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Memorandum

To: Rein & Rein

From: Linda G. Sloan, PG, CHG

Subject: Mapes/Del Puerto Water District Pilot Water Transfer Program, February 2022 Monthly Monitoring Summary

Date: March 7, 2022

Provost & Pritchard Consulting Group (Provost & Pritchard) has prepared the following February 2022 Monthly Monitoring Summary as part of the Mapes/Del Puerto Water District (DPWD) Pilot Water Transfer Program (Program) Monitoring Plan (Plan) as submitted to and approved by the United States Bureau of Reclamation (USBR) and DPWD.

The Plan was based on the 2020 Delta-Mendota Canal Non-Project Water Pump-in Program Monitoring Plan (DMC Plan). Provost & Pritchard has been approved by both Mapes Ranch and DPWD and has been retained by Rein & Rein on behalf of Mapes Ranch as a third-party professional monitoring and consulting firm.

BACKGROUND

The primary goal of the Program is to provide a reliable supplemental water supply to DPWD on a short-term basis and to develop additional information regarding the characteristics and operations of the aquifer supporting the Mapes Ranch (Site) and their well field. See **Figure 1** for the General Location Map. There are five wells that can be readily utilized to pump into one central location: #7 – Dutchman, #8 – Bull Field, #9 – Paradise, #10 – Center Field, and #11 – Woods. From there, the pumped groundwater arrives at the point of delivery (POD) through either or both of two pipes which are equipped with flow meters and sampling ports. The five wells listed above and two additional wells (#4 – Old Fisherman's Club and #12 – Field 50) are measured for depth-to-water (DTW). Well locations and the POD are illustrated in **Figure 2**.

FIELD MONITORING

Provost & Pritchard staff provide field monitoring and reporting services to document groundwater quality and level conditions at the Site. Groundwater level conditions are part of the subsidence monitoring which also includes periodic land elevation surveys. Per the approved Plan, water quality samples were collected weekly for the first month and monthly thereafter, with monthly DTW measurements. Each type of monitoring is detailed below.

Water Quality Sampling and Analysis

Water quality samples were collected on February 15, 2022, from both up- and downstream of the POD to the Tuolumne River, and from POD pipes in use at the time. While each of the tested constituents is required as part of the DMC Plan, constituents of mention include selenium, total dissolved solids (TDS), boron, and sodium. The sampling analysis is being performed by APPL Labs of Clovis, CA [NELAP Cert. No. CA00046 (HW) and State Cert. No. CA1312 (WW & DW)] using EPA analytical methods.

Table 1 – Water Quality Data Summary and the associated backup documentation are included in **Appendix A**. Laboratory reported "Non-detected" (ND) are reported herein as less than the practical quantitation limit (<PQL).

Conclusion

For the month of February, water quality results are well within the required Water Quality Standards for all monitored constituents. As general water quality indicators, laboratory-reported concentrations of EC and TDS are well below the Plan Limits indicating a reasonably low level of practical salinity.

Depth to Groundwater

DTW is measured after a 24-hour recovery period following well shutoff and recorded monthly in the five project wells: #7, 8, 9, 10, and 11; and two non-project wells: #4 and 12. Table 2 – Depth to Water Summary and the associated backup documentation are included in **Appendix B**. DTW has typically been monitored semi-annually in the spring and fall since 2017 and is being monitored monthly for the duration of this Program.

Hydrographs were prepared from the DTW measurements and are also included in **Appendix B**. Historically, groundwater levels initially declined up to three feet from August to September 2015 but subsequently increased up to seven feet above the August 2015 baseline measurements. Measurements through May 2016 illustrate a generally increasing water level. Groundwater levels were not measured again until July 2017 when they generally showed a marked increase of approximately 5.5 feet. Hydrographs since 2017 illustrate the effects of the wet water years in 2017 and 2019, and the moderate decrease in water levels since Fall 2019.

To gauge the effects of the current Program, pre-project pumping baseline measurements were recorded on September 29, 2021 and were generally the lowest DTW values since the 2015/2016 dry water years. This month's DTW measurements were collected on February 15, 2022.

Maximum DTW changes in the Program wells since the baseline measurements range from less than one foot to approximately six feet, with wells #8, #9, #10, and #11 tracking similarly. Well #7 behaves slightly different due to construction differences. Wells #4 and #12 are less affected by the pumping program, if at all.

Conclusion

On-site water levels have declined up to a maximum of approximately six feet since the inception of the Program. Consistent with the Overdraft and Subsidence Operations Quarterly Analysis in December 2021, the water level values were compared to established minimum thresholds (MTs) and measurable objectives (MOs) calculation methodologies leading to the following observations:

- 'MTs' for the Program pumping wells range from 18.38 to 23.41 feet MSL with DTW values of 20.95 to 16.2 feet, respectively; and
- The measured Program water levels in February ranged from 1.70 to 5.05 feet above the established site 'MTs'.

Therefore, since the current water levels are higher than historic 2015 low water levels ('MTs'), the Program pumping is not causing an undesirable effect, and is not likely to cause subsidence. A ground surface elevation survey is scheduled for March to confirm.

Note that any discussion regarding these 'MTs' is strictly as a management tool and is not intended to be an authoritative conclusion within the Sustainable Groundwater Management Act (SGMA) program.

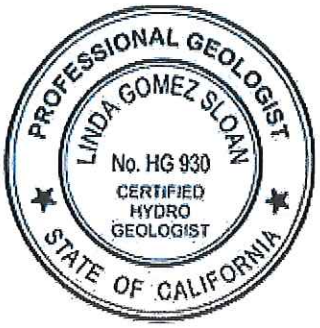
LIMITATIONS

This report has been prepared for the sole use of the client, who has authorized its release to USBR and DPWD. Any other person or entity without the express written consent of Provost & Pritchard Consulting Group may not rely upon this report. Provost & Pritchard's professional services were performed consistent with generally accepted hydrogeologic principles and practices in California at the time the services were performed.

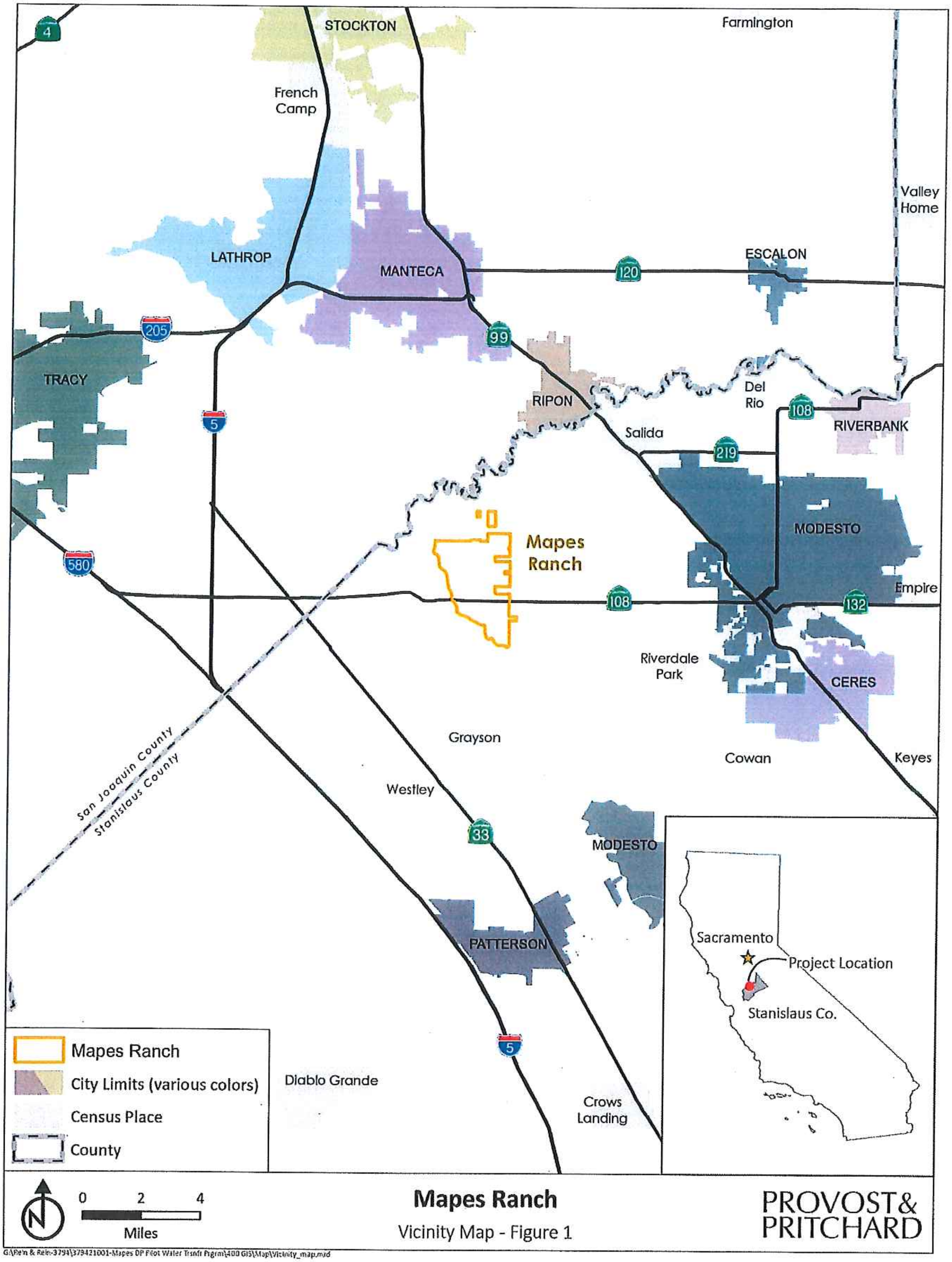
The evaluation of groundwater conditions submitted in this report is based upon data collected from the Project site area. Judgments leading to conclusions and recommendations are made without a complete knowledge of subsurface geologic and hydrogeologic conditions. Subsurface variations cannot be known, or entirely accounted for, despite exhaustive testing. This Report should not be regarded as a guarantee that only the conditions encountered and discussed are present on or beneath the Site. Changes in existing conditions at the Site due to time lapse, natural processes, climatic conditions, or operations on adjoining properties, may deem the conclusions inappropriate. No guarantee or warranty, expressed or implied, is made.

Linda G. Sloan

Linda G. Sloan, PG8299/CHG930



Figures



Mapes Ranch

Vicinity Map - Figure 1

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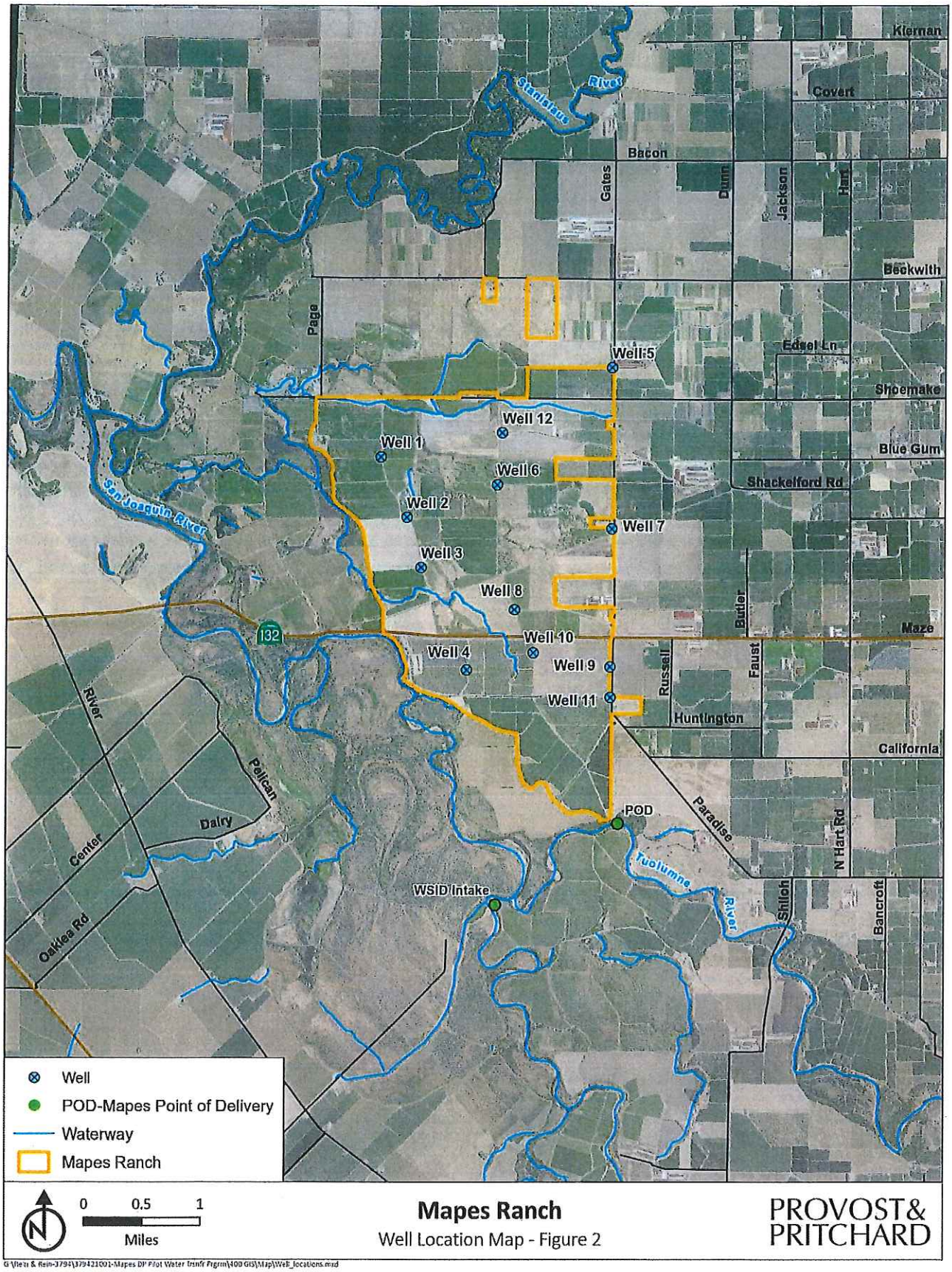

Mapes Ranch

Well Location Map - Figure 2

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APPENDIX A

Table 1 – Groundwater Data Summary February 2022

February 2022 Laboratory Analytical Reports and Chain-of-Custody Documentation

February 2022 Point of Delivery Sampling Records

Table 1 - Water Quality Data Summary

Sampling Point	Sample Date	Lab ID #	Field Parameters			Laboratory Analytical Results							
			pH	EC (µmhos/cm)	Temp (F)	Boron (mg/L)	Sodium (mg/L)	Arsenic (ug/L)	Selenium (ug/L)	Nitrate -N (mg/L)	Sulfate (mg/L)	EC (µmhos/cm)	TDS (mg/L)
Plan Limits 2015/2016				2200		0.7	69	50	2	10	250	2200	1500
Plan Limits 2021				2200		2	100	10	2	10	500	2200	1500
POD 1	2021-0428	96006*	7.94	824	67.6	0.14	79.3	11	<1.0	3.3	13.2	602	360
	2021-1005	97757	8.28	247	68.8	0.041	23.1	3.1	<1.0	1.0	4.7	239	128
	2021-1012	97811	7.89	267	59.7	0.044	26.0	3.4	<1.0	1.0	4.7	263	155
	2021-1019	97884	7.59	232	61.3	0.041	22.8	3.4	<1.0	0.97	4.7	224	156
	2021-1026	97974	7.54	231	61.9	0.049	27.3	3.4	<1.0	1.1	5.3	277	167
	2021-1115	98248	8.04	636	61.6	0.091	71.6	4.7	<1.0	2.3	27.6	619	367
	2021-1216	98484	7.42	151	50.1	0.027	7.6	1.5	<1.0	1.2	4.9	147	69.0
	2022-0126	98652	8.39	301	54.9	0.051	30.7	3.2	<1.0	1.9	9.6	284	158
	2022-0215	98688	8.36	201	58.0	0.029	15.7	1.2	<1.0	1.7	8.8	220	128
POD 2	2021-0428	Not flowing											
	2021-1005	Not flowing											
	2021-1012	97811	7.80	125.8	58.7	<0.025	11.3	2.3	<1.0	0.41	2.7	151	94.0
	2021-1019	97884	7.65	106.9	60.1	<0.025	8.2	1.9	<1.0	0.33	2.7	109	100
	2021-1026	97974	7.64	163.1	61.4	0.029	13.4	2.7	<1.0	0.53	3.1	169	97.0
	2021-1115	Not flowing											
	2021-1216	Not flowing											
	2022-0126	Not flowing											
	2022-0215	Not flowing											
Upstream	2021-0428	96006*				0.28	39.2	0.98	<1.0	1.4	7.1	197	127
	2021-1005	97757				0.028	13.9	1.5	<1.0	1.1	7.5	185	103
	2021-1012	97811				<0.025	13.0	1.1	<1.0	1.2	6.8	183	108
	2021-1019	97884				<0.025	10.9	0.84	<1.0	1.1	6.3	160	87.0
	2021-1026	97974	7.44	60.0	59.1	<0.025	3.3	0.86	<1.0	0.46	2.9	69.1	51.0
	2021-1115	98248	7.96	159.5	57.3	<0.025	9.3	<0.5	<1.0	1.1	6.3	144	101
	2021-1216	98484	7.46	107.3	48.7	<0.025	6.5	0.58	<1.0	0.90	4.5	104	49.0
	2022-0126	98652	8.22	177.1	50.9	<0.025	12.8	<0.5	<1.0	1.7	8.1	173	100
	2022-0215	98688	8.19	180.4	54.4	0.025	12.6	1.1	<1.0	1.6	8.2	189	111
Downstream	2021-0428	96006*				0.033	18.0	1.6	<1.0	1.5	7.8	227	142
	2021-1005	97757				0.031	15.5	1.6	<1.0	1.1	7.4	201	106
	2021-1012	97811				0.032	18.6	1.3	<1.0	1.2	6.7	228	138
	2021-1019	97884				0.025	12.2	0.98	<1.0	0.93	6.1	168	132
	2021-1026	97974	7.24	83.6	59.1	<0.025	4.7	1.0	<1.0	0.45	3.0	86.8	NA
	2021-1115	98248	8.16	225	57.8	0.033	17	1.0	<1.0	1.3	8.4	194	118
	2021-1216	98484	7.51	110.7	48.3	<0.025	6.6	0.68	<1.0	0.91	4.4	108	67.0
	2021-0126	98652	8.26	204	51.7	0.030	16.4	2.2	<1.0	1.7	8.5	201	108
	2022-0215	98688	8.00	176.4	54.8	0.025	13.7	1.0	<1.0	1.6	8.2	188	110

Notes:

* Baseline

NA - Not analyzed

ND reported as <PQL, quantified as 1/2 PQL in averages

Linda G. Sloan

Linda G. Sloan, PG/CHG

908 North Temperance Ave. ∇ Clovis, CA 93611 ∇ Phone 559-275-2175 ∇ Fax 559-275-4422

NELAP Certification Number: CA00046 (HW)
State Certification Number: CA1312 (WW & DW)

February 23, 2022

Provost & Pritchard
4701 Sisk Road, Suite 102
Modesto, California 95356

Attn: Linda Sloan

Subject: Report of Data: Case 98688

Results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Dear Ms. Sloan:

Three water samples for project "3794-21-001 Mape's DP Pilot Water Trsfer" were received on February 15, 2022, in good condition. Written results are being provided on this February 23, 2022, for the requested analyses. All holding times were met.

For the EPA 200.7 and 200.8 analyses, the samples were digested according to EPA method 200.7/11.2. The dissolved metals were filtered and acidified in the laboratory

For the EPA 300.0, 2510B and SM 2540C analyses, the samples were prepared according to the methods.

No unusual problems or complications were encountered with this sample set.

If you have any questions or require further information, please contact us at your convenience. Thank you for choosing APPL, Inc.

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. These test results meet all requirements of NELAC. Release of the hard copy has been authorized by the Laboratory Manager or his designee, as verified by the following signature.

Loren Portwood, Laboratory Director
APPL, Inc.

LP/cm
Enclosure
cc: File

Metals Results

ARF: 98688

APPL Inc.
908 North Temperance Avenu
Clovis, CA 93611

Provost & Pritchard
4701 Sisk Rd, Suite 102
Modesto, CA 95356

Attn: Linda Sloan

Method	Analyte	Result	PQL	Units	Prep Date	Analysis Date
APPL ID: BA4867	-Client Sample ID: UPSTREAM		-Sample Collection Date: 2/15/20		Project: 3794-21-001 Mape's DP	
200.7	BORON (B) (DISSOLVED)	0.025	0.025	mg/L	2/16/2022	2/23/2022
200.7	SODIUM (NA) (DISSOLVED	12.6	0.5	mg/L	2/16/2022	2/23/2022
APPL ID: BA4868	-Client Sample ID: DOWNSTREAM		-Sample Collection Date: 2/15/20		Project: 3794-21-001 Mape's DP	
200.7	BORON (B) (DISSOLVED)	0.025	0.025	mg/L	2/16/2022	2/23/2022
200.7	SODIUM (NA) (DISSOLVED	13.7	0.5	mg/L	2/16/2022	2/23/2022
APPL ID: BA4868	-Client Sample ID: POD 1		-Sample Collection Date: 2/15/20		Project: 3794-21-001 Mape's DP	
200.7	BORON (B) (DISSOLVED)	0.029	0.025	mg/L	2/16/2022	2/23/2022
200.7	SODIUM (NA) (DISSOLVED	15.7	0.5	mg/L	2/16/2022	2/23/2022

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Metals Analysis

Provost & Pritchard
4701 Sisk Rd, Suite 102
Modesto, CA 95356

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Attn: Linda Sloan

Project: 3794-21-001 Mape's DP Pilot Water Trsfer

ARF: 98688

Sample ID: UPSTREAM

APPL ID: BA48679

Sample Collection Date: 2/15/2022

Method	Analyte	Result	PQL	Units	Prep Date	Analysis Date
200.8	ARSENIC (AS) (DISSOLVED)	1.1	0.5	ug/L	2/16/2022	2/16/2022
200.8	SELENIUM (SE) (DISSOLVED)	Not detected	1.0	ug/L	2/16/2022	2/16/2022

Form 1 - APPL Standard
Metals - No MC
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Metals Analysis

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Modesto, CA 95356

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Attn: Linda Sloan

Project: 3794-21-001 Mape's DP Pilot Water Trsfer

ARF: 98688

Sample ID: DOWNSTREAM

APPL ID: BA48680

Sample Collection Date: 2/15/2022

Method	Analyte	Result	PQL	Units	Prep Date	Analysis Date
200.8	ARSENIC (AS) (DISSOLVED)	1.0	0.5	ug/L	2/16/2022	2/16/2022
200.8	SELENIUM (SE) (DISSOLVED)	Not detected	1.0	ug/L	2/16/2022	2/16/2022

Form 1 - APPL Standard
Metals - No MC
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Metals Analysis

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Clovis, CA 93611

Attn: Linda Sloan

Project: 3794-21-001 Mape's DP Pilot Water Trsfer

ARF: 98688

Sample ID: POD 1

APPL ID: BA48681

Sample Collection Date: 2/15/2022

Method	Analyte	Result	PQL	Units	Prep Date	Analysis Date
200.8	ARSENIC (AS) (DISSOLVED)	1.2	0.5	ug/L	2/16/2022	2/16/2022
200.8	SELENIUM (SE) (DISSOLVED)	Not detected	1.0	ug/L	2/16/2022	2/16/2022

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Metals - No MC
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Wetlab Results

ARF: 98688

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Clovis, CA 93611

Provost & Pritchard
4701 Sisk Rd, Suite 102
Modesto, CA 95356

Attn: Linda Sloan

Method	Analyte	Result	PQL	Units	Prep Date	Analysis Date
APPL ID: BA48679 -Client Sample ID: UPSTREAM			-Sample Collection Date: 2/15/2022		Project: 3794-21-001 Mape's DP	
EPA 300.0	NITRATE-N	1.6	0.2	mg/L	2/15/2022	2/15/2022
EPA 300.0	SULFATE	8.2	1.0	mg/L	2/15/2022	2/15/2022
APPL ID: BA48680 -Client Sample ID: DOWNSTREAM			-Sample Collection Date: 2/15/2022		Project: 3794-21-001 Mape's DP	
EPA 300.0	NITRATE-N	1.6	0.2	mg/L	2/15/2022	2/15/2022
EPA 300.0	SULFATE	8.2	1.0	mg/L	2/15/2022	2/15/2022
APPL ID: BA48681 -Client Sample ID: POD 1			-Sample Collection Date: 2/15/2022		Project: 3794-21-001 Mape's DP	
EPA 300.0	NITRATE-N	1.7	0.2	mg/L	2/15/2022	2/15/2022
EPA 300.0	SULFATE	8.8	1.0	mg/L	2/15/2022	2/15/2022

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Wetlab Results

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Provost & Pritchard
4701 Sisk Rd, Suite 102
Modesto, CA 95356

Attn: Linda Sloan

Method	Analyte	Result	PQL	Units	Prep Date	Analysis Date
APPL ID: BA48679 -Client Sample ID: UPSTREAM			-Sample Collection Date: 2/15/2022		Project: 3794-21-001 Mape's DP	
SM 2510B	SPECIFIC CONDUCTANC	189	3.0	µmhos/cm @ 25C	2/18/2022	2/18/2022
SM2540C	TOTAL DISSOLVED SOLI	111	10	mg/L	2/16/2022	2/16/2022
APPL ID: BA48680 -Client Sample ID: DOWNSTREAM			-Sample Collection Date: 2/15/2022		Project: 3794-21-001 Mape's DP	
SM 2510B	SPECIFIC CONDUCTANC	188	3.0	µmhos/cm @ 25C	2/18/2022	2/18/2022
SM2540C	TOTAL DISSOLVED SOLI	110	10	mg/L	2/16/2022	2/16/2022
APPL ID: BA48681 -Client Sample ID: POD 1			-Sample Collection Date: 2/15/2022		Project: 3794-21-001 Mape's DP	
SM 2510B	SPECIFIC CONDUCTANC	220	3.0	µmhos/cm @ 25C	2/18/2022	2/18/2022
SM2540C	TOTAL DISSOLVED SOLI	128	10	mg/L	2/16/2022	2/16/2022

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Method	Analyte	Result	PQL	Units	Prep Date	Analysis Date	QC Group
200.7/11.1	BORON (B) (DISSOLVED)	Not detectec	0.025	mg/L	2/16/2022	2/23/2022	#2007I-220216A-BA48681
200.7/11.1	SODIUM (NA) (DISSOLVED)	Not detectec	0.5	mg/L	2/16/2022	2/23/2022	#2007I-220216A-BA48681

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Laboratory Control Spike Recovery

METALS

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Method	Compound Name	Spike Level mg/L	SPK Result mg/L	SPK % Recovery	Recovery Limits	Extract Date	Analysis Date	QC Group
EPA 200.7	BORON (B) (DISSOLVED)	0.250	0.23	92.0	80-120	2/16/2022	2/23/2022	#2007I-220216A-BA48681
EPA 200.7	SODIUM (NA) (DISSOLVED)	25.0	25.0	100	80-120	2/16/2022	2/23/2022	#2007I-220216A-BA48681

Comments _____

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Clovis, CA 93611

Method	Analyte	Result	PQL	Units	Prep Date	Analysis Date	QC Group
200.8	ARSENIC (AS) (DISSOLVED	Not detected	0.5	ug/L	2/16/2022	2/16/2022	#2008L-220216A-BA48679
200.8	SELENIUM (SE) (DISSOLVE	Not detected	1.0	ug/L	2/16/2022	2/16/2022	#2008L-220216A-BA48679

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Laboratory Control Spike Recovery
METALS

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Method	Compound Name	Spike Level ug/L	SPK Result ug/L	SPK % Recovery	Recovery Limits	Extract Date	Analysis Date	QC Group
200.8	ARSENIC (AS) (DISSOLVED)	100	95.3	95.3	80-120	2/16/2022	2/16/2022	#2008L-220216A-BA48679
200.8	SELENIUM (SE) (DISSOLVED)	100	90.2	90.2	80-120	2/16/2022	2/16/2022	#2008L-220216A-BA48679

Comments: _____

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Clovis, CA 93611

Method	Analyte	Result	PQL	Units	Prep Date	Anal Date	QC Group
EPA 300.0	NITRATE-N	Not detected	0.2	mg/L	2/15/2022	2/15/2022	#300W-220215A-BA48679
EPA 300.0	SULFATE	Not detected	1.0	mg/L	2/15/2022	2/15/2022	#300W-220215A-BA48679

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Laboratory Control Spike Recoveries

WETLAB

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Method	Compound Name	Spike Lvl mg/L	SPK Res mg/L	DUP Res mg/L	SPK % Recov	DUP % Recov	RPD	RPD Max	QC Limits	Extract Date-Spk	Analysis Date-Spk	Extract Date-Dup	Analysis Date-Dup	QC Group
EPA 300.0	NITRATE-N	5.00	4.73	4.73	94.6	94.6	0.0	20	90-110	02/15/22	02/15/22	02/15/22	02/15/22	#300W-220215A-BA48679
EPA 300.0	SULFATE	25.0	24.2	24.3	96.8	97.2	0.41	20	90-110	02/15/22	02/15/22	02/15/22	02/15/22	#300W-220215A-BA48679

Comments:

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Method	Analyte	Result	PQL	Units	Prep Date	Anal Date	QC Group
SM 2510B	SPECIFIC CONDUCTANCE	Not detected	3.0	umhos/cm @ 25C	2/18/2022	2/18/2022	#EC-220218B-BA48677
SM2540C	TOTAL DISSOLVED SOLIDS	Not detected	10	mg/L	2/16/2022	2/16/2022	#TDS2-220216A-BA48679

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Laboratory Control Spike Recoveries
WETLAB DISSOLVED

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Clovis, CA 93611

Method	Compound Name	Spike Lvl mg/L	SPK Res mg/L	DUP Res mg/L	SPK % Recov	DUP % Recov	RPD	RPD Max	QC Limits	Extract Date-Spk	Analysis Date-Spk	Extract Date-Dup	Analysis Date-Dup	QC Group
SM2540C	TOTAL DISSOLVED SOLID	221	183	206	82.8	93.2	11.8	20	80-120	02/16/22	02/16/22	02/16/22	02/16/22	#TDS2-220216A-BA48679

Comments:

Laboratory Control Spike Recoveries

WETLAB

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Method	Compound Name	Spike Lvl	SPK Res	DUP Res	SPK % Recov	DUP % Recov	RPD	RPD Max	QC Limits	Extract Date-Spk	Analysis Date-Spk	Extract Date-Dup	Analysis Date-Dup	QC Group
		ıhos/cm @ 2	ıos/cm @	ıos/cm @ :										
SM 2510B	SPECIFIC CONDUCTANC	1000	1130	1130	113	113	0.0	20	80-120	02/18/22	02/18/22	02/18/22	02/18/22	#EC-220218B-BA48677

Comments: _____

WETLAB

Sample/Sample Duplicate Results

Provost & Pritchard
4701 Sisk Rd, Suite 102
Modesto, CA 95356

Attn: Linda Sloan

Project: 3794-21-001 Mape's DP Pilot Water Trsfer

Sample ID: BA48679
Client ID: UPSTREAM

APPL Inc.
908 North Temperance Avenu
Clovis, CA 93611

ARF: 98688

Method	Analyte	Sample ID	Sample Result	Sample Dup Result	RPD	RPD Max	PQL	Units	Sample Extract Date	Sample Analysis Date	Sample Dup Extract Date	Sample Dup Analysis Date
SM2540C	TOTAL DISSOLVED SOLIDS	BA48679	111	113	1.8	20	10	mg/L	2/16/2022	2/16/2022	2/16/2022	2/16/2022

Printed: 2/23/2022 1:14:11 PM

98688

APPL, Inc.
908 N Temperance Ave
Clovis, CA 93611

ELECTRONIC CHAIN OF CUSTODY RECORD

Phone: (559) 275-2175
Fax: (559) 275-4422
C.O.C.

Report to: PLEASE PRINT		Invoice to: PLEASE PRINT	
Company Name: Provost & Pritchard	Phone: 209-809-2300	Company Name: Provost & Pritchard	Phone: 559-449-2700
Address: 4701 Sisk Road, Suite 102 Modesto, CA 95356	Fax: 209-809-2290	Address: 455 W Fir Ave Clovis, CA 93611	Fax: 559-449-2715
Attn: Linda Sloan ; lsloan@ppeng.com		Attn: Linda Sloan ; lsloan@ppeng.com	

Project Name/Number	Sampler (Print)
3794-21-001 DP Pilot Water Transfer	Luke Jackson
Purchase Order Number	**Sampler (Signature)**
Quote 2454-2021	Luke Jackson

Sample Identification	Location	Date Collected	Time Collected	Time Zone	No. of Containers	Matrix: Aq	Sed.	Soil		200.7 *	200.8 **	300.0 ***	EC	TDS							Date Shipped: / Carrier: / Waybill No.: / Comments:
Upstream	Mape's Ranch	2/15/22	4:00 PM		1	✔				X	X	X	X	X							* B, Na
Downstream	Mape's Ranch	2/15/22	4:30 PM		1	✔				X	X	X	X	X							** As, Se
POD 1	Mape's Ranch	2/15/22	4:05 PM		1	✔				X	X	X	X	X							*** NO3-N, SO4
																					— Please filter for dissolved metals prior to preservation and analysis

Shuttle Temperature:	Turnaround Requested: Check one	Sample Disposal:
R3 5.0/3.1°C	☐ Standard 2-3 wk ☑ One week ☐ 24/48 Hrs. ☐ Other	☑ Return to client ☐ Disposal by Lab (30-day retention)

Relinquished by sampler:	Date	Time	Received by:	Relinquished by:	Date	Time	Received by:
Luke Jackson	2/15/22	12:00 PM			2-15	12:10	Bailey Harvest
Relinquished by:	Date	Time	Received by:	Relinquished by:	Date	Time	Received at lab by:

White: Return to client with report Yellow: Laboratory Copy Pink: Sampler

Note: The first sampled date of the ARF will be used as the COC number unless indicated otherwise.

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PROVOST& PRITCHARD
CONSULTING GROUP
An Employee Owned Company

Point of Delivery Sampling Record
Tuolumne River

Client:	Rein & Rein	Date:	2/18/22
Project Name:	Mape's/Del Puerto Pilot Water Transfer Program	County:	Stanislaus
Project Address:	10555 Maze Blvd., Modesto, CA 95358	Job No.:	3794-21-001
Project Manager:	Linda Sloan	Phase(s):	T2
Location:	Chico	Telephone:	(559) 303-1087
Site Contact:	Martin Reyes (209) 522-1762	Weather:	
Sample Containers:		Air Temp (F):	
Preservatives:		Precipitation:	
Instrumentation:		Wind (dir/speed):	
Date Last Calibrated/By:		Sampler Signature:	

Point of Delivery - PD-1

Sample ID:		*Monthly pH* pH	8.3
Sampling Time:	9:00 AM	*Monthly* EC (µmhos/cm)	201 µm/cm
Sampling Point:		*Monthly* Temp (F)	58° F
Notes:		Contributing wells: 7, 8, 9, 10, 11	

Point of Delivery - PD-2

Sample ID:		*Monthly pH* pH	
Sampling Time:		*Monthly* EC (µmhos/cm)	
Sampling Point:		*Monthly* Temp (F)	
Notes:		Contributing wells: 7, 8, 9, 10, 11	

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PROVOST& PRITCHARD
CONSULTING GROUP
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Point of Delivery Sampling Record
Tuolumne River

Client: _____ Date: _____
Project Name: _____ County: _____

Receiving Water Upstream - US

Sample ID: _____
Sampling Time: 9:05 AM
Sampling Point: _____

Monthly pH pH 8.19
Monthly EC (µmhos/cm) 180.4 mm/cm
Monthly Temp (F) 54.4 °F

Notes: _____

Note Presence (P) or Absence (A)

Floating/suspended matter _____ Fungi/slimes/objectionable growths _____
Discoloration _____ Potential nuisance conditions - describe _____
Bottom deposits _____
Aquatic life _____ Other - describe _____
Visible films/sheens/coatings _____

Receiving Water Downstream - DS

Sample ID: _____
Sampling Time: 9:00 AM
Sampling Point: _____

Monthly pH pH 8.00
Monthly EC (µmhos/cm) 176.4 µm/cm
Monthly Temp (F) 54.8

Notes: _____

Note Presence (P) or Absence (A)

Floating/suspended matter _____ Fungi/slimes/objectionable growths _____
Discoloration _____ Potential nuisance conditions - describe _____
Bottom deposits _____
Aquatic life _____ Other - describe _____
Visible films/sheens/coatings _____

Notes:

APPENDIX B

Table 2 – Depth to Groundwater Summary

Monitored Well Hydrographs

February 2022 Depth-to-Water Field Records

Table 2 - Depth to Groundwater Summary

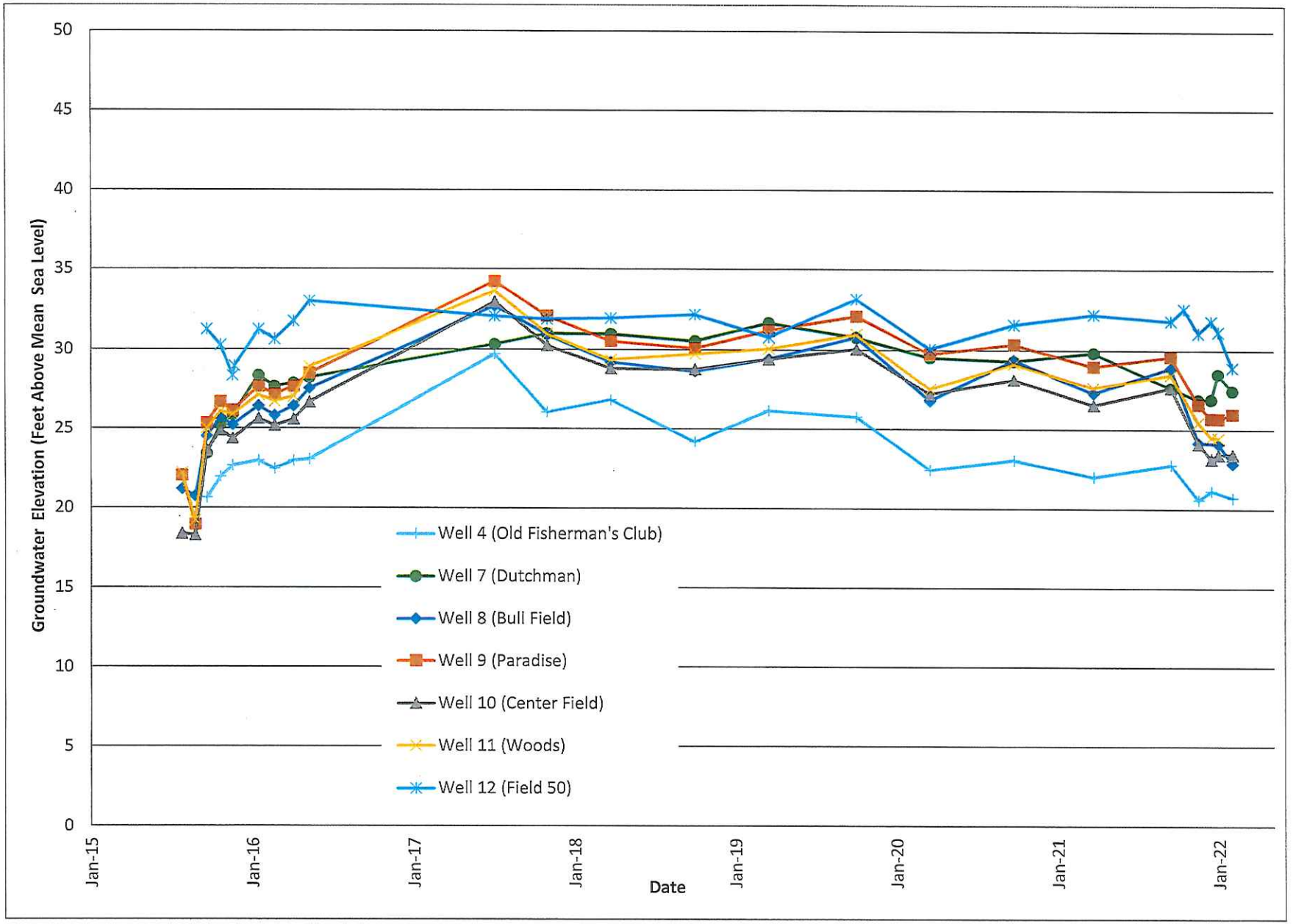
Date	Running Y/N	DTW (ft)	Time	Elevation (ft)	Comments
Well 4 (Old Fisherman's Club)				40.88	Wellhead Surveyed Elevation
10/6/15	N	20.25	8:40 AM	20.63	
11/6/15	N	18.92	9:05 AM	21.96	
12/4/15	N	18.20	8:25 AM	22.68	
2/1/16	N	17.90	9:00 AM	22.98	
3/8/16	N	18.40	8:45 AM	22.48	
4/20/16	N	17.90	8:55 AM	22.98	
5/26/16	N	17.82	10:49 AM	23.06	
7/19/17	N	11.15	9:22 AM	29.73	
11/15/17	N	14.83	2:55 PM	26.05	
4/9/18	N	14.05	10:05 AM	26.83	
10/17/18	N	16.69	11:27 AM	24.19	
4/2/19	N	14.70	12:12 PM	26.18	
10/18/19	N	15.10	8:55 AM	25.78	
4/1/20	N	18.45	11:22 AM	22.43	
10/8/20	N	17.82	1:58 PM	23.06	
4/7/21	N	18.86	10:24 AM	22.02	
9/29/21	N	18.10	9:18 AM	22.78	
10/28/21	N		9:05 AM		Measured 22.33 - wells had not recovered 24 hrs
11/30/21	N	20.29	9:00 AM	20.59	
12/29/21	N	19.71	8:25 AM	21.17	
1/14/22	Y		10:23 AM		Measured 20.02 - well had been running
2/15/22	N	20.14	8:00 AM	20.74	
Well 7 (Dutchman)				43.66	Wellhead Surveyed Elevation
10/6/15	N	20.25	9:15 AM	23.41	New well on Gates
11/6/15	N	18.42	9:45 AM	25.24	
12/4/15	N	17.80	8:50 AM	25.86	
2/1/16	N	15.30	9:43 AM	28.36	
3/8/16	N	16.00	9:20 AM	27.66	
4/20/16	N	15.80	9:27 AM	27.86	
5/26/16	N	15.44	12:10 PM	28.22	
7/19/17	N	13.33	8:51 AM	30.33	
11/15/17	N	12.67	2:32 PM	30.99	
4/9/18	N	12.69	9:35 AM	30.97	
10/17/18	N	13.11	10:48 AM	30.55	
4/2/19	N	12.00	10:35 AM	31.66	
10/18/19	N	12.88	9:39 AM	30.78	
4/1/20	N	14.13	10:43 AM	29.53	
10/8/20	N	14.34	2:21 PM	29.32	
4/7/21	N	13.81	9:57 AM	29.85	
9/29/21	N	16.03	9:51 AM	27.63	
10/28/21	N		9:20 AM		Measured 19.65 - wells had not recovered 24 hrs
11/30/21	N	16.76	9:35 AM	26.90	
12/29/21	N	16.75	8:35 AM	26.91	
1/14/22	N	15.13	10:34 AM	28.53	
2/15/22	N	16.20	8:38 AM	27.46	
Well 8 (Bull Field)				42.53	Wellhead Surveyed Elevation
8/10/15	N	21.35	4:06 PM	21.18	Base bolt hole
9/9/15	N	21.80	8:00 AM	20.73	
10/6/15	N	18.00	8:27 AM	24.53	
11/6/15	N	16.84	9:50 AM	25.69	
12/4/15	N	17.30	8:16 AM	25.23	
2/1/16	N	16.10	8:50 AM	26.43	
3/8/16	N	16.70	8:35 AM	25.83	

4/20/16	N	16.10	8:45 AM	26.43	Flooding field to the west
5/26/16	N	15.00	9:26 AM	27.53	
7/19/17	N	9.82	8:31 AM	32.71	
11/15/17	N	11.58	2:22 PM	30.95	
4/9/18	N	13.31	9:53 AM	29.22	
10/17/18	N	13.88	10:55 AM	28.65	
4/2/19	N	13.10	10:50 AM	29.43	
10/18/19	N	11.74	9:52 AM	30.79	
4/1/20	N	15.72	10:33 AM	26.81	
10/8/20	N	13.14	2:09 PM	29.39	
4/7/21	N	15.23	9:40 AM	27.30	
9/29/21	N	13.62	9:28 AM	28.91	
10/28/21	N		9:30 AM		Measured 20.39 - wells had not recovered 24 hrs
11/30/21	N	18.35	9:15 AM	24.18	
12/29/21	N		8:45 AM		Measured 20.00 - Oil in sounding tube
1/14/22	N	18.40	10:45 AM	24.13	
2/15/22	N	19.65	8:13 AM	22.88	
Well 9 (Paradise)				43.83	Wellhead Surveyed Elevation
8/10/15	N	21.80	3:38 PM	22.03	Base bolt hole
9/9/15	N	24.90	8:30 AM	18.93	
10/6/15	N	18.50	9:10 AM	25.33	
11/6/15	N	17.17	9:35 AM	26.66	
12/4/15	N	17.70	8:42 AM	26.13	
2/1/16	N	16.20	9:35 AM	27.63	
3/8/16	N	16.70	9:10 AM	27.13	
4/20/16	N	16.20	9:18 AM	27.63	Irrigation canals full (east)
5/26/16	N	15.35	11:45 AM	28.48	
7/19/17	N	9.60	9:05 AM	34.23	
11/15/17	N	11.78	3:05 PM	32.05	
4/9/18	N	13.31	10:27 AM	30.52	
10/17/18	N	13.74	11:08 AM	30.09	
4/2/19	N	12.65	11:32 AM	31.18	
10/18/19	N	11.78	9:18 AM	32.05	
4/1/20	N	14.10	10:54 AM	29.73	
10/8/20	N	13.48	1:28 PM	30.35	
4/7/21	N	14.86	10:03 AM	28.97	
9/29/21	N	14.24	8:59 AM	29.59	
10/28/21	N		8:45 AM		Measured 36.45 - wells had not recovered 24 hrs
11/30/21	N	17.24	8:33 AM	26.59	
12/29/21	N	18.12	8:05 AM	25.71	
1/14/22	N	18.13	10:03 AM	25.70	
2/15/22	N	17.85	7:39 AM	25.98	
Well 10 (Center Field)				44.38	Wellhead Surveyed Elevation
8/10/15	N	26.00	3:48 PM	18.38	Bolt on top of pump
9/9/15	N	26.10	8:15 AM	18.28	
10/6/15	N	20.75	8:48 AM	23.63	Encountered Oil, Measured 3x to verify
11/6/15	N	19.50	9:15 AM	24.88	
12/4/15	N	20.00	8:30 AM	24.38	
2/1/16	N	18.75	9:07 AM	25.63	
3/8/16	N	19.20	8:55 AM	25.18	
4/20/16	N	18.80	9:06 AM	25.58	
5/26/16	N	17.72	11:02 AM	26.66	
7/19/17	N	11.44	9:14 AM	32.94	
11/15/17	N	14.13	2:48 PM	30.25	
4/9/18	N	15.57	10:12 AM	28.81	
10/17/18	N	15.61	11:20 AM	28.77	
4/2/19	N	14.96	11:42 AM	29.42	
10/18/19	N	14.32	9:30 AM	30.06	
4/1/20	N	17.15	11:12 AM	27.23	

10/8/20	N	16.23	1:48 PM	28.15	
4/7/21	N	17.83	10:14 AM	26.55	
9/29/21	N	16.75	9:08 AM	27.63	
10/28/21	N		8:55 AM		Measured 28.03 - wells had not recovered 24 hrs
11/30/21	N	20.28	8:43 AM	24.10	
12/29/21	N	21.23	8:15 AM	23.15	
1/14/22	N	20.95	10:12 AM	23.43	
2/15/22	N	20.95	7:47 AM	23.43	
Well 11 (Woods)				45.00	Wellhead Surveyed Elevation
8/10/15	N	22.80	3:20 PM	22.20	Base bolt hole *Pump 4 on for 2 hours
9/9/15	N	25.80	8:45 AM	19.20	
10/6/15	N	20.00	9:02 AM	25.00	
11/6/15	N	18.92	9:25 AM	26.08	
12/4/15	N	19.10	8:37 AM	25.90	
2/1/16	N	17.90	9:14 AM	27.10	
3/8/16	N	18.30	9:05 AM	26.70	
4/20/16	N	18.00	9:13 AM	27.00	Irrigation canals full (north)
5/26/16	N	16.11	11:29 AM	28.89	
7/19/17	N	11.38	9:00 AM	33.62	
11/15/17	N	14.04	2:40 PM	30.96	
4/9/18	N	15.65	10:20 AM	29.35	
10/17/18	N	15.29	11:12 AM	29.71	
4/2/19	N	14.95	11:21 AM	30.05	
10/18/19	N	14.05	9:09 AM	30.95	
4/1/20	N	17.48	11:03 AM	27.52	
10/8/20	N	15.86	1:36 PM	29.14	
4/7/21	N	17.39	10:09 AM	27.61	
9/29/21	N	16.55	8:50 AM	28.45	
10/28/21	N		8:30 AM		Measured 39.95 - wells had not recovered 24 hrs
11/30/21	N	19.55	8:25 AM	25.45	
12/29/21	N	20.48	8:00 AM	24.52	
1/14/22	N	20.53	9:57 AM	24.47	
2/15/22	N	20.22	7:32 AM	24.78	
Well 12 (Field 50)				40.04	Wellhead Surveyed Elevation
10/6/15	N	8.80	8:18 AM	31.24	
11/6/15	N	9.75	8:38 AM	30.29	
12/4/15	N	11.70	8:06 AM	28.34	
12/8/15	N	11.08	8:12 AM	28.96	
2/1/16	N	8.80	8:40 AM	31.24	
3/8/16	N	9.40	8:25 AM	30.64	
4/20/16	N	8.30	8:38 AM	31.74	
5/26/16	N	7.05	8:48 AM	32.99	
7/19/17	N	7.97	8:40 AM	32.07	
11/15/17	N	8.15	2:15 PM	31.89	
4/9/18	N	8.10	9:45 AM	31.94	
10/17/18	N	7.86	10:35 AM	32.18	
4/2/19	N	9.25	10:15 AM	30.79	
10/18/19	N	6.90	10:00 AM	33.14	
4/1/20	N	9.95	10:22 AM	30.09	
10/8/20	N	8.46	2:38 PM	31.58	
4/7/21	N	7.83	9:48 AM	32.21	
9/29/21	N	8.22	9:37 AM	31.82	
10/28/21	N	7.49	9:40 AM	32.55	
11/30/21	N	8.96	9:25 AM	31.08	
12/29/21	N	8.24	8:50 AM	31.80	
1/14/22	N	8.88	10:55 AM	31.16	
2/15/22	N	11.11	8:26 AM	28.93	

Mapes/DPWD Water Transfer Program
Monitored Well Hydrographs

Project No. 3794-21-001



Wells measured after 24-hour recovery from shutoff

Program Wells - #7, 8, 9, 10, and 11
Non-Program Wells - #4, and 12

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An Employee Owned Company

Depth to Water

Client: Rein & Rein
Project Name: Mape's/Del Puerto Pilot Water Transfer Program
Project Address: 10555 Maze Blvd., Modesto, CA 95358
Project Manager: Linda Sloan
Location: Chico
Site Contact: Martin Reyes (209) 522-1762

Date: 2/15/22
County: Stanislaus
Job No.: 3794-21-001
Phase(s): T3
Telephone: (559) 303-1087
Weather:

Well Name	Running Y/N	Depth to Water	Time	Comments
4 - Old Fisherman's Club	N	20.14	8:00AM	Oil in sounding tube not exact measurement
7 - Dutchman	N	16.2	8:38AM	
8 - Bull Field	N	19.65	8:13AM	54-34.35
9 - Paradise	N	17.85	7:39AM	
10 - Center Field	N	20.95	7:47AM	
11 - Woods	N	20.22	7:32AM	
12 - Field 50	N	11.11	8:26AM	