

MEMO

TO: District Manager

FROM: Director of Operations

SUBJECT: OPERATIONS DEPARTMENT STATUS REPORT
JULY 2019

DATE: AUGUST 28, 2019

RECOMMENDATION:

It is recommended that the District Manager review and file the Operations Department Project Status Report for the month of July 2019.

BACKGROUND:

PROBATION TANK REPLACEMENT

The contractor is in full construction on the replacement of the Probation tank. The contractor completed the retaining walls and is in construction of the ring foundation for the tank. Tank delivery to the site is expected the week of August 24th. Construction is expected to continue until October 2019.

The Old 100,000 gallon redwood tank at the probation site was in very poor condition and was leaking towards the end of its life at an estimated 35-40 gallons per minute. Temporary poly tanks were installed by District staff in the summer of 2018. The system is running on minimal storage through construction. The residents of this area have been cautioned to conserve water during this time.

PASO WELL #8

The new Paso Well #8 construction continues. The District has been working with the concrete contractor on construction of the Well head pad and chlorination building and both were completed. The Well drilling contractor will be onsite in August to complete installation of the well column, pump and motor. Expected completion of the Well is late August.

Paso Well #8 is a replacement to Paso Well #6 that began splitting in its casing in 2015, which was allowing sand to overcome the pump and motor. Many attempts to fix and seal the casing on the Well were unsuccessful leading to full replacement of the Well.

FELTON WATER SYSTEM WATER METER REPLACEMENT

Domestic water meters are being replaced as existing meters have reached their life expectancy. Meters are being changed to the new Beacon "Eye on Water" system that will allow customers to monitor their water usage over the internet.

LOMPICO PRV'S

District staff has continued to install main line isolation valves. The isolation valves are crucial to this project for isolation of the PRV stations during construction. Construction installation of the PRV stations is set to begin the first week of September pending delivery of the stations.

The District is in contract to have the Lompico PRV's replaced as part of the assessment. Having functioning PRV's is important to a system like this with a large span of elevations. Pressures have to be reduced as the water gets lower in elevation from the tanks as they gain pressure the lower the elevation gets. With non-functioning PRV's the pressure gets very high in the lower elevations and causes failure of main lines and service lines.

MAINTENANCE ISSUES

System Wide

- 6 inch main break Zayante School Road, Major water loss.
- 6 inch main break Blue Tank Site Manana Woods.
- Service line replacement 10550 Bear Creek Road.
- Full Service line replacement 14705 Two Bar Road.
- Full Service line replacement 10550 Creekwood Drive.
- Installed 75' of fencing at the Lompico office due to dumping litter problem.
- Site maintenance Kirby Water Treatment Plant.
- Repairs to 8 inch Raw water line due to falling tree on trail.
- Lowered District service line to 285 Hoot Owl for culvert installation.
- Replaced 20' of main line on Hillcrest drive and Scenic Avenue.
- Fixed approximately 17 other various leaks throughout the District.

James Furtado

Director of Operations

SAN LORENZO VALLEY WATER DISTRICT

PRODUCTION COMPARRISON

Source	July-19	June-19	July-13	Difference This Year To 2013
North System				
Surface Water Sources				
Foreman Creek	14,003,596	21,052,220	12,164,000	
Peavine Creek + Hydro	1,443,109	775,923	2,784,000	
Clear Creek	10,689,177	5,878,714	0	
Sweetwater Creek	7,126,118	3,919,143	0	
Sub-Total (Streams)	33,262,000	31,626,000	14,948,000	122.52%
Wells (North)				
Olympia No. 2	1,590,000	1,289,000	19,357,000	
Olympia No. 3	-	329,000	13,418,000	
Quail Well No. 4-A	7,131,000	690,000	7,419,000	
Quail Well No. 5-A	3,682,000	240,200	5,578,300	
Sub Total North Wells	12,403,000	2,548,200	45,772,300	-72.90%
South System Wells				
Pasatiempo 5A	9,992,600	-	N/A	
Pasatiempo 6	-	-	10,782,000	
Pasatiempo 7	1,606,000	1,508,000	3,378,000	
Sub Total Pasatiempo Wells	11,598,600	1,508,000	14,160,000	-18.09%
North South All Sources Combined	57,263,600	35,682,200	74,880,300	-23.53%
Felton System - Surface Water				
Fall Creek	7,284,957	4,606,162	11,378,831	
Bennett Spring	3,364,504	2,083,180	3,083,700	
Bull 1 & 2	1,264,868	1,274,592	0	
Total Felton System Sources	11,914,329	7,963,934	14,462,531	-17.62%
Manana Woods System				
Well 1	-	-	0	
Total Manana Woods Sources	-	-	0	
Sub - Total Production				
North / Felton / Manana	69,177,929	43,646,134	89,342,831	-22.57%
Surface	45,176,329	39,589,934	29,410,531	53.61%
Wells	24,001,600	4,056,200	59,932,300	-59.95%
Total Surface Water Percentage	65.30	90.71	32.92	98.38%
Total Wells Percentage	34.70	9.29	67.08	-48.28%

**SAN LORENZO VALLEY WATER DISTRICT
PRODUCTION BY SYSTEM
+/- INTERTIES
July 2019**

North System All Sources	<u>57,263,600</u>
Interties IN +	<u>151</u>
Interties OUT -	<u>3,951,633</u>
TOTAL NORTH SYSTEM	<u>53,312,118</u>
Felton Water system All Sources	<u>11,914,329</u>
Interties IN +	<u>0</u>
Interties OUT -	<u>0</u>
TOTAL FELTON SYSTEM	<u>11,914,329</u>
Manana Woods System	
Manana Woods Well 1	<u>0</u>
Interties IN +	<u>0</u>
TOTAL MANANA WOODS	<u>0</u>

SAN LORENZO VALLEY WATER DISTRICT
INTERTIE USAGE
May 2019

INTERTIE 2

SLVWD to SVWD 0

SVWD to SLVWD 0

INTERTIE 3

SLV SOUTH to SLV NORTH 151

SLV NORTH to SLV SOUTH 1,726,550

INTERTIE 4

SLVWD to MHWD 0

MHWD to SLVWD 0

INTERTIE 6

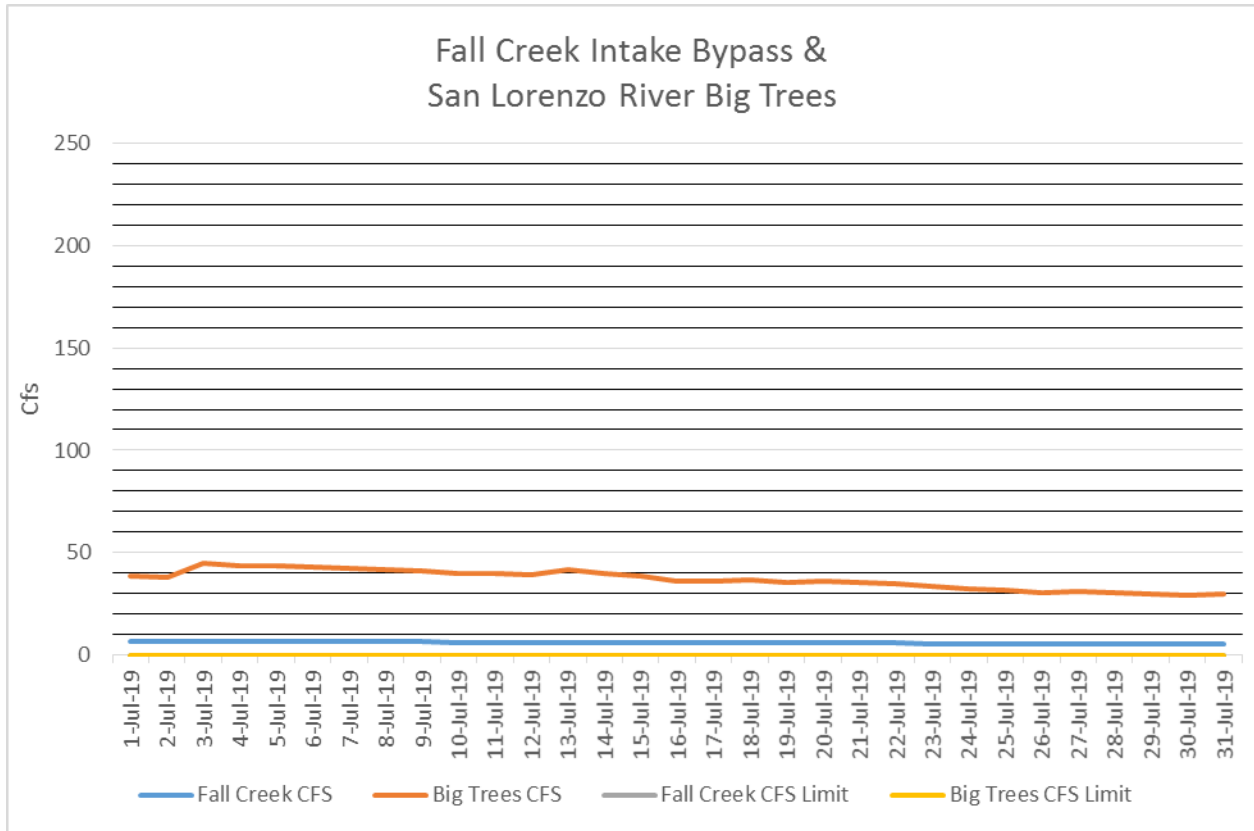
SLV NORTH to SLV FELTON -

SLV FELTON to SLV NORTH -

LOMPICO INTERTIE

SLV NORTH to LOMPICO 2,225,083

Fall Creek Intake July 2019



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 0.5 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 July 2019

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											
	Month:	July		Year:	2019	Big Trees > 26,500 Acre-ft Oct-Feb Normal Year			Big Trees <26,500 Acre-ft Oct-Feb Dry Year		
								<input checked="" type="checkbox"/>			<input type="checkbox"/>
Date	Time	Initials	Pump #	Fall Cr. GPM into Kirby plant	Weir Board Height (inches)	Fall Creek Bypass (CFS)	Big Trees Bypass (CFS)	Rainfall (Felton gauge)	Met Fall Cr, Bypass Requirement: Normal Year April 1 - Oct 31 1.0 cfs; Nov 1 - March 31 1.5 cfs Dry Year April 1 - Oct 31 0.5 cfs Nov. 1 - March 31 0.75 cfs (yes/no)	Met Big Trees Requirement Nov-May 20cfs Sept 10 cfs Oct 25 cfs (yes/no)	Notes
1	JG	830	1	187	25	6.794	38.7	0	Yes	Yes	
2	TH	830	2	166	25	6.794	38.0	0	Yes	Yes	
3	JG	930	2	167	25	6.735	44.6	0	Yes	Yes	
4	JT	730	2	156	25	6.720	43.9	0	Yes	Yes	
5	JT	730	2	146	25	6.715	43.9	0	Yes	Yes	
6	JT	910	2	148	25	6.630	43.1	0	Yes	Yes	
7	JT	900	2	129	25	6.590	42.3	0	Yes	Yes	
8	HO	800	2	176	25	6.470	41.6	0	Yes	Yes	
9	JG	845	2	180	25	6.413	40.9	0	Yes	Yes	
10	TH	800	2	172	25	6.402	40.1	0	Yes	Yes	
11	JG	815	2	172	25	6.324	40.1	0	Yes	Yes	
12	JG	930	2	148	25	6.334	39.4	0	Yes	Yes	
13	KS	800	2	166	25	6.220	41.6	0	Yes	Yes	
14	KS	740	2	175	25	6.180	40.1	0	Yes	Yes	
15	JG	745	2	173	25	6.099	38.7	0	Yes	Yes	
16	HO	730	2	168	25	6.070	36.0	0	Yes	Yes	
17	HO	920	2	170	25	6.031	36.0	0	Yes	Yes	
18	JG	900	2	168	25	6.005	36.6	0	Yes	Yes	
19	JG	835	2	147	25	6.089	35.3	0	Yes	Yes	
20	HO	800	2	150	25	6.070	36.0	0	Yes	Yes	
21	HO	945	2	148	25	6.070	35.3	0	Yes	Yes	
22	JG	800	2	148	25	5.865	34.7	0	Yes	Yes	
23	JG	830	2	187	25	5.767	33.4	0	Yes	Yes	
24	JG	930	2	186	25	5.630	32.1	0	Yes	Yes	
25	HO	730	2	170	25	5.611	31.5	0	Yes	Yes	
26	HO	800	2	158	25	5.718	30.3	0	Yes	Yes	
27	JG	1045	2	162	25	5.543	30.9	0	Yes	Yes	
28	JG	1200	2	190	25	5.406	30.3	0	Yes	Yes	

29	KS	850	2	187	25	5.310	29.7	0	Yes	Yes	
30	SS	730	2	163	25	5.390	29.1	0	Yes	Yes	
31	KS	945	2	166	25	5.350	29.7	0	Yes	Yes	

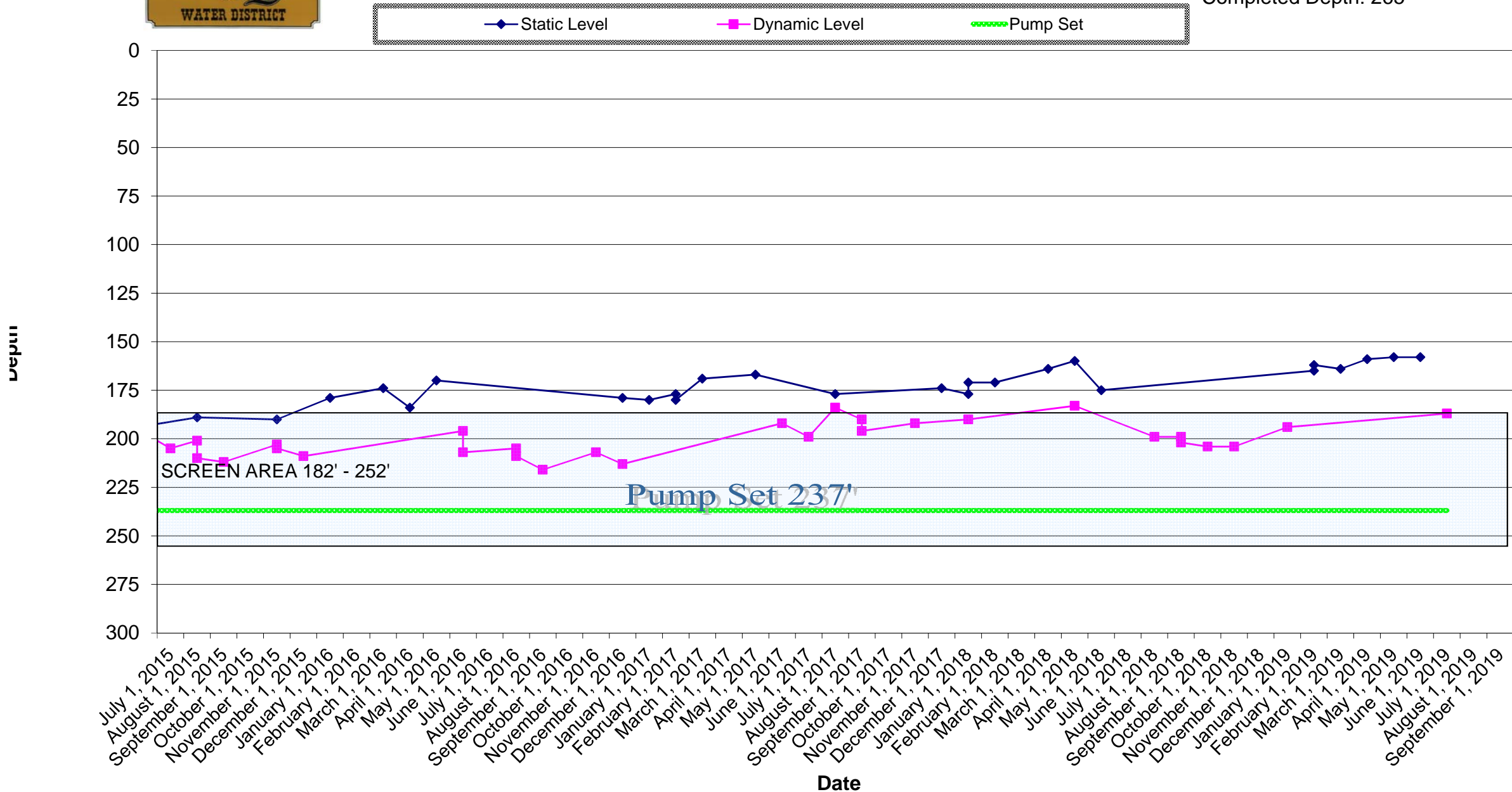


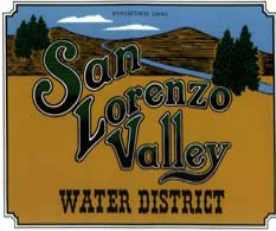
SAN LORENZO VALLEY WATER DISTRICT

Well Drawdown Report

Quail Well 4-A

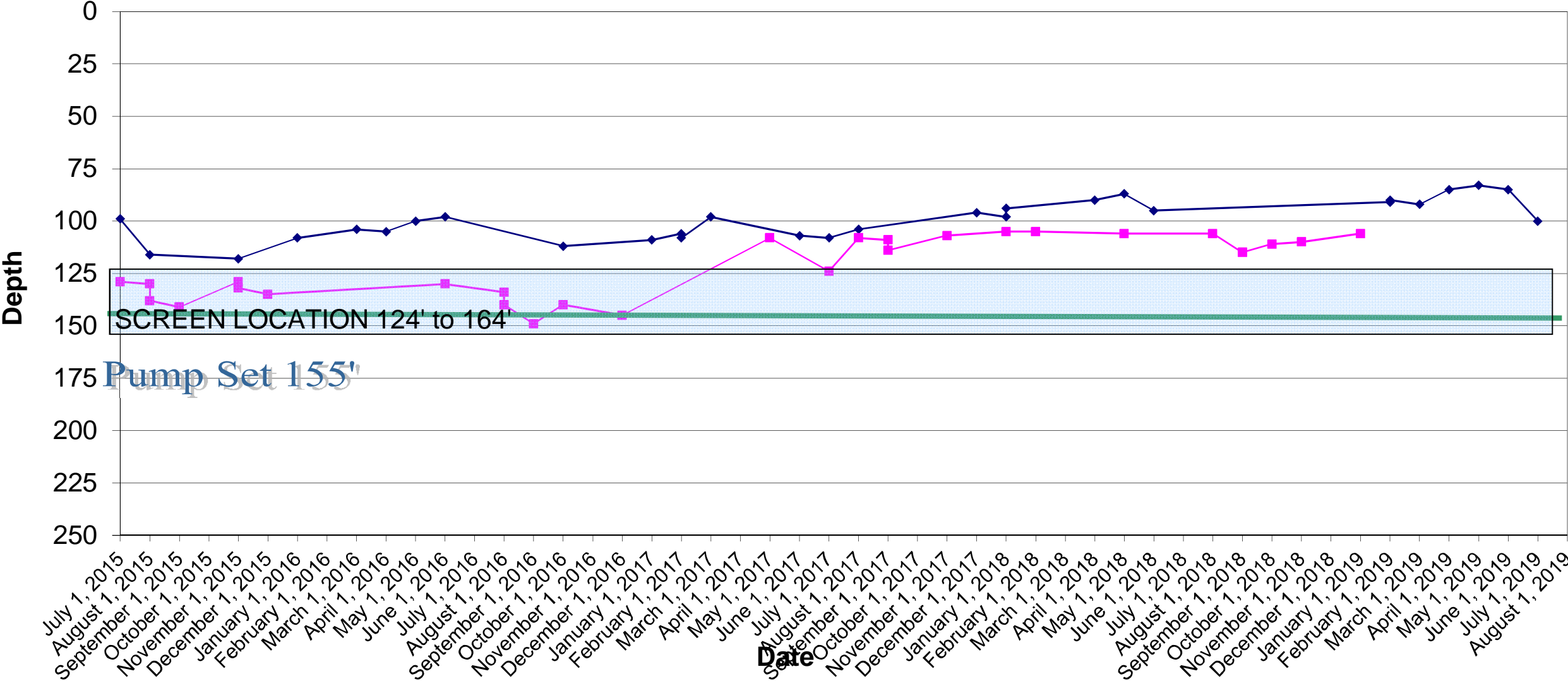
Location: Cumora Ln. Ben Lomond
Elevation: 596.54 ft @ Pad
Installed: 6-07-2001
State Well #: 4410014-026
Completed Depth: 265

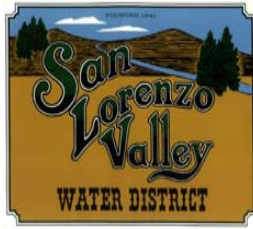




SAN LORENZO VALLEY WATER DISTRICT
Well Drawdown Report
Quail Well 5-A

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



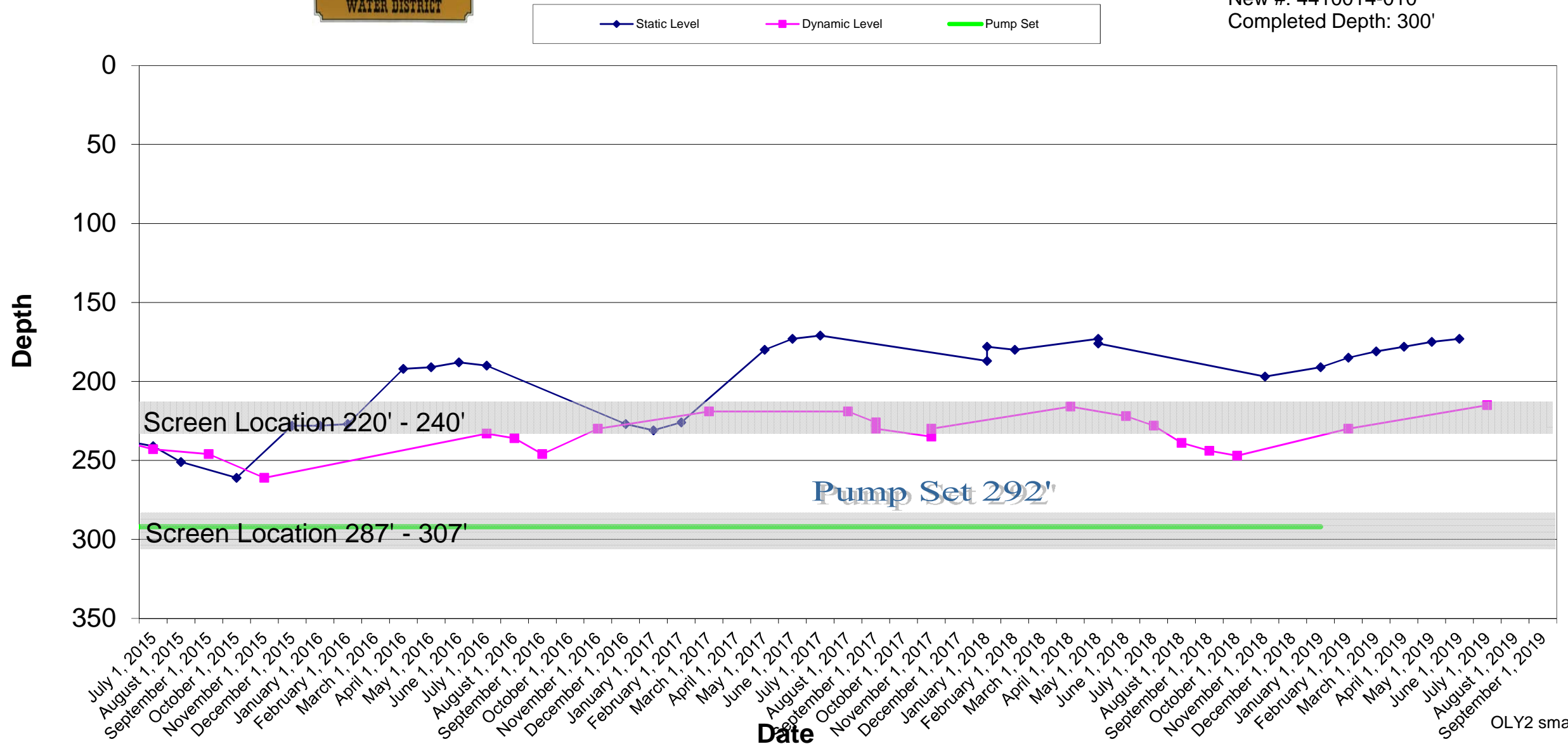


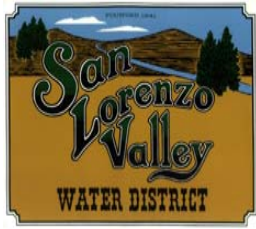
SAN LORENZO VALLEY WATER DISTRICT

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'



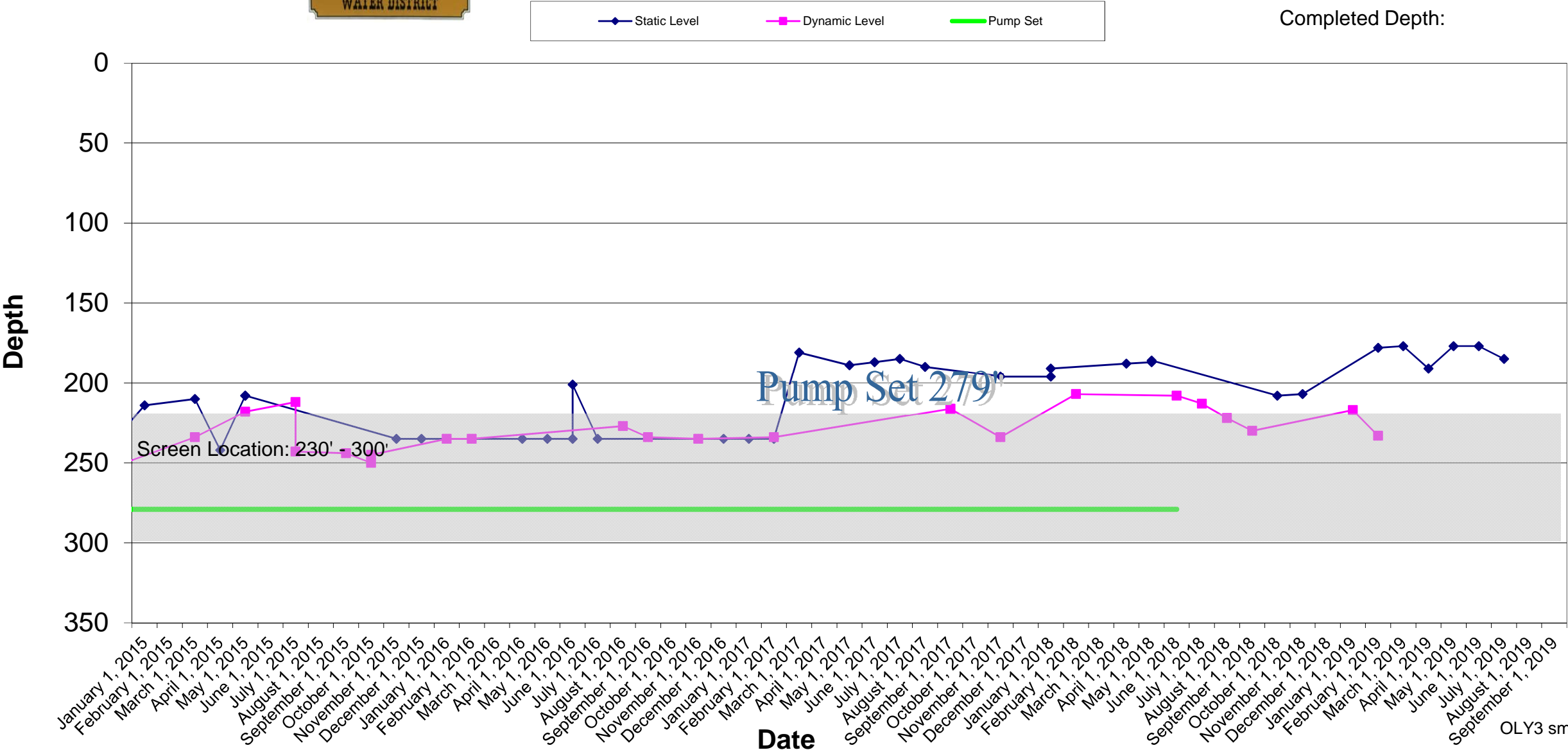


SAN LORENZO VALLEY WATER DISTRICT

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:



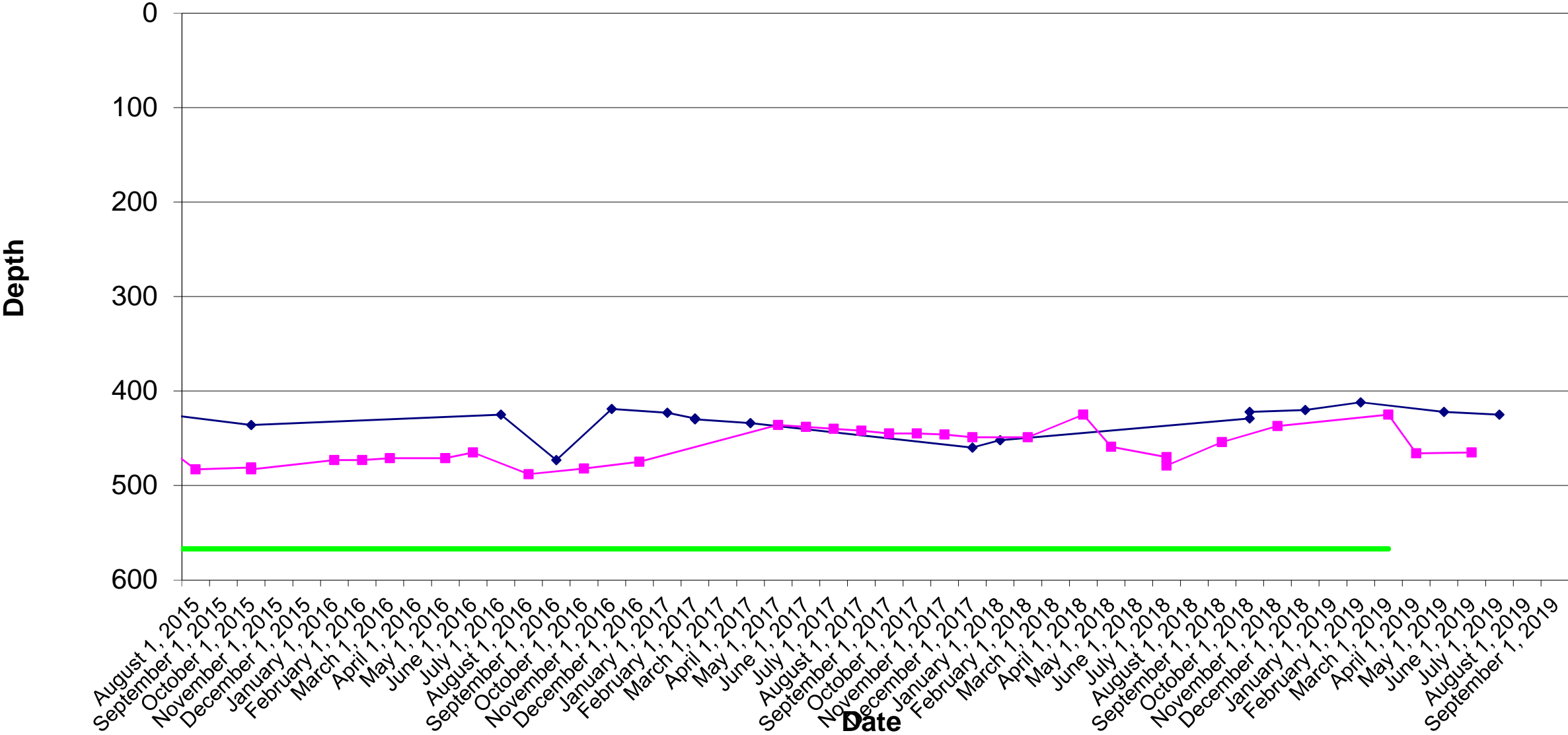


SAN LORENZO VALLEY WATER DISTRICT

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'



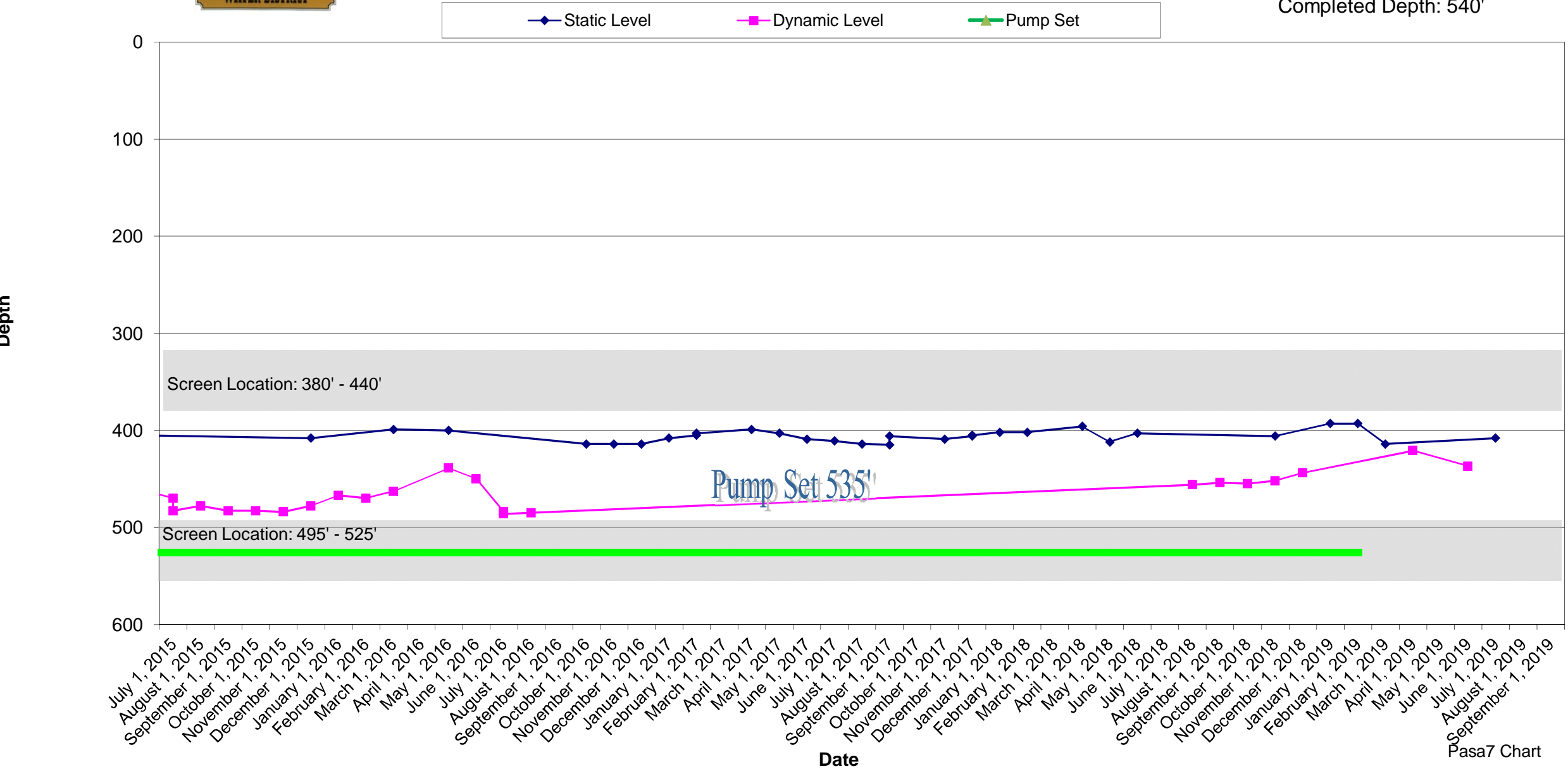


SAN LORENZO VALLEY WATER DISTRICT

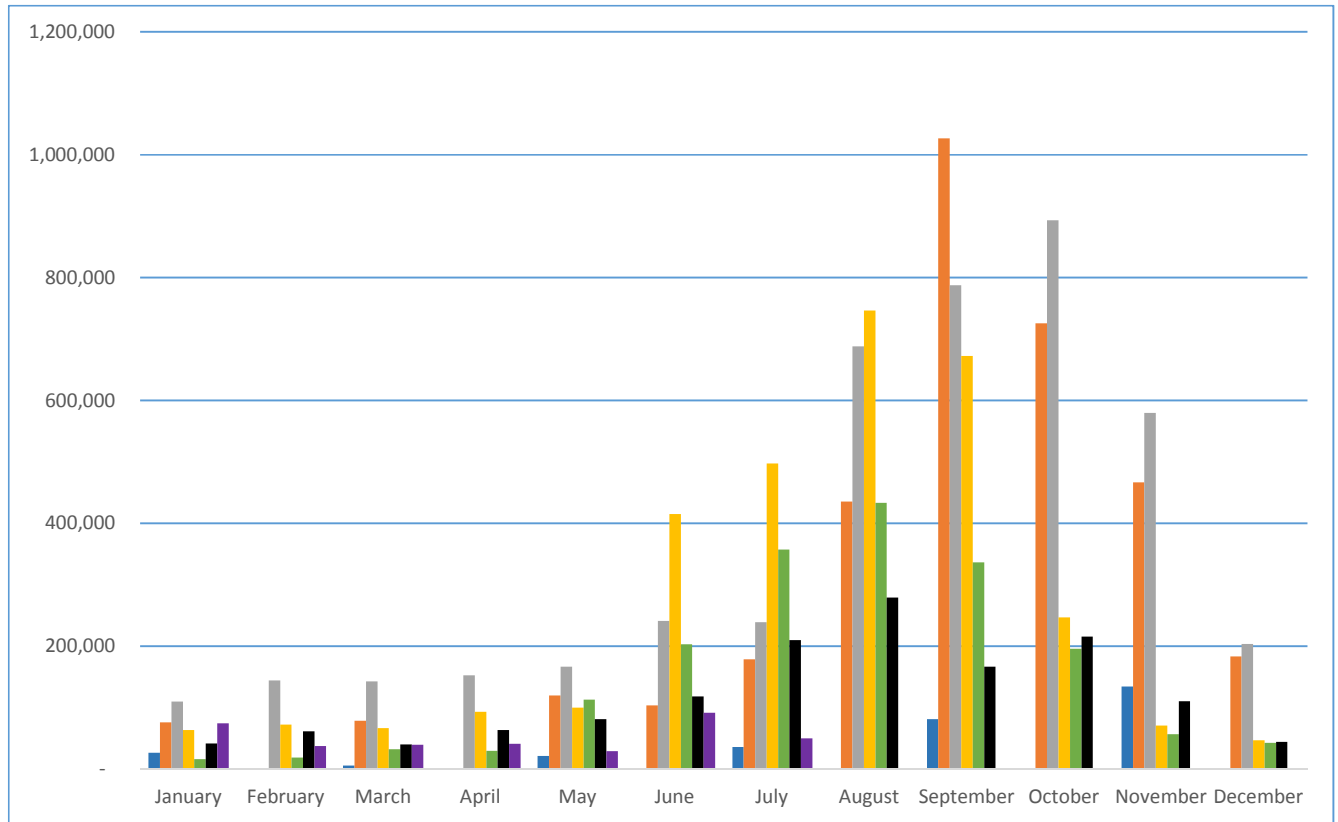
Well Drawdown Report

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
BULK WATER SALES
GALLONS
July 2019



<u>Month</u>	<u>2013</u>	<u>2014</u>	<u>2015</u>	<u>2016</u>	<u>2017</u>	<u>2018</u>	<u>2019</u>
January	26,928	76,296	109,965	63,850	16,456	41,888	74,800
February			144,364	72,556	18,700	61,366	37,400
March	5,984	78,540	142,868	66,572	32,164	40,392	39,644
April			152,592	93,500	29,920	63,580	41,140
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	
September	81,352	1,026,256	787,644	672,183	336,570	166,804	
October		725,560	893,112	246,840	195,976	215,424	
November	134,640	466,752	579,700	71,060	56,848	110,704	
December		183,260	203,456	47,124	42,636	44,132	
Totals	306,500	3,394,424	4,349,008	3,092,981	1,836,033	1,433,198	364,276

SAN LORENZO VALLEY WATER DISTRICT
MONTHLY LEAK REPORT
JULY 2019

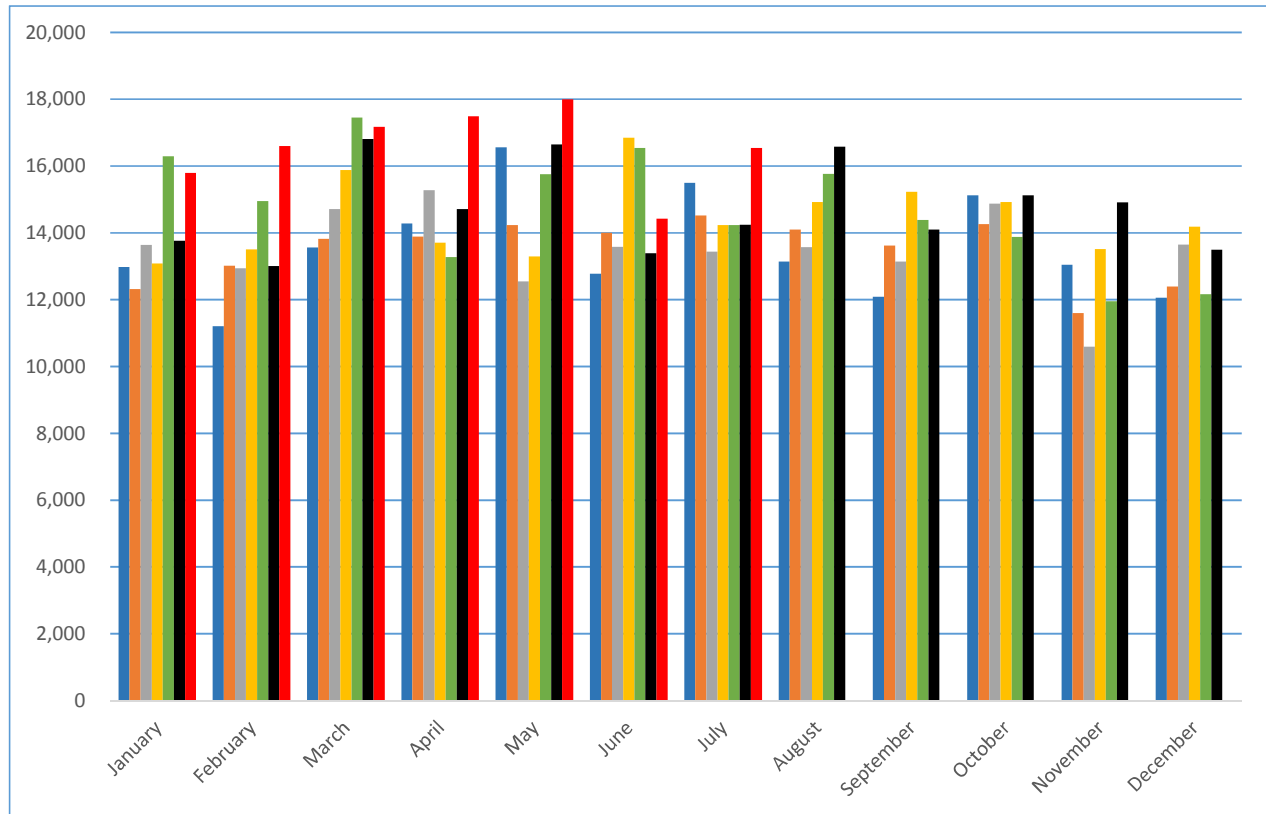
Leak Type	Location - NORTH SYSTEM	Town	Gallons Lost
400 MAIN LEAKING	Bear Creek Rd	BOULDER CREEK	3,600
400 MAIN LEAKING	168 WILLOW BROOK DR.	BEN LOMOND	12960
400 MAIN LEAKING	Scenic way & Hillcrest	BEN LOMOND	5,760
400 MAIN LEAKING	Oak ave	BEN LOMOND	3,960
400 MAIN LEAKING	750 PARK DR	BEN LOMOND	10,080
400 MAIN LEAKING	9460 Sunnyside ave	BEN LOMOND	600
400 MAIN LEAKING	433 MANZANITA AVE	BOULDER CREEK	270
400 MAIN LEAKING	MOUNTAIN ST.	BOULDER CREEK	600
400 MAIN LEAKING	14705 BEAR CREEK RD.	BOULDER CREEK	12,960
400 MAIN LEAKING	15131 TWO BAR	BOULDER CREEK	38,880
400 MAIN LEAKING	540 PRIMEVERA RD	BOULDER CREEK	100
400 MAIN LEAKING	364 BRIMBLECOM RD	BOULDER CREEK	1,000
400 MAIN LEAKING	206/216 CRESCENT DR	BOULDER CREEK	100
400 MAIN LEAKING	MANZANITA RD	BOULDER CREEK	500
400 MAIN LEAKING	15245 BEAR CREEK RD	BOULDER CREEK	500
400 MAIN LEAKING	13728 bear creek	BOULDER CREEK	28,800
400 MAIN LEAKING	221 AMITY WAY	BOULDER CREEK	3,600
400 MAIN LEAKING	11545 ALTA VIA	BROOKDALE	12,960
400 MAIN LEAKING	1115 FOREST DRIVE	BROOKDALE	2,880
Total North			140,110
FELTON SYSTEM			
400 MAIN LEAKING	Zayante School rd	FELTON	45,000
412 TANK LEAKING	550 EL SOLYO HEIGHTS DR.	FELTON	-
420 HYDRANT LEAK/REPAIRS	6915 SAN LORENZO WAY	FELTON	10,080
Total Felton			55,080
LOMPICO			
Total Lompico			-
SCOTTS VALLEY			
400 MAIN LEAKING	280 MIRAFLORES RD.	SCOTTS VALLEY	6,000.00
400 MAIN LEAKING	455 LOCKWOOD	SCOTTS VALLEY	4,320.00
Total Scotts Valley			10,320
Total All Systems			205,510

				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)			
7/8/2019	X						Customer states water has been tasting like chlorine for weeks.	209 Terrace Dr	Upon field investigation by SLVWD staff, water quality results appeared normal and within range at front hose tap. Free chlorine was 1.0 mg/L and no odor was detected in a field odor test by the investigating operator. Customer was informed of results and will call back with any future concerns.	SLVWD- North
7/12/2019	X						Customer stated that water had an off smell and taste.	101 Deerwood Dr	Upon field investigation by SLVWD staff, a slight odor of vinyl was observed at customer front hose bib. Upon further investigation of the property, the customer had a new vinyl hose connected to a nearby spigot. After disconnecting the hose and flushing the customers hose bib, the taste and odor was no longer apparent to the customer. Customer will call back if taste or odor returns.	SLVWD- North
7/15/2019		X					Customer stated that they had been observing cloudy water for a couple days.	11051 Lake Blvd	An operator from SLVWD arrived at customers residence to investigate cloudy water, but customer stated that the problem had cleared up and there was no longer a need to investigate further. The investigating operator verified on the closest fire hydrant to the customer that the water was running clear.	SLVWD- North
7/18/2019							Customer reported that his neighbor was pumping out his septic tank and the customer was concerned that there was potential for a cross connection.	461 Wildwood Rd	Upon investigation by SLVWD staff, water quality results were normal and within range. Free chlorine was 1.0 mg/L and a bacteriological sample was collected. The bacteriological sample was absent of coliform bacteria. Customer was informed that water quality hadn't been compromised and to call back with any future concerns.	SLVWD- North
7/30/2019			X				Customer reported sand appearing in his toilet tank	275 Bobs Ln	Upon investigation by SLVWD staff, water quality results were normal and within range. At customers front hose bib, free chlorine was 0.9 mg/L, turbidity was 0.36 NTU and no sand or discolorization of the water was observed. Customer was informed of the results and will call back with any future concerns.	SLVWD- North

SAN LORENZO VALLEY WATER DISTRICT

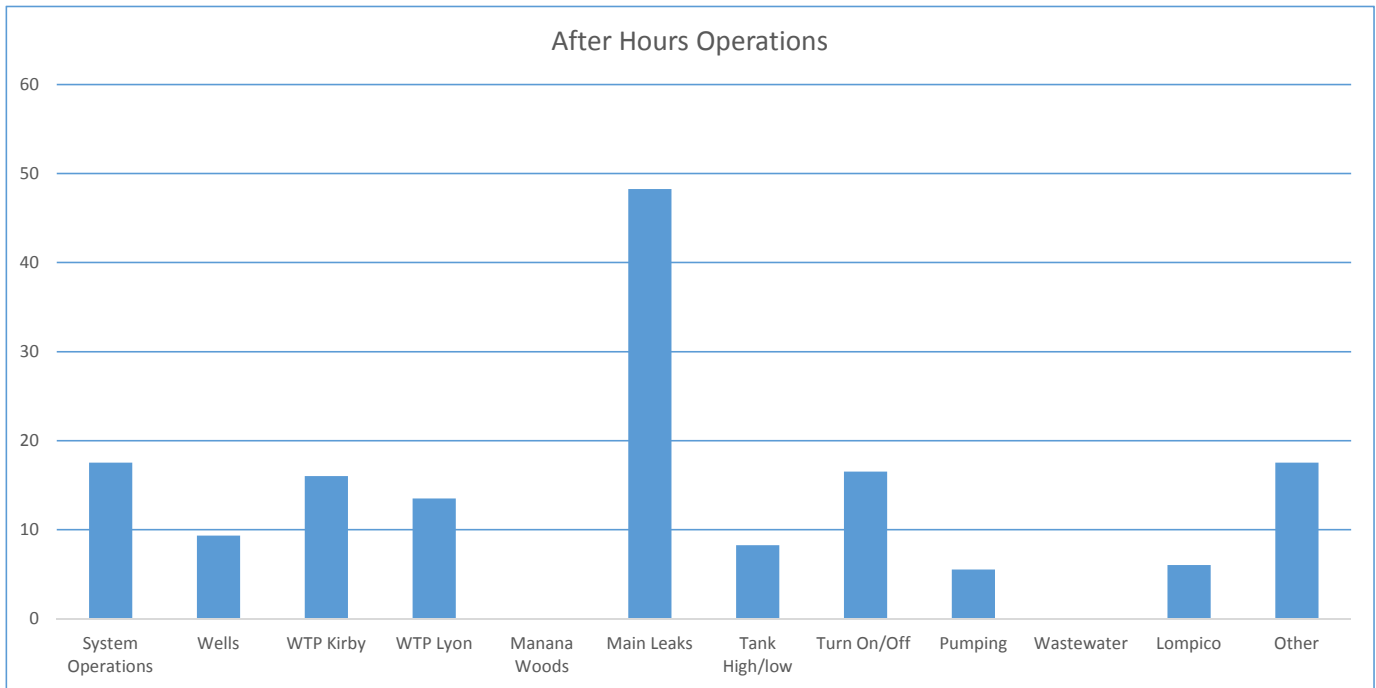
VEHICLE MILEAGE

July 2019



<u>Month</u>	<u>2013</u>	<u>2014</u>	<u>2015</u>	<u>2016</u>	<u>2017</u>	<u>2018</u>	<u>2019</u>
January	12,976	12,317	13,633	13,082	16,286	13,763	15,790
February	11,201	13,015	12,934	13,505	14,945	13,003	16,599
March	13,558	13,817	14,714	15,882	17,451	16,809	17,167
April	14,283	13,883	15,279	13,704	13,270	14,711	17,488
May	16,560	14,228	12,550	13,290	15,757	16,646	17,998
June	12,780	14,000	13,582	16,841	16,534	13,390	14,420
July	15,497	14,519	13,441	14,228	14,229	14,242	16,541
August	13,136	14,096	13,569	14,923	15,761	16,576	
September	12,087	13,622	13,137	15,229	14,388	14,094	
October	15,120	14,261	14,868	14,924	13,880	15,126	
November	13,046	11,594	10,591	13,510	11,952	14,908	
December	12,060	12,394	13,648	14,187	12,158	13,492	
Totals	162,304	161,746	161,946	173,305	176,611	176,760	116,003

SAN LORENZO VALLEY WATER DISTRICT
OPERATIONS DEPARTMENT
 July 2019

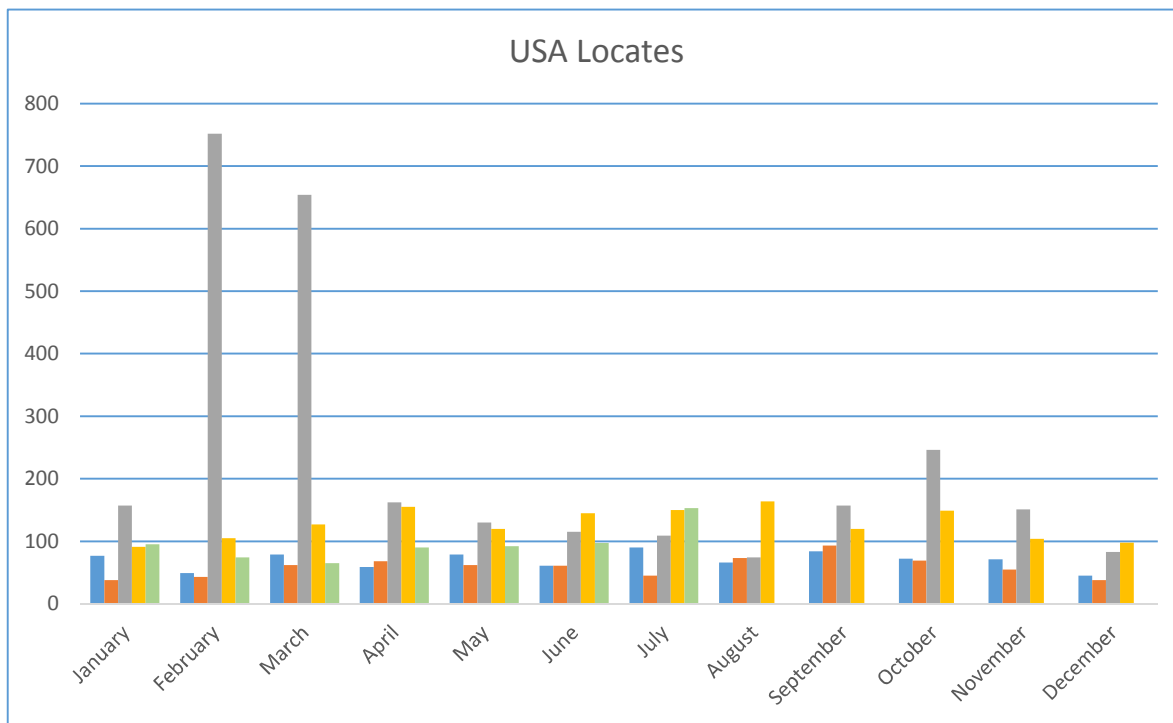


Description	Hours		2015	2016	2017	2018	2019
System Operations	17.5	January	N/A	145.00	280.75	90.50	96.50
Wells	9.3	February	N/A	86.50	192.25	72.00	180.00
WTP Kirby	16	March	N/A	153.75	105.75	80.25	106.25
WTP Lyon	13.5	April	82.50	72.00	128.75	156.75	76.25
Manana Woods	0	May	104.75	49.25	132.75	105.5	82.5
Main Leaks	48.25	June	172.50	83.25	112.75	89.00	136.75
Tank High/low	8.25	July	124.25	80.25	162.00	145.25	158.3
Turn On/Off	16.5	August	111.75	81.25	141.25	134.5	
Pumping	5.5	September	230.25	175.00	201.25	155.25	
Wastewater	0	October	128.25	78.50	104.00	111.5	
Lompico	6	November	114.25	96.25	122.50	197.5	
Other	17.5	December	186.25	130.75	134.00	220.25	
Total	158.3		1254.75	1231.75	1818.00	1558.25	836.55

SAN LORENZO VALLEY WATER DISTRICT

OPERATIONS DEPARTMENT

July 2019



<u>Month</u>	<u>2015</u>	<u>2016</u>	<u>2017</u>	<u>2018</u>	<u>2019</u>
January	77	38	157	91	95
February	49	43	752	105	74
March	79	62	654	127	65
April	59	68	162	155	90
May	79	62	130	120	92
June	61	61	115	145	97
July	90	45	109	150	153
August	66	73	74	164	
September	84	93	157	120	
October	72	69	246	149	
November	71	55	151	104	
December	45	38	83	98	
Total to Date	832	707	2,790	1528	666

