

STATE OF IDAHO
DEPARTMENT OF WATER RESOURCES
BENEFICIAL USE FIELD REPORT

A. GENERAL INFORMATION

Permit No: 98-7813

Exam Date: 9/18/2012

1. Current Owner: US DEPT OF INTERIOR
FISH & WILDLIFE SERVICE
911 NE 11TH AVE
PORTLAND OR 97232-4181
(503)231-6251
2. Accompanied by: DIANNA ELLIS
Phone No: 208-2678-3888
Address: 287 WESTSIDE RD BONNERS FERRY ID 83805
Relationship to Permit Holder: WILDLIFE REFUGE MANAGER

3. SOURCE

DEEP CREEK

TRIBUTARY

KOOTENAI RIVER

B. OVERLAP REVIEW

1. Other water rights with the same place of use: 98-7004,98-7006
2. Other water rights with the same point of diversion:98-7004

C. DIVERSION AND DELIVERY SYSTEM**1. LOCATION OF POINT(S) OF DIVERSION:**

DEEP CREEK NE1/4NE1/4 Sec. 36, Twp 62N, Rge 01W, B.M. BOUNDARY County

Method of Determination: GPS

2.

PLACE OF USE: WILDLIFE

Twp Rge Sec	NE				NW				SW				SE				Totals
	<u>NE</u>	<u>NW</u>	<u>SW</u>	<u>SE</u>	<u>NE</u>	<u>NW</u>	<u>SW</u>	<u>SE</u>	<u>NE</u>	<u>NW</u>	<u>SW</u>	<u>SE</u>	<u>NE</u>	<u>NW</u>	<u>SW</u>	<u>SE</u>	
62N 01W 25	X	X	X	X	X			X	X				X	X	X	X	
62N 01W 36	X	X															

PLACE OF USE: WILDLIFE STORAGE

Twp Rge Sec	NE				NW				SW				SE				Totals
	<u>NE</u>	<u>NW</u>	<u>SW</u>	<u>SE</u>	<u>NE</u>	<u>NW</u>	<u>SW</u>	<u>SE</u>	<u>NE</u>	<u>NW</u>	<u>SW</u>	<u>SE</u>	<u>NE</u>	<u>NW</u>	<u>SW</u>	<u>SE</u>	
62N 01W 25	X	X	X	X	X			X	X				X	X	X	X	
62N 01W 36	X	X															

DIVERSION TO STORAGE same as WILDLIFE STORAGE

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

D. FLOW MEASUREMENTS

1.

<u>Measurement Equipment</u>	<u>Type</u>	<u>Make</u>	<u>Model No.</u>	<u>Serial No.</u>	<u>Size</u>	<u>Calib. Date</u>
ULTRASONIC FLOW METER	S1011	FUGI		7K0079TB		8/2012

2. Measurements: **23.58 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:

G. NARRATIVE/REMARKS/COMMENTS:

The intent of this water right is to supply water to the wetlands with the use of wildlife and wildlife storage. The place of use is covered by water right 98-7004, 98-7006 and 98-7813. Water right 98-7813 is adding a higher diversion rate and volume to the place of use. Wetlands in this location are set up to be filled from Deep creek with a pumping system that flows water in to channels that flood water over the wetlands and from ponds. The volume of water used for filling the wetlands and ponds will be limited to the combined volume of water right 98-7004 and 98-7813. The combined total volume is derived from adding 98-7813 volume of 472 AF to 98-7004 with a volume 2 AF totaling 474 AF per year to this location.

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>
WILDLIFE	01/01 to 12/31	11.800 CFS	472.00 AF
WILDLIFE STORAGE	01/01 to 12/31		472.00 AF
DIVERSION TO STORAGE	01/01 to 12/31	11.800 CFS	
<u>Totals:</u>		11.800 CFS	472.00 AF

2. Recommended Amendments

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

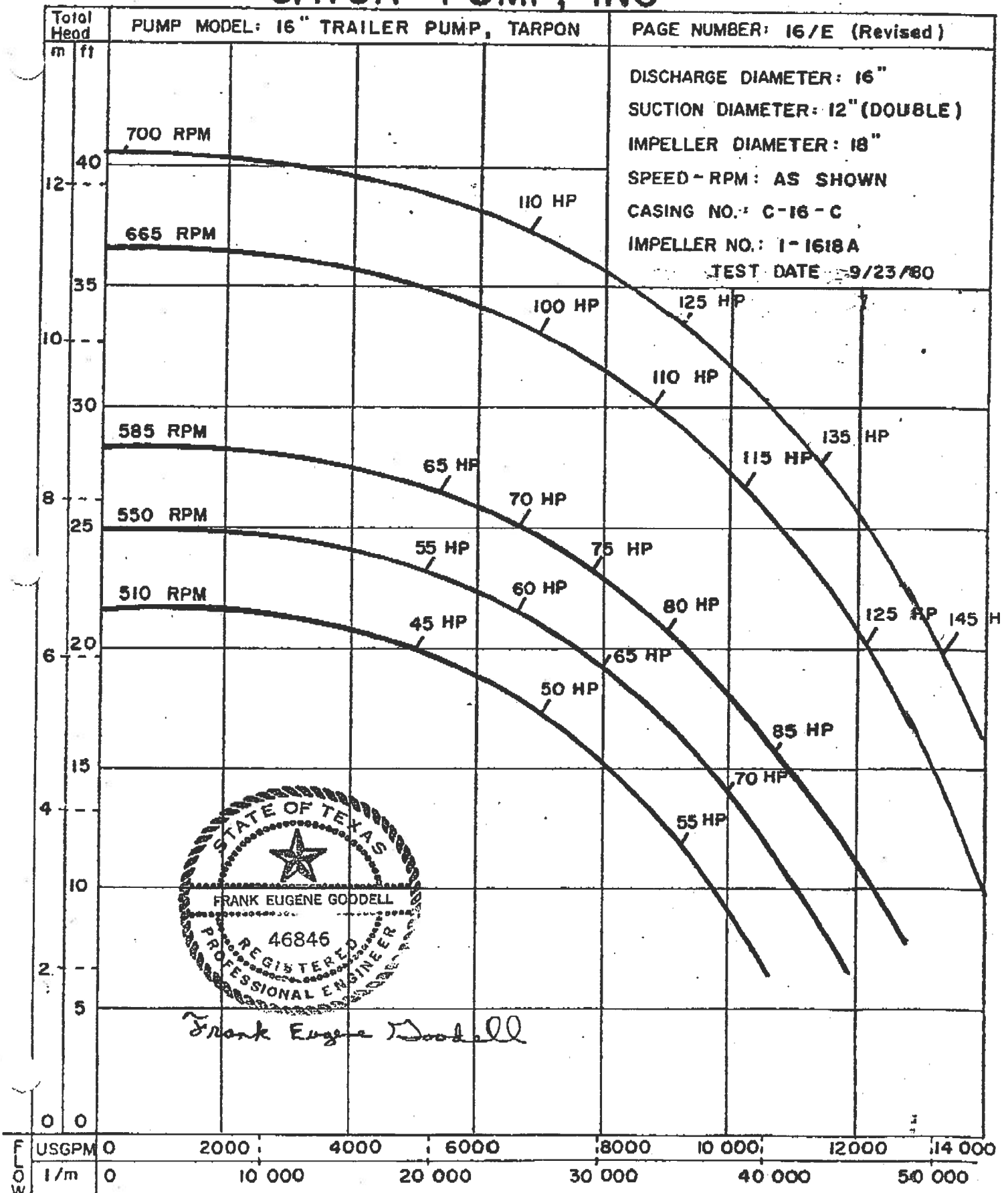
☐ Change P.U. as reflected above ☐ Add P.U. as reflected above ☐ Other

I. AUTHENTICATION

Field Examiner's Name Eric [Signature] Date 01-23-2013

Reviewer Keith [Signature] Date 1/25/13

GATOR PUMP, INC



GATOR PUMP, INC

PUMP MODEL: TARPON (16" TRAILER)

665 RPM								
Flow, USGPM	0	6,000	7,000	8,000	9,000	10,000	11,000	12,000
Head, Feet	36.7	34.2	33.0	31.4	29.7	27.3	24.6	20.5
Power, HP	70	89	96	103	110	115	120	125
Efficiency, %	--	58	61	62	61	60	57	50
Flow, l/m	0	22,700	26,500	30,300	34,100	37,900	41,700	45,500
Head, Meters	11.2	10.4	10.1	9.6	9.1	8.3	7.5	6.3
Power, KW	52	66	72	77	82	86	90	93

585 RPM								
Flow, USGPM	0	5,000	6,000	7,000	8,000	9,000	10,000	11,000
Head, Feet	28.1	26.6	25.7	24.4	22.8	20.5	17.7	14.3
Power, HP	48	63	68	72	76	80	83	86
Efficiency, %	--	53	57	60	61	58	54	46
Flow, l/m	0	19,000	22,700	26,500	30,300	34,100	37,900	41,700
Head, Meters	8.6	8.1	7.8	7.4	7.0	6.3	5.4	4.4
Power, KW	36	47	51	54	57	60	62	64

550 RPM								
Flow, USGPM	0	5,000	6,000	7,000	8,000	9,000	10,000	11,000
Head, Feet	24.5	23.2	22.3	20.9	19.1	16.7	14.0	10.3
Power, HP	40	54	58	61	65	68	70	72
Efficiency, %	--	54	58	61	59	56	51	40
Flow, l/m	0	19,000	22,700	26,500	30,300	34,100	37,900	41,700
Head, Meters	7.5	7.1	6.8	6.4	5.8	5.1	4.3	3.1
Power, KW	30	40	43	46	48	51	52	54

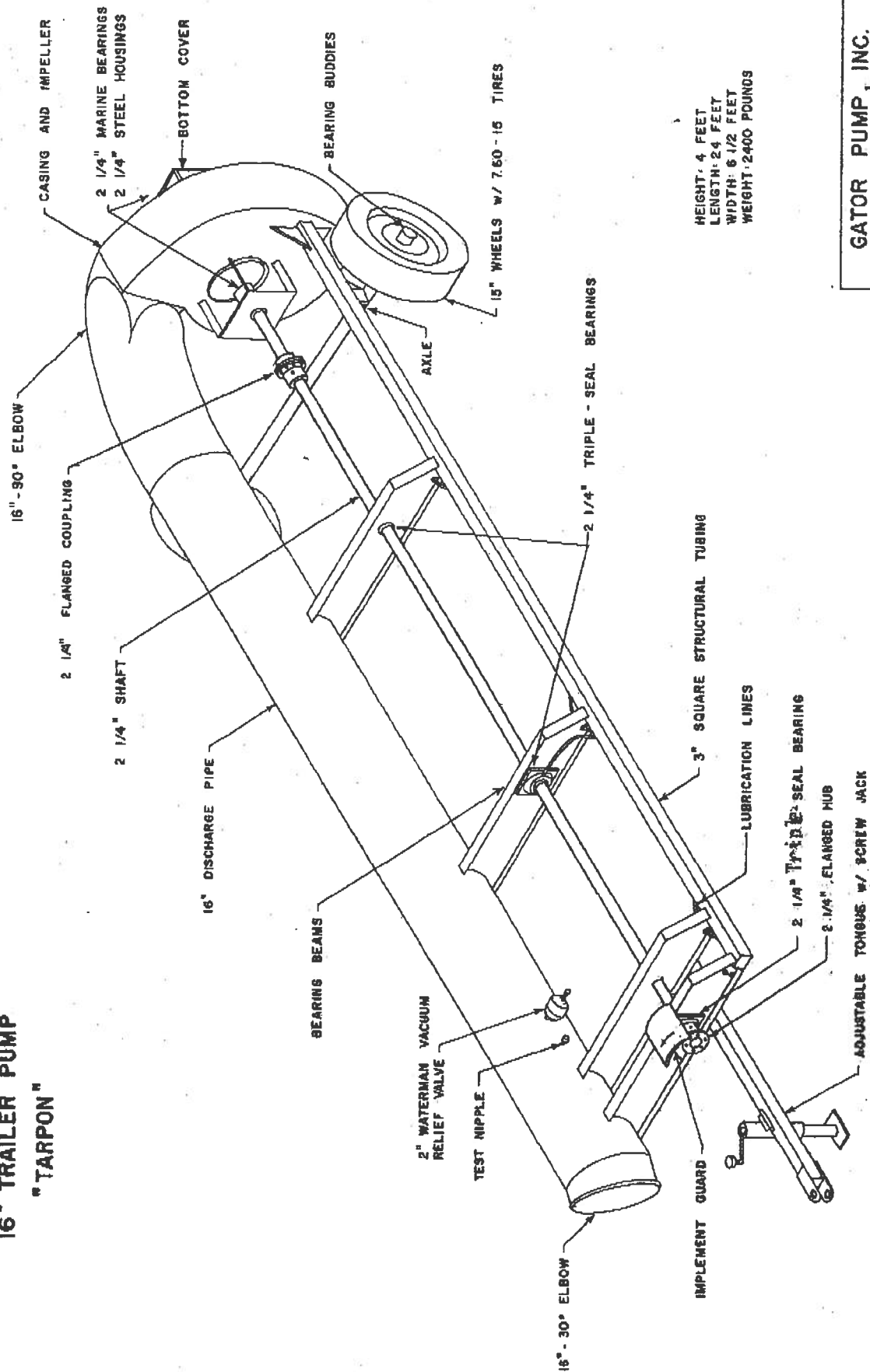
510 RPM								
Flow, USGPM	0	4,000	5,000	6,000	7,000	8,000	9,000	10,000
Head, Feet	21.2	20.6	19.7	18.7	17.1	15.2	12.3	9.2
Power, HP	32	41	45	48	50	52	54	56
Efficiency, %	--	50	55	59	60	59	52	41
Flow, l/m	0	15,200	19,000	22,700	26,500	30,300	34,100	37,900
Head, Meters	6.5	6.3	6.0	5.7	5.2	4.6	3.8	2.8
Power, KW	24	31	34	36	37	39	40	42

Deep Creek Pump(Gator:Tarpon 16")

Motor Specifications (off of motor plate)

Motor Mdl: WWE75-18-365T SN: 10291 HFJHP: 75 Encl: TEFC IP: 54 FR: 365TVoltage: 230 / 460 Hz: 60 Type: BJHEAmps: 172.8 / 86.4 Rpm: 1765SF: 1.15 Design: B Ins Cl: F KVA Code: GNOR. EFF FL: 94.1% ¼ 94.3% Rating: 40' C Amb. Cont.DE Brng: 6313C3 ODE Brng: 6312C3Power factor: 0.84 Date Code: 2007 .06-Usable on 280v network at 191 amps-Made in China: Worldwide Electric Corporation-Lubricated with Exxon Polyrex EM grease

16" TRAILER PUMP "TARPON"



GATOR PUMP, INC.

DATE	9-13-02
REVISED BY	Dana Dwyer
REVISED NUMBER	167-C

16" TRAILER PUMP, "TARPON"

DATE	9-13-02
REVISED BY	Dana Dwyer
REVISED NUMBER	167-C

Deep Creek

UNITED STATES
DEPARTMENT OF THE INTERIOR

R I W R I E

116°23'

FISH AND WILDLIFE SERVICE
BUREAU OF SPORT FISHERIES AND WILDLIFE



LEGEND

REFUGE BOUNDARY

T
62
N

48°42'

REFUGE
HDQTRS

FRYS
LAKE

INTERNATIONAL

SPOKANE

KOOTENAI NATIONAL WILDLIFE REFUGE

BOUNDARY COUNTY, IDAHO

BOISE MERIDIAN

SCALE 0 20 40 80 120 160 CHAINS
0 1/4 1/2 1 1 1/2 2 MILES

082565

98-7004

Blt
98-7813



USE.jpg



POU .jpg



POU OVER LOOK .jpg



PUMP.jpg



POD.jpg



SYSTEM .jpg



PUMP TAG .jpg



GPS TAG.jpg







