

MEMO

TO: District Manager

FROM: Director of Operations

SUBJECT: OPERATIONS DEPARTMENT STATUS REPORT
April 2020

DATE: May 21, 2020

RECOMMENDATION:

It is recommended that the District Manager review and file the Operations Department Project Status Report for the month of April 2020.

BACKGROUND:

COVID 19

Due to the continued pandemic, staff has been isolated and working separately out of District Vehicles, and separated into two crews. The District has an essential responsibility to keep safe drinking water flowing to the tap. Staff has continued to operate the water system in a safe manner.

DISTRICT WIDE FLUSHING

In April 2020 District staff completed the District's flushing program on schedule. Flushing began Monday February 3, 2020 and was completed April 19, 2020. The Flushing program was a great success as staff continued to see flushing move along well with the extended period of time on surface water in 2019.

BEAR CREEK ROAD SLIDE AND WATER MAIN BREAK

Construction on the relocation of the 8 inch water main on Bear Creek Road began the week of April 6, 2020 and was completed on April 21, 2020. The work consisted of 6 days of day work and 4 nights of night work. The project went smoothly and was completed in a professional and timely manner. Granite Construction was a professional team to work with on the installation of the new main line.

On January 28, 2020 District on-call staff was called out to a main break on Bear Creek Rd. Staff responded and found that a portion of Bear Creek Rd. had slid and 26 feet of 8 inch transite pipe was missing. Staff shut down the main line and made temporary repairs with a two inch polyethylene pipe as a jumper across the slide and break area. Estimated a total of 45,000 gallons of water were lost.

BLUE TANK GENERATOR SITE

Staff installed and put into service a new stand-by generator and propane tank to supply power to the Blue tank site and the Charlie tank site in Manana Woods. This was the first of 9 stand-by generators to be installed by staff. With the new PSPS with PG&E this is going to allow the District to maintain water supply to the Districts customers. The installation of these generators will greatly reduce the overtime associated with power outages in the District.

MAINTENANCE ISSUES

Site maintenance and Solar panel maintenance and cleaning Kirby and Lyon Water Treatment Plants.

Repaired damaged stairway Blue Tank Site.

Spring site maintenance of 6 facilities throughout the District.

Full service line replacement 13220 Railroad Ave. Boulder Creek.

Full service line replacement 12299 La Lena Ave. Lompico.

Replace and Repair a fire hydrant struck by a vehicle at Arbolita and Hwy 9.

Extensive work was done to the Districts Kubota tractor and trailer by staff.

Repaired approximately 12 Leaks District wide.

James Furtado

Director of Operations

SAN LORENZO VALLEY WATER DISTRICT PRODUCTION COMPARRISON

Source	April-20	March-20	April-13	Difference This Year To 2013
North System				
Surface Water Sources				
Foreman Creek	4,558,248	6,622,451	25,458,000	
Peavine Creek + Hydro	1,601,237	1,423,351	4,340,000	
Clear Creek	6,220,509	4,945,319	0	
Sweetwater Creek	4,147,006	3,296,879	0	
Sub-Total (Streams)	16,527,000	16,288,000	29,798,000	-44.54%
Wells (North)				
Olympia No. 2	1,765,000	392,000	0	
Olympia No. 3	0	0	0	
Quail Well No. 4-A	3,763,000	7,942,000	5,506,000	
Quail Well No. 5-A	727,700	-	2,161,800	
Sub Total North Wells	6,255,700	8,334,000	7,667,800	-18.42%
South System Wells				
Pasatiempo 5A	8,268,700	4,082,400	N/A	
Pasatiempo 6	-	-	7,713,000	
Pasatiempo 7	1,077,000	1,061,000	2,456,000	
Pasatiempo 8	2,871,800	2,728,970	N/A	
Sub Total Pasatiempo Wells	9,345,700	5,143,400	10,169,000	-8.10%
North South All Sources Combined	32,128,400	29,765,400	47,634,800	-32.55%
Felton System - Surface Water				
Fall Creek	4,600,517	4,410,669	8,284,270	
Bennett Spring	2,285,888	2,546,192	3,020,500	
Bull 1 & 2	1,383,800	1,277,584	3,561,900	
Total Felton System Sources	8,270,205	8,234,445	14,866,670	-44.37%
Manana Woods System				
Well 1	-	-	386,725	
Total Manana Woods Sources	-	-	386,725	
Sub - Total Production				
North / Felton / Manana	40,398,605	37,999,845	62,888,195	-35.76%
Surface	24,797,205	24,522,445	44,664,670	-44.48%
Wells	15,601,400	13,477,400	18,223,525	-14.39%
Total Surface Water Percentage	61.38	64.53	71.02	-13.57%
Total Wells Percentage	38.62	35.47	28.98	33.27%

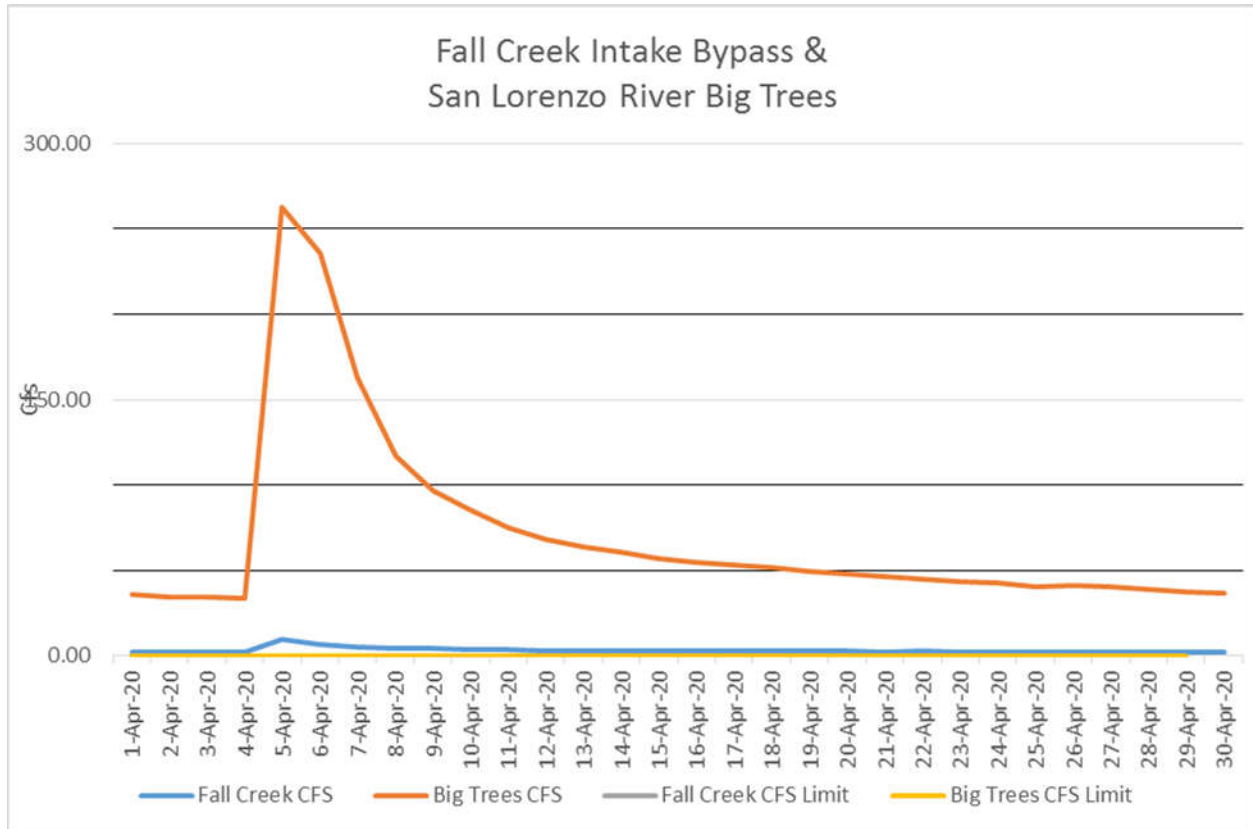
**SAN LORENZO VALLEY WATER DISTRICT
PRODUCTION BY SYSTEM
+/- INTERTIES
April 2020**

North System All Sources	<u>32,128,400</u>
Interties IN +	<u>675,500</u>
Interties OUT -	<u>6</u>
TOTAL NORHT SYSTEM	<u>32,803,894</u>
Felton Water system All Sources	<u>8,270,205</u>
Interties IN +	<u>0</u>
Interties OUT -	<u>0</u>
TOTAL FELTON SYSTEM	<u>8,270,205</u>
Manana Woods System	
Manana Woods Well 1	<u>0</u>
Interties IN +	<u></u>
TOTAL MANANA WOODS	<u>0</u>

SAN LORENZO VALLEY WATER DISTRICT
INTERTIE USAGE
April 2020

INTERTIE 2	
SLVWD to SVWD	<u>0</u>
SVWD to SLVWD	<u>0</u>
INTERTIE 3	
SLV SOUTH to SLV NORTH	<u>675,500</u>
SLV NORTH to SLV SOUTH	<u>6</u>
INTERTIE 4	
SLVWD to MHWD	<u>0</u>
MHWD to SLVWD	<u>0</u>
INTERTIE 6	
SLV NORTH to SLV FELTON	<u>-</u>
SLV FELTON to SLV NORTH	<u>-</u>

Fall Creek Intake April 2020



Normal Rainfall Fall Creek Intake Bypass Requirements

April 1 through October 31 1.0 cubic feet per second

November 1 through March 31 1.5 cubic feet per second

Dry Conditions Fall Creek Intake Bypass Requirements

April 1 through October 31 0.5 cubic feet per second

November 1 through March 31 0.75 cubic feet per second

Number of Days in month 0.75 cfs or below, ZERO days

San Lorenzo River USGS Big Trees Flow Requirements

September 11 cubic feet per second

October 26 cubic feet per second

November 1 through May 31 21 cubic feet per second

June - August No Requirements

Fall Creek Intake April 2020

For the protection of fish and wildlife, during the period: (a) April 1 through October 31 bypass a minimum of 0.5 cfs; (b) November 1 through March 31 bypass a minimum of 1.5 cfs past the Fall Creek point of diversion. The natural streamflow shall be bypassed whenever it is less than 1.5 cfs; provided, however, that during a dry year, the bypass requirement shall be reduced from 1.5 to 0.75 cfs. A dry year is defined on a monthly basis of cumulative runoff beginning October 1 of each season in the San Lorenzo River at the USGS gage at Big Trees. These runoff figures are based on approximately 50 percent of normal runoff as the dividing level between normal and dry year runoff and are as follows:

- November 1 for the month of October 500 af
- December 1 for October-November, inclusive 1,500 af
- January 1 for October-December, inclusive 5,000 af
- February 1 for October-January, inclusive 12,500 af
- March 1 for October-February, inclusive 26,500 af

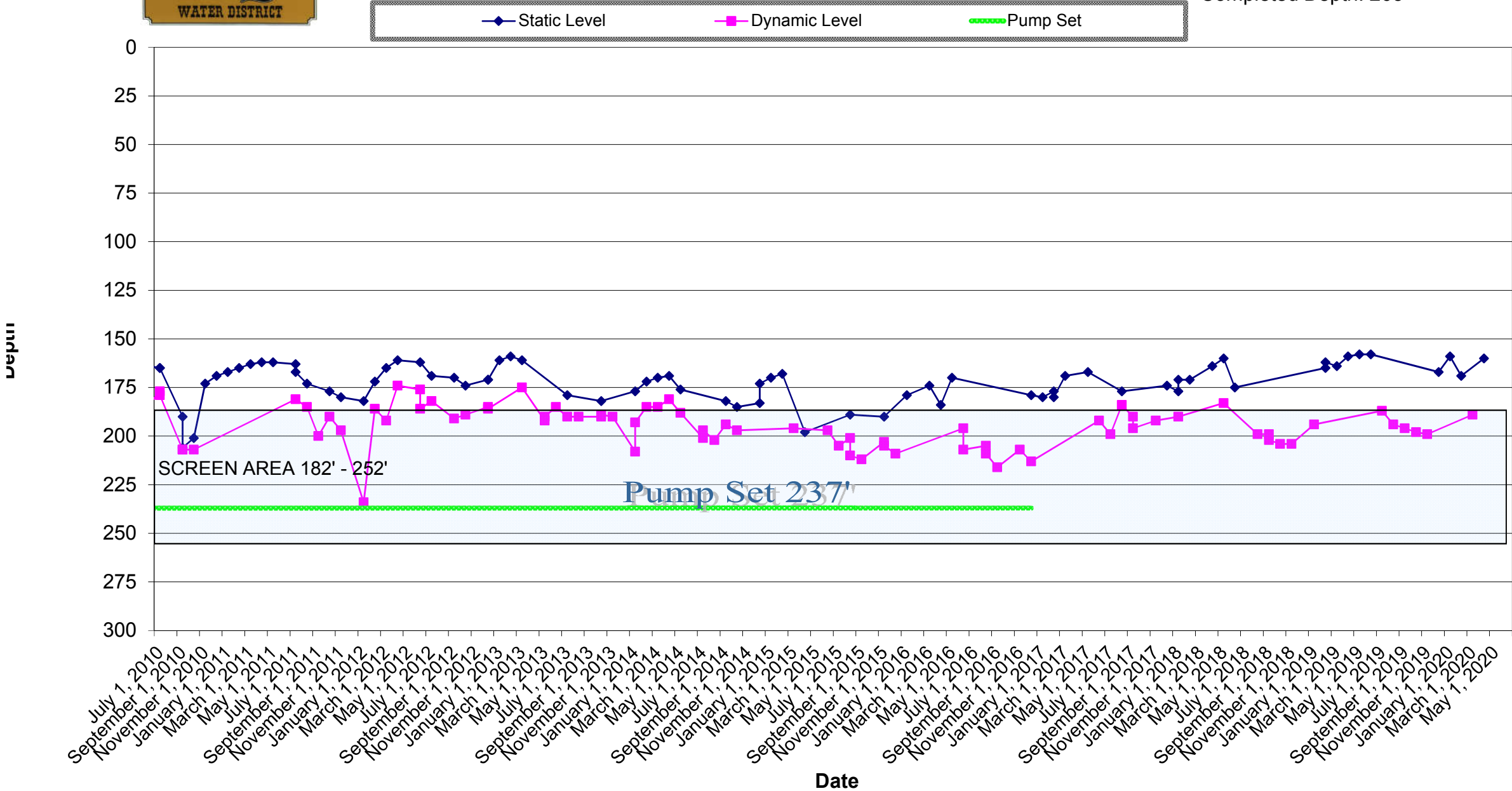
	Fall Creek	Weir Measurement
1997	1.0	1.0
1998	1.0	1.0
1999	1.0	1.0
2000	1.0	1.0
2001	1.0	1.0
2002	1.0	1.0
2003	1.0	1.0
2004	1.0	1.0
2005	1.0	1.0
2006	1.0	1.0
2007	1.0	1.0
2008	1.0	1.0
2009	1.0	1.0
2010	1.0	1.0
2011	1.0	1.0
2012	1.0	1.0
2013	1.0	1.0
2014	1.0	1.0
2015	1.0	1.0
2016	1.0	1.0
2017	1.0	1.0
2018	1.0	1.0
2019	1.0	1.0
2020	1.0	1.0
2021	1.0	1.0
2022	1.0	1.0
2023	1.0	1.0
2024	1.0	1.0
2025	1.0	1.0
2026	1.0	1.0
2027	1.0	1.0
2028	1.0	1.0
2029	1.0	1.0
2030	1.0	1.0
2031	1.0	1.0
2032	1.0	1.0
2033	1.0	1.0
2034	1.0	1.0
2035	1.0	1.0
2036	1.0	1.0
2037	1.0	1.0
2038	1.0	1.0
2039	1.0	1.0
2040	1.0	1.0
2041	1.0	1.0
2042	1.0	1.0
2043	1.0	1.0
2044	1.0	1.0
2045	1.0	1.0
2046	1.0	1.0
2047	1.0	1.0
2048	1.0	1.0
2049	1.0	1.0
2050	1.0	1.0
2051	1.0	1.0
2052	1.0	1.0
2053	1.0	1.0
2054	1.0	1.0
2055	1.0	1.0
2056	1.0	1.0
2057	1.0	1.0
2058	1.0	1.0
2059	1.0	1.0
2060	1.0	1.0
2061	1.0	1.0
2062	1.0	1.0
2063	1.0	1.0
2064	1.0	1.0
2065	1.0	1.0
2066	1.0	1.0
2067	1.0	1.0
2068	1.0	1.0
2069	1.0	1.0
2070	1.0	1.0
2071	1.0	1.0
2072	1.0	1.0
2073	1.0	1.0
2074	1.0	1.0
2075	1.0	1.0
2076	1.0	1.0
2077	1.0	1.0
2078	1.0	1.0
2079	1.0	1.0
2080	1.0	1.0
2081	1.0	1.0
2082	1.0	1.0
2083	1.0	1.0
2084	1.0	1.0
2085	1.0	1.0
2086	1.0	1.0
2087	1.0	1.0
2088	1.0	1.0
2089	1.0	1.0
2090	1.0	1.0
2091	1.0	1.0
2092	1.0	1.0
2093	1.0	1.0
2094	1.0	1.0
2095	1.0	1.0
2096	1.0	1.0
2097	1.0	1.0
2098	1.0	1.0
2099	1.0	1.0
2100	1.0	1.0

[illegible]



SAN LORENZO VALLEY WATER DISTRICT
Well Drawdown Report
Quail Well 4-A

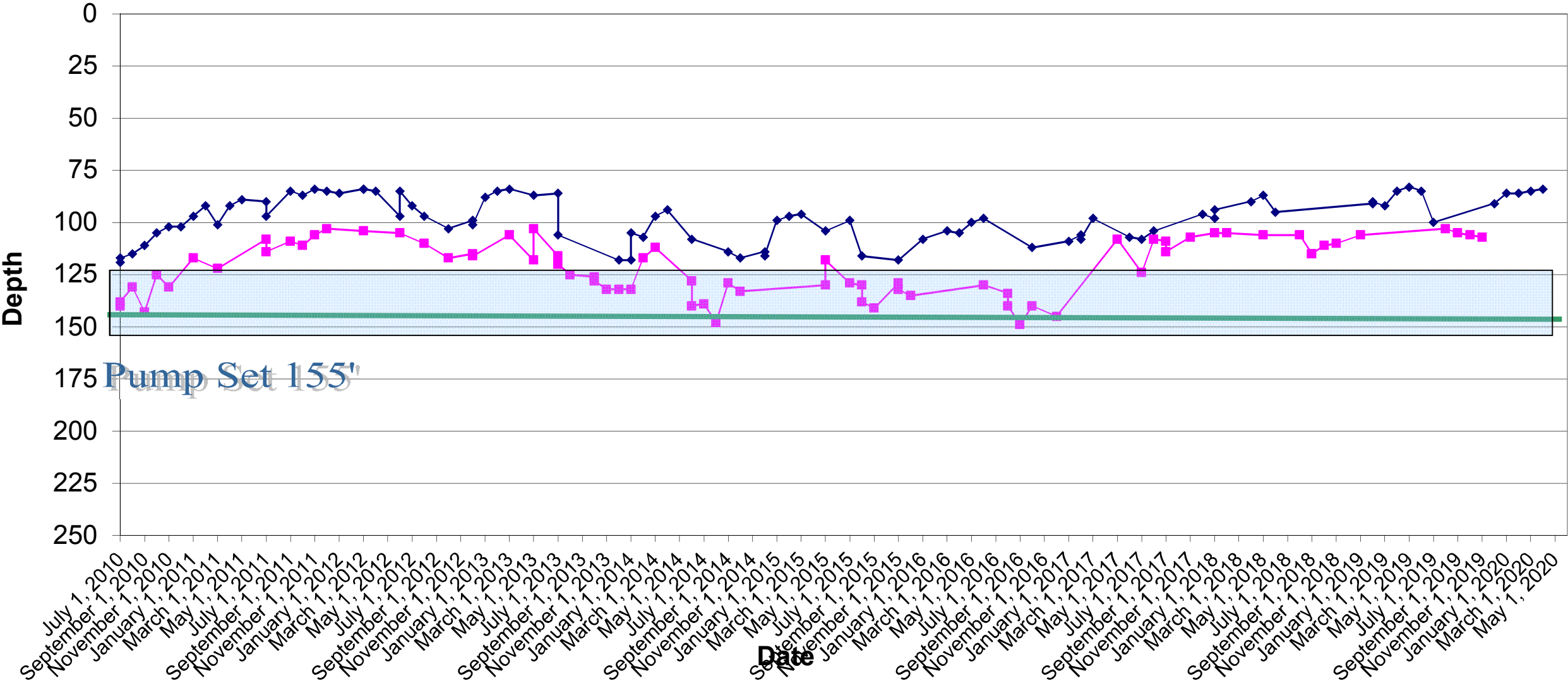
Location: Cumora Ln. Ben Lomond
Elevation: 596.54 ft @ Pad
Installed: 6-07-2001
State Well #: 4410014-026
Completed Depth: 265





SAN LORENZO VALLEY WATER DISTRICT
Well Drawdown Report
Quail Well 5-A

Location: 1161 Quail Hollow Rd.
Ben Lomond
Elevation: 517.65 ft. @ Pad
Installed: March 2000
State Well #: 4410014-025
Completed Depth: 174'



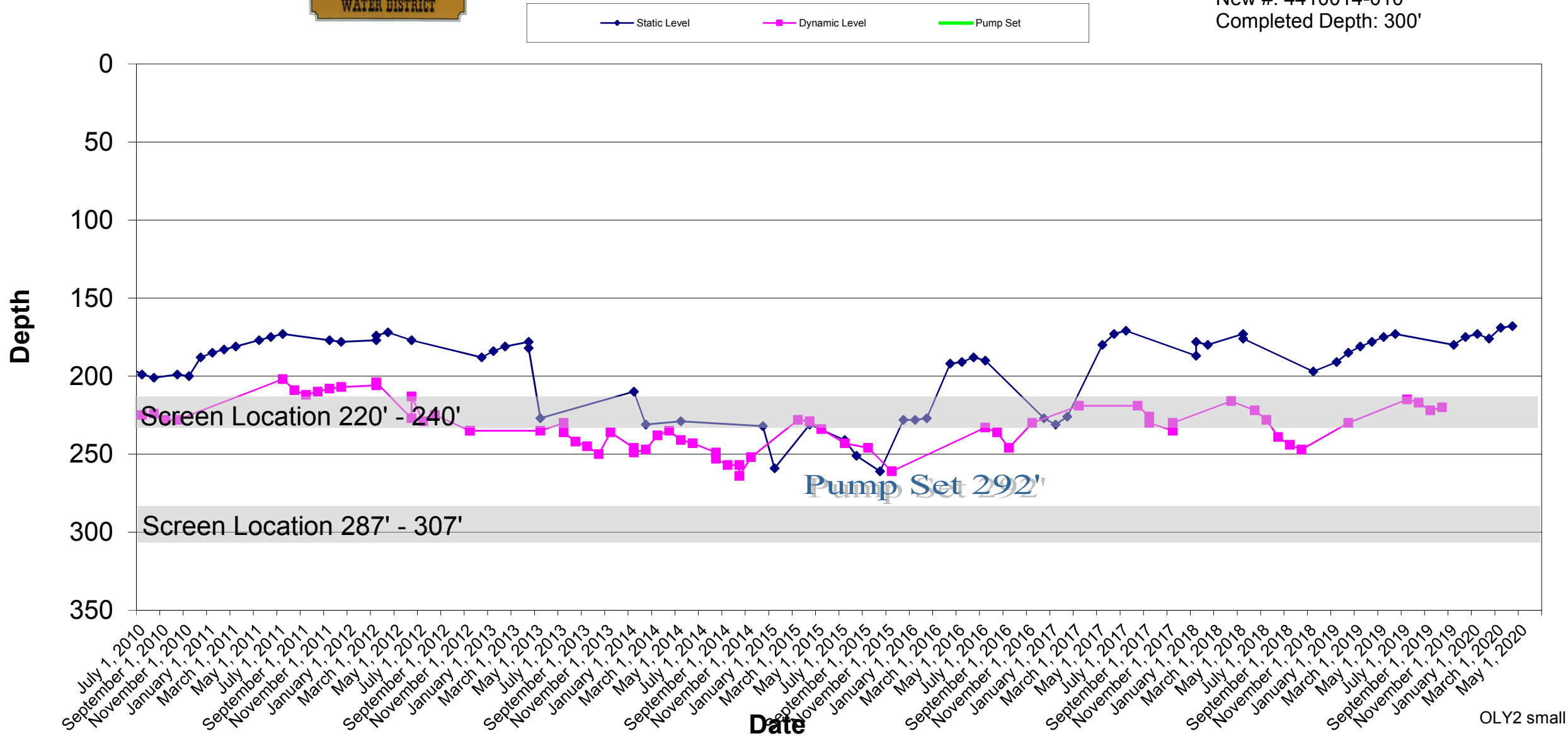


SAN LORENZO VALLEY WATER DISTRICT

Well Drawdown Report

Olympia 2

Location: 7701 E. Zayante Rd.
Elevation: 525'
Installed: April 28, 1980
State Well #: 10S/O2W-11P01
New #: 4410014-010
Completed Depth: 300'



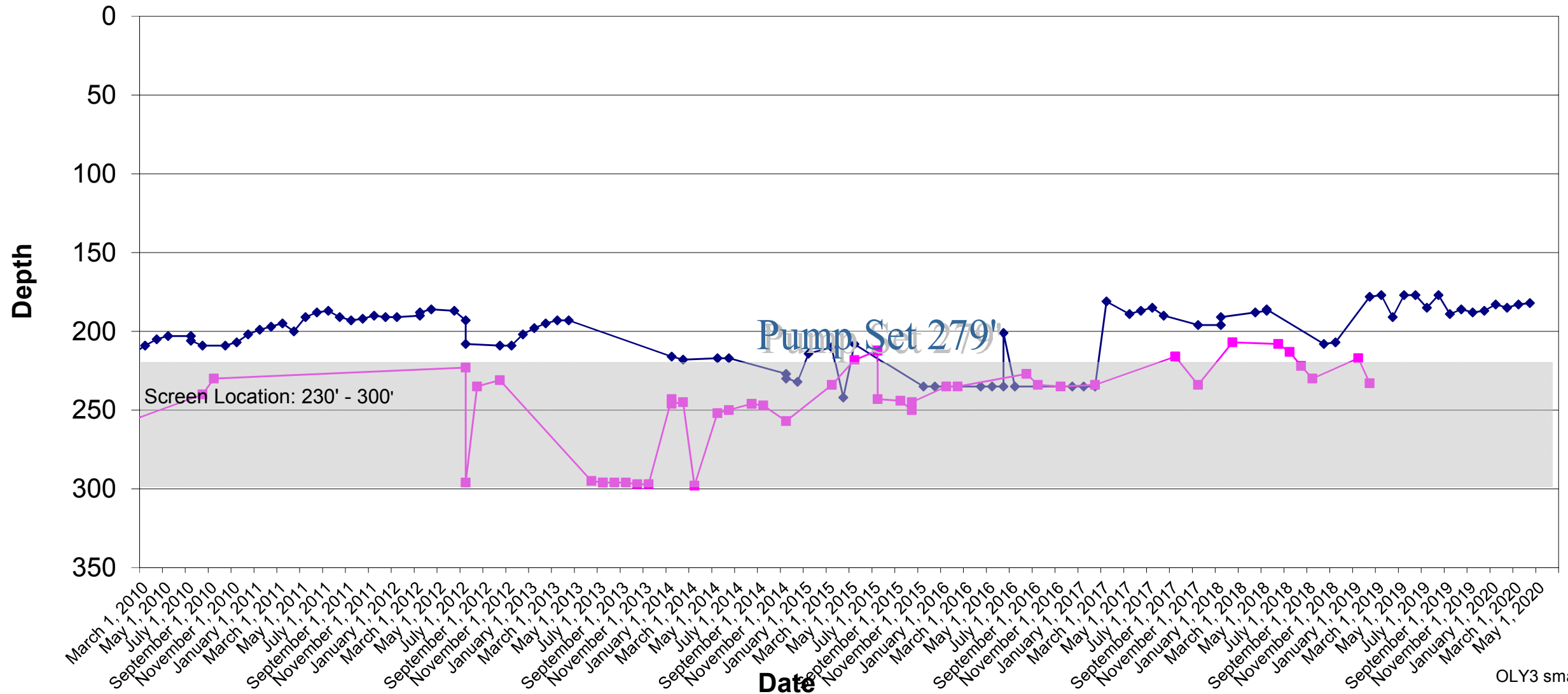


SAN LORENZO VALLEY WATER DISTRICT

Well Drawdown Report

Olympia 3

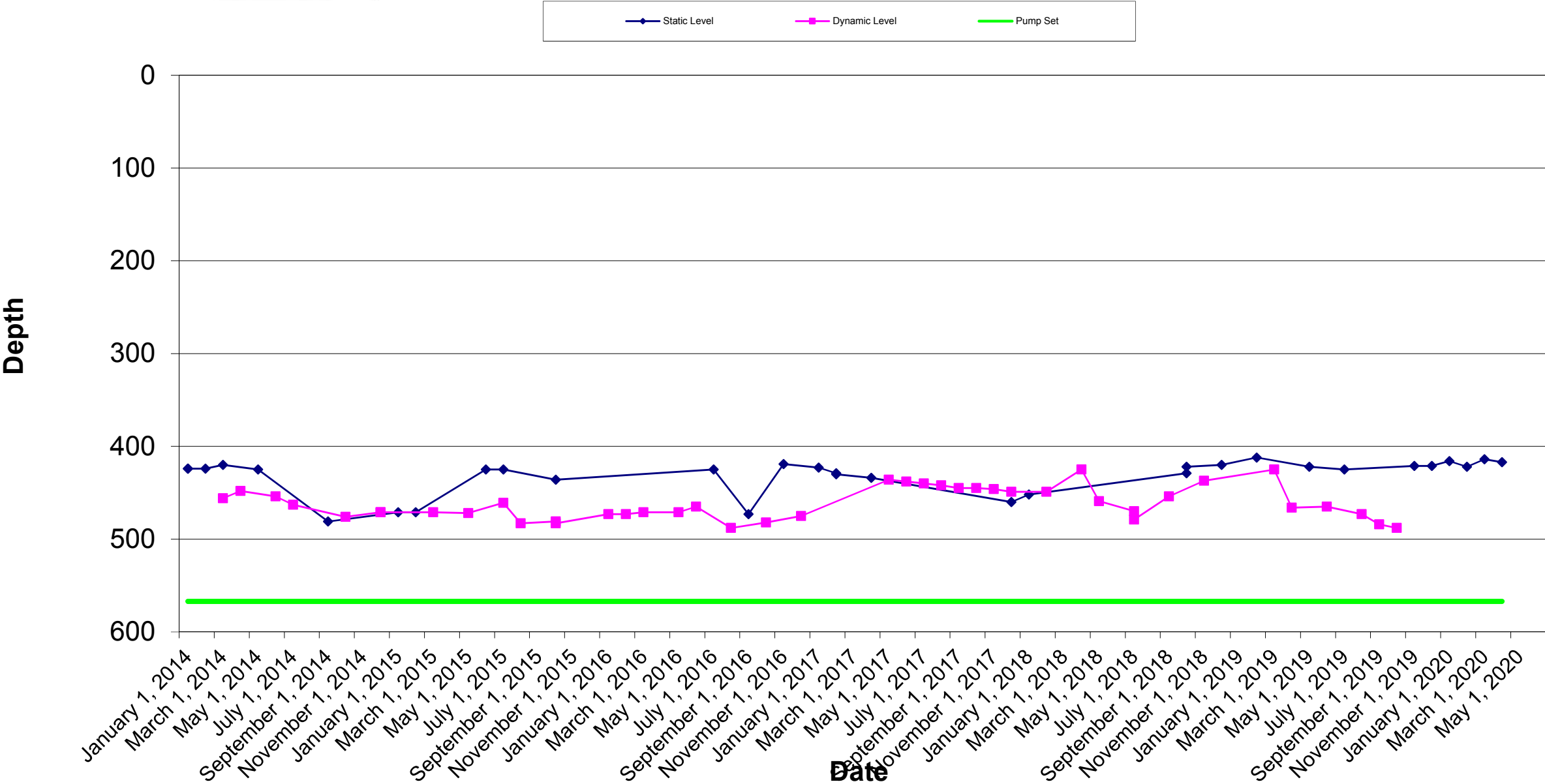
Location: 7701 E. Zayante Rd
Elevation: 538' Mean Sea Level
Installed: 8-15-90
State Well #: 4410014-022
Completed Depth:





SAN LORENZO VALLEY WATER DISTRICT
Well Drawdown Report
Pasatiempo 5-A

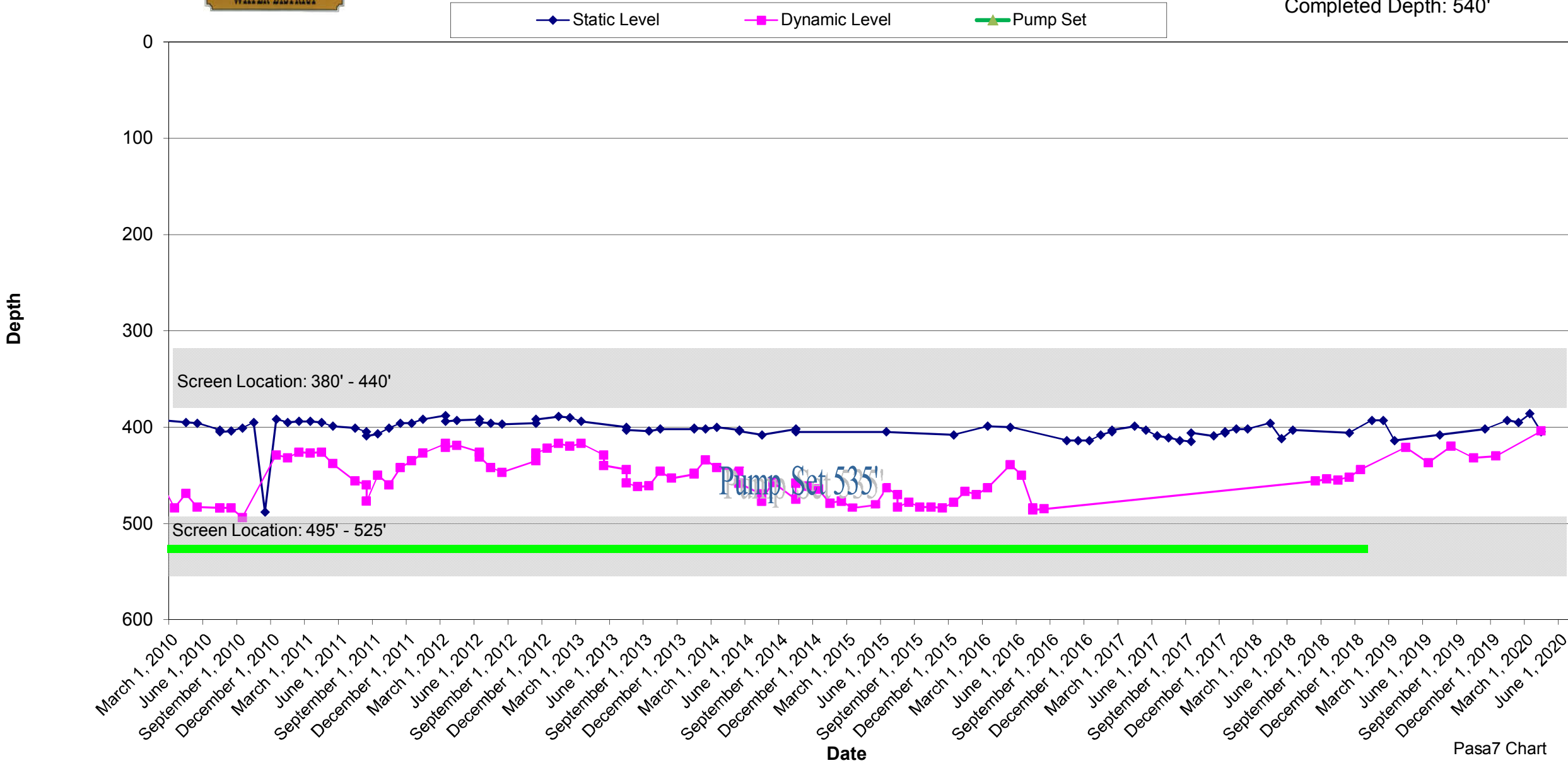
Location: So. Of 3650 Graham Hill Rd
Elevation: 752'
Installed 1-1-14
State Well #:4410014-014
Completed Depth: 710'





SAN LORENZO VALLEY WATER DISTRICT
Well Drawdown Report
Pasatiempo 7

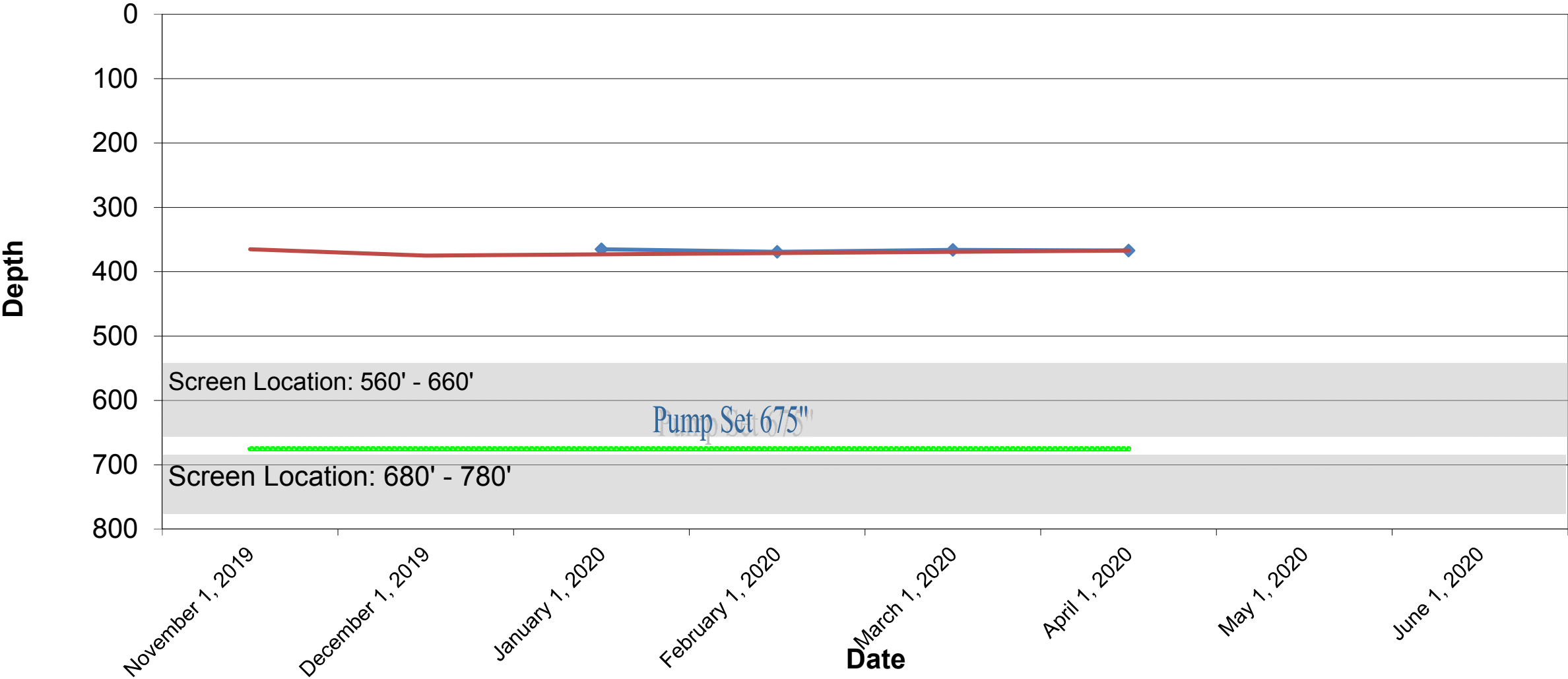
Location: South of Probation
Center
Elevation: 734' MSL
Installed: July 21, 1990
State Well #: 4410014-024
Completed Depth: 540'



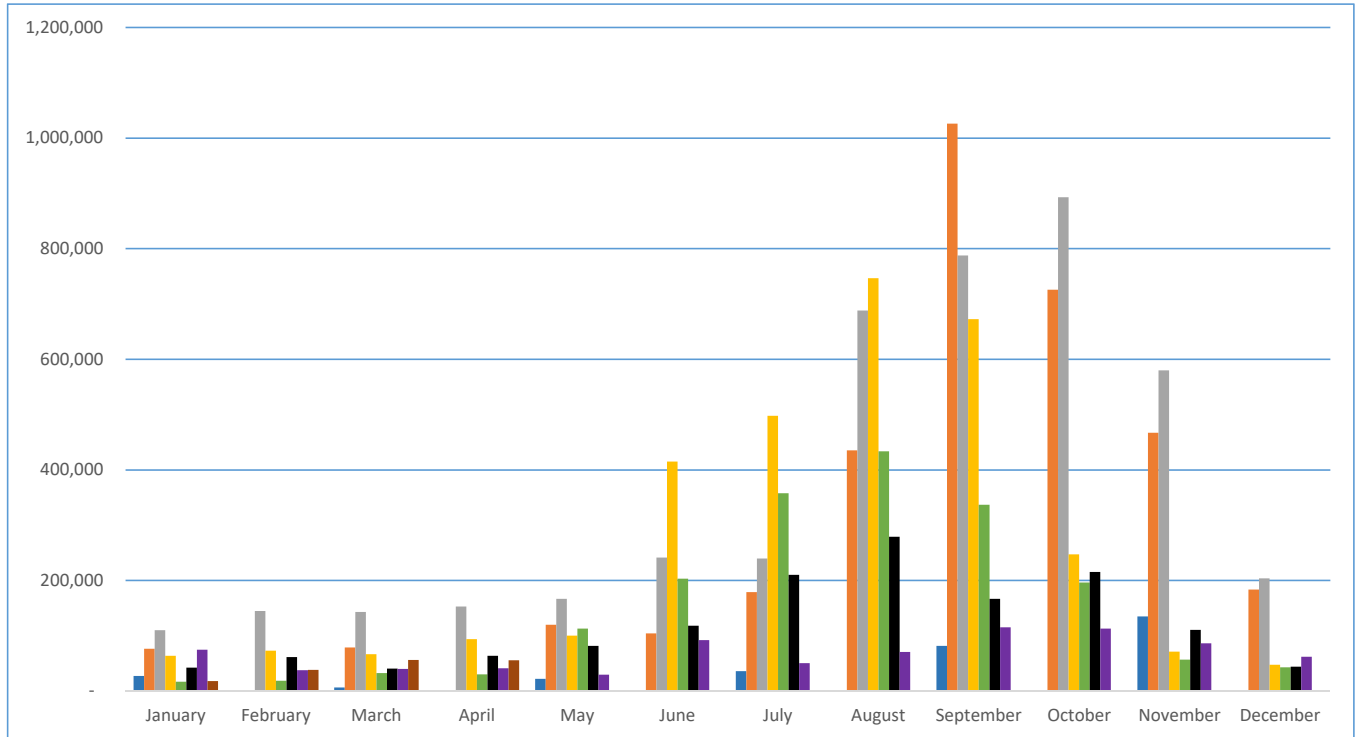


SAN LORENZO VALLEY WATER DISTRICT
Well Drawdown Report
Pasatiempo 8

Location: Behind 3650 Graham Hill Rd.
Elevation: 775'
Installed: 11-20-2019
State Well #: 4410014-041
Completed Depth: 805'



SAN LORENZO VALLEY WATER DISTRICT
BULK WATER SALES
GALLONS
April 2020



Month	2013	2014	2015	2016	2017	2018	2019	2020
January	26,928	76,296	109,965	63,850	16,456	41,888	74,800	17,952
February			144,364	72,556	18,700	61,366	37,400	38,148
March	5,984	78,540	142,868	66,572	32,164	40,392	39,644	56,100
April			152,592	93,500	29,920	63,580	41,140	55,352
May	21,692	119,680	166,804	100,232	112,948	81,532	29,172	
June		103,972	240,983	415,140	203,179	118,184	92,004	
July	35,904	178,772	239,360	497,420	357,544	210,188	50,116	
August		435,336	688,160	746,504	433,092	279,004	70,312	
September	81,352	1,026,256	787,644	672,183	336,570	166,804	115,192	
October		725,560	893,112	246,840	195,976	215,424	112,948	
November	134,640	466,752	579,700	71,060	56,848	110,704	86,020	
December		183,260	203,456	47,124	42,636	44,132	62,084	
Totals	306,500	3,394,424	4,349,008	3,092,981	1,836,033	1,433,198	810,832	167,552

SAN LORENZO VALLEY WATER DISTRICT
MONTHLY LEAK REPORT
April 2020

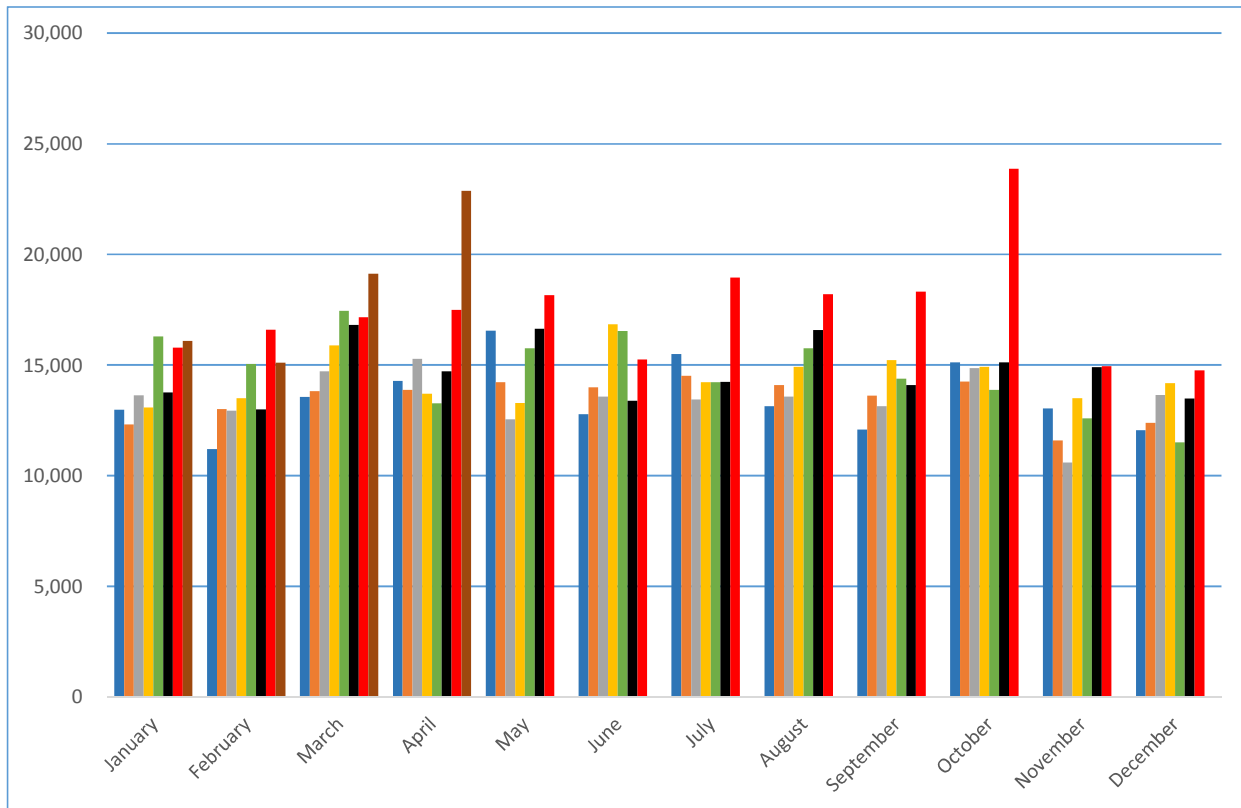
Leak Type	Location - NORTH SYSTEM	Town	Gallons Lost
400 MAIN LEAKING	200 CALEDONIUM AVE.	BEN LOMOND	4,320
420 HYDRANT LEAK/REPAIRS	850 BLOCK OF HWY 9	BEN LOMOND	72,000
400 MAIN LEAKING	140 APPLE KNOLL	BOULDER CREEK	360
400 MAIN LEAKING	CRESCENT DR	BOULDER CREEK	180
400 MAIN LEAKING	155 CREEK COURT	BOULDER CREEK	2,880
400 MAIN LEAKING	266 BLUE RIDGE DR	BOULDER CREEK	90
400 MAIN LEAKING	250 KELLER DR	BOULDER CREEK	2,880
400 MAIN LEAKING	10408 RAILROAD AVE	BOULDER CREEK	500
400 MAIN LEAKING	115 TEILH DRIVE	BOULDER CREEK	10,080
400 MAIN LEAKING	13220 RAILROAD AVE.	BOULDER CREEK	7,200
400 MAIN LEAKING	15 BRIMBLECOM RD	BOULDER CREEK	2,288
Total North			102,778
FELTON SYSTEM			
400 MAIN LEAKING	1141 LAUREL AVE.	FELTON	24000
400 MAIN LEAKING	KIRBY ST	FELTON	5400
400 MAIN LEAKING	255 ZAYANTE SCHOOL RD	FELTON	5760
Total Felton			35,160
LOMPICO			
400 MAIN LEAKING	12299 LA LENA ST.	LOMPICO	16,200
Total Lompico			16,200
SCOTTS VALLEY			
400 MAIN LEAKING	119 ROYAL OAK CT.	SCOTTS VALLEY	2880
Total Scotts Valley			2,880
Total All Systems			157,018

				Water Quality Complaint List						
Date Received	Type Of Complaint							Address	Conclusion	System
	Taste/ Odor	Color	Turbidity/ Particles	Worms/ Other Visible Organisms	Pressure (High/Low)	Illness (Waterborne)	Other (Specify)			
4/2/2020			X				Customer thinks they have sediment in their water	218 Capelli Dr	Upon investigation by SLVWD staff, water quality results appeared normal and within range at customers front hose bib. Free Cl2 was 0.8 mg/L, turbidity was 0.1 NTU and no sediment was observed. In addition, the customer could not provide a sample of observed sediment. Customer was provided with water quality results. Speaking further with customer, it appeared that the customer had observed a mineral residue after water had boiled in a pot and thought it was sediment. Customer will call back with any future water quality concerns.	SLVWD-Felton
4/18/2020			X				Customer complained of sand coming out of faucets.	112 Rollingwood Dr	Upon investigation by SLVWD staff, water quality results were normal and within range at customers outside hose bib. A sample was collected from the customers front hose bib which had a free chlorine residual of 0.8 mg/L, turbidity of 0.13 NTU and did not have any visible sand. During the investigation, the sand that the customer was observing in the internal plumbing was discovered to be exchange resin from the customers water softener. The customer disconnected the water softener and will call back if any future water quality problems arise.	SLVWD
4/20/2020							Customer stated that a red ring appears around master bath sink only a couple days after cleaning.	23 Bay Laurel Ct	Upon investigation by SLVWD staff, water quality results were normal and within range at customers outside hose bib. A sample was collected from the customers front hose bib which had a free chlorine residual of 0.5 mg/L and did not have any observable color. Customer explained that this issue is localized only in his master bath. The investigating operator requested to the customer to investigate their internal plumbing, as this issue is localized to only one faucet in the house. Customer will call back with any future water quality concerns.	SLVWD

SAN LORENZO VALLEY WATER DISTRICT

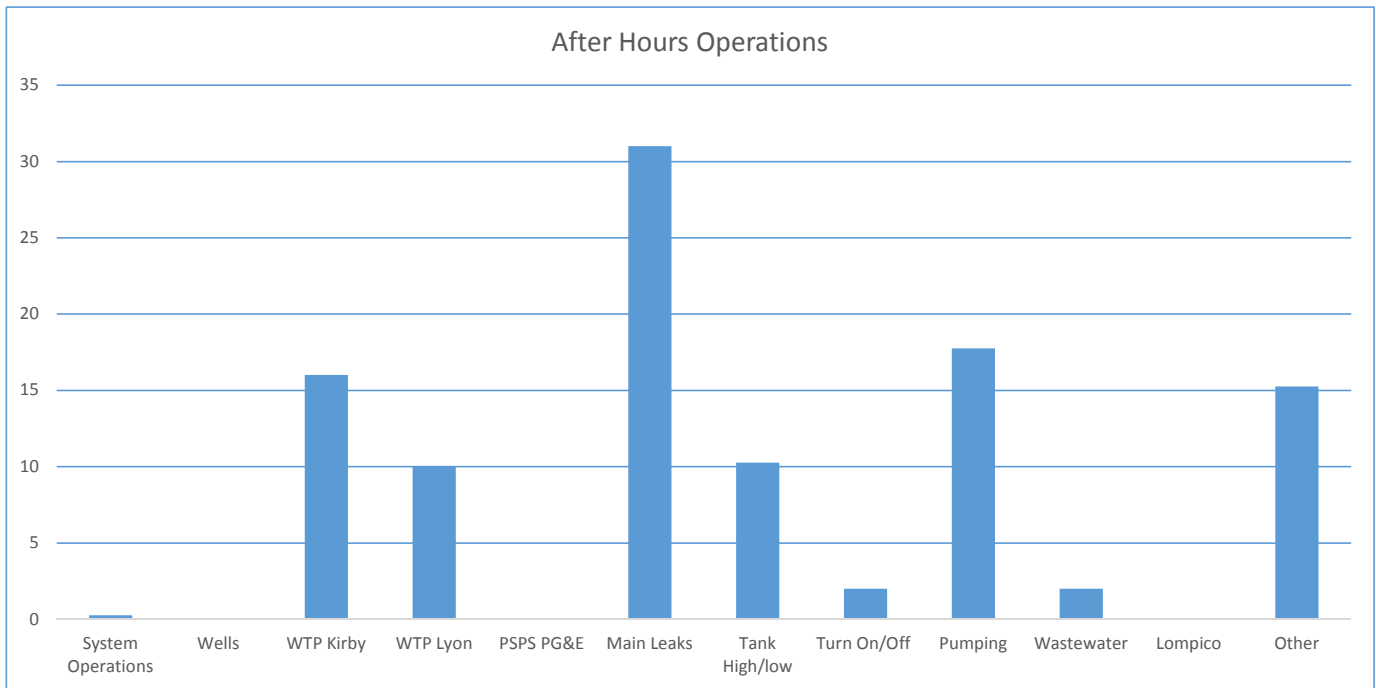
VEHICLE MILEAGE

April 2020



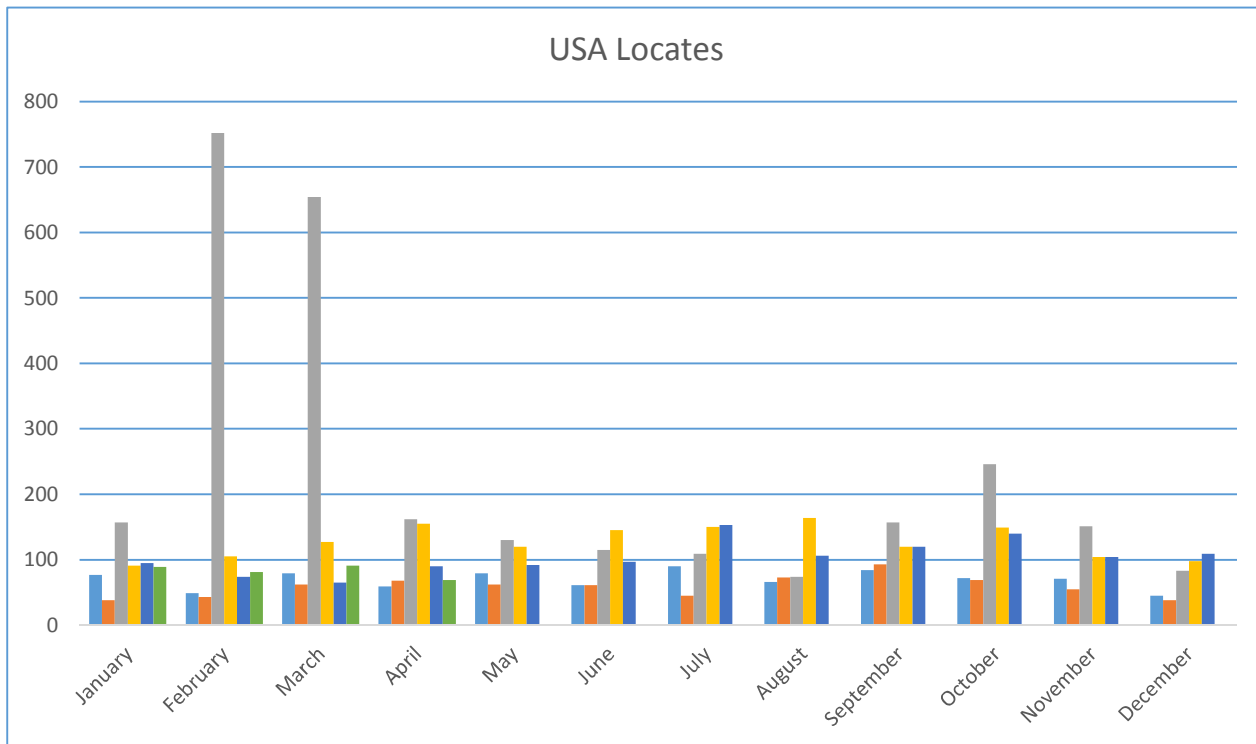
Month	2013	2014	2015	2016	2017	2018	2019	2020
January	12,976	12,317	13,633	13,082	16,286	13,763	15,790	16,088
February	11,201	13,015	12,934	13,505	15,045	13,003	16,599	15,113
March	13,558	13,817	14,714	15,882	17,451	16,809	17,167	19,132
April	14,283	13,883	15,279	13,704	13,270	14,711	17,488	22,868
May	16,560	14,228	12,550	13,290	15,757	16,646	18,156	
June	12,780	14,000	13,582	16,841	16,534	13,390	15,249	
July	15,497	14,519	13,441	14,228	14,229	14,242	18,955	
August	13,136	14,096	13,569	14,923	15,761	16,576	18,194	
September	12,087	13,622	13,137	15,229	14,388	14,094	18,321	
October	15,120	14,261	14,868	14,924	13,880	15,126	23,864	
November	13,046	11,594	10,591	13,510	12,598	14,908	14,942	
December	12,060	12,394	13,648	14,187	11,512	13,492	14,763	
Totals	162,304	161,746	161,946	173,305	176,711	176,760	209,488	73,201

SAN LORENZO VALLEY WATER DISTRICT
OPERATIONS DEPARTMENT
 April 2020



Description	Hours		2015	2016	2017	2018	2019	2020
System Operations	0.25	January	N/A	145.00	280.75	90.50	96.50	109.00
Wells	0	February	N/A	86.50	192.25	72.00	180.00	89.50
WTP Kirby	16	March	N/A	153.75	105.75	80.25	106.25	55.75
WTP Lyon	10	April	82.50	72.00	128.75	156.75	76.25	104.50
PSPS PG&E	0	May					82.50	
Main Leaks	31	June	172.50	83.25	112.75	89.00	136.75	
Tank High/low	10.25	July	124.25	80.25	162.00	145.25	158.30	
Turn On/Off	2	August	111.75	81.25	141.25	134.5	119.75	
Pumping	17.75	September	230.25	175.00	201.25	155.25	133.00	
Wastewater	2	October	128.25	78.50	104.00	111.5	605.75	
Lompico	0	November	114.25	96.25	122.50	197.5	182.00	
Other	15.25	December	186.25	130.75	134.00	220.25	195.50	
Total	104.50		1150.00	1182.50	1685.25	1452.75	2072.55	

SAN LORENZO VALLEY WATER DISTRICT
OPERATIONS DEPARTMENT
 April 2020



<u>Month</u>	<u>2015</u>	<u>2016</u>	<u>2017</u>	<u>2018</u>	<u>2019</u>	<u>2020</u>
January	77	38	157	91	95	89
February	49	43	752	105	74	81
March	79	62	654	127	65	91
April	59	68	162	155	90	69
May	79	62	130	120	92	
June	61	61	115	145	97	
July	90	45	109	150	153	
August	66	73	74	164	106	
September	84	93	157	120	120	
October	72	69	246	149	140	
November	71	55	151	104	104	
December	45	38	83	98	109	
Total to Date	832	707	2,790	1528	1245	330

