y	43405, 29524	124.90	382.89	AFA	PE	Harmon, John R. & Peggy J.	Y	Alfalfa	Sprinklers	105	420
129	43404	13375	3/27/81	CER	UG	NE	NW	22	30N	35E	Y	43406, 47736	145.48	114.38	AFA	PE	Harmon, John & Peggy	N				
129	43405	10699	3/27/81	CER	UG	SW	NW	22	30N	35E	Y	43403, 29524	124.90	499.60	AFA	PE	Harmon, John R. & Peggy J.	Y	Alfalfa	Sprinklers	0.5	
129	43406	13376	3/27/81	CER	UG	NW	SW	22	30N	35E	Y	43404, 47736	145.48	361.99	AFA	PE	Harmon, John R. & Peggy J.	N				
129	47736	13377	3/1/84	CER	UG	SW	NE	22	30N	35E	Y	43404, 43406	145.48	144.05	AFA	PE	Harmon, John R. & Peggy J.	N				
129	58570	14376	2/26/93	CER	UG	SW	SW	16	30N	35E	Y	43403 - 43406	270.38	115.15	AFA	PE	Harmon, John R.	Y	Alfalfa	Sprinklers	126	504
129	58571	14377	2/26/93	CER	UG	SW	SW	16	30N	35E	Y		270.38	141.98	AFA	PE	Harmon, John R.	N				
129	58572	14378	2/26/93	CER	UG	SW	SW	16	30N	35E	Y	29524, 47736	270.38	105.70	AFA	PE	Harmon, John R.	N				
129	58573	14379	2/26/93	CER	UG	SW	SW	16	30N	35E	Y		270.38	271.07	AFA	PE	Harmon, John R.	N				
												Supplemental Total	***270.38***	***1,081.52***	***AFA***							

BUENA VISTA VALLEY CROP INVENTORY

Basin	App	Cert	File Date	Status	Source	Qtr	Qtr	Sec	Twn	Rng	Sup	Permit No	Acres	Duty	Units	County	Owner of Record	Crop	Type	Irrigation	Irr Acre	Pumpage (acre-feet)
129	40892		3/14/80	PER	UG	NW	NW	27	30N	35E	Y		166.75	667.00	AFA	PE	Kendricks, Charles & Carlinda	N				
129	40893		3/14/80	PER	UG	SW	NW	28	30N	35E	Y	40894	468.00	863.80	AFA	PE	Kendricks, Charles & Carlinda	Y	Alfalfa	Pivots	265.00	1,060.00
129	40894		3/14/80	PER	UG	NW	NW	28	30N	35E	Y	40893	468.00	1,872.00	AFA	PE	Kendricks, Charles & Carlinda	Y	Grass Hay	Pivot	125.00	111.82
										Supplemental Total			***468.00***	***1,872.00***	***AFA***							
129	29065		12/18/74	PER	UG	NW	NW	28	30N	35E	Y	29066-67,31208	1,085.90	4,343.82	AFA	PE	Kendricks, Charles & Carlinda	Y	Grass Hay	Pivot	250.00	1,000.00
129	29066		12/18/74	PER	UG	NW	NW	28	30N	35E	Y	29065,67,31208	1,085.90	4,343.82	AFA	PE	Kendricks, Charles & Carlinda	N				
129	29067		12/18/74	PER	UG	SW	SW	28	30N	35E	Y	29065-66,31208	1,085.90	4,343.82	AFA	PE	Kendricks, Charles & Carlinda	N				
129	31208		3/21/77	PER	UG	NE	SW	28	30N	35E	Y	29065-29067	1,085.90	4,343.82	AFA	PE	Kendricks, Charles & Carlinda	N				
										Supplemental Total			***1,085.90***	***4,343.82***	***AFA***							
129	13432		7/3/50	PER	UG	SW	SE	32	30N	35E			160.90	643.60	AFA	PE	McCart, Darlene	Y	Alfalfa	Flood	90.00	360.00
129	45191		1/12/82	PER	UG	SE	SE	29	30N	35E			520.00	2,080.00	AFA	PE	McCart, Dorothy F. 10%	Y	Alfalfa	Pivot	250.00	1,000.00
129	67237		2/28/01	PER	UG	SE	SE	29	30N	35E	Y	67238	920.00	3,680.00	AFA	PE	McCart, Darlene	Y	Grass Hay	Pivot	250.00	1,000.00
129	67238		2/28/01	PER	UG	SE	NW	22	29N	35E	Y	67237	920.00	3,680.00	AFA	PE	McCart, Darlene	N				
										Supplemental Total			***920.00***	***3,680.00***	***AFA***	PE						
129	23425	7793	9/30/66	CER	UG	NE	NW	28	31N	35E	Y	22927, 22928	190.52	762.08	AFA	PE	Pruitt Greta E.	Y	Alfalfa	Flood	35.00	46.95
129	79700		3/18/10	PER	UG	NE	NW	28	31N	35E			80.29	321.16	AFA	PE	Pruit Revocable Living Trust	Y	Alfalfa	Pivot	220.00	1,144.30
129	79701		3/18/10	PER	UG	NE	NW	28	31N	35E			76.59	306.36	AFA	PE	Pruit Revocable Living Trust	N				
										Supplemental Total			***229.50***	***918.00***	***AFA***							

Total Acre Feet Pumped = 12,999.51
Total Acres = 3,325.50