

[illegible]

Method of Determination:

3. ☐ Delivery System Diagram Attached (required). Indicate all major components and distances between components. Indicate weir size/pipe as applicable.
- ☒ Map Attached Showing Location(s) of point(s) of diversion and place(s) of use (required). Scale must be 1:24,000 or greater.
- ☐ Aerial Photo Attached (required for irrigation of 10+ acres).
- ☒ Photo of Diversion and System Attached

4.

<u>Well or Diversion</u>	<u>Motor Make</u>	<u>Hp</u>	<u>Motor Serial No.</u>	<u>Pump Make</u>	<u>Pump Serial No. or Discharge</u>
<u>ID No.*</u>	<u>Size</u>				
E0007886	U.S. Electric	125	60602174321-100R	Layne & Bowler	Discharge 12"

*Code to correspond with No. on map and aerial photo

D. FLOW MEASUREMENTS

1.

<u>Measurement</u>	<u>Type</u>	<u>Make</u>	<u>Model No.</u>	<u>Serial No.</u>	<u>Size</u>	<u>Calib. Date</u>
<u>Equipment</u>						
Panametrics	Sonic	GE	PT 878	277960		3/27/2008

2. Measurements:

Was able to obtain flow measurement with the use of the panametrics meter. Results of was 2061.8 gpm.
 A pump curve was provided from the city of Files showing the system capacity of 2000 gpm.
 Pump and Motor specifications were submitted also verifying 2000gpm.
 By calculating the theoretical HP equation and obtaining the pump curve from the operator, the estimated discharge is
 Approximately 4.84 cfs or 2100 gpm.

E. FLOW CALCULATIONS☒ Additional Computation Sheets Attached

Measured Method:

$$\text{HP Equation: } \frac{125 \times 8.8 \times 0.8}{\text{TDH}=182} = 4.84\text{cfs}$$

F. VOLUME CALCULATIONS

1. Volume Calculations for Irrigation:

$$V_{I.R.} = (\text{Acres Irrigated}) \times (\text{Irrigation Requirement}) =$$

$$V_{D.R.} = [\text{Diversion Rate (cfs)}] \times (\text{Days in Irrigation season}) \times 1.9835 =$$

$$V = \text{Smaller of } V_{I.R.} \text{ and } V_{D.R.} =$$

2. Volume Calculations for Other Uses: N/A

G. NARRATIVE/REMARKS/COMMENTS Independently

The City of Filer filed an Application for Permit, 47-8438 for Municipal use for 0.67 cfs for additional water due to lost capacity from inoperable wells and increased demand. Proof of Beneficial was to be submitted on or before April, 2002. In March of 2002 the City of Filer requested an extension of time due to quality issues that prevented development of a new well. The department granted the request to extend the time to submit proof of beneficial use to April, 2003. In July of 2002 the City of Filer filed an Application of amendment of a permit to change the point of diversion of the new well. In November of 2002 the amendment was approved. Again in March of 2003 a request for extension of time was submitted and approved for April, 2004. In March 2004, Proof of Beneficial Use was submitted prior to the due date. A field exam was conducted with the following results.

The City of Filer has a total of five (5) wells for municipal purposes within their service area. The five (5) wells are identified as well #1, #2, #3, #5 and #7. Permit 47-8438 is for a new well drilled (well #7) in 2/2002 to be added to the existing system, which also included a new one-million gallon storage tank, pump house with three boosters (50 HP, 60 HP and 100 Hp) and a well house. Permit 47-16843 is for all five (5) wells for capacity development.

Well #7 under permit 47-8438 is for 0.67cfs (approximately 330.71 gpm). The measured flow capacity of this well was 2061.8gpm which equals 4.59cfs using the Panametrics PT 878 flow meter. This well is capable of producing more than 0.67 cfs authorized under this permit. Therefore I am recommending Permit 47-8438 for 0.67 to be licensed.

Permit 47-16843 is for an additional 4.90 cfs (2199 gpm) total for all five (5) wells.

Well #1 is currently under water right 47-4144 for 0.33 cfs (148.11 gpm). A measurement was taken using a Fuji polysonic flow meter, resulting in 0.34 cfs (151.0 gpm), so no additional flow capacity was developed.

Well #2 is currently under water right 47-4145 for 0.28 cfs (125.67 gpm). We were unable to obtain a flow measurement because of insufficient space to place meter on pipe. Although the mag meter in the pump house recorded 120 gpm from this well, so no additional flow capacity is available.

Well #3 is currently under water rights 47-2399 and 47-7717 with a total of 2.78 cfs (1247.74 gpm). A measurement was taken using the Panametrics PT 878 flow meter resulting in a flow of 1208.4 gpm (2.69 cfs), so no additional flow is available

Well #5 is currently under water right 47-7840 for 0.89 cfs (399.45 gpm). The McCrometer instantaneous flow reading was 525 gpm which corresponded to the mag meter reading of 525 gpm at the well house (1.17 cfs). From these measurements an additional 0.28 cfs (125.55 gpm) could be developed. A measurement was taken to verify the accuracy of the McCrometer using the Panametrics PT 878 flow meter resulting in a + 3.86 % accuracy.

Well #7 currently has the capacity to produce 4.59 cfs (2061.8 gpm). After licensing of permit 47-8438 for 0.67 cfs (330.71 gpm) there is an additional flow of 3.92 cfs (1758.4 gpm) developed.

Under permit 47-16843 an additional 0.28 cfs (125.6 gpm) was developed from well #5 and 3.92 cfs (1759.4 gpm) was developed from the new well #7. This allows for a total of 4.2 cfs to be licensed under permit 47-16843

I am recommending Permit 47-16843 to be licensed for 4.2 cfs (1884.0 gpm).

The City of Filer has a pending transfer to consolidate all water rights and wells for the entire municipal system, once permit 47-8438 is licensed.

Have conditions of permit approval been met? ☒ Yes ☐ No

H. RECOMMENDATIONS

1. Recommended Amounts

<u>BENEFICIAL USE</u>	<u>PERIOD OF USE</u>	<u>DIVERSION RATE</u>	<u>ANNUAL VOLUME</u>
MUNICIPAL	01/01 to 12/31	0.670 CFS	
<u>Totals:</u>		0.670 CFS	

2. Recommended Amendments

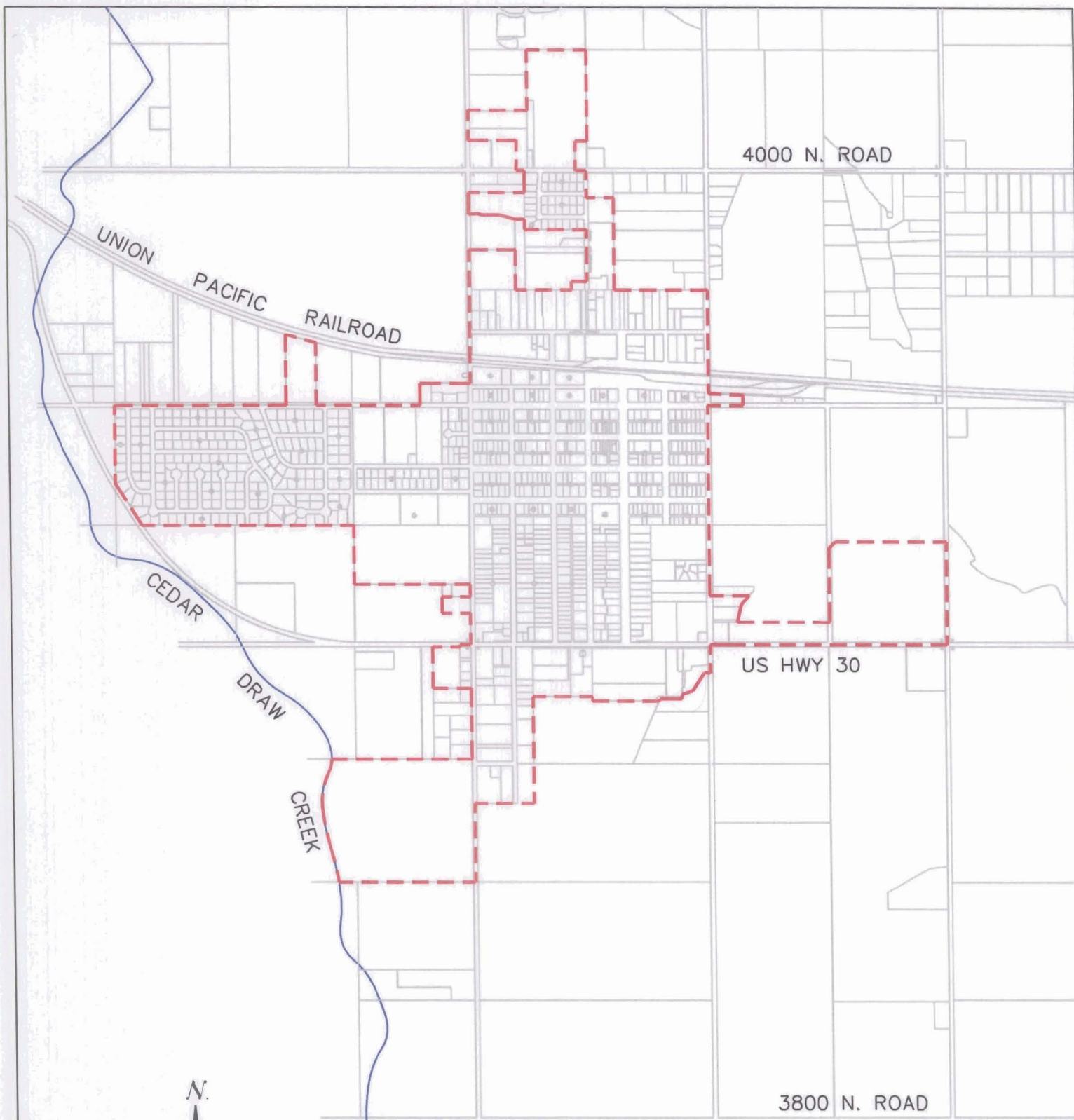
☐ Change P.D. as reflected above ☐ Add P.D. as reflected above ☒ None

☐ Change P.U. as reflected above ☐ Add P.U. as reflected above ☐ Other

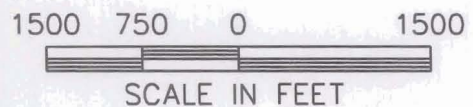
I. AUTHENTICATION

Field Examiner's Name Benny Walk Date 9/18/08

Reviewer _____ Date _____



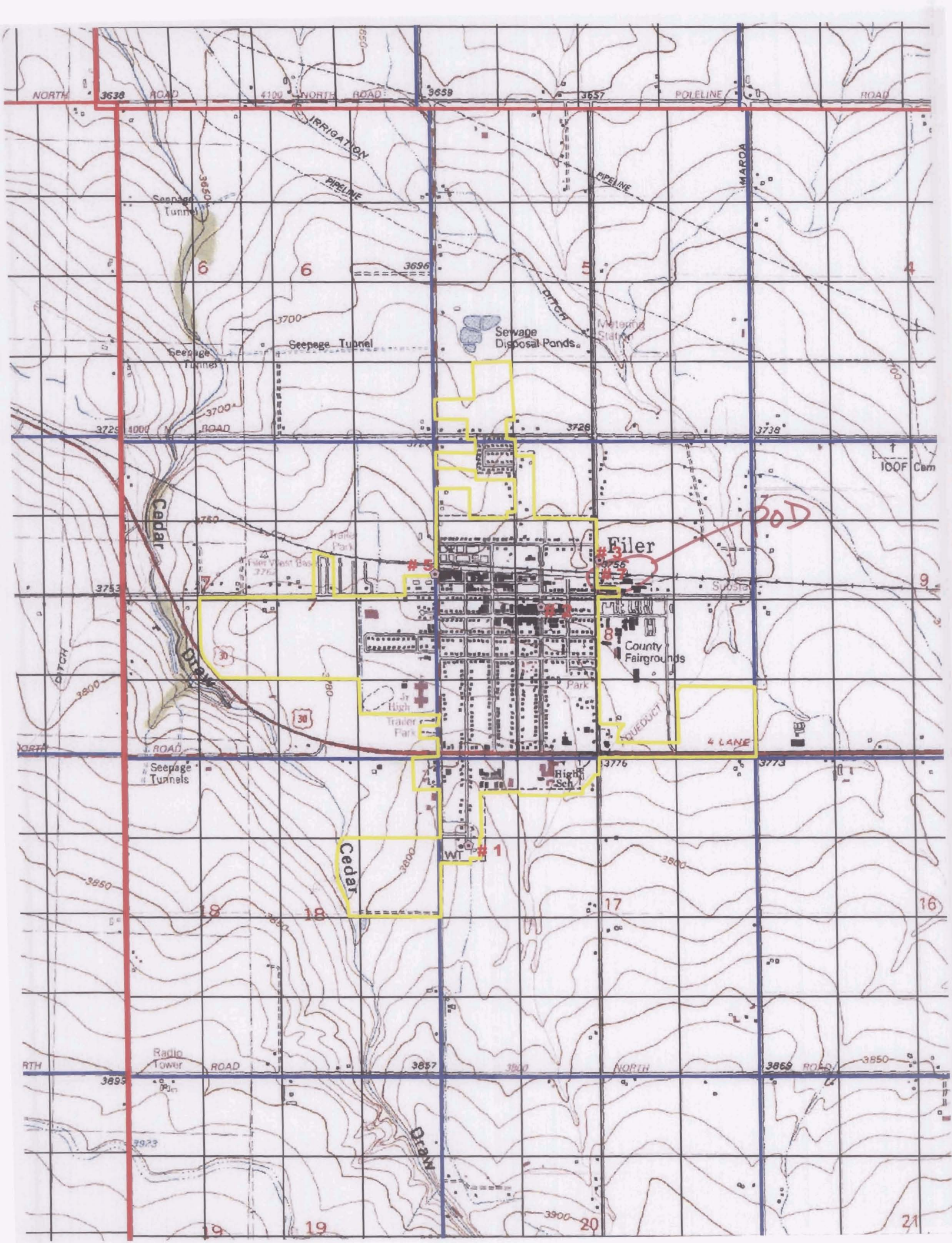
--- EXISTING WATER SERVICE AREA/CITY LIMITS



CITY OF FILER WATER SERVICE AREA/CITY LIMITS



ENGINEERS • SURVEYORS • PLANNERS



47-8438 Licensing Exam photos



Well #3 E0006707 50hp

Well #7 E0007886 125hp



Boosters (50hp, 60hp, 100hp) located in new pump house from main storage tank (both shown in photo below). All 5 of the City of Filer's wells feed into the main storage tank and then are pumped via the boosters to the service area.



New Pump House

New Million Gallon Storage Tank

SUBMITTAL

JUL 2003
RECEIVED
MAY 11 2003
TWIN FALLS, IDAHO

- ☐ Reviewed ☒ Furnish as Corrected
☐ Rejected ☐ Revise and Resubmit
☐ Don't Specify Item

Project Name: _____

Project Number: _____

Project Location: _____

Project Description: _____

Project Status: _____

Project Date: _____

Project Engineer: _____

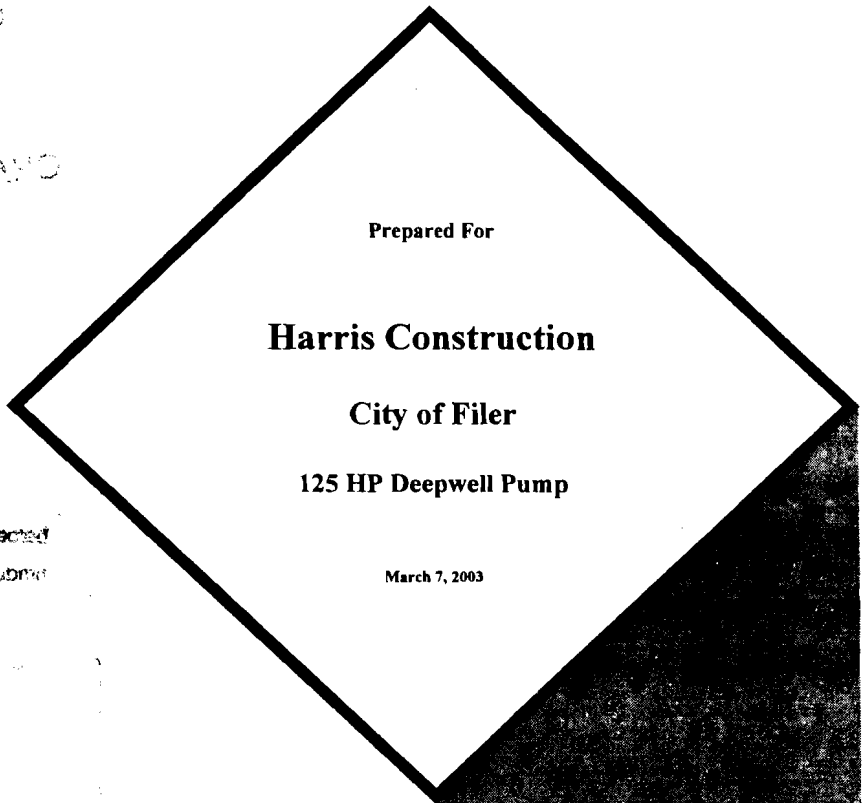
Project Designer: _____

Project Checker: _____

Project Approver: _____

Date: 4/9/03 By: [Signature]

Column couplings to be steel.



Prepared For

Harris Construction

City of Filer

125 HP Deepwell Pump

March 7, 2003

PumpTech Company, Inc.

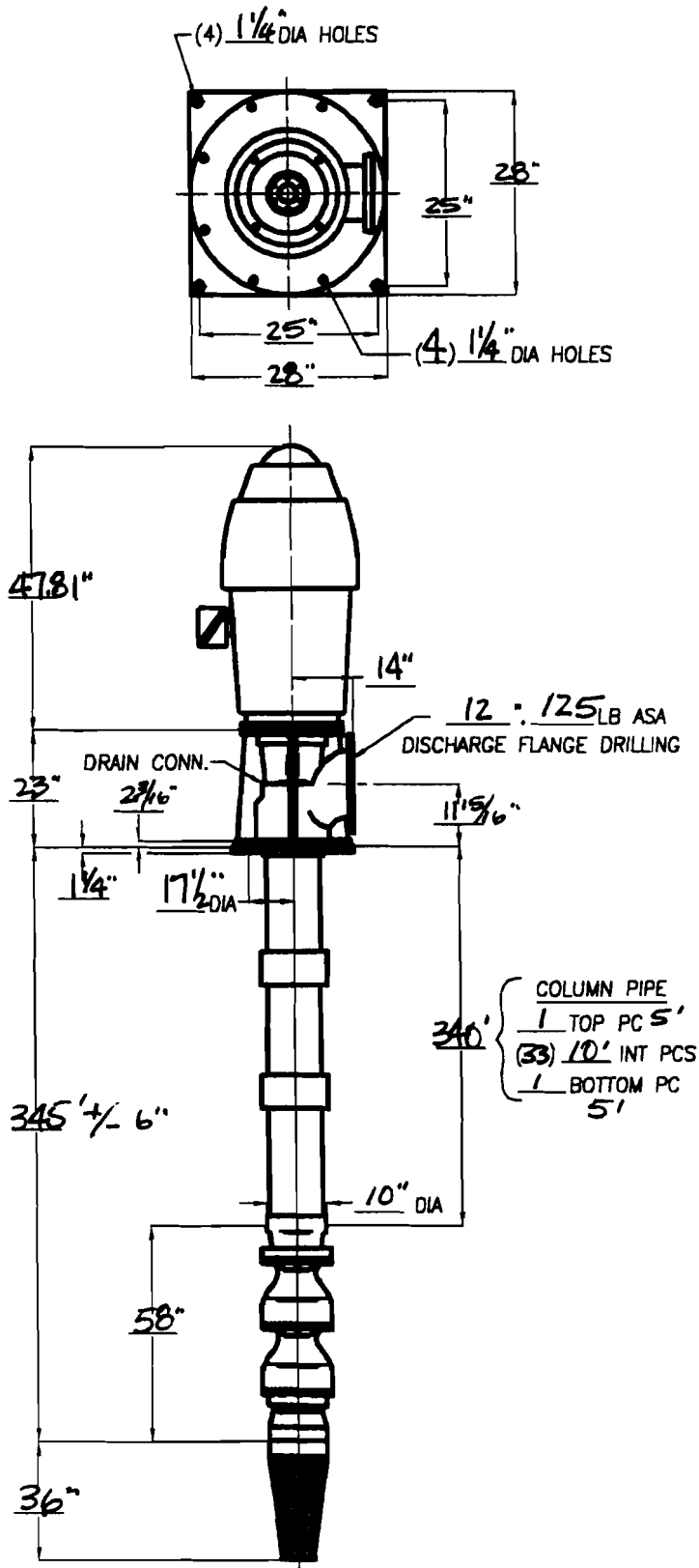
P.O. Box 51259, Idaho Falls, ID 83405 Phone (208) 529-6868 / Fax (208) 529-4332

"YOUR TOTAL PUMP SUPPLIER"

J^oLINE.

DEEP WELL TURBINE PUMP ELECTRIC MOTOR DRIVEN WATER OR OIL LUBRICATED

Specifications
Page A2-B2



MATERIAL OF CONSTRUCTION	
Bowl	Impeller
Bowl Shaft	Shaft Coupling
Bowl Bearings	Shaft Bearings
Strainer	Bowl W/R
Impeller W/R	Column Pipe
Lineshaft	Packing
Base Plate	Head

PUMP	
Type 12WC	Discharge Head TR12HD
Suction 10"	Discharge 12"
Lineshaft 1 1/2"	Column 10"
Lubrication - WATER	Model
Stage 4	GPM 2000
TDH 182	Trim Factory
RPM 1760	BHP 125

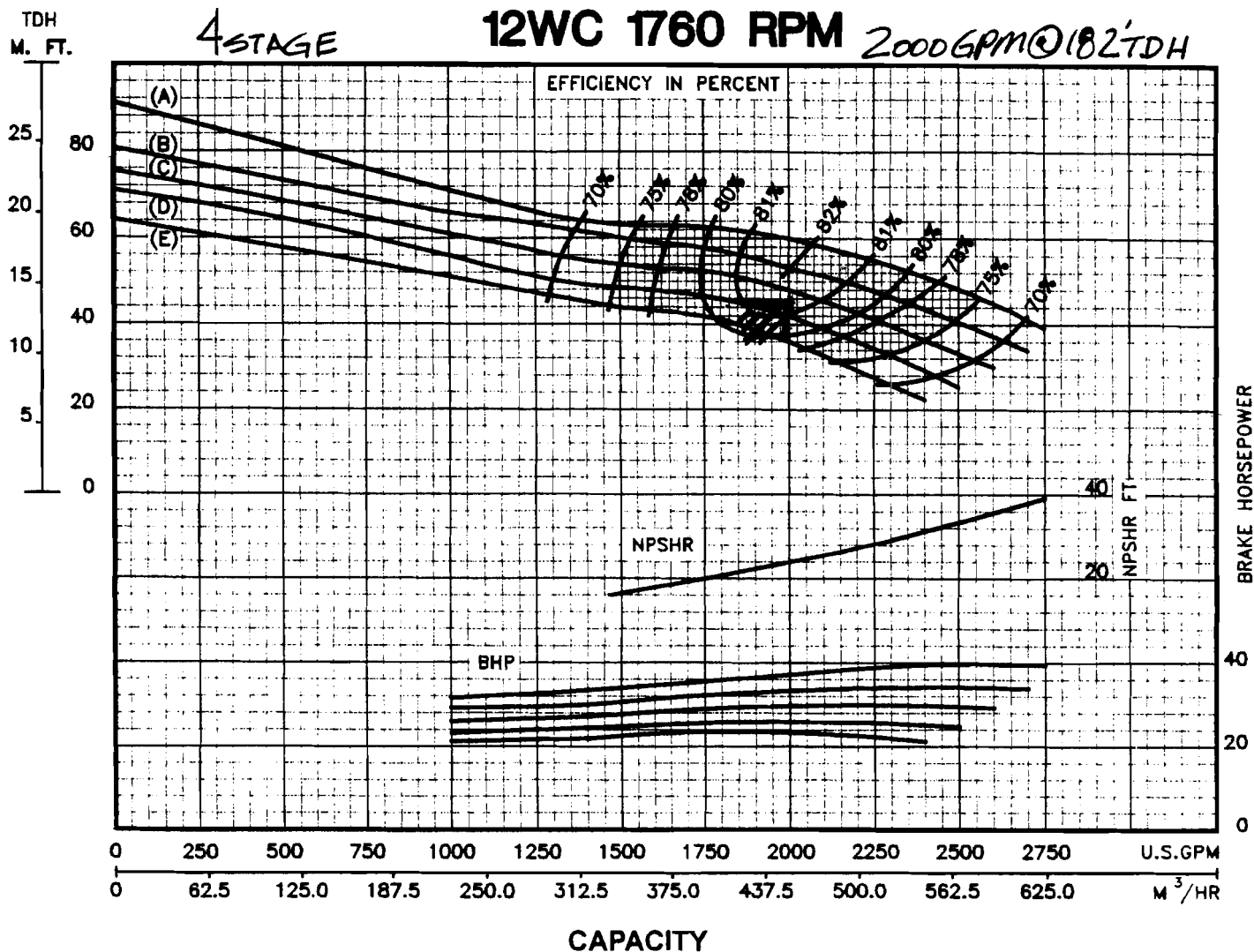
MOTOR	
Make US MOTORS	Type VHS
Enclosure WP-1	NRR - 1 1/2"
SRC -	HP 125
RPM 1800	Phase
Hertz 60	Voltage 460
Frame No. 444 TP	Type Coupling -

OTHER SPECIFICATIONS	
Drawing No.	Serial No.
Fluid - WATER	Spec. Gravity 1.0
Viscosity	Temperature 60°F
PH	No. Units Required 1

Customer	City of Filer	
Address		
City	ST	ZIP
Tel. ()	Fax. ()	
Rep.		
Supplier	Harris Const / Pump Tech Co.	
Salesman	Barry Cazier	

JOLINE®**TURBINE PUMP CURVE**

JANUARY 1995



IMPELLER DATA	
Impeller Number:	4777
Material:	BRONZE
Type:	CLOSED
Thrust Factor:	K=16.20
Eye Area:	29.70 sq. in.
Weight:	21.00 lb.
TRIM:	(A) 10.063" X 30.5" (B) 9.813" X 30.5" (C) 9.563" X 30.5" (D) 9.313" X 30.5" (E) 9.063" X 30.5"
Minimum submergence above eye of bottom impeller: 30 in.	

EFFICIENCY CORRECTION				
Number of Bowls	1	2	3	4
Change as follows	-3	-2	-1	0
Change in efficiency may affect both head and horsepower				

BOWL DATA	
Bowl Number	4771 C.I./ENAM.
Bowl Dia.	12.188 in
Max. No. Stages	10
One Stage Weight	415 lb
Add'l Stage Weight	140 lb
Std. Shaft Dia.	1.688 in
Std. Lateral	0.750 in
Discharge Size	8 - 10 in
Suction Size	8 - 10 in
Max. Sphere Size	1.375 in
Max. Operation P.S.I.	584

Performance based on pumping clear, fresh water at a temperature not over 85° F., and free of gas, air or abrasives, and with bowls properly adjusted and submerged.

FORWARD WHITE COPY TO WATER RESOURCES

IDAHO DEPARTMENT OF WATER RESOURCES
WELL DRILLER'S REPORT

Office Use Only

Inspected by _____

Twp _____ Rge _____ Sec _____

ATION 1/4 1/4 1/4

Lat: : : Long: : :

1. WELL TAG NO. D _____
 DRILLING PERMIT NO. _____
 Other IDWR No. _____

2. OWNER:

Name _____
Address _____
City _____ State _____ Zip _____

3. LOCATION OF WELL by legal description:

Sketch map location must agree with written location.

	N	
W		E
	S	

Twp. _____ North ☐ or South ☐

Rge. _____ East ☐ or West ☐

Sec. _____ 1/4 1/4 1/4

Gov't Lot _____ County _____
10 acres 40 acres 160 acres

Lat. : : Long. : :

Address of Well Site _____

City _____

(Give at least name of road + distance to Road or Landmark)

Lt. _____ Bk. _____ Sub. Name _____

4. USE:

☐ Domestic ☐ Municipal ☐ Monitor ☐ Irrigation
☐ Thermal ☐ Injection ☐ Other

5. TYPE OF WORK check all that apply (Replacement etc.)

☐ New Well ☐ Modify ☐ Abandonment ☐ Other _____

6. DRILL METHOD

☐ Air Rotary ☐ Cable ☐ Mud Rotary ☐ Other

7. SEALING PROCEDURES

[illegible]

Was drive shoe used? ☐ Y ☐ N Shoe Depth(s) _____

Was drive shoe seal tested? ☐ Y ☐ N How? _____

8. CASING/LINER:

Diameter	From	To	Gauge	Material	Casing	Liner	Welded	Threaded
					☐	☐	☐	☐
					☐	☐	☐	☐
					☐	☐	☐	☐

Length of Headpipe _____ Length of Tailpipe _____

9. PERFORATIONS/SCREENS

Perforations	Method _____
Screens	Screen Type _____

From	To	Slot Size	Number	Diameter	Material	Casing	Liner
						☐	☐
						☐	☐
						☐	☐

10. STATIC WATER LEVEL OR ARTESIAN PRESSURE:

_____ ft. below ground Artesian pressure _____ lb.
Depth flow encountered _____ ft. Describe access port o
control devices:

11. WELL TESTS:

☐ Pump ☐ Bailer ☐ Air ☐ Flowing Artesian

Yield gal./min.	Drawdown	Pumping Level	Time

Water Temp. _____ Bottom hole temp. _____

Water Quality test or comments: _____

Depth first Water Encounter

12. LITHOLOGIC LOG: (Describe repairs or abandonment) water.

[illegible]

Completed Depth _____ (Measurable)

Date: Started _____ Completed _____

13. DRILLER'S CERTIFICATION

I/We certify that all minimum well construction standards were complied with at the time the rig was removed.

Company Name **WALKER WATER SYSTEMS INC.** Firm No. **15**

Firm Official  Date **03/28/02**

Driller or Operator _____ Date 03/28/02

(Sign once if Firm Official & Operator)

IDAHO DEPARTMENT OF WATER RESOURCES
Water Measurement Program**WATER MEASURING DEVICE CERTIFICATION**

(Revised 7/2002)

District _____

Diversion Name # 7

Inventory Date _____

Inventory Examiner _____

PCC o.k.? ☐ Yes ☐ NoTest Date 7/15/08Person performing test JTExam complete? ☒ Yes ☐ NoName: City of Filer

Water Right No.: _____

Legal Description: T _____ R _____ Sec. _____ $\frac{1}{4}$ $\frac{1}{4}$ $\frac{1}{4}$ Site Tag No.: E0007886Diversion Name: # 7**Current Owner**Name City of Filer

Phone _____

Address _____

Cell _____

City _____ St _____ Zip _____

E-mail _____

Operator (if leased or operated by person other than owner)Name Bud CompherPhone 326-5001Address 300 Main StCell 308-9007

City _____ St _____ Zip _____

E-mail _____

SECTION 1 – Well Site Identification**Global Positioning System Data:**

Data Collection Filename _____ Offset _____

IDWR Site Tag Identification No. _____

Site Tag Location description: _____

PLS/USGS LOCATOR _____

For Department/District Use Only

Received by _____ Date _____

Reviewed by _____ Date _____

Data Entry By _____ Date _____

SECTION II – Installed Meter Information

METER AND MOUNTING PIPE INFORMATION			
Motor HP	125	Volume units	Acre-Feet <u>Gallons</u> Other (specify) _____
Meter Install Date		Volume multiplier	x 1000
Manufacturer	McCrometer	Installation location	☒ Excel ☐ Fair ☐ Good ☐ Poor
Meter Type		Pipe material	Duct
Meter Model	Drop	Outside diameter	13.20
Serial Number	03-	Wall thickness	.45
Size (nominal)	13	Inside diameter	
Measure Flow Rate?	☒ Yes ☐ No	Amount of straight pipe upstream from meter	+ 36 Inches Pipe Lengths
Measurement Units	☐ CFS ☒ GPM Other (specify) _____	Amount of straight pipe downstream from meter	+ 36 Inches Pipe Lengths
Flow Rate Multiplier	x 1	Standard Meter Type	☒ Sonic ☐ Pyg ☐ Collins ☐ Hall ☐ Anub ☐ Dye/chem ☐ Other _____
Measure Cumulative Volume?	☒ Yes ☐ No	Standard Meter Confidence	☒ Excellent 2% ☐ Good 5% ☐ Fair 10% ☐ Poor > 10%

Multiple Flowmeters

Are multiple flowmeters used to measure diversions from this well? ☒ Yes ☐ No

If yes, how many? _____
(Attach separate form for each meter checked and/or calibrated.)

Multiple Wells

If this meter measures diversions from multiple wells, list names and locations of other wells:

#3 and #7 same pump house / system

SECTION III – Certification for Calibration of a Water Measurement Meter

Measurement No. 1 (M_1) is the measured rate of flow from the permanently installed flow meter.

Measurement No. 2 (M_2) is the measured rate of flow from the measuring device being used to check the flow for the calibration. This method or device must be accurate to within $\pm 5\%$ error. Describe below the method and equipment used to perform this measurement.

$$\text{Percent Difference} = (M_1 - M_2) + M_2 \times 100 = \pm \% \quad (\text{Acceptable is within } \pm 10\%) \quad (\text{equation 1})$$

$$\text{Calibration Multiplier} = M_2 + M_1 \quad (\text{equation 2})$$

Is flowmeter installed according to manufacturer's specifications? ☐ Yes ☐ No ☐ Unsure

Describe any apparent problems with installation or operation _____

Flowmeter accuracy prior to any adjustments: _____ Totalizer reading _____

Flowmeter accuracy after final adjustment: _____ Totalizer reading _____

Flowmeter calibration multiplier: _____

190
50808

FLOWMETER ACCURACY CALIBRATION TABLE							
Installed meter (totalizer reading)	Time	Total Gallons	Average Flow Rate GPM (M_1)	Standard total gallons	Average Flow Rate GPM (M_2)	% diff. ($\pm$)	Comments and adjustments
761359	Start						
761380	10:00	21000	2100	20618	2061.8	+1.85%	" good Meas.

Notes – Comments – Calculations: 4860 Sound Speed

WATER LEVEL DATA	
Does the well have access to measure water levels? ~ Yes ~ No (<i>check one</i>)	
Is this well part of USGS, IDWR, or another network of water level monitoring wells? ~ Yes ~ No (<i>check one</i>)	
Static Water Level _____ ft Date _____	Pumping Water Level _____ ft (at condition _____) Date _____

Sketch and/or photograph of installation:

I certify that the above information is true and correct to the best of my knowledge and ability and the measurements taken and recorded are in accordance with the standards and specifications of the equipment used.

Signature _____ Date _____
(person performing measurements)

Log Name Filer Well # 7 E0007886
Log Title
Start Time 7/15/2008 12:19
End Time 7/15/2008 12:30
Records 3
Interval 60
Error Flags 8208
Cyclic Flags 2

Item #	Label	Symbol	UnitType	Channel	Comport	Computer	Decimal
0	Velocity	ft/s	578	0	0	PT878	4
1	Volume	gal/m	846	0	0	PT878	4
2 (+)	Total	gal	1160	0	0	PT878	4

Date/Time	Velocity (ft/s)	Volume (ζ (+)	Total (ζ	Error #
7/15/2008 12:19:03	5.537022884	2050.676	190.0687	0
7/15/2008 12:20:03	5.585997781	2068.814	2229.349	0
7/15/2008 12:21:03	5.590700134	2070.555	4275.345	0
7/15/2008 12:22:03	5.593099441	2071.444	6329.7	0
7/15/2008 12:23:03	5.571538705	2063.459	8370.87	0
7/15/2008 12:24:04	5.600996971	2074.369	10502.9	0
7/15/2008 12:25:03	5.607513203	2076.782	12555.99	0
7/15/2008 12:26:04	5.566455801	2061.576	14680.98	0
7/15/2008 12:27:04	5.565911387	2061.375	16712.38	0
7/15/2008 12:28:03	5.58761645	2069.413	18755.37	0
7/15/2008 12:29:03	5.585456144	2068.613	20808.15	0

Panametrics=2061.8 gpm
 McCrometer= 2100 gpm



LAYNE PUMPS, Inc.

VERTICAL TURBINE PUMPS

PHONE 733-3284

P. O. BOX 640

TWIN FALLS, IDAHO 83301

WELL TESTING REPORT AND AGREEMENT

#7

NAME CITY OF FILER LOCATION N FAIRVIEW
I. D. WELL 16" WELL DEPTH 385 WATER TEMP. STATIC WATER LEVEL 45'
ORIFICE SIZE 9" DISCHARGE PIPE 12" COLUMN & LENGTH 360' AIRLINE 360'

TIME	WATER LEVEL FT. FROM TOP	R. P. M.	ORIFICE READING	G. P. M.	REMARKS: SAND? CASCADING WATER? etc.
9:00	129'	1200	22"	1670	CLOUDY
9:15	134'	1550	35"	2107	CLEAR
9:20	134'	1700	53"	2592	CLOUDY
9:30	134'	1700	53"	2592	CLOUDY
10:00	143'	1700	49"	2493	"
10:30	143'	1700	49"	2493	"
10:36	139'	1700	55	2641	AFTER BACK FLUSH
11:00	148'	1700	52-1/2	2580	CLEAR W/SOME CLAY
11:30	148'	1700	52-1/2	2580	CLEAR
12:00	153'	1700	52-1/2	2580	CLEAR
12:20	153'	1700	52-1/2	2580	"
11:00	153'	1700	52-1/2	2580	CLEAR
1:30	153'	1700	52-1/2	2580	CLEAR
2:00	171'	2000	72"	3000+	CLOUDY
2:10	171	2000	72"	"	CLOUDY
2:30	171'	"	"	"	"
3:00	171'	"	"	"	"
3:30	166'	2000	16-1/2	2677	SUCTION PLUGED UP -HAD TO BACKFLUSH
3:45	171'	2000	71"	3000	
4:00	171'	2000	71"	3000	CLEAR WITH SOME CLAY
4:30	171'	2000	63"	2826	MILKY
4:50	171	"	"	"	"
RECOVERY TIME: FT. 1 MINUTE FT. 2 MINUTES FT. 3 MINUTES					

APPROVED BY:
RAY WIGHT

(LAYNE & BOWLER, INC.)

(OWNER OF WELL)

INSTALLED BY: LARRY PETZOLDT

DATE 1/8/03