

ROOSEVELT IRRIGATION DISTRICT

REPORT ON WELL 1½ E - 10½ N

Redrill

24" - 200'

Work started - March 16, 1943
 Work completed - May 5, 1943
 Total Depth - 1,000'
 Depth of casing - 1,000'
 200' 24" 8 Ga. & 806' 16" 10 Ga. casing used and left in well
 Size of shoe -

LOG OF WELL

0' - 13' - Sandy clay
 13 - 30 - Rock
 30 - 60 - Gravel and some clay
 60 - 75 - Clay
 75 - 127 - Gravel and some clay
 127 - 160 - Hard clay and caliche
 160 - 162 - Cemented clay
 162 - 185 - Hard clay
 185 - 186 - Cemented sand
 186 - 200 - Hard clay (24" to here)
 200 - 206 - Hard clay (16" from here)
 206 - 214 - Gravel to 1½"
 214 - 402 - Hard clay
 402 - 464 - Hard sandy clay
 464 - 508 - Hard clay
 508 - 510 - Cemented clay
 510 - 515 - Hard clay
 515 - 518 - Cemented sand
 518 - 565 - Hard clay
 565 - 575 - Soft sandy clay
 575 - 590 - Hard sandy clay
 590 - 593 - Cemented sand
 593 - 598 - Hard clay
 598 - 605 - Rock
 605 - 954 - Hard clay
 954 - 1000 - Hard sand clay, several thin shells

Perforations

200' to 988' - 16" - 8 Holes per 10 inches
 60' to 190' - 24" - 12 Holes per 10 inches
 Diam. 16" - 9/16 & 24" - 3/4"
 Length 16" - 3½ & 24" - 5 Mills knife used.
 Depth at which water was first found - 60'
 Standing level before perforating - 50'
 Standing level after perforating - 42'

Casing cut 194' from surface - 16" cut - Lap in larger casing 6'
 Adapter used -
 Well is practically straight

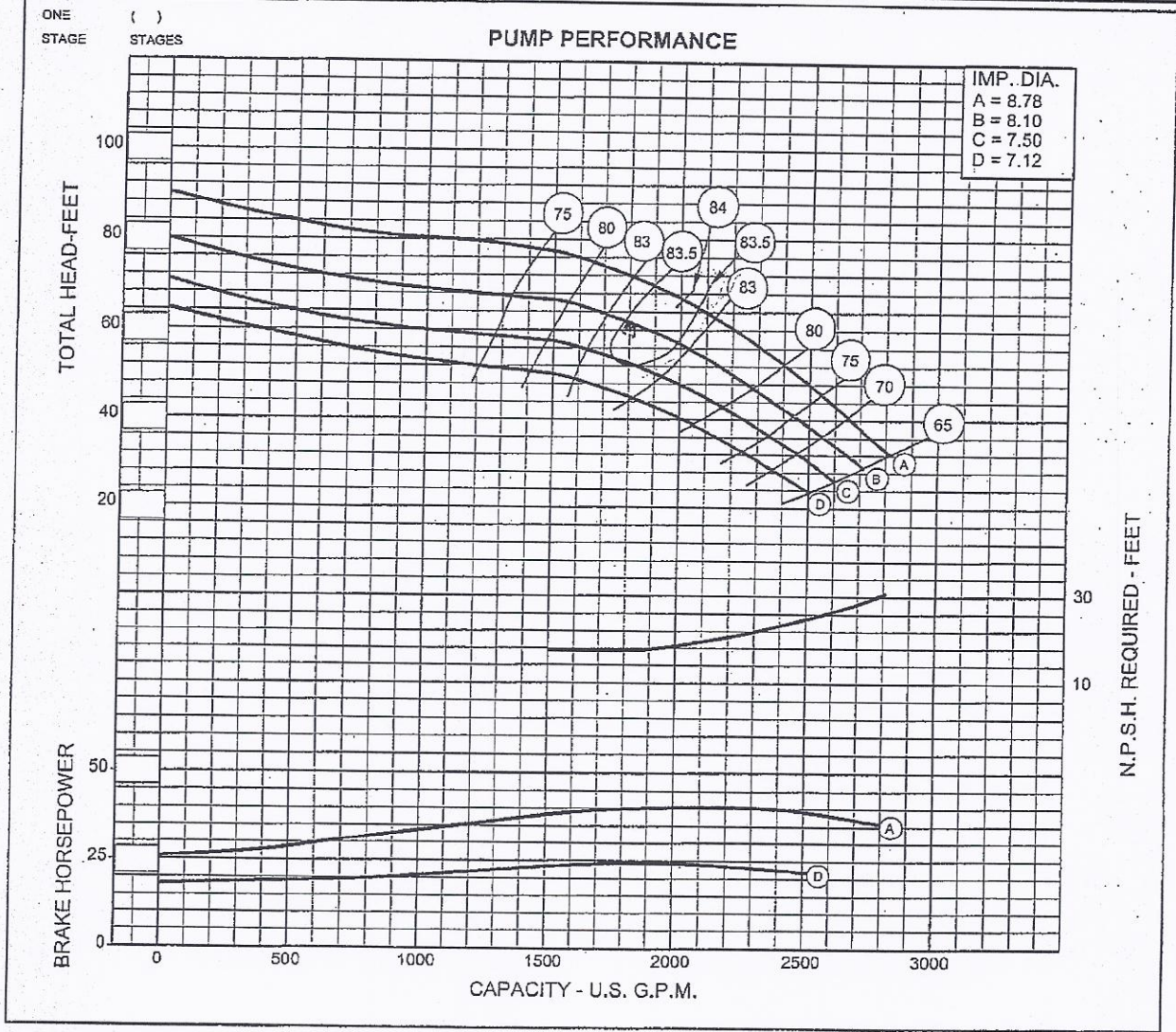
REMARKS Drilled by Roscoe Moss Company - J. N. Olson, Driller
 Rig #22

COST

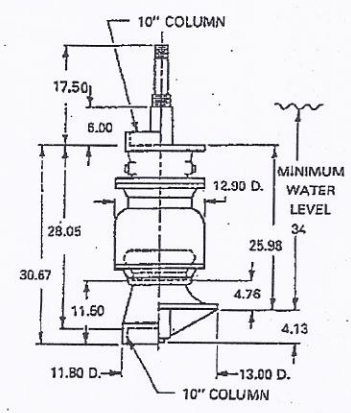
Drilling 24" - 200' @ 4.25 per ft.	\$850.00	850.00
Drilling 16" - 200' - 1,000 - 800' @ 3.50		2,800.00
1 - 20" - 24" #8 ga. starter with shoe		420.45
180' - 24" #8 ga. double well casing @ 7.55/ft.		1,359.00
1 - 20' - 16" #10ga. starter with shoe		204.53
784' - 16" #10 ga. casing		3,245.76
For instal. 16" casing in 24" hole, cutting off 16" casing & removing same 200' @ 65¢/ft		130.00
1 - 24" to 16" adapter installed		35.00
Total		\$9,044.74

well 64

	No. Stages	Eff. Change	MATERIAL	Eff. Change	13 H SINGLE STAGE LAB PERFORMANCE, WITH STANDARD MATERIALS. EFFICIENCY SHOWN FOR 2 OR MORE STAGES. HORSEPOWER SHOWN FOR ONE STAGE BASED ON 2 STAGE EFFICIENCY. CORRECTIONS SHOULD BE MADE FOR STAGES AND MATERIAL.	1770 R.P.M.
	1	-2	IMP. - C.I.	-1		
	2	-1.5	IMP. - BRZ	0		
	3	-.5	IMP. - ENAM. C.I.	+1		
	4	0	BOWL - C.I.	-2		
			BOWL - ENAM. C.I.	0		



Maximum Operating Speed	2300	Maximum Sphere Size - Inches	1.00
Pump Shaft Diameter - Inches	1.687	Thrust Factor - K_T	12.02
Bowl Weight, 1st Stage - Lbs.	327	WR ²	3.11
Bowl Weight, Ea. Add. Stage - Lbs.	157	Running Position (above seat) - In.	0.20
Allowable Shaft Stretch - Inches	0.80	Submergence - Inches	34
Maximum Working Pressure - PSI	380	Max. Bowl Brg Clearance - In. Dia.	0.014
Maximum Hydro Pressure - PSI	570	Max Wear Ring Clearance - In. Dia.	0.018
Impeller Eye Area - Sq. In.	28.40	Max Bowl O.D. - Inches	12.90
Rotor Weight 1st/add stages - (K_A)	43.3/43.3	Suct Bell O.D. - Inches	13.00
Add 13.06" per additional stage.		Maximum Number of Stages	11
Discharge - Inches	10	Suction - Inches	10



ENERGY ANALYSIS SUMMARY SHEET

This summary sheet will aid you in filling out ADWR worksheet W-2

Conducted by: Well Energy Testing, Inc.
(602)499-6019 (mob)

Customer: RID

Date: 06/03/09 Box 7

Type: Manometer Box 2

Make: C.W. Cox Box 2

Model: Piro-Swivel Velocitygage Box 2

Size: _____ Box 2

Pump Location: 1.5E-10.5N

Pump ID: 64

Power Co.: SRP Box 3

Meter #: 394809 Box 3

Multiplier K (Kr): 30 Box 4

Disk K (Kh): 1.2 Box 4

Inside Pipe Dia. (in.): 10 Box 6

Velocity Gauge reading (fps): 5.5 Box 7

Flow (m.i.): 120

Flow (gpm): 1346.40 Box 7

Flow (ac-ft/day): 6.00

Rev: 10

Time for 10 revs (sec): 17.05 (avg. of 3) Box 7

Kilowatt hours/ac-ft: 306.61

Energy Cost/ac-ft: \$17.72

Salinity (ppm): 1160

Pumping water level (ft): 72

*This value is an estimation of energy cost only. It does not include demand use, service, or customer charges. Your actual cost will be higher, depending on demand.

Remarks: All results are based on conditions during the time of test. If these conditions vary from the normal operation of your pump, the results shown may not describe the pump's normal performance.

*Flow decreased 10 m.i. since last summer.

Please install a new plug on side of pipe, thank you.

PWL has risen 6 feet since late summer last year.

ENERGY ANALYSIS SUMMARY SHEET

Conducted by: Well Energy Testing, Inc.
(602)499-6019 (mob)

This summary sheet will aid you in filling out ADWR worksheet W-2

Customer: RID

Date: 09/11/09 Box 7

Type: Manometer Box 2

Make: C.W. Cox Box 2

Model: Piro-Swivel Velocitygage Box 2

Size: _____ Box 2

Pump Location: 1.5E-10.5N

Pump ID: 64

Power Co.: SRP Box 3

Meter #: 394809 Box 3

Multiplier K (Kr): 30 Box 4

Disk K (Kh): 1.2 Box 4

Inside Pipe Dia. (in.): 10 Box 6

Velocity Gauge reading (fps): 5.5 Box 7

Flow (m.i.): 120

Flow (gpm): 1346.40 Box 7

Flow (ac-ft/day): 6.00

Rev: 10

Time for 10 revs (sec): 17.18 (avg. of 3) Box 7

Kilowatt hours/ac-ft: 304.23

Energy Cost/ac-ft: \$17.58

Salinity (ppm): 1160

Pumping water level (ft): 72

*This value is an estimation of energy cost only. It does not include demand use, service, or customer charges. Your actual cost will be higher, depending on demand.

Remarks: All results are based on conditions during the time of test. If these conditions vary from the normal operation of your pump, the results shown may not describe the pump's normal performance.

Please install a new plug on side of pipe, thank you.

ENERGY ANALYSIS SUMMARY SHEET

Conducted by: Well Energy Testing, Inc.
(602)499-6019 (mob)

This summary sheet will aid you in filling out ADWR worksheet W-2

Customer: RID

Date: 04/29/10 Box 7

Type: Manometer Box 2

Make: C.W. Cox Box 2

Model: Piro-Swivel Velocitygag Box 2

Size: _____ Box 2

Pump Location: 1.5E-10.5N

Pump ID: 64

Power Co.: SRP Box 3

Meter #: 394809 Box 3

Multiplier K (Kr): 30 Box 4

Disk K (Kh): 1.2 Box 4

Inside Pipe Dia. (in.): 10 Box 6

Velocity Gauge reading (fps): 5.5 Box 7

Flow (m.i.): 120

Flow (gpm): 1346.40 Box 7

Flow (ac-ft/day): 6.00

Rev: 10

Time for 10 revs (sec): 16.98 (avg. of 3) Box 7

Kilowatt hours/ac-ft: 307.81

Energy Cost/ac-ft: \$17.79

Salinity (ppm): 1160

Pumping water level (ft): 104

*This value is an estimation of energy cost only. It does not include demand use, service, or customer charges. Your actual cost will be higher, depending on demand.

Remarks: All results are based on conditions during the time of test. If these conditions vary from the normal operation of your pump, the results shown may not describe the pump's normal performance.

PWL has dropped 30 feet since last summer.

ENERGY ANALYSIS SUMMARY SHEET

Conducted by _____

This summary sheet will aid you in filling out ADWR worksheet W-2

Customer: RID

Date: 07/20/10 Box 7

Type: Manometer Box 2

Make: C.W. Cox Box 2

Model: Piro-Swivel Velocitygauge Box 2

Size: _____ Box 2

Pump Location: 1.5E-10.5N

Pump ID: 64

Power Co.: SRP Box 3

Meter #: 394809 Box 3

Multiplier K (Kr): 30 Box 4

Disk K (Kh): 1.2 Box 4

Inside Pipe Dia. (in.): 10 Box 6

Velocity Gauge reading (fps): 5 Box 7

Flow (m.i.): 110 ¹²⁰ Box 7

Flow (gpm): 1234.20 Box 7

Flow (ac-ft/day): 5.50

Rev: 10

Time for 10 revs (sec): 17.20 (avg. of 3) Box 7

Kilowatt hours/ac-ft: 331.57

Energy Cost/ac-ft: \$19.60

Salinity (ppm): 1030

Pumping water level (ft): 86

*This value is an estimation of include demand use, service, c cost will be higher, depending

Remarks: All results are based on conditions during the time of test. If these from the normal operation of your pump, the results shown may n pump's normal performance.

PWL has dropped another 18 feet since April, and flow rate decreased 10 m.i.

ENERGY ANALYSIS SUMMARY SHEET

Conducted by: Well Energy Testing, Inc.
(602)499-6019 (mob)

This summary sheet will aid you in filling out ADWR worksheet W-2

Customer: RID

Date: 05/05/11 Box 7

Type: Manometer Box 2

Make: C.W. Cox Box 2

Model: Piro-Swivel Velocitygag Box 2

Size: _____ Box 2

Pump Location: 1.5E-10.5N

Pump ID: 64

Power Co.: SRP Box 3

Meter #: 394809 Box 3

Multiplier K (Kr): 30 Box 4

Disk K (Kh): 1.2 Box 4

Inside Pipe Dia. (in.): 10 Box 6

Velocity Gauge reading (fps): 4 Box 7

Flow (m.i.): 88 ¹¹⁰

Flow (gpm): 987.36 Box 7

Flow (ac-ft/day): 4.40

Rev: 10

Time for 10 revs (sec): 17.20 (avg. of 3) Box 7

Kilowatt hours/ac-ft: 414.46

Energy Cost/ac-ft: \$24.49

Salinity (ppm): 880

Pumping water level (ft): 80

*This value is an estimation of energy cost only. It does not include demand use, service, or customer charges. Your actual cost will be higher, depending on demand.

Remarks: All results are based on conditions during the time of test. If these conditions vary from the normal operation of your pump, the results shown may not describe the pump's normal performance.

Flow has decreased 22 m.i. since last year.

Please install a new plug on the side of the pipe please.

ENERGY ANALYSIS SUMMARY SHEET

Conducted by: Well Energy Testing, Inc.
(602)499-6019 (mob)

This summary sheet will aid you in filling out ADWR worksheet W-2

Customer: RID

Date: 07/08/11 Box 7

Type: Manometer Box 2

Make: C.W. Cox Box 2

Model: Piro-Swivel Velocitygag Box 2

Size: _____ Box 2

Pump Location: 1.5E-10.5N

Pump ID: 64

Power Co.: SRP Box 3

Meter #: 394809 Box 3

Multiplier K (Kr): 30 Box 4

Disk K (Kh): 1.2 Box 4

Inside Pipe Dia. (in.): 10 Box 6

Velocity Gauge reading (fps): 3.5 Box 7

Flow (m.i.): 76

Flow (gpm): 852.72 Box 7

Flow (ac-ft/day): 3.80

Rev: 10

Time for 10 revs (sec): 17.07 (avg. of 3) Box 7

Kilowatt hours/ac-ft: 483.65

Energy Cost/ac-ft: \$28.58

Salinity (ppm): 910

Pumping water level (ft): 79

*This value is an estimation of energy cost only. It does not include demand use, service, or customer charges. Your actual cost will be higher, depending on demand.

Remarks: All results are based on conditions during the time of test. If these conditions vary from the normal operation of your pump, the results shown may not describe the pump's normal performance.

Flow fluctuated between 3 - 4 fps, and has decreased 12 m.i. since May.

Please install a new plug on the side of the pipe please.

Sold To: ROOSEVELT IRRIGATION DISTRICT
 ATTN: ACCOUNTS PAYABLE
 103 W. BASELINE RD.
 BUCKEYE, AZ 85326

Date: 2/17/2012
 Job Number: 2032-071
 Completion Date: FINAL
 Salesperson: TIM MILLER
 Terms: NET 30 DAYS
 Customer P.O.: KEN CRAIG
 Sales Tax Code: AZRMAR

Description: [#] WELL 64 1-1/2E - 10-1/2N

DESCRIPTION	TX	Quantity	Price	Amount
WELL 64 1-1/2E - 10-1/2N DIRECT SALE PER KEN CRAIG:				
MATERIALS - NONTAXABLE	NT	1.00	2,869.50	2,869.50
MATERIALS - TAXABLE	TX	1.00	717.37	717.37
1 - FAIRBANKS 13H 2 STAGE @ 3,586.87 (10" T x 2-1/2" x 1-1/2" P) DESIGN: 1800 GPM @ 125' TDH.				

Net Invoice: 3,586.87
 Sales Tax: 52.37
Invoice Total: 3,639.24

*Copied for Ken
2/18/12*