Los Angeles Department of Water & Power
CUSTOMERS FIRST

September 16, 2020

Aaron Steinwand, Ph.D.
Director
Inyo County Water Department
P.O. Box 337
Independence, CA 93526

Dear Dr. Steinwand:

Subject: Well W427 (W061 Replacement) Completion Report

Please find enclosed a copy of the Well W427 completion report for your review. Located in Independence-Oak Wellfield, Well W427 was constructed in June 2020 as a replacement for Well W061. Water pumped from W427 will be used for the same purpose as W061. The initial pumping test of W427 showed a pumping capacity of up to 2,700 gpm. However, the Los Angeles Department of Water and Power will equip this well with a pump that is only capable of supplying water to the adjacent irrigation fields. Well W427, similar to Well W061, should be exempt from the ON/OFF procedures of the Green Book during the irrigation seasons.

If you have any comments or questions, please contact Mr. Saeed M. Jorat, Waterworks Engineer, at (213) 367-1119.

Sincerely,

Adam Perez
Manager of Aqueduct

SMJ:jm
Enclosure
c/enc: Mr. Saeed M. Jorat

Well W427 - Replacement for W061

Independence

Inyo County

EASTERN SIERRA ENVIRONMENTAL GROUP, LADWP

September 2020

Executive Summary

The original well W061 supplied water for pasture irrigation using flood irrigation method and was constructed nearly 100 years ago. The well had out lasted the typical life expectancy of construction materials and methods during that time and was abandoned and converted to a monitoring well in 2019. A replacement well (W427) was installed adjacent to the old well. Construction was in compliance with cultural and biological surveys and county permit restrictions. The completed well produced exceptionally high-quality water and sustained a pumping rate of 2,700 gpm with about 50 feet of drawdown, resulting in a pumping capacity of 54 gpm per foot of drawdown. Well W427 can be pump equipped with up to 5 cfs pumping capacity, which should result in less than 45 feet of drawdown in the pumping well.

Background

Pumping well W061 in Independence was originally constructed in 1924 to a total depth of 237 feet below ground surface (bgs) and slotted with a Mills perforated at an unknown depth interval. The well was used for irrigation purposes, supplying water for a 40 acre alfalfa pasture and 615 acres of native enhancement/mitigation project. The well had been experiencing sanding and reduced pumping capacity, issues characteristic of deteriorating wells. Multiple repairs were made to the pump and well until 2017 when the well was deemed irreparable and pumping ceased. The well was converted to a monitoring well in 2019 and renamed V061.

A replacement for W061 (W427) was installed approximately 50 feet west of the original well (Attachment 1). A pre-construction report was completed by LADWP approved by Inyo County/Los Angeles Technical Group. A notice of exemption was filed by LADWP with the Inyo County Recorder's Office. A well drilling permit was approved by the Inyo County Environmental Health Department and the site for the new well was cleared by consulting biologists, archaeologists, and DigAlert prior to drilling equipment mobilization.

Description of Wells

Drilling the borehole for well W427 began on May 14, 2020 using reverse-mud rotary method and construction of the well completed on June 2, 2020. While the initial plan was to drill the borehole to depth of 700 feet bgs, the drilling encountered difficult formation conditions, decreasing drilling rate to 3 hour per foot. As a result, the borehole was extended only to a depth of 620 feet bgs. The well was screened between 200 and 500 feet bgs with HSLA louvered steel screen. Drill cuttings were logged on May 19, 2020 which showed sand of varying grain sizes with occasional silt. Development and pumping tests were completed on July 1, 2020 and the site was cleared on July 8, 2020.

The lithologic log and associated well construction diagrams are included in Attachment 2.

Table 1 – Well construction summary

	W427
Date completed	6/2/2020
Driller	BEST Drilling and Pump
Method	Reverse Mud Rotary
Initial Static water level (feet bgs)	35'
Total borehole depth (feet bgs)	620'
Final Borehole diameter	28"
Seal	
Material	Cement
Interval (feet bgs)	0'-180'
Solid Casing	
Diameter	18"
Interval (feet bgs)	+2'-200'
Material	HSLA steel
Gravel Filter	8x12
Screen	
Diameter	18"
Material	HSLA steel
Slot size	0.070"
Depth Interval (feet bgs)	200-500'

Development & Testing

After well construction was completed, well W427 was developed and pump tested between June 25 and July 1, 2020. Development consisted of swabbing and bailing and air lifting followed by pumping and surging for a total of 10 hours. A step drawdown pumping test was conducted at 1,100, 1,500, 1,900, 2,300, and 2,700 gpm for 1.5 hours each step and a 24-hour constant rate pumping test was performed at 2,200 gpm. Four monitoring locations (T552, T813, W059, V061) were instrumented during the testing (shown on the Location Map, Attachment 1). Table 2 and Figure 1 summarizes the results of the pumping tests. Analysis results are provided in Attachment 3.

Table 2 – W427 Replacement Well Pumping Test Analysis Summary

Solution Method	Test Type	Aquifer Modeled	Transmissivity T [ft²/day]	Storage Coefficient S
Theis	Step	Confined	36,202	0.00024
Theis	Step	Unconfined	24,739	0.0011
Hantush	Step	Leaky	35,266	2.80E-04
Theis	Constant	Confined	28,829	1.40E-05
Theis	Constant	Unconfined	29,779	1.20E-05
Hantush	Constant	Leaky	27,403	1.90E-05
Average			30,370	2.8E-04

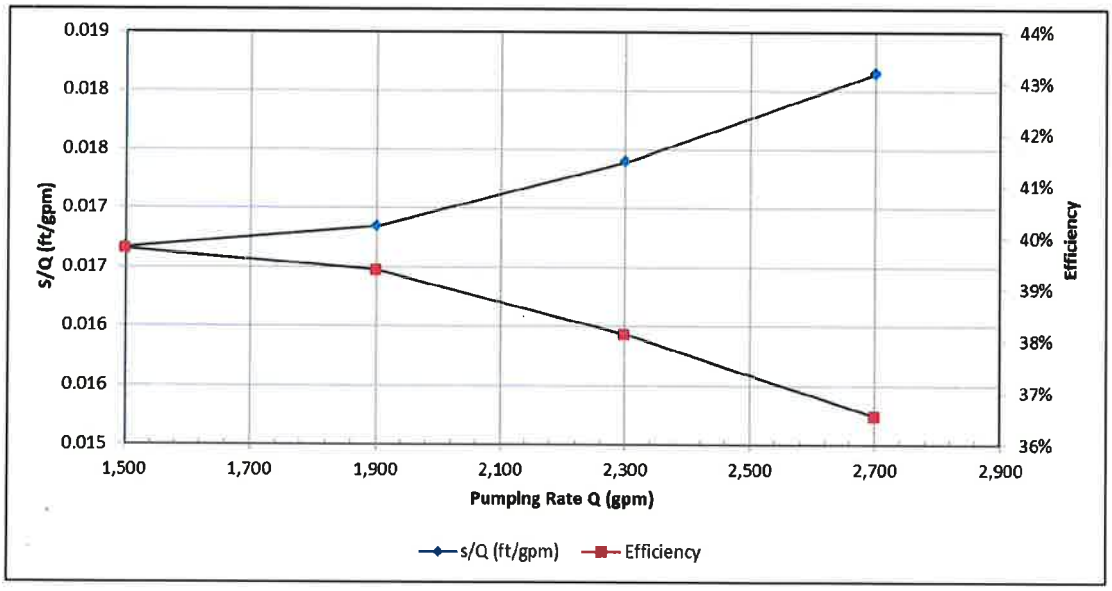


Figure 1 – Specific Drawdown (s/Q) and Efficiency of W427

Water Quality

Water quality samples were collected immediately prior to the conclusion of the constant rate pumping test. The samples were preserved and delivered on ice to the LADWP Pasadena Water Laboratory for analysis. Results of the analysis are provided in Attachment 4. No analytes exceeded or approached the national or California drinking water primary and secondary Maximum Contaminant Level (MCLs) and the water from this well is considered very high quality.

Site Restoration

All equipment movement to and from the work site were on existing dirt roads. Prior to mobilization, biological and cultural surveys, no areas of sensitivity or special concern were identified.

At the conclusion of construction, all trash and debris were removed and the contractor raked the surrounding surface level and restored deep ruts created by the equipment. The sites were subsequently inspected by LADWP. Figure 2 and 3Figure show the restored site with the completed well.

Figure 2 – Completed W427

Figure 3 – Restored construction site

Groundwater Readings

The survey to establish the well location, elevation, and reference point (RP) will be performed after design and installation of the electrical conduits and cement pad.

Since being converted to a monitoring well, W061 was renamed to V061 and utilized as a deep monitoring well to a depth of 183 feet bgs. Monthly measurements of V061 have been recorded. Due to its close proximity and identical historic function, V061 should serve as a suitable surrogate for recent groundwater level trends in W427. Figure 4 shows the V061 hydrograph of available measurements.

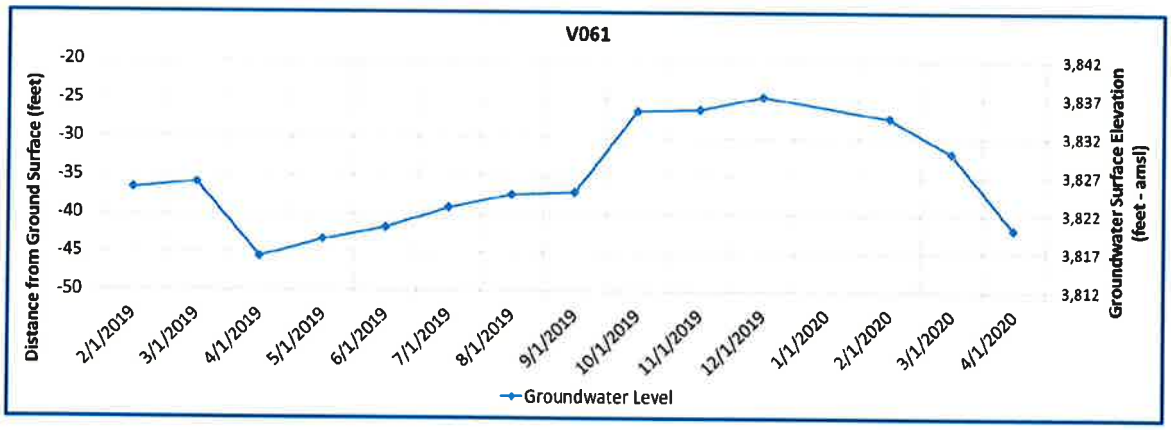


Figure 4 – V061 Groundwater Level Hydrograph

Pump Design Parameters

The required pump horsepower as a function of pumping rate based on the aquifer analysis and assumed zero surface head (for flood irrigation) is presented in Figure 5. Well W061/W427 is exempt from the ON/OFF provisions of the Inyo County/Los Angeles Water Agreement during the irrigation season due to it being a sole source for irrigation water with no impact on groundwater-dependent vegetation. According to the 1991 Environmental Impact Report, the production rate of W061 was 2.3 cfs. As shown by the results of the pumping test, the replacement well is capable of sustainably pumping up to 5 cfs. Water from the replacement well, W427, similar to the original well will be used to supply irrigation fields to the east of site and should be exempt from ON/OFF procedures of the Green Book during irrigation season. Therefore, the pump design and sizing should be based on the irrigation water demand during the irrigation season as shown in Figure 5. For all potential pumping rates, a pump setting of 150 feet bgs is recommended.

Pump Horsepower requirement as a function of pumping rate

cfs	2.00	3.00	3.50	4.00	5.00
gpm	898	1,346	1,571	1,795	2,244
Static Water Level (ft)	35	35	35	35	35
Long-Term Drawdown (ft)	17	26	30	34	43
Pump Column Loss (ft)	5.1	7.6	8.9	10.2	12.7
Long-Term Pump Lift (ft)	57	68	74	80	91
Suction Cover (ft)	20	20	20	20	20
Head on the suface (ft)	0	0	0	0	0
Total Pumping Head (ft)	77	88	94	100	111
Wire-to-Water Efficiency	0.67	0.67	0.67	0.67	0.67
Required Horsepower (hp)	26	45	56	67	94

Transmissivity (T) : 151,885 gpd/ft
Storage Coefficient (S) : 0.00028
Column Diameter (D) : 6 Inch Area (A) = 0.20 ft^2
Friction Coefficient (f) : 0.021
Column Length (L) : 150 ft
Casing Radius (r) : 0.75 ft

$$s = \frac{264\,Q}{T}\log\left(\frac{0.3\,T\,t}{r^2 S}\right)$$

s = Drawdown (ft)
Q = Pumping Rate (gpm)
T = Transmissivity (gpd/ft)
t = Time (day)
r = Distance from Well (ft)
S = Storage Coefficient

$$h_f = f\,\frac{L}{D}\,\frac{V^2}{2g}$$

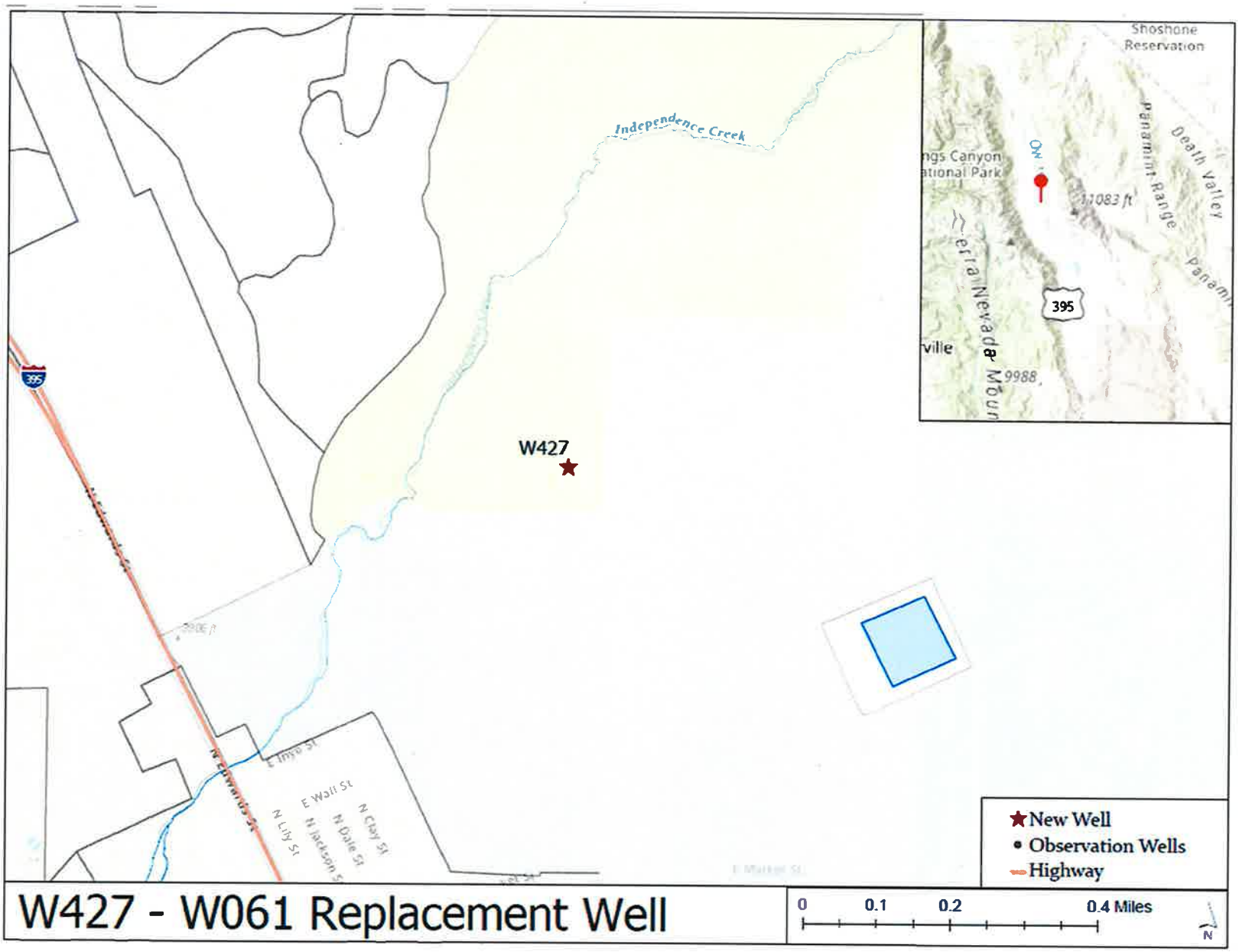
h_f = Pipe Head Loss (ft)
L = Drop Pipe Length (ft)
D =Drop Pipe Diameter (ft)
V = Velocity (ft/sec) = Q/A
g = Gravitational Acceleration $\left({}^{ft}/_{sec^2}\right)$

$$H_p = \frac{Q\,L}{3{,}960\,Eff}$$

Q = Pumping Rate (gpm)
L = Total Lift (ft)
E_{ff} = Wire to Water Efficiency

Figure 5 – W427 General Pump Design Parameters

Attachment 1 – Location Map


Independence Creek
W427
Shoshone Reservation
Death Valley
Panamint Range
Nevada
395
11083 ft
9988
New Well
Observation Wells
Highway
0
0.1
0.2
0.4 Miles
N
W427 - W061 Replacement Well

Attachment 2 –Logs and Well Construction Drawings

State of California

Well Completion Report

Form DWR 188 Submitted 7/15/2020

WCR2020-008981

Owner's Well Number W061R | Date Work Began 05/08/2020 | Date Work Ended 06/26/2020

Local Permit Agency Inyo Environmental Health Services Department

Secondary Permit Agency | Permit Number IC20-006W | Permit Date 01/28/2020

Well Owner (must remain confidential pursuant to Water Code 13752)

Name LADWP,

Mailing Address 111 N Hope Street

City Los Angeles | State CA | Zip 90012

Planned Use and Activity

Activity New Well

Planned Use Water Supply Irrigation - Agriculture

Well Location

Address

City | Zip | County Inyo

Latitude 36 (Deg.) 48 (Min.) 45 (Sec.) N | Longitude -118 (Deg.) 11 (Min.) 37 (Sec.) W

Dec. Lat. 36.8125 | Dec. Long. -118.1936111

Vertical Datum | Horizontal Datum WGS84

Location Accuracy | Location Determination Method

APN 02213023

Township 13 S

Range 35 E

Section 08

Baseline Meridian Mount Diablo

Ground Surface Elevation

Elevation Accuracy

Elevation Determination Method

Borehole Information

Orientation Vertical | Specify

Drilling Method Reverse Circulation | Drilling Fluid Bentonite

Total Depth of Boring 620 Feet

Total Depth of Completed Well 505 Feet

Water Level and Yield of Completed Well

Depth to first water 0 (Feet below surface)

Depth to Static

Water Level 34.79 (Feet) | Date Measured 06/30/2020

Estimated Yield* 2250 (GPM) | Test Type Pump

Test Length 24 (Hours) | Total Drawdown [illegible] (feet)

*May not be representative of a well's long term yield.

Geologic Log - Free Form

Depth from Surface Feet to Feet		Description
0	30	Unconsolidated Gravel
30	50	Clayey Gravel
50	70	Coarse sand, Gravel and Rock
70	90	Gravel Sand and Clay
90	120	Gravel, Sand and Rock
120	140	Coarse Sand
140	160	Coarse Sand and Rock
160	180	Sand and Gravel
180	230	Coarse Sand Gravel and Rock
230	250	Gravel and Rock
250	290	Coarse Sand and Rock
290	320	Fine and Coarse Sand wth Gravel
320	350	Fine and Coarse Sand
350	360	Gravel
360	390	Fine and Coarse Sand

390	410	Fine and Coarse Sand with some Gravel
410	420	Coarse Rock
420	500	Sand, Gravel, and Rocks
500	520	Coarse Sand and Gravel
520	530	Sand, Gravel, and Rocks
530	550	Sand, Gravel, CLay
550	570	Gravel and Rocks
570	580	Fine Sand, Gravel, and Clay
580	600	Sand and Gravel
600	620	Hard Rock, Gravel, some clay

Casings

Casing #	Depth from Surface Feet to Feet		Casing Type	Material	Casings Specificatons	Wall Thickness (inches)	Outside Diameter (inches)	Screen Type	Slot Size if any (inches)	Description
1	0	50	Conductor or Fill Pipe	Low Carbon Steel	Grade: ASTM A53	0.3125	32			
2	0	200	Blank	Corrosion-Resistant High Strength Low-Alloy Steel	Nominal Size: 18 in. | Thickness: 5/16 in. | OD: 18-5/8 in.	0.3125	18.625			
2	200	500	Screen	Corrosion-Resistant High Strength Low-Alloy Steel	Nominal Size: 18 in. | Thickness: 5/16 in. | OD: 18-5/8 in.	0.3125	18.625	Louver	0.07	
2	500	505	Blank	Corrosion-Resistant High Strength Low-Alloy Steel	Nominal Size: 18 in. | Thickness: 5/16 in. | OD: 18-5/8 in.	0.3125	18.625			

Annular Material

Depth from Surface Feet to Feet		Fill	Fill Type Details	Filter Pack Size	Description
0	180	Cement	10.3 Sack Mix		
180	190	Bentonite	Other Bentonite		Holeplug
190	510	Filter Pack	8 x 12		
510	620	Filter Pack	Other Gravel Pack		Pea Gravel

Other Observations:

Borehole Specifications

Depth from Surface Feet to Feet		Borehole Diameter (inches)
0	50	44
50	510	28
510	620	17.5

Certification Statement

I, the undersigned, certify that this report is complete and accurate to the best of my knowledge and belief

Name: BEST DRILLING AND PUMP INC (Person, Firm or Corporation)

1640 W PELLISTER ROAD	COLTON	CA	92324
Address	City	State	Zip

Signed: *electronic signature received* (C-57 Licensed Water Well Contractor) | 07/15/2020 (Date Signed) | 826672 (C-57 License Number)

DWR Use Only

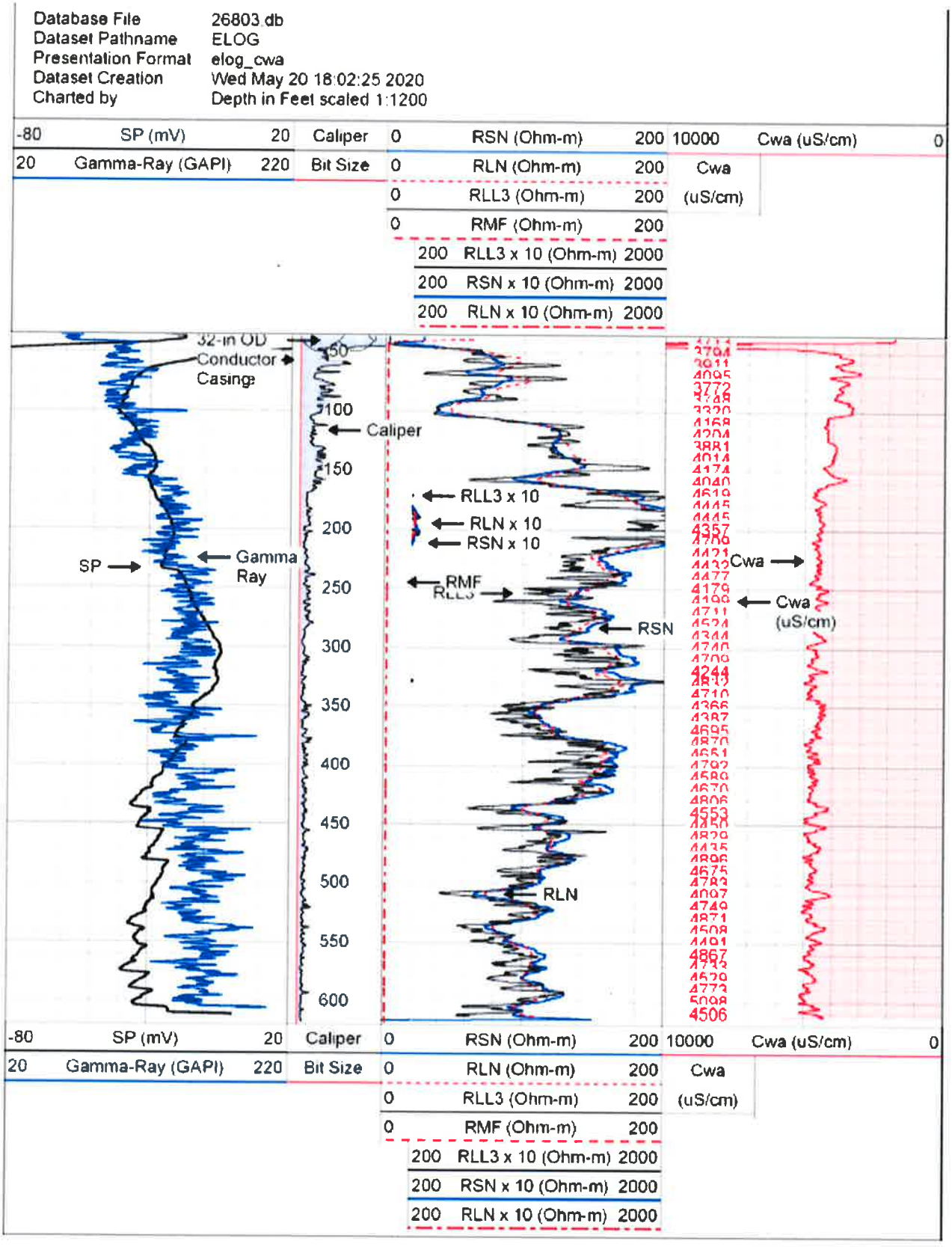
CSG #	State Well Number	Site Code	Local Well Number

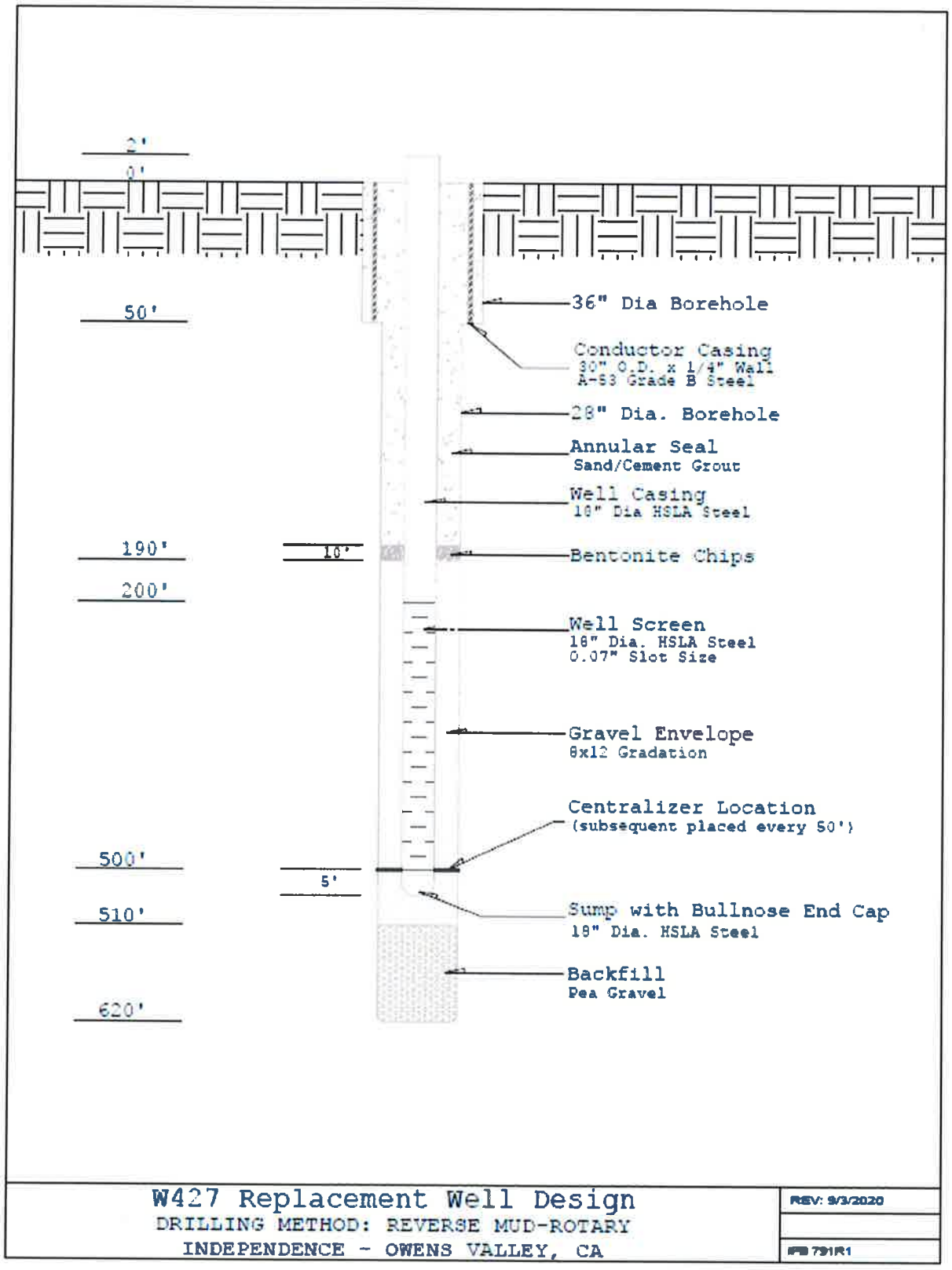
N — Latitude Deg/Min/Sec

W — Longitude Deg/Min/Sec

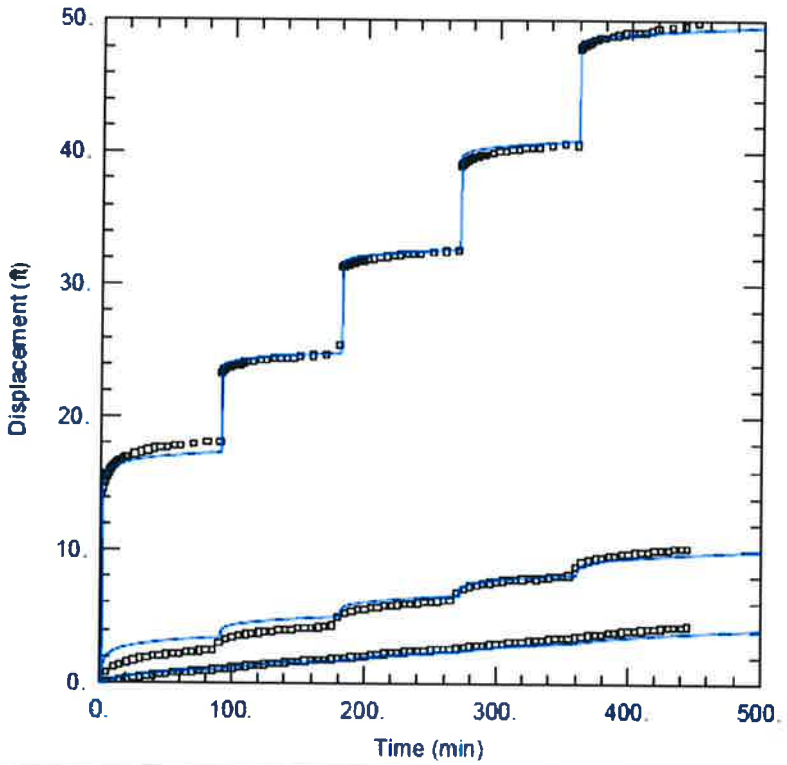
TRS:

APN:


Database File 26803.db
Dataset Pathname ELOG
Presentation Format elog_cwa
Dataset Creation Wed May 20 18:02:25 2020
Charted by Depth in Feet scaled 1:1200
-80 SP (mV) 20
20 Gamma-Ray (GAPI) 220
Caliper
Bit Size
0 RSN (Ohm-m) 200
0 RLN (Ohm-m) 200
0 RLL3 (Ohm-m) 200
0 RMF (Ohm-m) 200
200 RLL3 x 10 (Ohm-m) 2000
200 RSN x 10 (Ohm-m) 2000
200 RLN x 10 (Ohm-m) 2000
10000 Cwa (uS/cm) 0
Cwa (uS/cm)
32-in OD Conductor Casing
SP
Gamma Ray
Caliper
RLL3 x 10
RLN x 10
RSN x 10
RMF
RSN
RLN
Cwa
Cwa (uS/cm)
50
100
150
200
250
300
350
400
450
500
550
600
4506


2'
0'
50'
190'
200'
500'
510'
620'
10'
5'
36" Dia Borehole
Conductor Casing
30" O.D. x 1/4" Wall
A-53 Grade B Steel
28" Dia. Borehole
Annular Seal
Sand/Cement Grout
Well Casing
18" Dia HSLA Steel
Bentonite Chips
Well Screen
18" Dia. HSLA Steel
0.07" Slot Size
Gravel Envelope
8x12 Gradation
Centralizer Location
(subsequent placed every 50')
Sump with Bullnose End Cap
18" Dia. HSLA Steel
Backfill
Pea Gravel
W427 Replacement Well Design
DRILLING METHOD: REVERSE MUD-ROTARY
INDEPENDENCE - OWENS VALLEY, CA
REV: 9/3/2020
PB 791R1

Attachment 3 – Pumping Test Data



WELL TEST ANALYSIS

Data Set: \...\W061 step.aqt
Date: 07/15/20 Time: 09:44:41

PROJECT INFORMATION

Company: LADWP
Test Well: W061R

AQUIFER DATA

Saturated Thickness: 700. ft Anisotropy Ratio (Kz/Kr): 1.

WELL DATA

Pumping Wells

Well Name	X (ft)	Y (ft)
W061R	0	0

Observation Wells

Well Name	X (ft)	Y (ft)
W061R	0	0
W061	52	30
T813	0	1520

SOLUTION

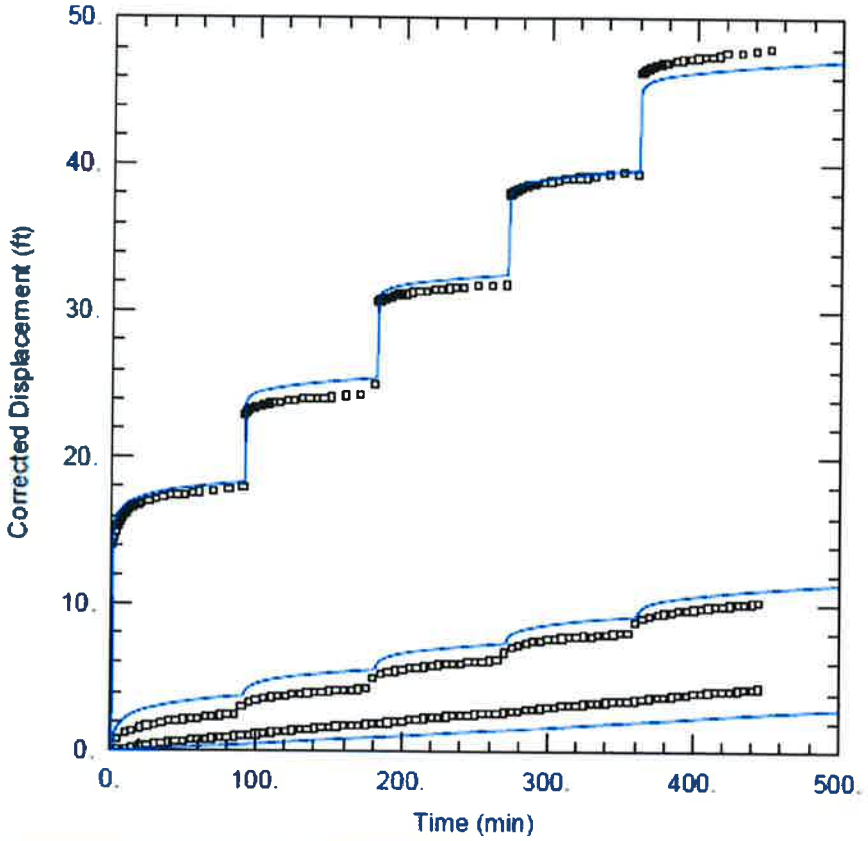
Aquifer Model: Confined
Solution Method: Theis (Step Test)

T = 25.14 ft^2/min
Sw = 0.
P = 1.5

S = 0.0002399
C = 0.002202 min^2/ft^5

Step Test Model: Jacob-Rorabaugh
Time (t) = 1. min Rate (Q) in cu. ft/min

$s(t) = -0.04183Q + 0.002202Q^{1.5}$
W.E. = -1.#IO% (Q from last step)



WELL TEST ANALYSIS

Data Set: \...\W061 step.aqt
Date: 07/15/20 Time: 09:44:01

PROJECT INFORMATION

Company: LADWP
Test Well: W061R

WELL DATA

Pumping Wells

Well Name	X (ft)	Y (ft)
W061R	0	0

Observation Wells

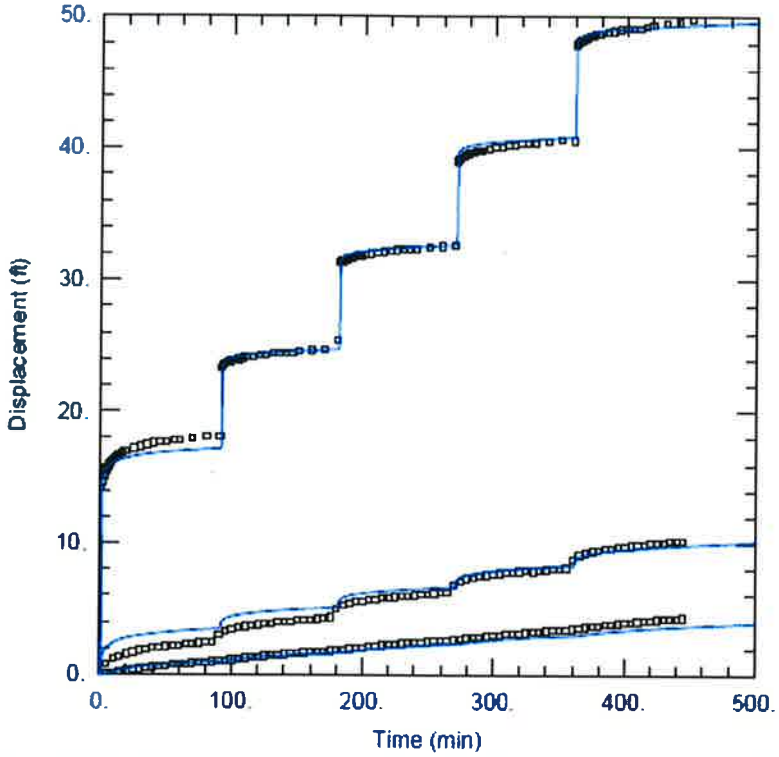
Well Name	X (ft)	Y (ft)
W061R	0	0
W061	52	30
T813	0	1520

SOLUTION

Aquifer Model: Unconfined
Solution Method: Theis

T = 17.18 ft^2/min
Kz/Kr = 1.

S = 0.001131
b = 700. ft



WELL TEST ANALYSIS

Data Set: \...\W061 step.aqt
Date: 07/15/20 Time: 09:43:11

PROJECT INFORMATION

Company: LADWP
Test Well: W061R

AQUIFER DATA

Saturated Thickness: 700. ft
Aquitard Thickness (b'): 200. ft
Anisotropy Ratio (Kz/Kr): 1.
Aquitard Thickness (b"): 20. ft

WELL DATA

Pumping Wells

Well Name	X (ft)	Y (ft)
W061R	0	0

Observation Wells

Well Name	X (ft)	Y (ft)
W061R	0	0
W061	52	30
T813	0	1520

SOLUTION

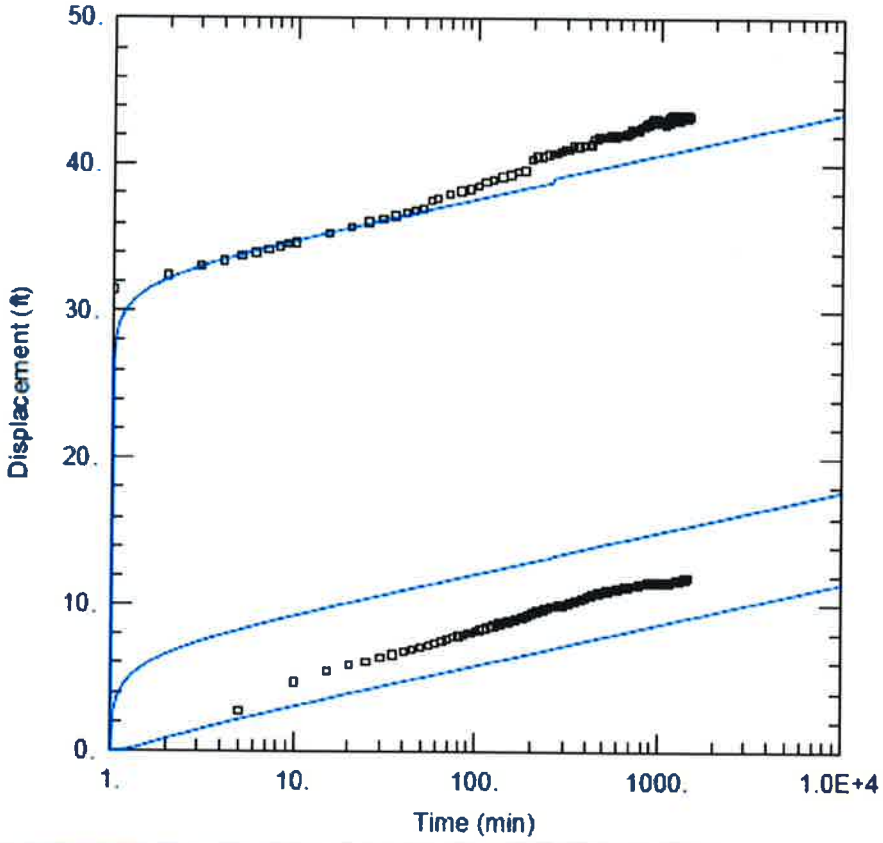
Aquifer Model: Leaky
Solution Method: Hantush-Jacob

T = 24.49 ft^2/min
1/B = 1.0E-5 ft^{-1}
C = 0.002354 min^2/ft^5

S = 0.0002794
Sw = 0.
P = 1.5

Step Test Model: Jacob-Rorabaugh

$s(t) = -0.04472Q + 0.002354Q^{1.5}$



WELL TEST ANALYSIS

Data Set: \...\W061 Constant.aqt
Date: 07/15/20 Time: 09:51:04

PROJECT INFORMATION

Company: LADWP
Test Well: W061R

WELL DATA

Pumping Wells

Well Name	X (ft)	Y (ft)
W061R	0	0

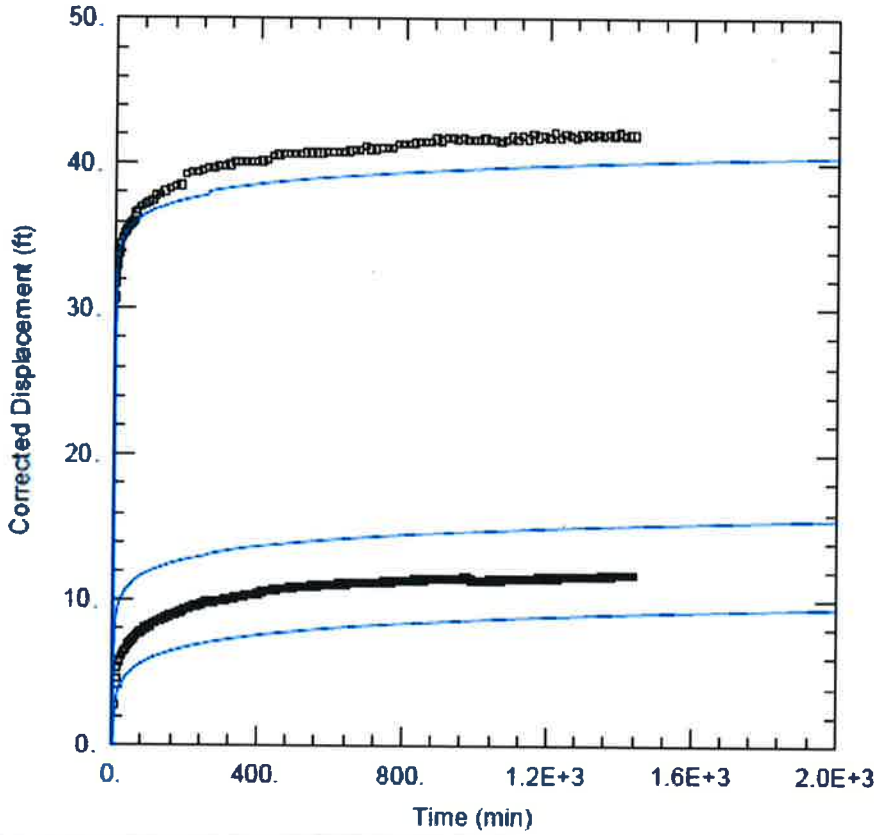
Observation Wells

Well Name	X (ft)	Y (ft)
W061R	0	0
W061	52	30
T813	0	1520

SOLUTION

Aquifer Model: Confined
Solution Method: Theis

T = 20.02 ft^2/min
Kz/Kr = 1.
S = 1.419E-5
b = 700. ft



WELL TEST ANALYSIS

Data Set: \...\W061 Constant.aqt
Date: 07/15/20 Time: 09:46:15

PROJECT INFORMATION

Company: LADWP
Test Well: W061R

WELL DATA

Pumping Wells

Well Name	X (ft)	Y (ft)
W061R	0	0

Observation Wells

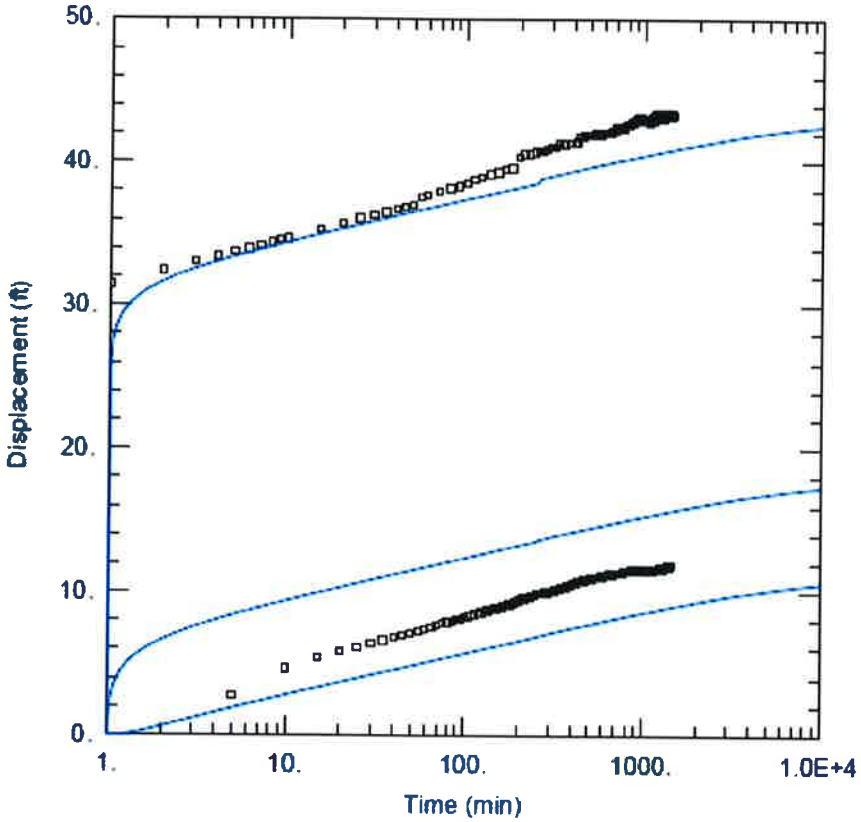
Well Name	X (ft)	Y (ft)
W061R	0	0
W061	52	30
T813	0	1520

SOLUTION

Aquifer Model: Unconfined
Solution Method: Theis

T = 20.68 ft^2/min
Kz/Kr = 1.

S = 1.194E-5
b = 700. ft



WELL TEST ANALYSIS

Data Set: \...\W061 Constant.aqt
Date: 07/15/20 Time: 09:49:56

PROJECT INFORMATION

Company: LADWP
Test Well: W061R

WELL DATA

Pumping Wells

Well Name	X (ft)	Y (ft)
W061R	0	0

Observation Wells

Well Name	X (ft)	Y (ft)
W061R	0	0
W061	52	30
T813	0	1520

SOLUTION

Aquifer Model: Leaky
Solution Method: Hantush-Jacob

T = 19.03 ft^2/min
1/B = 1.0E-5 ft^{-1}
b = 700. ft

S = 1.91E-5
Kz/Kr = 1.

Attachment 4 – Water Quality Data

LOCATION DESCRIPTION	ANALYTE	RESULT	UNIT	RL	STATE MCL
W061 REPLACEMENT WELL	Calcium	15.2	mg/L	1.00	
W061 REPLACEMENT WELL	Magnesium	3.25	mg/L	0.200	
W061 REPLACEMENT WELL	Potassium	1.33	mg/L	1.00	
W061 REPLACEMENT WELL	Sodium	17.5	mg/L	1.00	
W061 REPLACEMENT WELL	Aluminum	10.3	ug/L	10.0	1000
W061 REPLACEMENT WELL	Antimony	ND	ug/L	2.0	6
W061 REPLACEMENT WELL	Arsenic	2.4	ug/L	1.0	10
W061 REPLACEMENT WELL	Barium	11.9	ug/L	10.0	1000
W061 REPLACEMENT WELL	Beryllium	ND	ug/L	1.0	4
W061 REPLACEMENT WELL	Boron	117	ug/L	50.0	
W061 REPLACEMENT WELL	Cadmium	ND	ug/L	0.50	5
W061 REPLACEMENT WELL	Chromium	ND	ug/L	1.0	50
W061 REPLACEMENT WELL	Copper	ND	ug/L	2.0	1000
W061 REPLACEMENT WELL	Lead	ND	ug/L	0.50	15
W061 REPLACEMENT WELL	Manganese	2.2	ug/L	2.0	50
W061 REPLACEMENT WELL	Nickel	ND	ug/L	1.0	100
W061 REPLACEMENT WELL	Selenium	ND	ug/L	2.0	50
W061 REPLACEMENT WELL	Silver	ND	ug/L	1.0	100
W061 REPLACEMENT WELL	Thallium	ND	ug/L	1.0	2

LOCATION DESCRIPTION	ANALYTE	RESULT	UNIT	RL	STATE MCL
W061 REPLACEMENT WELL	Uranium	2.3	ug/L	0.50	
W061 REPLACEMENT WELL	Vanadium	5.4	ug/L	3.0	
W061 REPLACEMENT WELL	Zinc	ND	ug/L	10.0	
W061 REPLACEMENT WELL	Alkalinity,Total(as CaCO3),H2SO4 Titrat	65.5	mg/L	20	
W061 REPLACEMENT WELL	Alkalinity Total,field,H2SO4 Titration	73.0	mg/L		
W061 REPLACEMENT WELL	Odor,field	0.00	Value		
W061 REPLACEMENT WELL	Odor,field (description)	ND			3
W061 REPLACEMENT WELL	Dissolved Oxygen, Field , Meter	6.50	mg/L	N/A	
W061 REPLACEMENT WELL	Dissolved Oxygen, Field, %saturation	81	%	N/A	
W061 REPLACEMENT WELL	General Appearance,field,Value	0.00	UNITS		
W061 REPLACEMENT WELL	General Appearance,field	ND			
W061 REPLACEMENT WELL	Specific Conductance,field,Portable Mtr	171	µS/cm	N/A	
W061 REPLACEMENT WELL	pH,field ,PH METER	7.75		N/A	
W061 REPLACEMENT WELL	Temperature,field ,PH Meter	19.9	°C	N/A	
W061 REPLACEMENT WELL	Turbidity,field ,Turbidimeter	0.44	NTU		5
W061 REPLACEMENT WELL	Chlorine,free,field ,dpd Colorimeter	NOT NEEDED	mg/L	0.02	
W061 REPLACEMENT WELL	Chlorine,total,field ,dpd Colorimeter	NOT NEEDED	mg/L	0.02	
W061 REPLACEMENT WELL	Iron (Fe), ICP-OES	ND	ug/L	20.0	
W061 REPLACEMENT WELL	Total Dissolved Solids (TDS),180 °C	125	mg/L	25	

RL = Reporting Limit

MCL = Maximum Contaminant Level