EXISTING WELL INVESTIGATION

PREPARED FOR:

SAN JOAQUIN DELTA COMMUNITY COLLEGE DISTRICT

SUBJECT:

INVESTIGATION OF EXISTING WELLS AT
DISTRICT-OWNED LIBERTY ROAD PROPERTY

DELIVERED TO:

KATHY ROACH
NORTH COUNTY CENTER PROJECT MANAGER
c/o OFFICE OF THE VICE PRESIDENT, OPERATIONS
5151 PACIFIC AVENUE
STOCKTON, CA
95207-630
(209) 954-5360

REPORT PREPARED BY:

ALAN MOK
PRINCIPAL, PE
ALAN MOK ENGINEERING
7415 N. PALM AVE., SUITE 101
FRESNO, CA
93711
(559) 432-6879

Table of Contents

Introduction

The San Joaquin Delta Community College District ("District") owns three (3) adjacent parcels totaling approximately 142 acres in northern San Joaquin County, which together will be referred to herein as the "Liberty Road Property" or the "Property." The Property is bordered to the north by a smaller, privately-owned parcel (the "Bhuller Property") and the Dry Creek Golf Course, to the east by State Route (SR) 99, to the south by Liberty Road, and to the west by Lower Sacramento Road. The Property is in Section 35, Township 5 north, Range 6 east of the Lodi North US Geological Survey (USGS) 7.5-minute topographic quadrangle.

The District is currently evaluating the feasibility of the Property to serve as the site for an education center—the "North County Center" or "NCC"—to serve the northern portions of the District's boundaries. The District envisions that an agricultural education program would be a significant feature of the NCC, which could include a sizable (perhaps 6000 sq. ft.) barn and animal husbandry facility that could accommodate an animal science program. Nearly 70% of agriculture education students at the Stockton campus are from Stockton, the Lodi/Galt area, or Sacramento County. With enriching agriculture programs, the North County Center could create greater opportunities for agriculture students in the region. Additionally, the NCC would also provide general education transfer pattern courses, such as in the sciences, business, mathematics, and English as well as foundational skills instruction in English and mathematics to prepare a limited number of students for general education course work.

The District has estimated that the new NCC would need a well to provide approximately 750 gallons per minute for the agricultural and irrigation water needs. The site currently has three non-operational wells; based on the site review, those are: a residential well, an irrigation well, and monitoring well, respectively. The viability of the wells was determined through research and field investigation.

Section 1 Site Description and Maps

1.1 SITE DESCRIPTION

San Joaquin Delta Community College has three parcels (totaling 140.85 acres) just south of Galt, surrounded by State Route 99, Liberty Road, Lower Sacramento Road and Dry Creek Channel. The parcels were dry farmed, and at one time a developer was planning to develop the site into residential units. The site consists of undeveloped, rolling terrain that slopes slightly down to the Dry Creek Channel along the northern boundary of the site.

The three existing wells, based on the initial site review, are a residential well, irrigation well and monitoring well. The residential well has 12 in. casing above ground with coupler and 4 in. plug. The irrigation and monitoring well are about 500 feet to the northeast of the residential well. The monitoring well has 12 in. steel casing located in a depression with a welded plate with a cut out square hole in the middle of the plate. The irrigation well has the pump sitting on top of a 30 in. diameter pad with steel casing with no mounting plate. We were not able to see any well casing on the irrigation pump. We assumed that this was the main pump for the site due to remains of concrete pipe near the well. The irrigation pump is just sitting on the pad, and the electrical service has been removed and only electrical conduit remaining. We saw remnants of power poles with likely overhead electrical service coming from Liberty Road. The wells are located in the middle of the site.

1.2 SITE PLAN

See Appendix A for Site Plan.

1.3 FIELD INVESTIGATION

Gleim-Crown Pump out of Fresno, CA conducted the field investigation on September 20, 2016.

1.4 WELL SOUNDING

Gleim-Crown was able to sound all three wells on the property to determine the depth of the well and the depth of the water level. They found the following:

- Irrigation Well 'A': Casing Diameter 12 in., 65 ft. Static Water Level (SWL) and 552 ft. total depth
- Monitoring Well 'B': Casing Diameter 12 in., 52 ft. dry
- Residential Well 'C': Casing Diameter 10 in., 65 ft. SWL and 128 ft. total depth

1.5 FIELD RESEARCH SUMMARY

Based on the field findings, the irrigation well could be a reliable water source on the property. However, we will need to determine whether it can produce the water requirement based on the surrounding well information. The monitoring well appears to have collapsed based on the shallow dry depth and the sunken appearance of the ground around the capped casing above ground. The total depth of residential well limits its capability to produce even with rehabilitation. It would need to be re-drilled and lowered significantly to achieve the production requirements for the site.

Section 2 Record Research

2.0 RECORD RESEARCH

We conducted research through several agencies in order to gather information on the existing three wells, the adjacent wells and groundwater. The agencies contacted include the State of California Department of Water Resources Groundwater Division, County of San Joaquin and the City of Galt.

2.1 STATE OF CALIFORNIA DEPARTMENT OF WATER RESOURCES

In order to determine the typical soil in our area, we contacted the State of California Department of Water Resources Groundwater to go through their records looking for any Well Completion Reports. There were no Well Completion (well drilling log) Reports for any of the three existing wells on the site. A later request to the Department of Water Resources produced a couple Completion Reports for surrounding irrigation wells. One well off of Nichols Ave, east of the Highway 99, was drilled to a depth of 750 ft. with only 15 ft. of sand. The other irrigation well with a report, just south of Liberty Rd on the west side of Highway 99, has a depth of 612 ft. with 47 ft. of sand. The letters and Well Completion Reports can be found in Appendix B.

2.2 COUNTY OF SAN JOAQUIN PUBLIC WORKS

In order to find out the depth of the existing water level in our surrounding area, we contacted the County of San Joaquin.

The County of San Joaquin Public Works Department was able to provide us with a Groundwater Report, dated Spring of 2015, see Appendix C.

The Groundwater Report shows both Rainfall Observations for the past year at four stations and groundwater levels at 26 observation wells across the County of San Joaquin. The observation wells closest to the Galt property are Wells 'B', approximately 4.4 miles south, and 'C', approximately 1.2 miles east. The hydrographs for Well 'B' and 'C' can be seen on page 2-17 and 2-18, respectively, of the report included in Appendix C. Well 'B' has a Ground Surface Elevation (GSE) of 37.2 feet mean sea level (ft. msl) with a groundwater elevation of 4 ft. msl, a depth of 33.2 ft below the GSE. This was a drop of 10 ft. from Spring 2013. Well 'C' has a Ground Surface Elevation (GSE) of 63.1 ft. msl with a groundwater elevation of -39 ft. msl, a depth of 102.1 ft. below the GSE. This was a drop of 11 ft. from Spring 2011.

2.3 CITY OF GALT PUBLIC WORKS

In order to analyze what amount of water production can be expected within our area, we contacted the City of Galt for nearby well information. The City of Galt Public Works Department was able to provide us with information on their city water supply wells, see Appendices D and E.

The City of Galt supply well closest in proximity to the Galt property is the Gateway Well, about 0.8 miles away, just north of the clubhouse at the Dry Creek Ranch Golf Course. Per the City's Well Information document, see Appendix D, on the Gateway Well, it was drilled in November of 1989 and is approximately 750 ft. deep. In 2015, the Gateway Well had a SWL ranging between 104.83 ft. and 117.33 ft. and was producing between 350 and 460 GPM. The Gateway Well has a few sections of perforations in the casing, from 270 – 430 ft., 450 – 650 ft. and 700 – 740 ft. The soil profiles at those sections are predominately clay, sandy clay and sandy clay, respectively.

Section 3 Recommendations

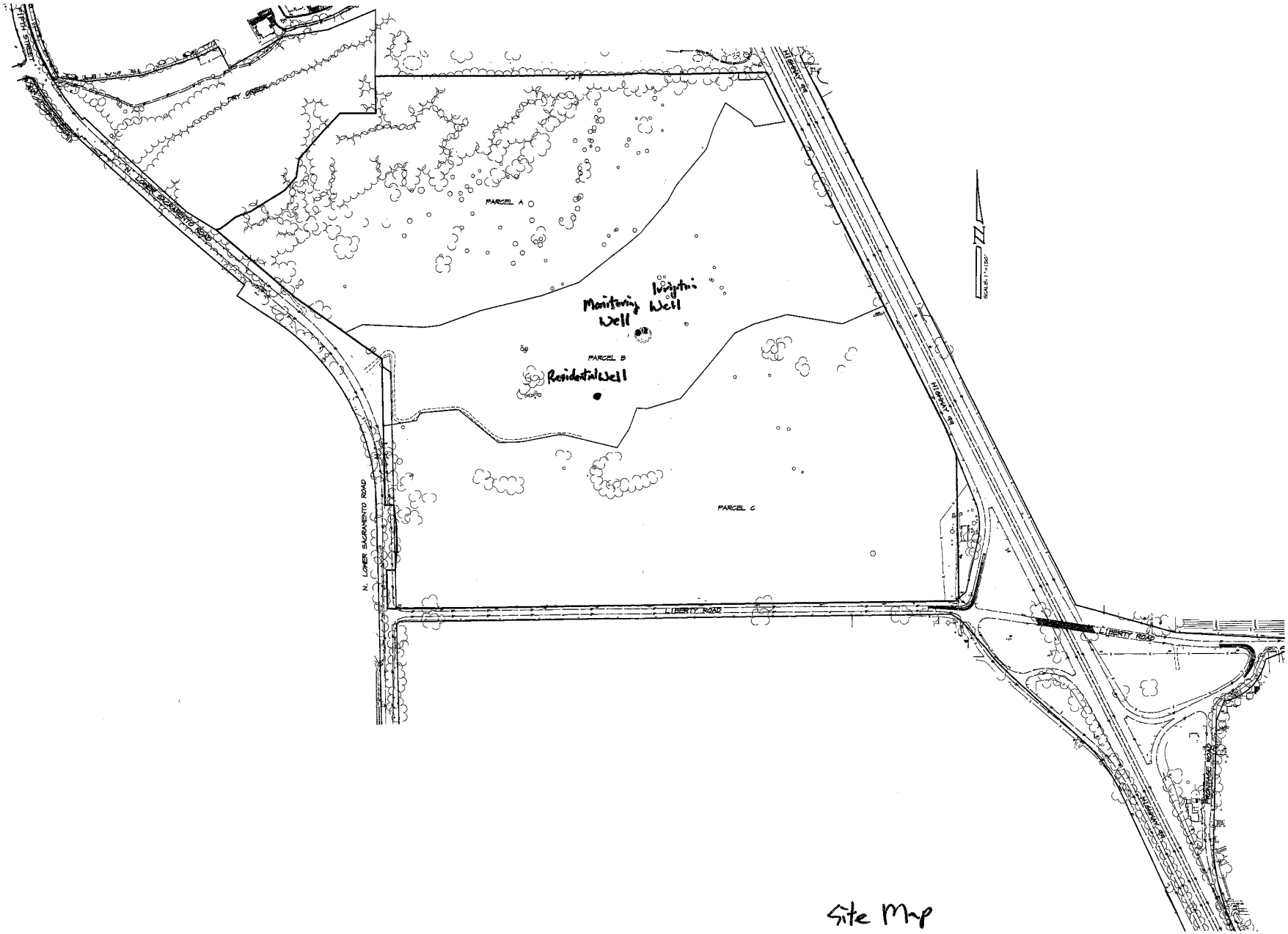
3.0 RECOMMENDATIONS

After analyzing our field investigation (1.3, 1.4 & 1.5) and our research (2.1, 2.2 & 2.3), our hydrologist recommends that we should abandon the existing three wells and drill a new well capable of meeting the future campus' irrigation demands. Our hydrologist believes that the District would need a well at least 700-800 ft. deep in order to produce 750 GPM, much more than the deepest of any current wells on site.

The existing irrigation well is currently at 552 ft. Even if we chose to drill down an additional 250 ft. with smaller diameter 8" bore hole, doing so would still not yield enough water production due to the smaller pipe because the maximum size pump column that would fit in the smaller bore hole (8") on the irrigation well would be about a 6 in; this would mean higher friction losses and less capacity in the column, which would decrease the potential yield drastically.

Our hydrologist's last recommendation would be to drill a smaller test hole prior to drilling and developing the new well to determine the exact soil profile of the site and the potential yield that could be delivered.

Appendix A: Site Plan


FIFTH STREET
DRY CREEK
N. LOWER SACRAMENTO ROAD
PARCEL A
Monitoring Well
Irrigation Well
PARCEL B
Residential Well
PARCEL C
HIGHWAY 99
LIBERTY ROAD
SCALE: 1" = 1500'

Site Map

Appendix B: State of California Department of Water Resources

STATE OF CALIFORNIA – CALIFORNIA NATURAL RESOURCES AGENCY
EDMUND G. BROWN JR., Governor

DEPARTMENT OF WATER RESOURCES
NORTH CENTRAL REGION OFFICE
3500 INDUSTRIAL BOULEVARD
WEST SACRAMENTO, CA 95691

October 1, 2015

Mr. Michael Milhous
Alan Mok Engineering
7415 North Palm Ave, Suite #101
Fresno, California 93711

Dear Mr. Milhous:

Based on the information provided, we are unable to locate a Well Completion Report for:

27500 N. Lower Sacramento Rd., Galt, CA; San Joaquin County
28098 N. Lower Sacramento Rd., Galt, CA; San Joaquin County
2611 E. Liberty Rd., Galt, CA; San Joaquin County
APN: #005-020-14, 005-020-15, 005-020-16

If you have any questions, please contact Steven Reichmuth at (916) 376-9612 or fax (916) 376-9676.

Sincerely,

Jeremiah Shaffer

Jeremiah Shaffer, P.E., Chief
Groundwater Supply Assessment and
Water Management Branch

Enclosure

STATE OF CALIFORNIA - CALIFORNIA NATURAL RESOURCES AGENCY
EDMUND G. BROWN JR., *Governor*

DEPARTMENT OF WATER RESOURCES
NORTH CENTRAL REGION OFFICE
3500 INDUSTRIAL BOULEVARD
WEST SACRAMENTO, CA 95691

September 21, 2016

Mr. Michael Milhous
Alan Mok Engineering
7415 N. Palm Ave., Suite 101
Fresno, CA 93711

Dear Mr. Milhous:

In response to your request, enclosed is a compact disk containing the well completion reports you requested for the following area:

SJ Delta College Galt Site
28098 N. Lower Sacramento Rd., Galt, CA; Sacramento/San Joaquin County
Township 05N, Range 06E, Sections 35,36

Also included is an Excel file summarizing selected data from the reports. The Department does not guarantee the accuracy, completeness, timeliness, or correct sequencing of the information in this file, and recommends that you verify it with the actual well completion report.

If you need additional information or have any questions, please contact Steven Reichmuth at (916) 376-9612 or fax (916) 376-9676.

Sincerely,

Jeremiah Shaffer, P.E., Chief
Groundwater Supply Assessment and
Special Studies Section

Enclosures

ORIGINAL

File Original, Duplicate and Triplicate with the REGIONAL WATER POLLUTION CONTROL BOARD No. 5
(Insert appropriate number)

WATER WELL DRILLERS REPORT

(Sections 7076, 7077, 7078, Water Code)

STATE OF CALIFORNIA

1725

Do Not Fill In

No. 36568

State Well No. 5N/6E-36C2

Other Well No. 5N/6E-36C

(1) OWNER:

Name [redacted]

Address

(2) LOCATION OF WELL:

County Sacto. Owner's number, if any—

R. F. D. or Street No.

None

(3) TYPE OF WORK (*check*):

New well ☐ Deepening ☒ Reconditioning ☒ Abandon ☐

If abandonment, describe material and procedure in Item 11.

(4) PROPOSED USE (*check*):

Domestic ☐ Industrial ☐ Municipal ☐

Irrigation ☒ Test Well ☐ Other ☐

(5) EQUIPMENT:

Rotary ☐

Cable ☒

Dug Well ☐

(6) CASING INSTALLED:

SINGLE ☐ DOUBLE ☒

From	ft. to	ft.	Diam.	Gage or Wall
1	"	54 "	12	12
"	"	"	"	"
"	"	"	"	"
"	"	"	"	"
"	"	"	"	"

Type and size of shoe or well ring 1/4x6x12

Describe joint Welded

If gravel packed

Diameter of Bore	from ft.	to ft.
None	"	"
"	"	"
"	"	"
"	"	"
"	"	"

Size of gravel:

(7) PERFORATIONS:

Type of perforator used None

Size of perforations in., length, by in.

From	ft. to	ft.	Perf. per row	Rows per ft.
"	"	"	" " "	" " "
"	"	"	" " "	" " "
"	"	"	" " "	" " "
"	"	"	" " "	" " "

(8) CONSTRUCTION:

Was a surface sanitary seal provided? ☐ Yes ☒ No To what depth ft.

Were any strata sealed against pollution? ☐ Yes ☒ No If yes, note depth of strata

From	ft. to	ft.
"	"	"

Method of Sealing

(9) WATER LEVELS:

Depth at which water was first found ft.

Standing level before perforating 48 ft.

Standing level after perforating ft.

(10) WELL TESTS:

Was a pump test made? ☐ Yes ☒ No If yes, by whom?

Yield: gal./min. with ft. draw down after hrs.

Temperature of water Was a chemical analysis made? ☐ Yes ☐ No

(11) WELL LOG:

Total depth 212 ft. Depth of completed well 612 ft.

Formation: *Describe by color, character, size of material, and structure.*

	ft. to		ft.	
1	"	212	"	Old well
212	"	246	"	Bl. caly
246	"	249	"	Bl. Sand
249	"	255	"	Bl. Sandy clay
255	"	258	"	Bl. Sand
258	"	310	"	Bl. Clay
310	"	320	"	Br. Clay
320	"	328	"	Sand
328	"	358	"	Bl. Clay
358	"	361	"	Bl. Sand
361	"	400	"	Bl. Clay
400	"	410	"	Bl. Sand
410	"	414	"	Bl. Clay
414	"	420	"	Bl. Sand
420	"	480	"	Bl. clay
480	"	483	"	Bl. Sand
483	"	520	"	Bl. Clay
520	"	523	"	Bl. Sand
523	"	604	"	Bl. Clay
604	"	612	"	Black sand
Stoped in blue clay				

CONFIDENTIAL Section 7076.1, Water Code

Work started Feb. 15 1956, Completed March 1 1956

WELL DRILLER'S STATEMENT:

This well was drilled under my jurisdiction and this report is true to the best of my knowledge and belief.

NAME Gross Bros. (Person, firm, or corporation) *(Typed or printed)*

Address Rt. 2 Box 380

Galt Calif.

[SIGNED] C M Gross
Well Driller

License No. 152851 Dated March 6, 1956

36568

RECEIVED
MAR 5 1956
REGIONAL WATER POLLUTION
CONTROL BOARD
CENTRAL VALLEY REGION

*The free Adobe Reader may be used to view and complete this form. However, software must be purchased to complete, save, and reuse a saved form.

File Original with DWR

State of California

Well Completion Report

Refer to Instruction Pamphlet

No. e0184601

Page ________ of ________

Owner's Well Number ________________________

Date Work Began ________________ Date Work Ended 7/26/2013

Local Permit Agency SAN JOAQUIN COUNTY

Permit Number SR0066861 Permit Date 3/27/13

DWR Use Only – Do Not Fill In		
05N06E36		
State Well Number/Site Number		
381460 N		1211629 W
Latitude		Longitude
APN/TRS/Other		

Geologic Log

Orientation ◉ Vertical ◯ Horizontal ◯ Angle Specify ________

Drilling Method CABLE Drilling Fluid ________

Depth from Surface Feet	to Feet	Description (Describe material, grain size, color, etc)
0	30	BROWN CLAY
30	35	BROWN SAND
35	90	BROWN CLAY
90	115	BROWN SAND AND WATER
115	212	SILTY BROWN CLAY
212	393	BROWN CLAY
393	405	BLUE CLAY
405	415	BROWN CLAY
415	475	BLUE CLAY
475	480	BLACK SAND AND GRAVEL
480	550	GRAY CLAY & SHALLE
550	680	GRAY CLAY
680	690	SOFT BLACK SANDY CLAY
690	700	BLACK SAND AND GRAVEL
700	730	BLACK CLAY
730	735	SANDY CLAY
735	750	GRAY CLAY

Total Depth of Boring 750 Feet

Total Depth of Completed Well ________________ Feet

Well Owner

[redacted]

Well Location

Address 3498 BILL ROAD

City ACAMPO County San Joaquin

Latitude ____ ____ ____ N Longitude ____ ____ ____ W (Deg. Min. Sec.)

Datum ________ Dec. Lat. ________ Dec. Long. ________

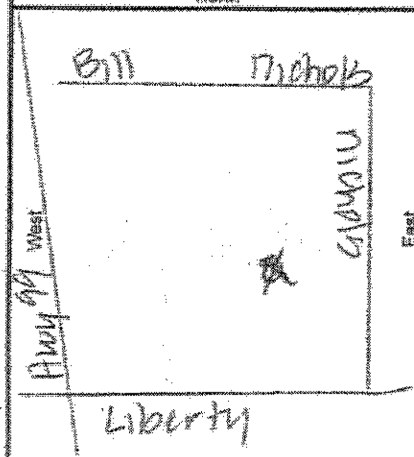
APN Book ________ Page ________ Parcel 005-080-46

Township ________ Range ________ Section ________

Location Sketch

(Sketch must be drawn by hand after form is printed.)

North



South

Illustrate or describe distance of well from roads, buildings, fences, rivers, etc. and attach a map. Use additional paper if necessary. Please be accurate and complete.

Activity

◉ New Well
◯ Modification/Repair
◯ Deepen
◯ Other ________
◯ Destroy
Describe procedures and materials under "GEOLOGIC LOG"

Planned Uses

◉ Water Supply
☐ Domestic ☐ Public
☑ Irrigation ☐ Industrial
◯ Cathodic Protection
◯ Dewatering
◯ Heat Exchange
◯ Injection
◯ Monitoring
◯ Remediation
◯ Sparging
◯ Test Well
◯ Vapor Extraction
◯ Other ________

Water Level and Yield of Completed Well

Depth to first water 90 (Feet below surface)

Depth to Static Water Level ________ (Feet) Date Measured ________

Estimated Yield * ________ (GPM) Test Type ________

Test Length ________ (Hours) Total Drawdown ________ (Feet)

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

Casings

Depth from Surface Feet	to Feet	Borehole Diameter (Inches)	Type	Material	Wall Thickness (Inches)	Outside Diameter (Inches)	Screen Type	Slot Size if Any (Inches)
0	215	14	Blank	Low Carbon Steel	188	14		
340	540	10 3/4	Perforated	Low Carbon Steel	188	10 3/4		

Annular Material

Depth from Surface Feet	to Feet	Fill	Description
0	50	Cement	10.3 sack sand

Attachments

☐ Geologic Log
☐ Well Construction Diagram
☐ Geophysical Log(s)
☐ Soil/Water Chemical Analyses
☐ Other ________

Attach additional information, if it exists.

Certification Statement

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

Name KEN GROSS PUMP SERVICE
Person, Firm or Corporation

353 N. LINCOLN WAY GALT CA 95632
Address City State Zip

Signed [signature] 08/14/2013 530672
C-57 Licensed Water Well Contractor Date Signed C-57 License Number

DWR 188 REV. 1/2006

IF ADDITIONAL SPACE IS NEEDED, USE NEXT CONSECUTIVELY NUMBERED FORM

Appendix C: County of San Joaquin Groundwater Report

HYDROGRAPHS

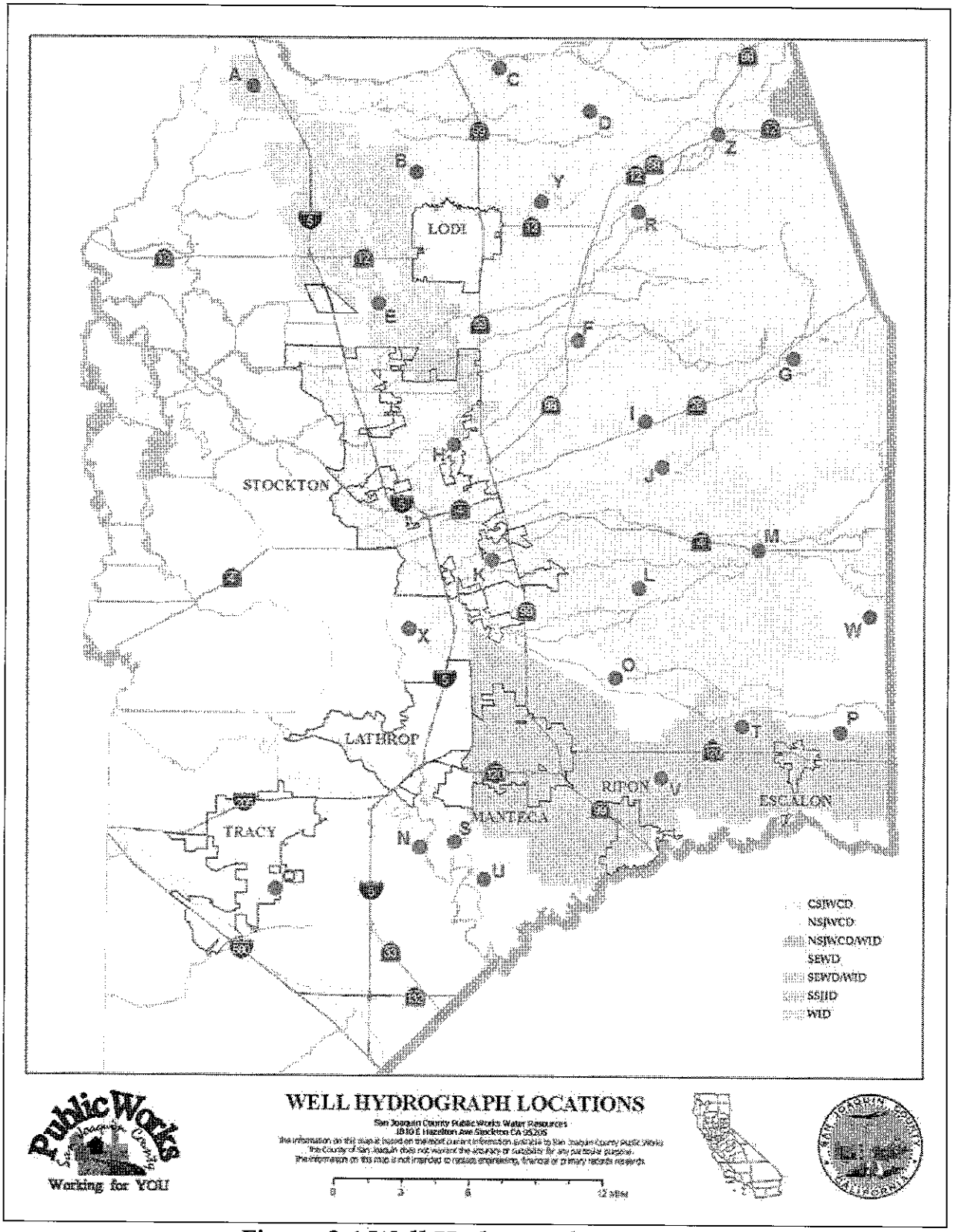


Figure 2-1 Well Hydrograph Locations

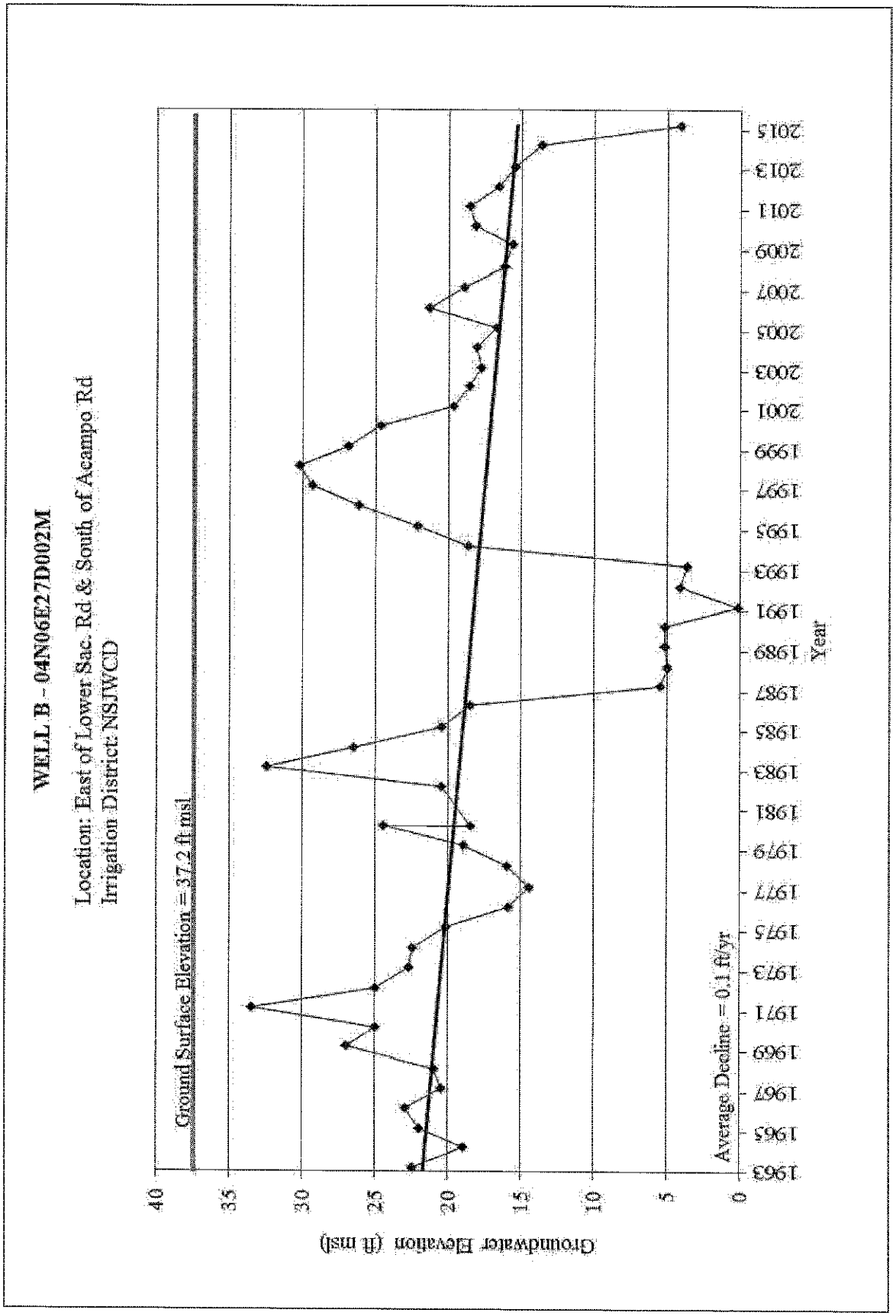


Figure 2-3 Spring Hydrograph Well B

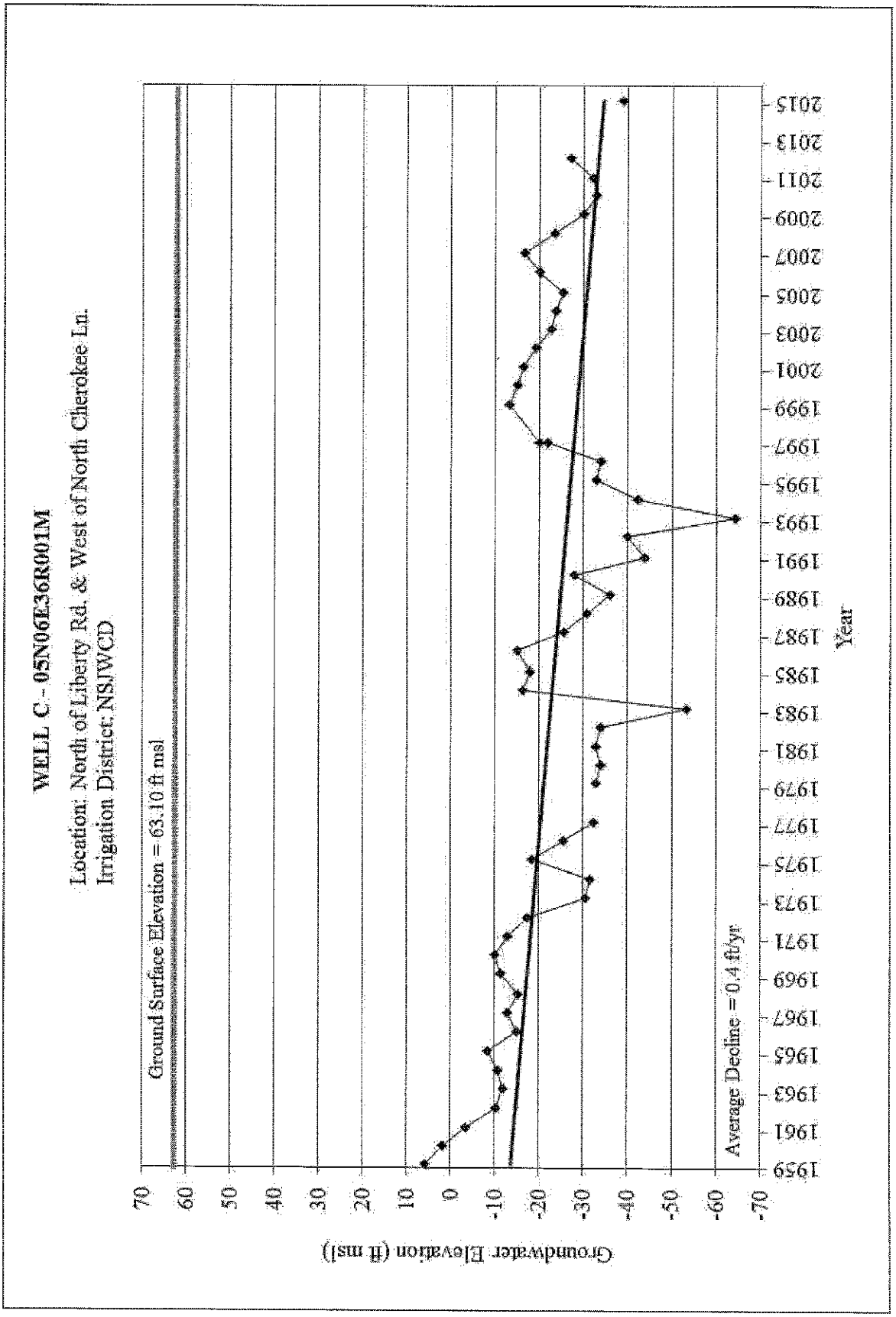


Figure 2-4 Spring Hydrograph Well C

Appendix D: City of Galt Gateway Well Drilling and eLog

ORIGINAL
File with DWR
Page 1 of 2

STATE OF CALIFORNIA
WELL COMPLETION REPORT
Refer to Instruction Pamphlet

Owner's Well No. Galt-Gateway Water Well No. 394858
Date Work Began 11-6-89, Ended 1-31-91
Local Permit Agency Sacramento Health
Permit No. 10590 Permit Date 11/30/89

DWR USE ONLY — DO NOT FILL IN
STATE WELL NO./STATION NO.
LATITUDE LONGITUDE
APN/TRS/OTHER

GEOLOGIC LOG

ORIENTATION (✓) X VERTICAL ___ HORIZONTAL ___ ANGLE ___ (SPECIFY)
DEPTH TO FIRST WATER ___ (Ft.) BELOW SURFACE

DEPTH FROM SURFACE Ft.	to Ft.	DESCRIPTION *Describe material, grain size, color, etc.*
0	100	fine sand
100	120	fine sand, sandy b rown clay
120	140	gray sticky clay
140	160	sandy clay, with gravels
160	170	clay, sandy, small gravel
170	190	gray sticky clay, small gravel
190	210	gray clay, some gravel
210	220	sand, gravel, some cobbles
220	230	hard gray clay
230	240	sandy gray clay
240	250	sandy gray clay, hard with gravel
250	260	hard clay
260	270	sandy clay and sand
270	320	sandy clay with sand (less gravel)
320	330	sticky gray clay, sand, small gravel
330	340	gray sticky clay
340	350	gray clay, sand, small rocks/gravel
350	360	gray sticky clay
360	370	gray hard clay, sticky
370	380	gray hard clay
380	400	hard gray clay, sand, some gravel
400	410	hard gray clay, some brown clay, gravel and sand
410	430	hard gray clay, some dry
430	450	sandy clay
450	460	sandy clay, gravel
460	480	fine sand and gravel
480	490	fine sand
490	510	sandy clay, sand, some gravel

continued on next page No. 394859

TOTAL DEPTH OF BORING 934 (Feet)
TOTAL DEPTH OF COMPLETED WELL 750 (Feet)

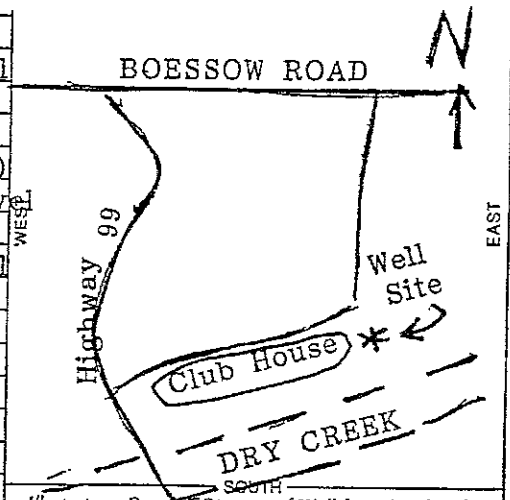
WELL OWNER

Name R. C. DUNCAN DEVELOPMENT CO
Mailing Address P.O. Box 794
Orangeville, Calif. 95662
CITY STATE ZIP

WELL LOCATION

Address see map
City Galt
County Sacramento
APN Book ___ Page ___ Parcel ___
Township ___ Range ___ Section ___
Latitude ___ DEG. MIN. SEC. NORTH Longitude ___ DEG. MIN. SEC. WEST

LOCATION SKETCH



Illustrate or Describe Distance of Well from Landmarks such as Roads, Buildings, Fences, Rivers, etc. PLEASE BE ACCURATE & COMPLETE.

ACTIVITY (✓)

X NEW WELL
MODIFICATION/REPAIR
___ Deepen
___ Other (Specify)
___ DESTROY *(Describe Procedures and Material Under "GEOLOGIC LOG")*

PLANNED USE(S) (✓)

___ MONITORING
WATER SUPPLY
___ Domestic
X Public
___ Irrigation
___ Industrial
___ "TEST WELL"
___ CATHODIC PROTECTION
___ OTHER (Specify)

DRILLING METHOD Reverse Circ. FLUID Water

WATER LEVEL & YIELD OF COMPLETED WELL

DEPTH OF STATIC WATER LEVEL 70 (Ft.) & DATE MEASURED ___
ESTIMATED YIELD * 1500 (GPM) & TEST TYPE Pump
TEST LENGTH 24 (Hrs.) TOTAL DRAWDOWN ___ (Ft.)
* *May not be representative of a well's long-term yield.*

CASING(S)

DEPTH FROM SURFACE Ft.	to Ft.	BORE-HOLE DIA. (Inches)	TYPE (✓) BLANK	SCREEN	CONDUCTOR	FILL PIPE	MATERIAL/GRADE	INTERNAL DIAMETER (Inches)	GAUGE OR WALL THICKNESS	SLOT SIZE IF ANY (Inches)
0	50	36"			X		A-53-B	29.25	3/8"	
+2	270	26"	X				139-B	16"	.312	
270	430	26"		X			139-B	16"	•	.080
430	450	26"	X				139-B	16"	.312	
450	650	26"		X			139-B	16"		.080
650	700	26"	X				139-B	16"	.312	
700	740	26"		X			139-B	16"		.080
740	750	26"	X				139-B	16"	.312	

ANNULAR MATERIAL

DEPTH FROM SURFACE Ft.	to Ft.	TYPE CEMENT (✓)	BENTONITE (✓)	FILL (✓)	FILTER PACK (TYPE/SIZE)
0	50	X			
0	225	X			
225	750				Schwartz-bruber #21

ATTACHMENTS (✓)

___ Geologic Log
___ Well Construction Diagram
___ Geophysical Log(s)
___ Soil/Water Chemical Analyses
___ Other ___

ATTACH ADDITIONAL INFORMATION, IF IT EXISTS.

CERTIFICATION STATEMENT

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

NAME BEYLIK DRILLING, INC.
(PERSON, FIRM, OR CORPORATION) (TYPED OR PRINTED)

ADDRESS 591 S.Walnut St.-La Habra, Calif. 90631
CITY STATE ZIP

Signed L Campbell
WELL DRILLER/AUTHORIZED REPRESENTATIVE

1/31/91
DATE SIGNED

306291C57
C-57 LICENSE NUMBER

DWR 188 REV. 7-90

IF ADDITIONAL SPACE IS NEEDED, USE NEXT CONSECUTIVELY NUMBERED FORM

ORIGINAL
File with DWR

Page 2 of 2

STATE OF CALIFORNIA
WELL COMPLETION REPORT
Refer to Instruction Pamphlet

DWR USE ONLY — DO NOT FILL IN
STATE WELL NO./STATION NO.
LATITUDE LONGITUDE
APN/TRS/OTHER

Owner's Well No. Galt-Gateway Water Well No. 394859
Date Work Began 11/6/89, Ended 1/31/91
Local Permit Agency Sacramento Health
Permit No. 10590 Permit Date 11/30/89

GEOLOGIC LOG

ORIENTATION (✓) X VERTICAL ___ HORIZONTAL ___ ANGLE ___ (SPECIFY)
DEPTH TO FIRST WATER ___ (Ft.) BELOW SURFACE

DEPTH FROM SURFACE Ft. to Ft.	DESCRIPTION *Describe material, grain size, color, etc.*
510 520	sandy clay, small gravel
520 530	gray sticky clay, with sand
530 540	hard gray clay
540 550	sandy clay, some gravel
550 560	gray sandy, stick clay, some gravel
560 570	hard sand, gray, soft sandy clay
570 580	gray sandy, sticky clay
580 590	gray sandy clay, and sand
590 600	gray clay
600 620	gray sandy clay
620 680	gray clay
680 690	gray sticky clay
690 720	gray sticky clay -some sand & gravel
720 740	some clay & sandstone & sandstone
740 750	gray sticky clay, some sand/gravel
750 760	gray sandy, sticky clay
760 800	gray sandy clay
800 810	gray sandy clay with gravel
810 820	gray sandy clay
820 840	gray sandy clay with gravel
840 850	hard gray clay
850 860	hard black sandy substance
860 870	sandstone
870 880	gray sandy clay, some gravel
880 890	gray sandy clay
890 900	gray clay with sand and gravel
900 934	gray clay - sand and gravel

TOTAL DEPTH OF BORING 934 (Feet)
TOTAL DEPTH OF COMPLETED WELL 750 (Feet)

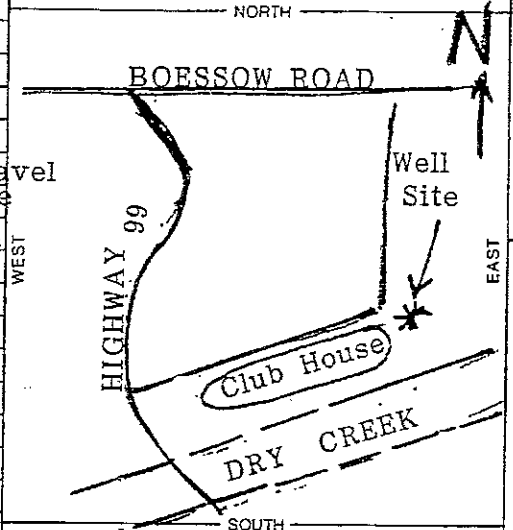
WELL OWNER

Name R. C. DUNCAN DEVELOPMENT CO
Mailing Address P.O. Box 794
CITY Orangeville, Calif. STATE 95662 ZIP

WELL LOCATION

Address see map
City Galt
County Sacramento
APN Book ___ Page ___ Parcel ___
Township ___ Range ___ Section ___
Latitude ___ DEG. MIN. SEC. NORTH Longitude ___ DEG. MIN. SEC. WEST

LOCATION SKETCH



Illustrate or Describe Distance of Well from Landmarks such as Roads, Buildings, Fences, Rivers, etc. PLEASE BE ACCURATE & COMPLETE.

ACTIVITY (✓)

X NEW WELL
MODIFICATION/REPAIR
___ Deepen
___ Other (Specify)
___ DESTROY *(Describe Procedures and Materials Under "GEOLOGIC LOG")*

PLANNED USE(S) (✓)

___ MONITORING
WATER SUPPLY
___ Domestic
X Public
___ Irrigation
___ Industrial
___ "TEST WELL"
___ CATHODIC PROTECTION
___ OTHER (Specify)

DRILLING METHOD Reverse Circ. FLUID Water

WATER LEVEL & YIELD OF COMPLETED WELL

DEPTH OF STATIC WATER LEVEL 70 (Ft.) & DATE MEASURED ___
ESTIMATED YIELD* 1500 (GPM) & TEST TYPE Pump
TEST LENGTH 24 (Hrs.) TOTAL DRAWDOWN ___ (Ft.)
** May not be representative of a well's long-term yield.*

CASING(S)

DEPTH FROM SURFACE Ft. to Ft.	BORE-HOLE DIA. (Inches)	TYPE (✓) BLANK	SCREEN	CONDUCTOR	FILL PIPE	MATERIAL/GRADE	INTERNAL DIAMETER (Inches)	GAUGE OR WALL THICKNESS	SLOT SIZE IF ANY (Inches)
0 50	36"			X		A-53-B	29.25	3/8"	
+2 270	26"	X				139-B	16"	.312	
270 430	26"		X			139-B	16"	"	.080
430 450	26"	X				139-B	16"	.312	
450 650	26"		X			139-B	16"	"	.080
650 700	26"	X				139-B	16"	.312	
700 740	26"		X			139-B	16"	"	.080
740 750	26"	X				139-B	16"	.312	

ANNULAR MATERIAL

DEPTH FROM SURFACE Ft. to Ft.	TYPE: CEMENT (✓)	BENTONITE (✓)	FILL (✓)	FILTER PACK (TYPE/SIZE)
0 50	X			
0 225	X			
225 750				Schwartz-bruber #21

ATTACHMENTS (✓)

___ Geologic Log
___ Well Construction Diagram
___ Geophysical Log(s)
___ Soil/Water Chemical Analyses
___ Other ___

ATTACH ADDITIONAL INFORMATION, IF IT EXISTS.

CERTIFICATION STATEMENT

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

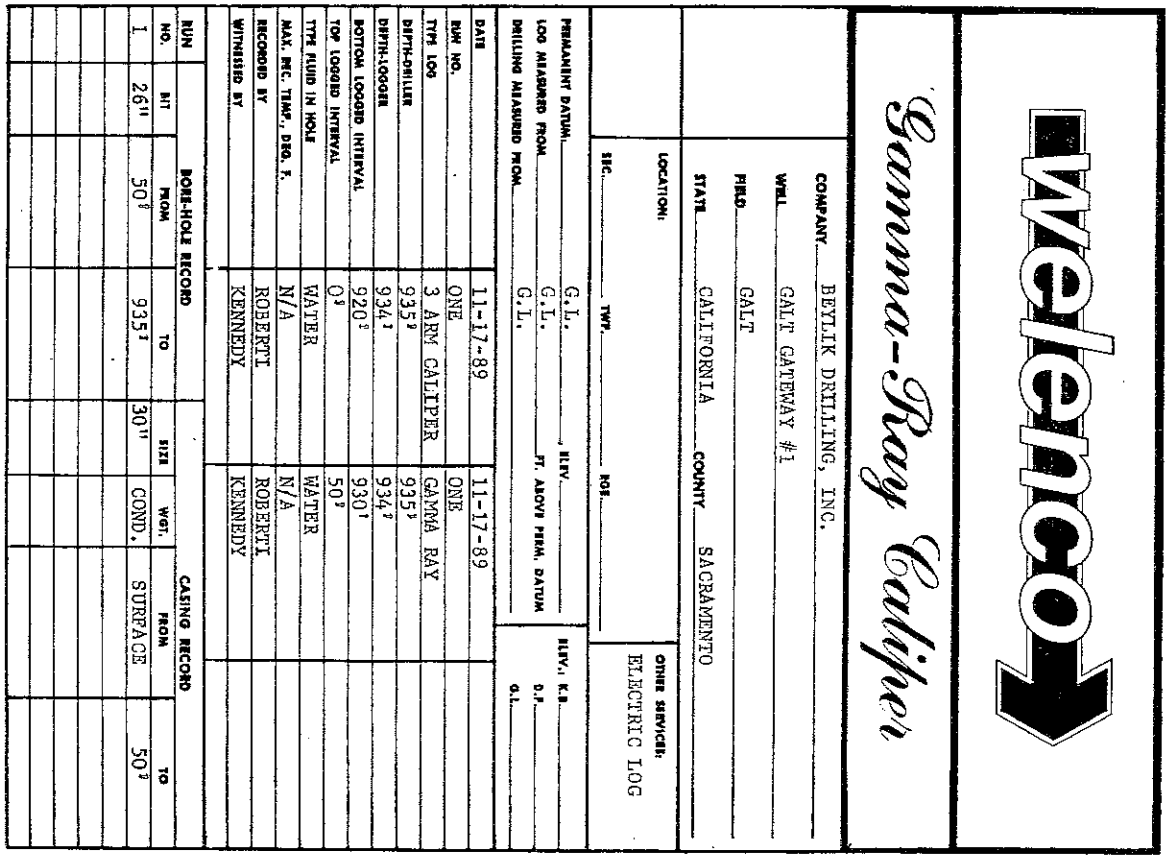
NAME BEYLIK DRILLING, INC.
(PERSON, FIRM, OR CORPORATION) (TYPED OR PRINTED)

ADDRESS 591 S.Walnut St.-La Habra, Calif. 90631
CITY STATE ZIP

Signed L. Campbell 1/31/91 306291 C57
WELL DRILLER/AUTHORIZED REPRESENTATIVE DATE SIGNED C-57 LICENSE NUMBER

DWR 188 REV. 7-90

IF ADDITIONAL SPACE IS NEEDED, USE NEXT CONSECUTIVELY NUMBERED FORM



EQUIPMENT DATA

Gamma Ray				Neutron			
Run No.	ONE			Run No.			
Tool Model No.	G27X4LD			Log Type			
Diameter	2"			Tool Model No.			
Detector Model No.	--			Diameter			
Type	SCINT.			Detector Model No.			
Length	4"			Type			
Distance to N. Source	NONE			Length			
				Source Model No.			
General				Serial No.			
Hoist Truck No.	SB81 RENO			Spacing			
Instrument Truck No.	SB81 RENO			Type			
Tool Serial No.	153			Strength			

LOGGING DATA

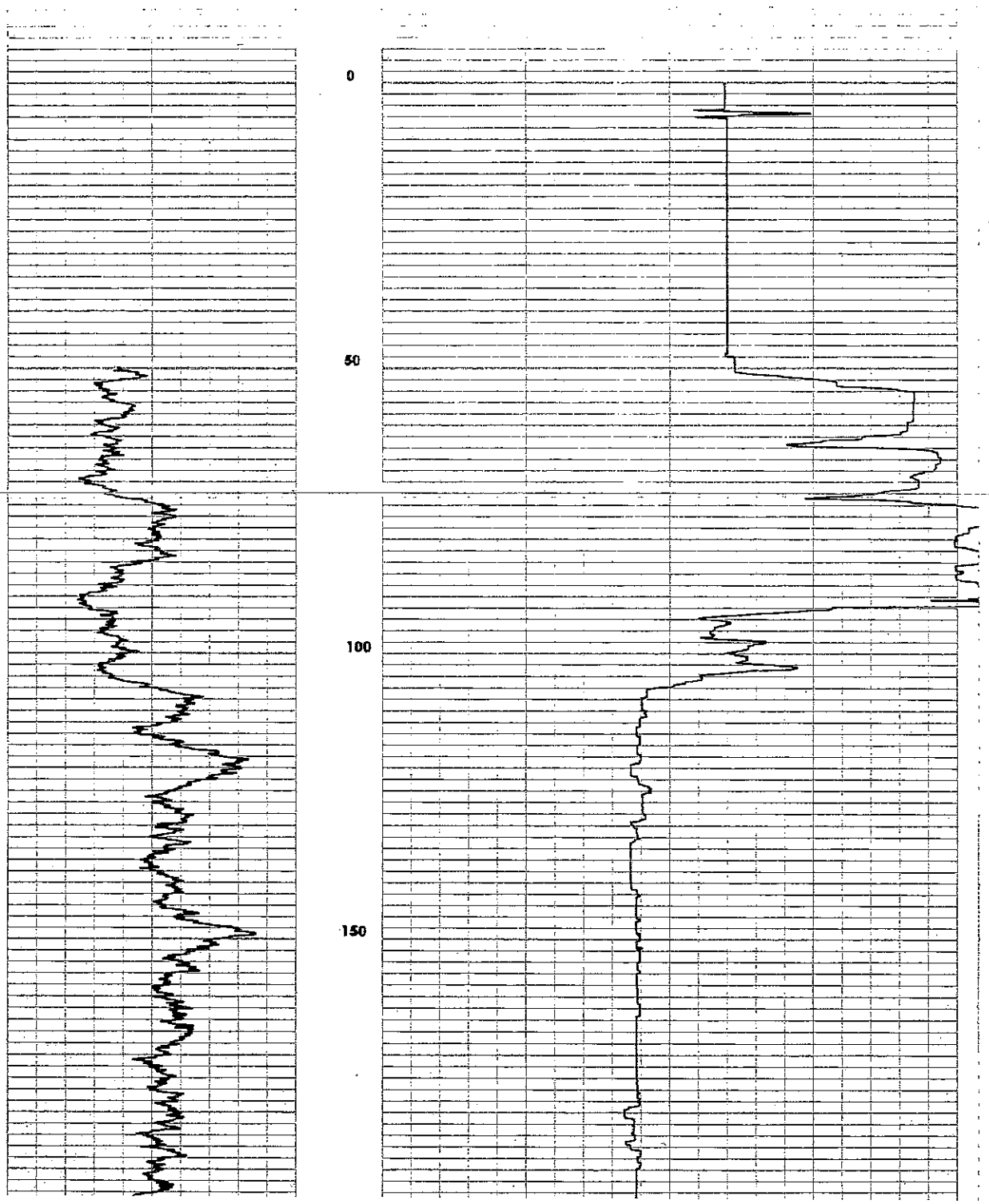
General				Gamma Ray				Neutron			
Run No.	Depths From	Depths To	Speed Ft/Min.	T.C. Sec.	Sens. Settings	Zero Div. L or R	API G.R. Units per Log Div.	T.C. Sec.	Sens. Settings	Zero Div. L or R	API N. Units per Log Div.
1	930'	50'	25	4	100/900	4L	6.0				

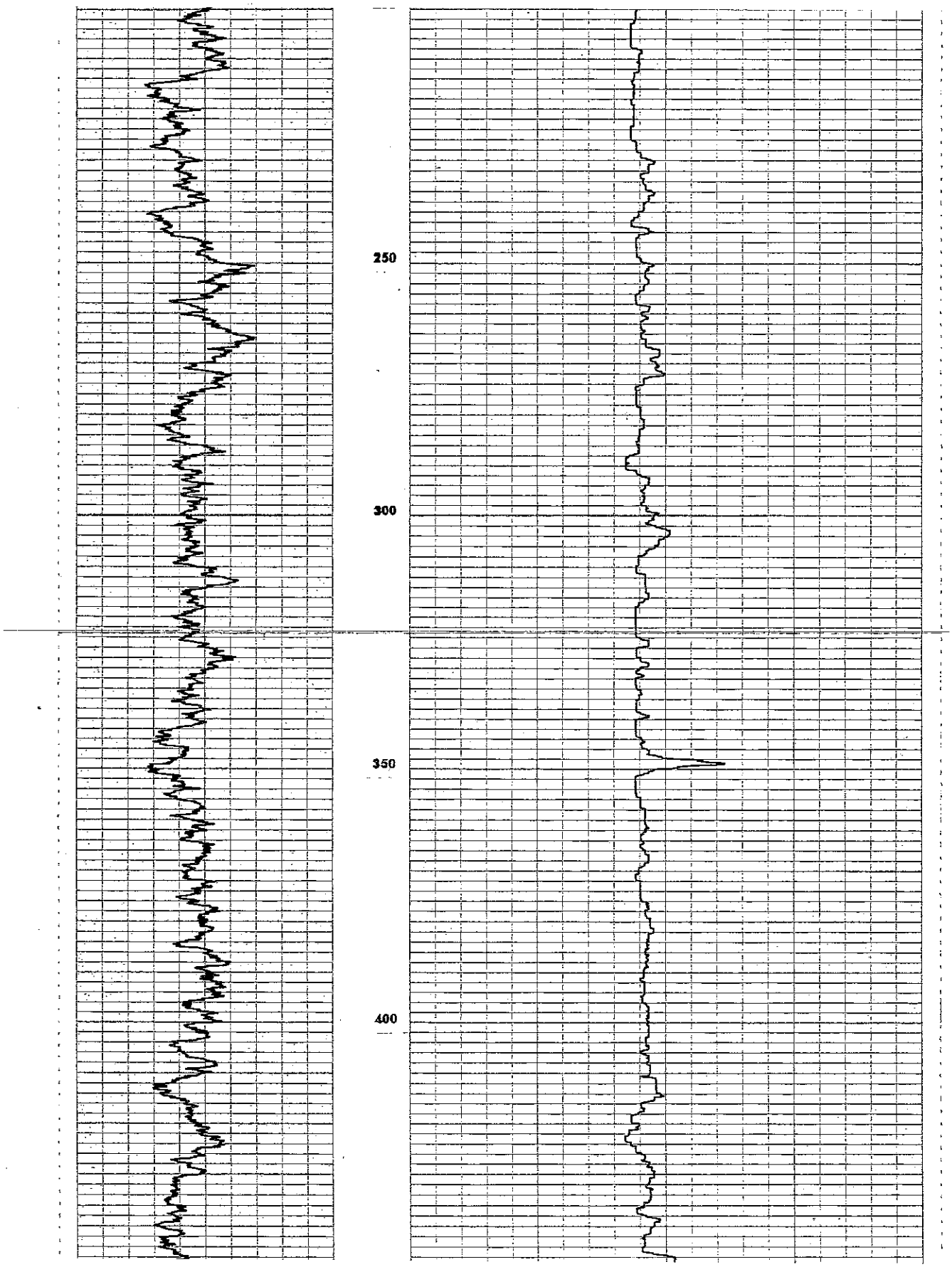
Reference Literature:

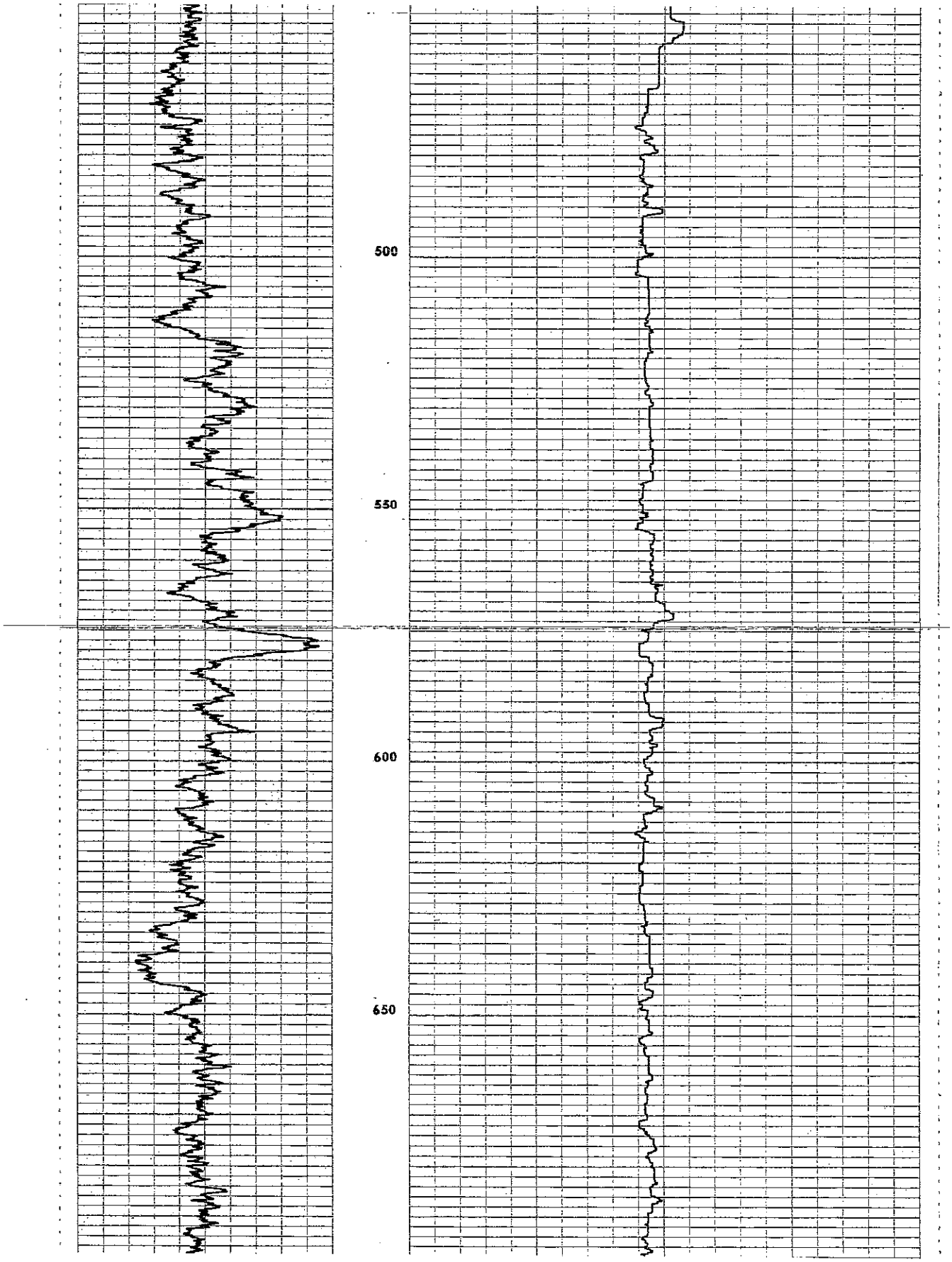
Remarks:

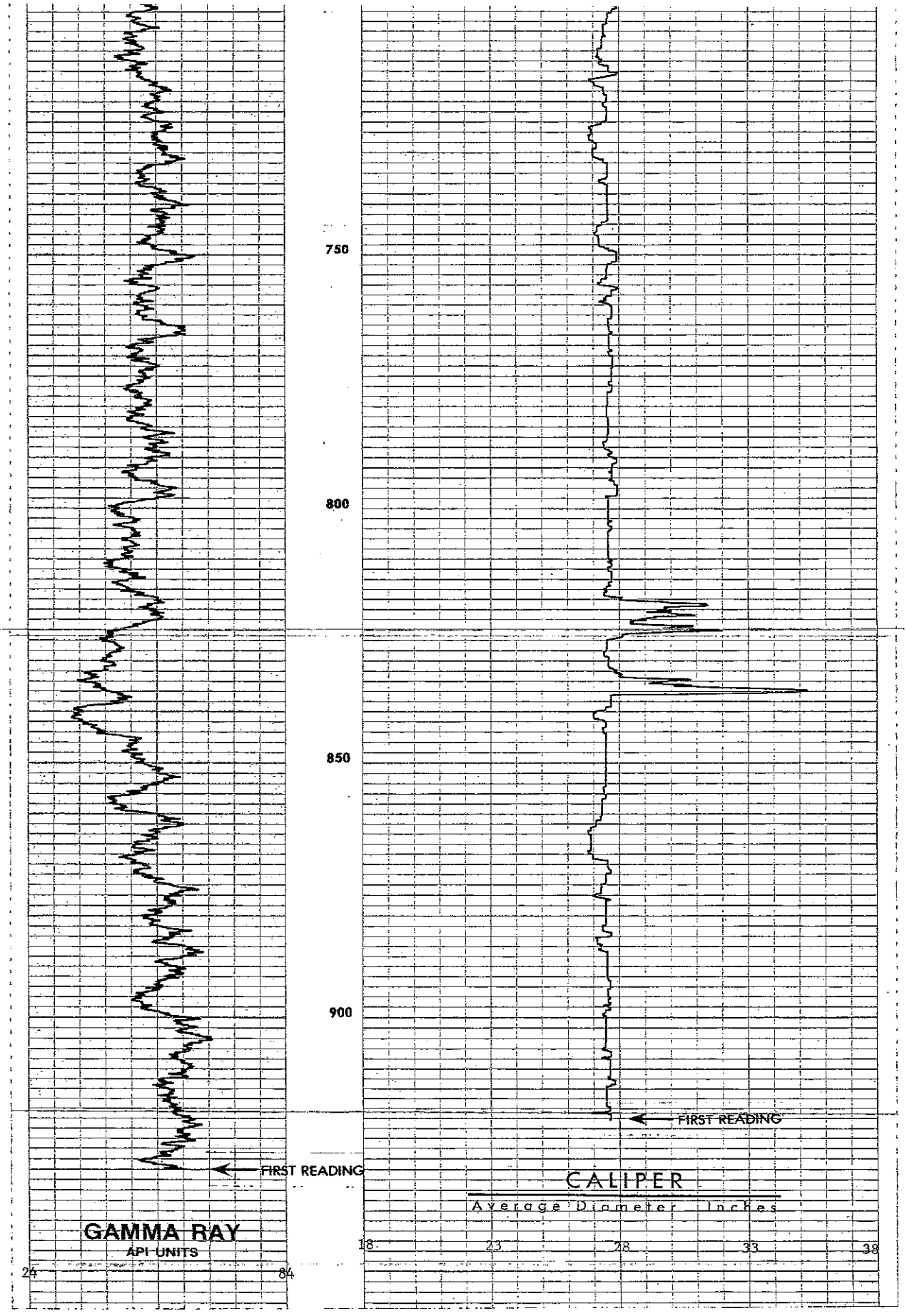
Fold Here

GAMMA RAY API UNITS	DEPTHS	CALIPER Average Diameter Inches
24 84		18 28 38




250
300
350
400


500
550
600
650


750
800
850
900
FIRST READING
GAMMA RAY
API UNITS
24
84
FIRST READING
CALIPER
Average Diameter Inches
18
23
28
33
38

Appendix E: City of Galt Gateway Well Production Information

CITY OF GALT 2015 MONTHLY PRODUCTION

SITE (Only fill in the yellow shaded areas)

	JAN.	FEB.	MARCH	APRIL	MAY	JUNE	JULY	AUG.	SEPT.	OCT.	NOV.	DEC.	Well Totals
Gateway, 400 gpm 433	19,667,000	16,656,000	18,469,000	17,421,000	16,680,000	16,708,000	14,791,000	6,605,000	539,000	112,000	37,000	Stand-by	129,705,000
Fumasi, 940 gpm 9	175,000	144,266	335,000	232,000	277,000	372,000	0	Stand-by	Stand-by	Stand-by	Stand-by	0	1,535,266
Carillion, 879 gpm 422	1,335,000	1,213,000	20,877,000	2,713,000	13,676,000	18,229,000	21,852,000	29,810,000	8,123,000	2,923,000	9,797,570	2,477,470	133,026,040
Gold. Hts., 1500 gpm	1.3 to Waste	0.03 to Waste	0.1 to Waste	Waste	Waste	Waste	0	Stand-by	Stand-by	Stand-by	Stand-by	Stand-by	0
Deep Well, 1935 gpm 1849	OOS	OOS	OOS	OOS	66,526,700	79,871,000	78,750,000	81,715,400	81,716,200	78,113,000	74,128,400	68,429,600	609,250,300
River Oaks, 1235 gpm 2	42,448,000	43,471,000	30,981,000	33,994,874	4,920,830	84,000	18,021,492	23,641,337	45,686,000	39,159,490	3,946,410	131,890	286,486,323
Industrial, 2000 gpm 241	2,121,000	6,119,000	26,790,000	40,349,000	8,964,000	10,431,000	13,305,000	12,715,000	15,020,000	5,173,000	1,234,000	794,000	143,015,000
Monterey, 1700 gpm 595	4,619,000	1,122,000	1,946,000	739,000	9,615,000	25,700,000	9,751,000	OOS	OOS	OOS	OOS	OOS	53,492,000
													0
													0
													0
TOTAL GAL	70,385,000	68,725,266	99,398,000	95,448,874	120,659,530	153,395,000	156,470,492	154,486,737	151,084,200	125,480,490	89,143,380	71,832,960	1,356,509,929
(convert to Cu. Ft.)	0.13369	0.13369	0.13369	0.13369	0.13369	0.13369	0.13369	0.13369	0.13369	0.13369	0.13369	0.13369	
CUBIC FEET	9,409,771	9,187,861	13,288,519	12,760,560	16,130,973	20,507,378	20,918,540	20,653,332	20,198,447	16,775,487	11,917,578	9,603,348	181,351,812

GPM

	MAY	JUNE	JULY	AUG.	SEPT.
Gateway,	374	419	331	148	12
Fumasi, 9	6	8	0	#VALUE!	#VALUE!
Carillion,	306	408	490	668	182
Gold. Hts.	#VALUE!	#VALUE!	0	#VALUE!	#VALUE!
Deep Well	1490	1789	1764	1831	1831
River Oak	110	2	404	530	1023
Industrial,	201	234	298	285	336
Monterey,	215	576	218	#VALUE!	#VALUE!

Total GPM #VALUE! #VALUE! 3505 #VALUE!

	JAN.	FEB.	MARCH	APRIL	MAY	JUNE	JULY	AUG.	SEPT.	OCT.	NOV.	DEC.		
Daily Average, Calculated	2270484	2454474	3206387	3181629	3892243	5113167	5047435	4983443	5036140	4047758	2971446	2317192		
GPM Daily Avg, Calc	1577	1704	2227	2209	2703	3551	3505	3461	3497	2811	2064	1609		
Max Day, Calculated	2365	2557	3340	3314	4054	5326	5258	5191	5246	4216	3095	2414		
Max Production Available	8654	8654	8654	8654	10589	10589	10589	8889	8889	8889	8889			
Available Reserve, Calc	6289	6097	5314	5340	6535	5263	5331	3698	3643	4673	5794	-2414		
% above Max Day Remai	0.73	0.70	0.61	0.62	0.62	0.50	0.50	0.42	0.41	0.53				
Emerg Storage Max Day	9,056,034	8,780,049	7,652,179	7,689,316	9,409,796	7,578,410	7,677,007	5,324,995	5,245,950	6,728,523	8,342,991	0		
10% savings, MG/Mth	63	62	89	86	109	138	141	139	136	113	80	7183296	33	Total 10% Savings, AVG GPM
15% savings, MG/Mth	60	58	84	81	103	130	133	131	128	107	76	10774944	50	Total 15% Savings, AVG GPM

SAN JOAQUIN DELTA COLLEGE
NEW IRRIGATION WELL AT GALT CAMPUS
CONSTRUCTON COST ESTIMATE

September 27, 2016

ITEM NO.	DESCRIPTION	ESTIMATED QUANTITY			UNIT ESTIMATE		EXTENSION
1	Drilling of the Well (700 to 800')	1	ls	@	$200,000.00	=	$200,000.00
2	Copper Bearing Blank Casing	600	lf	@	$120.00	=	$72,000.00
3	SS Full Flow Casing	200	lf	@	$320.00	=	$64,000.00
4	Pumping System	1	ls	@	$60,000.00	=	$60,000.00
5	Piping and Valves	1	ls	@	$40,000.00	=	$40,000.00
6	Electrical Service	1	ls	@	$250,000.00	=	$250,000.00
7	Pressure Tank	1	ls	@	$20,000.00	=	$20,000.00
8	Pump Enclosure and Surface	1	ls	@	$50,000.00	=	$50,000.00
9	Abandon Existing Well	3	ea	@	$5,000.00		$15,000.00
10	Miscellaneous Facilities & Operations	1	ls	@	$77,000.00	=	$77,000.00
					TOTAL CONSTRUCTION COST :		**$848,000.00**
					Engineering, Inspecting, Testing, Administration & Contingency		**$152,000.00**
					TOTAL COST		**$1,000,000.00**