

STATE OF IDAHO
DEPARTMENT OF WATER RESOURCES
BENEFICIAL USE FIELD REPORT

A. GENERAL INFORMATION

Permit No: 94-9663

Exam Date: 08/27/2024

1. Current Owner:
ZANETTI BROS INC PO BOX 928 OSBURN ID 83849-0928
2. Accompanied by: Joe Zanetti
Phone No: 208-661-4536
Address: same as above
Relationship to permit Holder: Permit Holder

3. **SOURCE:**
SOUTH FORK COEUR D ALENE RIVER

Tributary
COEUR D ALENE RIVER

Method of Determination: ArcMap and DRG layer.

B. OVERLAP REVIEW

1. Other water rights with the same place of use: NO Overlap
2. Other water rights with the same point-of-diversion: NO Overlap

C. DIVERSION AND DELIVERY SYSTEM1. **LOCATION OF POINT(S) OF DIVERSION:**

SOUTH FORK COEUR D ALENE RIVER NW¼ SW¼, Sec. 35, Twp 49N, Rge 02E, B.M. SHOSHONE County

Method of Determination: GPS; Screened intake pipe POD is located at -116°10.6133, 47°32.9539 +/- 11 ft.

PLACE OF USE: INDUSTRIAL

Twp	Rng	Sec	NE				NW				SW				SE				Totals
			NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	
49N	02E	35										X							

Method of Determination: Beneficial use field examination and ArcMap aerial imagery.

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.

Well or Diversion ID No.*	Motor Make	Hp	Motor Serial No.	Pump Make	Pump Serial No. or Discharge Size
GEN MOUNTED TRANSFER PUMP	Honda	10.7	GX-340 G20D54S0389N2A	Multiquip	Model QP-4 TH WITH 4-INCH DISCHARGE REDUCED TO 3-INCH FLEX PIPE

D. FLOW MEASUREMENTS

1.

Measurement Equipment	Type	Make	Model No.	Serial No.	Size	Calib. Date
NONE						

2. Measurements: I was unable to accomplish flow measurements due to inadequate pipe requirements. The diverting works and conveyance pipeline were flexible hoses that are incompatible with flowmeter equipment mounting. I used time-to-fill method using an empty 3,000-gal water truck to evaluate the flow rate resulting in a diversion rate of 194 gpm but due to unaccounted for water associated with leaking fittings and blocked intake screen I'm recommending licensing using pump capacity data retrieved from the pump manufacturer using pump performance curves.

E. FLOW CALCULATIONS

X Additional Computation Sheets Attached

Measured Method: I used the pump curve for a QP4TH model associating 25 ft of head which derives a maximum flow rate of 360 gpm or 0.80 cfs considering department rounding standards.

F. VOLUME CALCULATIONS

1. Volume Calculations for irrigation: N/A

2. Volume Calculations for Other Uses: Industrial annual volume =

- 214-day season of use with 5 workdays per week = 31 work weeks considering rounding standards.
- 31 weeks x 5 workdays per week = 155 workdays per season of use.
- 5 truck loads per day on average using 3,000-gal tanker trucks.
- Calculation = 155 days x 5 fills per day x 3,000-gal per truck fill = 2,325,000-gal per season / 325,850 gal per acre-feet = **7.1 af** considering department rounding standards.

G. NARRATIVE/REMARKS/COMMENTS

I performed a beneficial use field examination on 9/3/2024 with the Permit Holder, Mr. Joe Zanetti, which showed S.F. Coeur D'Alene River water being diverted for industrial uses. At the POD, a ¼-inch screened intake and 4-inch flexible intake pipe are installed to a generator frame mounted transfer pump. The diverting works incorporate a MULTQUIP brand 10.7 hp trash pump coupled with a Honda GX340 crank motor situated about 10 ft off the riverbank. From the pump, a 4-inch discharge flexible fire hose routes up-slope reducing to a 3-inch blue rolled fire hose which is used to fill water tanker trucks which park along the roadway. It's a 25 ft elevation change from intake pipe-to-fill pipe on the water truck.

I wasn't able to use a flowmeter to establish flow rates as the suction and discharge hose(s) are flexible style, and I attempted to perform measurements by filling an empty 3,000-gal water tanker while timing the event. My measurement was based on a fill time of 15:30 result in 194 gpm but I noted several issues that result in un-accounted diverting water between the intake pipe and tanker vessel. A photograph was added to the file of the intake fish screen, which upon review was sitting in a sand bank and the majority of the screen was clogged with algae and other debris. Every connection point between intake to pump, and pump to truck leaked heavily while the pump was operating resulting in unknown diverting losses back to ground.

Due to the inaccuracies noted during my attempt to use the tanker truck fill time for flow measurements I've elected to base my license recommendations on the manufacturer specifications – performance pump curve. I've attached the pump curve specific to the QP4TH model with GX340 motor assessing 25 ft head loss which results in a flow rate of 360 gpm or **0.80 cfs** based on department rounding standards. This is the recommended maximum diversion rate for licensing purposes. The

Permit authorized development of up to 1.24 cfs based on a historically larger diverting pump that was in place prior to the application filing and used with a dedicated J-hook to serve the water truck fill point. Mr. Zanetti asserted the larger pump broke down and due to the cost of parts & repairs it wasn't planned to be re-commissioned, but the metal J-hook remains onsite. The larger pump is not authorized for use unless the maximum diversion rate is restricted to 0.80 cfs based on this Permit's license recommendation.

The industrial beneficial use POU as applied is for the water truck fill station situated roadside along the river. Mr. Zanetti leases his co-located gravel yard to two separate business entities who maintain the diversion system and use tanker water for dust abatement and gravel pit construction activities. During the exam I observed the recently filled water truck applying water for dust abatement purposes. The entirety of the gravel pit extends into a separate quarter-quarter (QQ/Q) PLSS legal description than permit approved for, but based on the water truck fill station I don't recommend an amendment for licensing purposes. Once the tanker is filled, dust abatement applied elsewhere becomes ancillary to the physical location of the use, which may be the roadway in front of the pit, the pit itself, or rock cleaning within the pit.

Mr. Zanetti asserts the gravel pit operations begin as early as April 1st annually and extend to October 31st each year. Based on this information I recommend clarifying the season of use from 5/1-10/31 to reflect 4/1-10/31 annually. During the period of 214 days the pit is open 5 workdays per week and on average 5 tanker fills using the 3,000-gal water truck is used. I've computed the annual volume based on this information above (PG2 of report) with the annual volume equaling 7.1 af, which is recommended as the maximum diversion volume for licensing purposes.

During the field exam I spoke at length with Mr. Zanetti about the filling station and the potential for enlarging his water rights based on 'extra' use from external entities like the county or city throughout the year. Mr. Zanetti acknowledged that in past years the water truck filling station has been used by the city works department, the county, and other private entities based on handshake agreements. I let Mr. Zanetti know that if licensed as recommended for 7.1 af, he is authorized to allow truck fills up to that amount but once reached the system is required to be turned off until the next season. I spoke in detail about IDWR's [Application for Temporary Water Use](#) process and recommended he consider having other entities apply separately for temporary use, which may still use the diverting system but from their own permit approval once gained from IDWR.

I removed the industrial use text condition from the permit during licensing review; the industrial use has been validated by IDWR and description-based condition related to the industrial use isn't required for licensing purposes. All other conditions on the Permit are being carried forward to licensing. The diversion of water under 94-9663 is junior to a senior Minimum Stream Flow (MSF) Right 94-7341, as conditioned on the permit & for licensing. The POD & POU for this water right isn't within an active water district and the Right Holder is responsible for monitoring flow rates in the Coeur D'Alene River and self-curtail (shut off / turn off) the diverting system until the date/time flows increase to satisfy MSF Right 94-7341. There are no overlapping water right concerns toward licensing Permit 94-9663.

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

H. RECOMMENDATIONS**1. Recommended Amounts**

<u>Beneficial Use</u>	<u>Period of Use</u>	<u>Rate of Diversion</u>	<u>Annual Volume</u>
INDUSTRIAL	04/01 to 10/31	0.80 CFS	7.1 AF

Totals: 0.80 CFS 7.1 AF

2. Recommended Amendments

____ Change P.D. as reflected above ____ Add P.D. as reflected above X None

____ Change P.U. as reflected above ____ Add P.U. as reflected above X None

I. AUTHENTICATION

Luke Bates – Sr Water Resource Agent

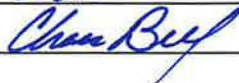
Field Examiner's Name



Date

12/9/2024

Reviewer

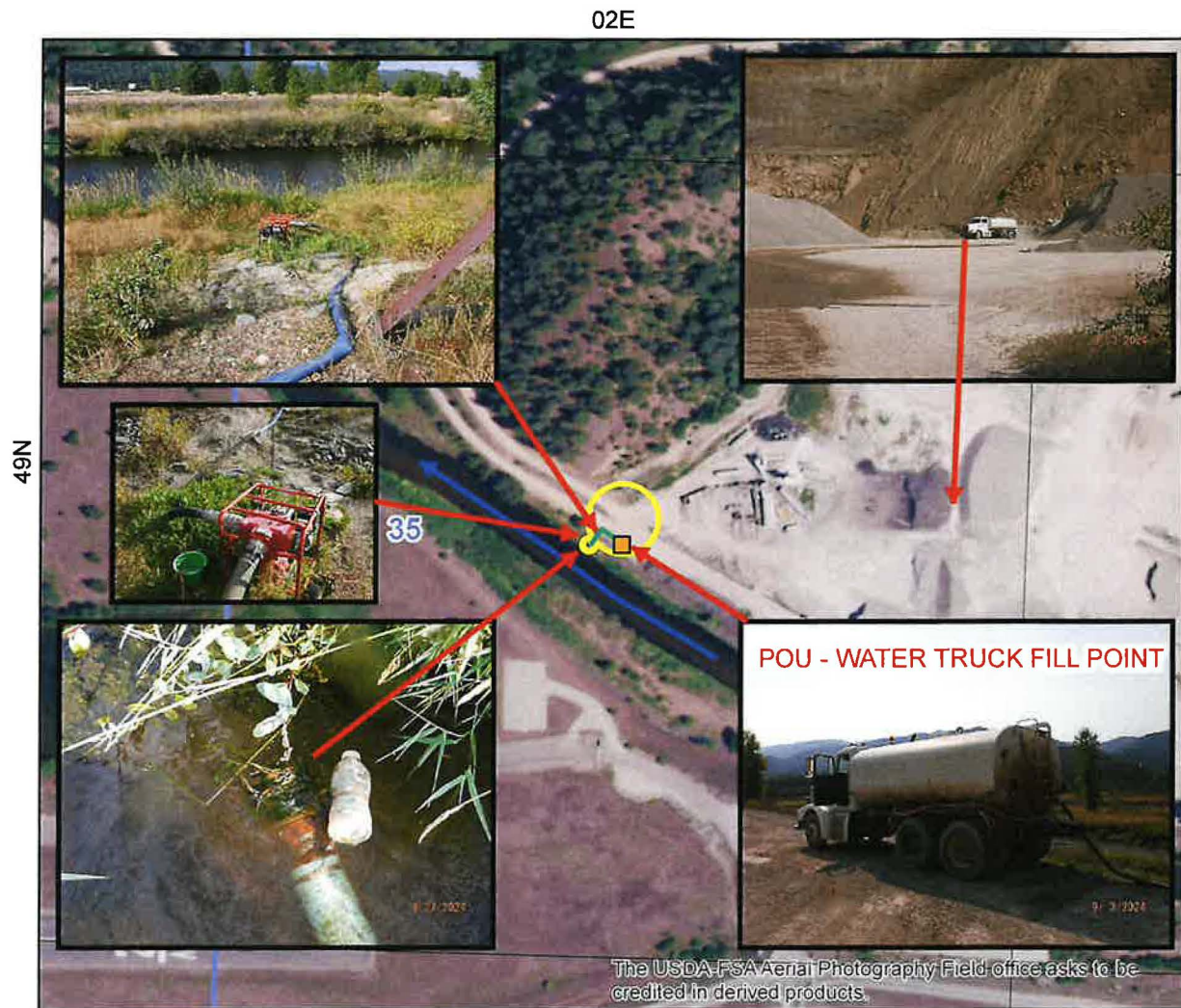


Date

5/8/2025

State of Idaho
Department of Water Resources
Attachment to Field Exam
94-9663

This map depicts the INDUSTRIAL system diagram.



0 0.035 0.07 0.14 Miles

- Place Of Use Boundary
- Point of Diversion
- Townships
- PLS Sections
- Quarter Quarters



Trust your toughest jobs to Multiquip's Trash Pumps - Our pumps are engineered to meet the requirements of professional contractors for dewatering jobs with high solid content. Rugged and dependable, they are manufactured using top quality materials and exceptional internal design.

QP2TH



2" Suction/Discharge
111 GPM Flow
98' Head
Moves up to 1" solids
HONDA GX160, 4.8HP

QP3TH



3" Suction/Discharge
196 GPM Flow
95' Head
Moves up to 1.5" solids
HONDA GX240, 7.9HP

QP4TH



4" Suction/Discharge
555 GPM Flow
92' Head
Moves up to 2" solids
HONDA GX340, 10.7HP

POWER

HONDA gasoline engine with automatic oil alert low oil shutdown. Meets all EPA/CARB requirements

INDUSTRIAL GRADE PUMP BODY

Lightweight, precision tolerances, designed to withstand high pressure demands

DISCHARGE MANIFOLD

Convenient left and right ports for flexible hose positioning

VOLUTE

Easily removable, double passage design to ensure fast priming, minimize clogging, and improve efficiency

IMPELLER

Balanced, multi-vane, open design made of cast (#45) ductile iron for abrasion resistance and long life

MECHANICAL SEAL ASSEMBLY

Silicon/tungsten carbon to meet high tolerance and abrasion resistance

Seal sleeve and pump shaft made of (#303) stainless steel



Optional Wheel Kit available
(UWKB for 2" and 3" - UWK4 for 4")

Model	Suction X Discharge in. (mm)	MAX Capacity GPM (lpm)	MAX Lift ft. (m)	MAX Head ft. (m)	MAX Pressure psi. (kPa)	MAX Solids in. (mm)	Engine	HP (kW)	Operating RPM	Oil Alarm	Fuel Capacity	Fuel Rate gal/hr	Start method	Wheel Kit (option)	Dimensions inch/(mm)	Dry Wt lbs. / (kg)
GASOLINE POWERED TRASH PUMPS																
QP2TH	2X2 (51x51)	211 (750)	25 (7.6)	98 (29)	42.4 (283)	1 (25)	HONDA GX160	4.8 (3.4)	3,600	std.	0.83 (3.1)	.46	Recoil	UWKB	27 x 18.3 x 20.3 (690 x 470 x 520)	96 (44)
QP3TH	3 x 3 (76 x 76)	396 (1,500)	25 (7.6)	95 (29)	41.1 (283)	1.5 (38)	HONDA GX240	7.9 (5.9)	3,600	std.	1.4 (5.3)	.67	Recoil	UWKB	29 x 21.7 x 23 (730 x 550 x 590)	163 (74)
QP3Ti	3 x 3 (76 x 76)	396 (1,500)	25 (7.6)	95 (29)	41.1 (283)	1.5 (38)	HONDA GX240	7.9 (5.9)	3,600	std.	1.4 (5.3)	.67	Electric	Std. Kit	40 x 27 x 30 (1016 x 686 x 762)	200 (91)
QP4TH	4 x 4 (101 x 101)	555 (2,100)	25 (7.6)	90 (27)	40 (275)	2 (51)	HONDA GX340	10.7 (8.0)	3,600	std.	1.6 (5.3)	.92	Recoil	UWK4	29 x 25 x 28 (730 x 640 x 715)	216 (98)
DIESEL POWERED TRASH PUMPS																
QP2TZ	2 x 2 (51 x 51)	198 (750)	25 (7.6)	85 (26)	41.1 (283)	1 (25)	HATZ 1B20	4.6 (3.4)	3,600	n/a	0.8 (3)	.33	Recoil	UWKB	26.5 x 18.3 x 23.2 (680 x 470 x 590)	131 (60)
QP3TZ	3 x 3 (76 x 76)	383 (1,450)	25 (7.6)	85 (26)	38.9 (268)	1.5 (38)	HATZ 1B30	6.8 (5.1)	3,600	n/a	1.3 (5)	.48	Recoil	UWKB	27.8 x 20 x 25 (710 x 510 x 640)	142 (64)
QP4TZ	4 x 4 (100 x 100)	526 (2,000)	25 (7.6)	85 (26)	36.8 (253)	2 (51)	HATZ 1B40	9.9 (7.4)	3,600	n/a	1.3 (5)	.7	Elec./Recoil	UWK4	28.2 x 25 x 28.2 (715 x 640 x 715)	265 (120)
QP4TZT10P	4 x 4 (100 x 100)	526 (2,000)	25 (7.6)	85 (26)	36.8 (253)	2 (51)	HATZ 1B40	9.9 (7.4)	3,600	n/a	1.3 (5)	.7	Elec./Recoil	Trailer mount	56 x 36 x 56 (1,420 x 910 x 1,420)	615 (277)
QP4TZTMP16F	4 x 4 (100 x 100)	526 (2,000)	25 (7.6)	85 (26)	36.8 (253)	2 (51)	HATZ 1B40	9.9 (7.4)	3,600	n/a	1.6 (60)	.7	Elec./Recoil	Trailer mount	109 x 56 x 60 (2,769 x 1,422 x 1,522)	665 (302)
QP4TZTMPXF	4 x 4 (100 x 100)	526 (2,000)	25 (7.6)	85 (26)	36.8 (253)	2 (51)	HATZ 1B40	9.9 (7.4)	3,600	n/a	28 (106)	.7	Elec./Recoil	Trailer mount	109 x 56 x 60 (2,769 x 1,422 x 1,522)	735 (334)
MQ600H	6 x 6 (152 x 152)	1,600 (6,055)	25 (7.6)	150 (46)	64.9 (447)	3 (76)	HATZ 4H50TIC	68.4 (51.1)	2,000	std.	40 (151)	1.76	Electric	Skid	80 x 39 x 49 (2,769 x 1,422 x 1,522)	2,200 (990)
MQ600HTB	6 x 6 (152 x 152)	1,600 (6,055)	25 (7.6)	150 (46)	64.9 (447)	3 (76)	HATZ 4H50TIC	68.4 (51.1)	2,000	std.	40 (151)	1.76	Electric	Trailer - 2" Ball	124 x 64 x 67 (3,150 x 1,630 x 1,700)	2,850 (1,283)
MQ600HTP	6 x 6 (152 x 152)	1,600 (6,055)	25 (7.6)	150 (46)	64.9 (447)	3 (76)	HATZ 4H50TIC	68.4 (51.1)	2,000	std.	40 (151)	1.76	Electric	Trailer - 3" Pintle	124 x 64 x 67 (3,150 x 1,630 x 1,700)	2,850 (1,283)

Note: Battery included with the MQ600H Series. Batteries not included with the QP3Ti and QP4TZ Series.

ACCESSORIES

	MODEL	DESCRIPTION
Suction Hoses	HS and HSQ series	2", 3", 4", and 6" diameter rigid PVC helix reinforced hose - NPT Thread and Cam/Groove Coupler
Discharge Hoses	HD and HDQ Series	2", 3", 4", and 6" diameter lay-flat synthetic PVC reinforced hose - NPT Thread and Cam/Groove Coupler
Wheel Kits	UWK Series	Wheel kits for pipe-frame pumps. 8" foam-filled tires, retractable handle, and necessary hardware for easy installation
Q/D Couplers	A200A, A300A, A400A & A600A	2", 3", 4", and 6" high quality Cam/Groove aluminium fittings that thread onto male NPT pump ports for quick-disconnect hose operations
Vacuum Testing Kit	7100031	Pump vacuum test gauge that easily affixes to 2", 3", 4", and 6" port to check pump casing pressure integrity

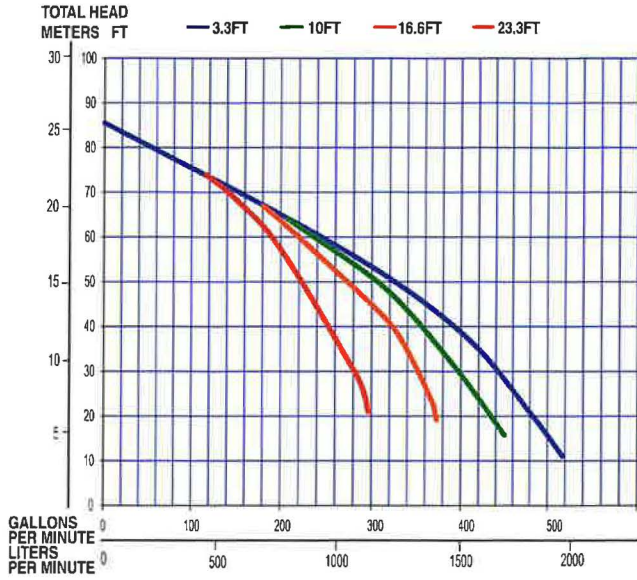
* Engine power ratings are calculated by the individual engine manufacturer and the rating method may vary among engine manufacturers. Multiquip Inc. and its subsidiary companies makes no claim, representation or warranty as to the power rating of the engine on this equipment and disclaims any responsibility or liability of any kind whatsoever with respect to the accuracy of the engine power rating. Users are advised to consult the engine manufacturer's owners manual and its website for specific information regarding the engine power rating.

Your Multiquip dealer is:

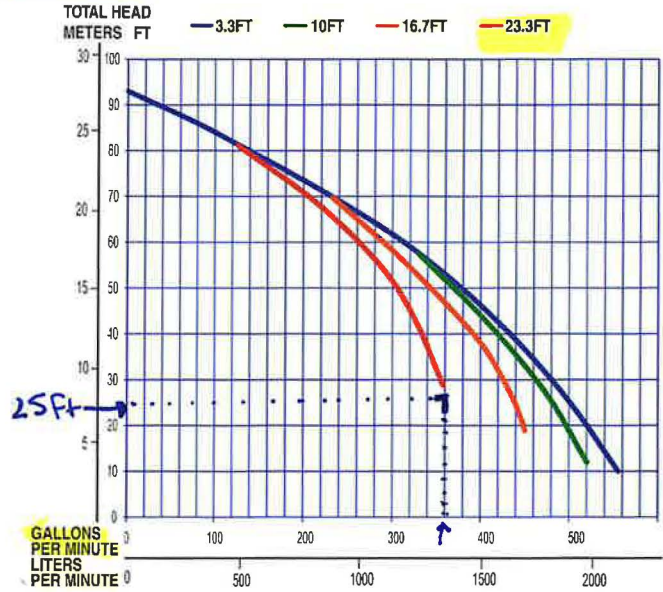
Connect with us on



QP4TZ



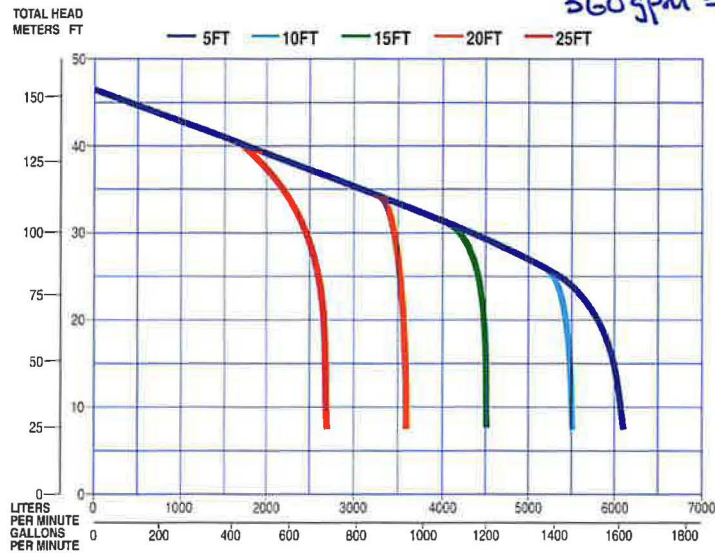
QP4TH



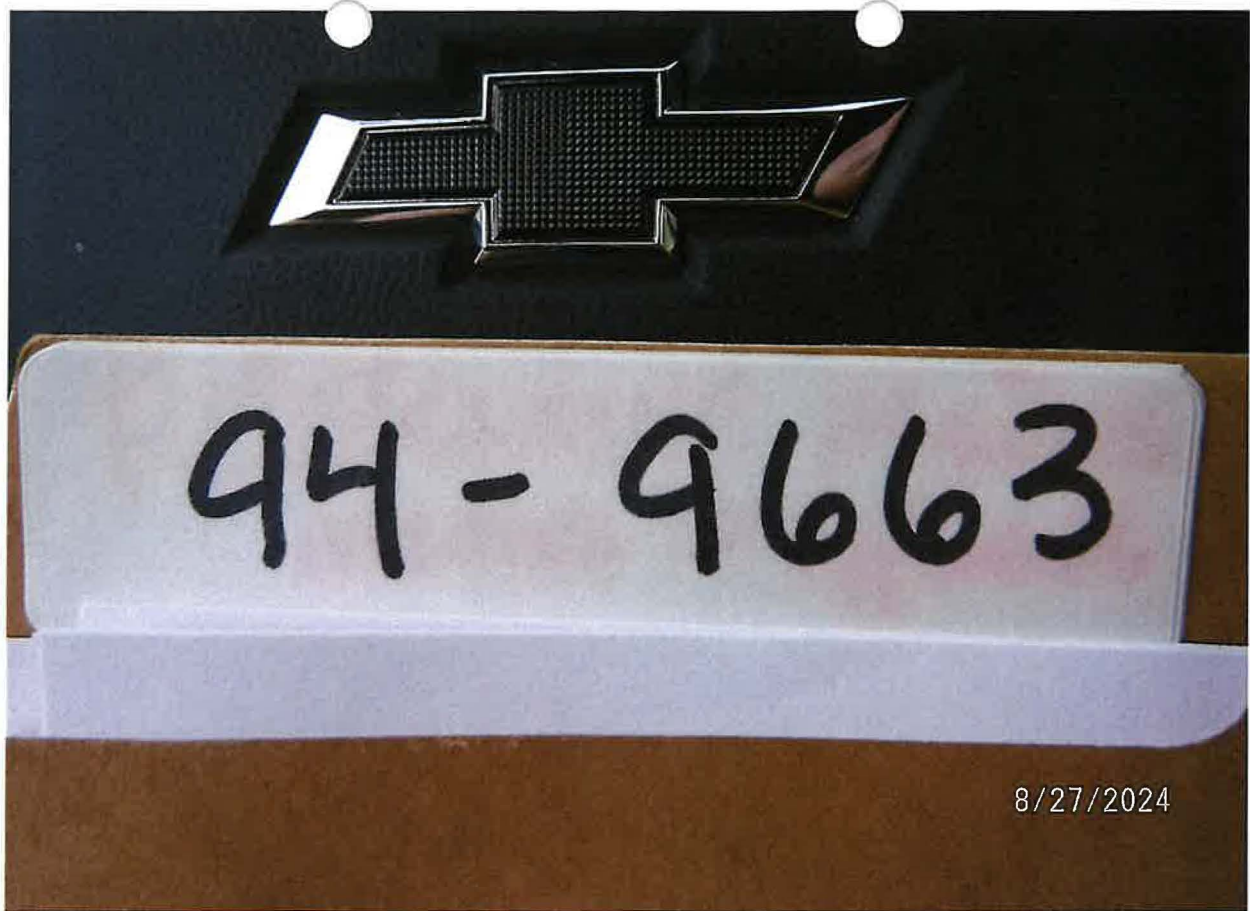
Considering 25ft head from Intake in River to Water truck Fill Port.

$$360 \text{ gpm} = 0.8 \text{ cfs}$$

MQ600H



PERFORMANCE CURVES - 4" - 6" MODELS



BENEFICIAL USE FIELD EXAM DATE 8/27/2024 & 9/3/2024



POD – SCREENED 4-INCH INTAKE FLEX PIPE TO GENERATOR MOUNTED TRANSFER PUMP



DIVERTING WORKS – GENERATOR MOUNTED WATER TRANSFER PUMP WITH 4-INCH DISCHARGE REDUCED TO 3-INCH FLEXIBLE ROLLED FIRE HOSE(S)

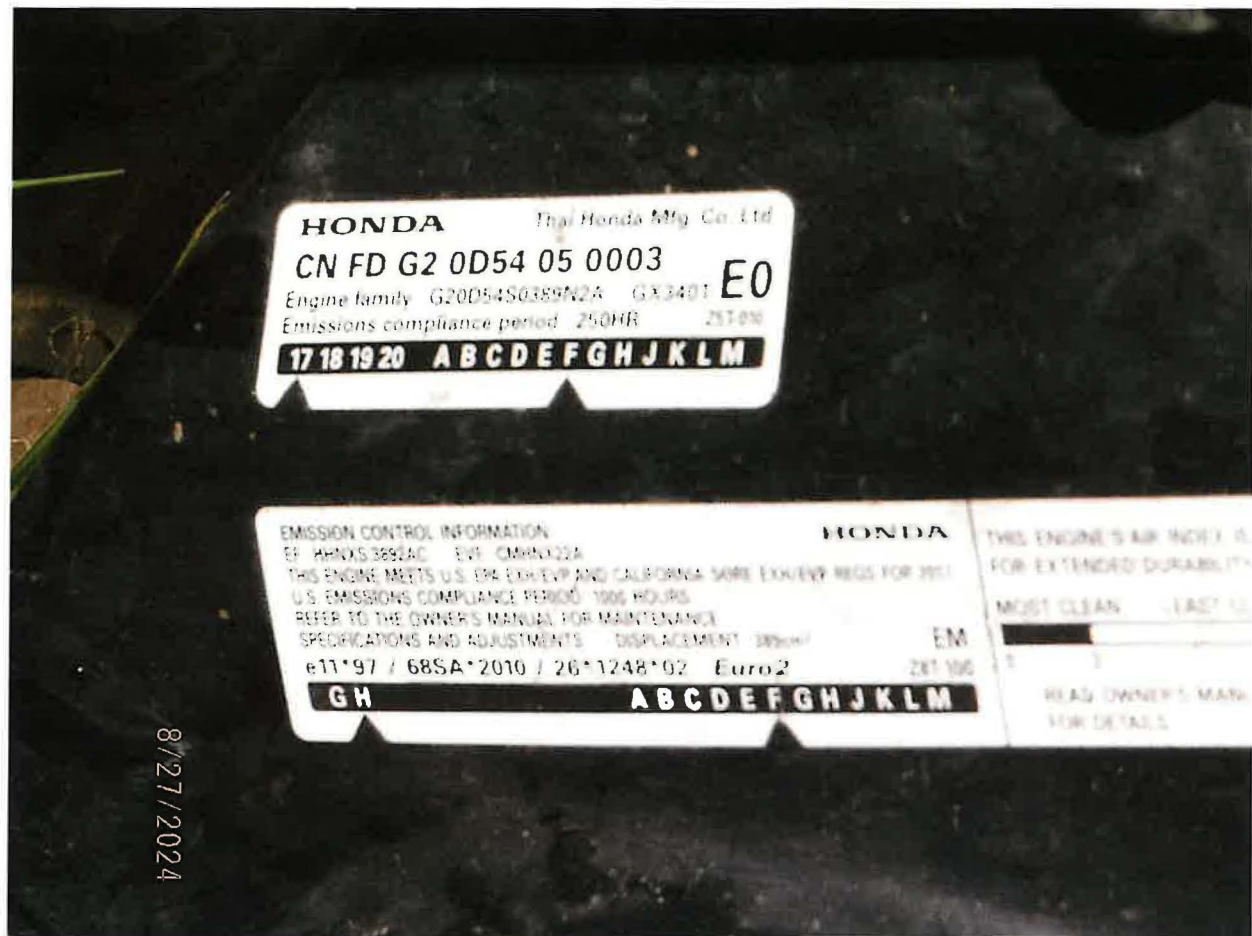




TRANSFER PUMP – MULTIQUIP MODEL QP-4TH



HONDA GX-340 CRANK MOTOR



HONDA GX-340, ENGINE FAMILY = G20D5450389N2A



WATER CONVEYANCE SYSTEM – WATER FILL STATION WITH TRUCKS USING WATER FOR INDUSTRIAL USE AT CO-LOCATED GRAVEL PIT



EXAMPLE: 3,000 GAL WATER TANKER



TANKER FILLED IN 15 MIN 30 SEC, 16 MIN, AND 17:09 SEC



INDUSTRIAL POU – ROCK CRUSHING PLANT



INDUSTRIAL POU – GRAVEL PIT



INDUSTRIAL POU – DUST ABATEMENT & ROCK WASHING ASSOCIATED WITH GRAVEL PIT LEASED BY PROPERTY OWNER

