

STATE OF IDAHO
DEPARTMENT OF WATER RESOURCES
BENEFICIAL USE FIELD REPORT

A. GENERAL INFORMATION

Permit No: 95-17969
Exam Date: 09/28/2021

1. Current Owner:
OHIO MATCH ROAD WATER DISTRICT PO BOX 523 HAYDEN LAKE ID 83835-0523
2. Accompanied by: Ian Kuchenski
Phone No: 2028-659-8173
Address: Same as above
Relationship to permit Holder: Water system operator – Integrity Water Management

3. **SOURCE:**
GROUND WATER

Method of Determination: Arcmap and DRG.

B. OVERLAP REVIEW

1. Other water rights with the same place of use: YES Overlap

Water Right No.	Source	Purpose of Use	Basis
95-8065	GROUNDWATER	MUNICIPAL	DECREED

Comments: Decreed Right 95-8065 uses groundwater by the municipal provider Ohio Match Road Water District and has the same POU as this Permit for the same applicant. Condition X35 is present mitigating overlap concern pertaining to combined use diversion rates & diversion volumes between rights.

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

Water Right No.	Source	Purpose of Use	Basis
95-8065	GROUNDWATER	MUNICIPAL	DECREED

Comments: Decreed Right 95-8065 shares the same groundwater well POD as this Permit. Condition F06 was added to Permit to describe the same POD shared by the two water rights.

C. DIVERSION AND DELIVERY SYSTEM

1. **LOCATION OF POINT(S) OF DIVERSION:**
GROUND WATER SE¼ NW¼, Sec. 24, Twp 52N, Rge 04W, B.M. KOOTENAI County

Method of Determination: GPS; groundwater well located at -116°46.821, 47°50.446 (Well 95-81-N-74).

Method of Determination: Large area POU designated; determined by field exam, existing municipal right 95-8065 POU shape, 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
95-81-N-74	UNKOWN	30			

D. FLOW MEASUREMENTS

1.

Measurement Equipment	Type	Make	Model No.	Serial No.	Size	Calib. Date
FLOWMETER						

2. Measurements: The well's diverting works has a Rockwell International flowmeter installed, which provides instantaneous flow rates when monitored by the minute. During the exam, a flow measurement was following a 10-minute period to allow operating system stabilization with resulting flow rate = 260 GPM or 0.58 cfs considering department rounding standards.

E. FLOW CALCULATIONS

Measured Method: Flowmeter installed on main water line from well = 260 gpm or 0.58 cfs considering department rounding standards.

F. VOLUME CALCULATIONS

- Volume Calculations for irrigation: N/A
- Volume Calculations for Other Uses:
 - March 2020 – March 2021 report year data = 15,473,000 GAL / 325,850 GAL per af = **47.5 af**, considering department rounding standards.

G. NARRATIVE/REMARKS/COMMENTS

Field exam performed on 9/28/2021 with the applicant's water operator representative, Ian Kuchenski – Integrity Water Management, showed a groundwater well diverting water for municipal use by Ohio Match Road Water District (Applicant). At the POD, well 95-81-N-74 has a 30 HP pump installed. A Rockwell International flowmeter is installed on the main water line from the well, and at time of field exam a flow measurement was taken timing the flowmeter for a 1-minute period (multiple readings taken) with the largest flow measurement equal to 260 gpm or 0.58 cfs. This Permit was applied for by the Applicant to increase diversion rate to reflect replacing the prior installed 15 HP pump with the new 30 HP pump. Prior right 95-8065 is decreed with a maximum diversion rate of 0.37 cfs. The maximum diversion rate recommended to license this right = 0.58 cfs (field exam observed rate) – 0.37 cfs (prior right 95-8065 rate) = **0.21 cfs**.

The municipal POU water system incorporates a 15,000-gal storage tank, and currently uses a 7.5 hp & 15 hp transfer pump(s) to provide water distribution from the storage tank to meet peak water use demands. During the exam the permit POU map was discussed with Mr. Kuchenski, who verified the POU is accurate and that the water system has not added additional service connections in the recent past. As such, Arcmap aerial imagery was used during licensing review to designate the municipal POU which is the same as prior right 95-9065's municipal POU.

The water system incorporates two SCADA monitoring system panels, one that tracks the well production volume and one that manages the two transfer pumps and 15,000-gal storage tank operations. Photographs were taken to illustrate each panels use. The water system operator conducts regular system downloads to track volume metrics. Following the exam, annual volume records were requested via an email exchange with Ian Kuchenski on 9/29/2021. Mr. Kuchenski replied by email on 10/12/2021 providing annual volume reports for the year leading up to the Applicant's statement of completion date, as well as volume for the short development period for the permit (1/28/21-3/24/21). For the short development period the total volume equals 773,000 gal which equates to 2.4 af of volume. I recommend using the annual volume (March 2020 – March 2021) that equals 15,473,000 gal / 325,850 gal per af = **47.5 af** considering department rounding standards to license this right. Neither reported volume exceeds the Applicant's prior water right 95-8065 maximum diversion volume of 78.0 af.

Condition 046 was removed from the permit during licensing review. Condition X35 was revised to reflect the post field exam diversion rate combined use value. All other conditions shall be carried to the license. Overlap concerns: Decreed Right 95-8065 uses groundwater by the municipal provider Ohio Match Road Water District and has the same POU as this Permit for the same applicant. Condition X35 is present mitigating overlap concern pertaining to combined use diversion rates & diversion volumes between rights. There is no addition overlap concerns for this right.

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>
MUNICIPAL	01/01 to 12/31	0.21 CFS	47.5 AF
<u>Totals:</u>		0.21 CFS	47.5 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 ☒ None

I. AUTHENTICATION

Luke Bates -

Field Examiner's Name

Date

Reviewer

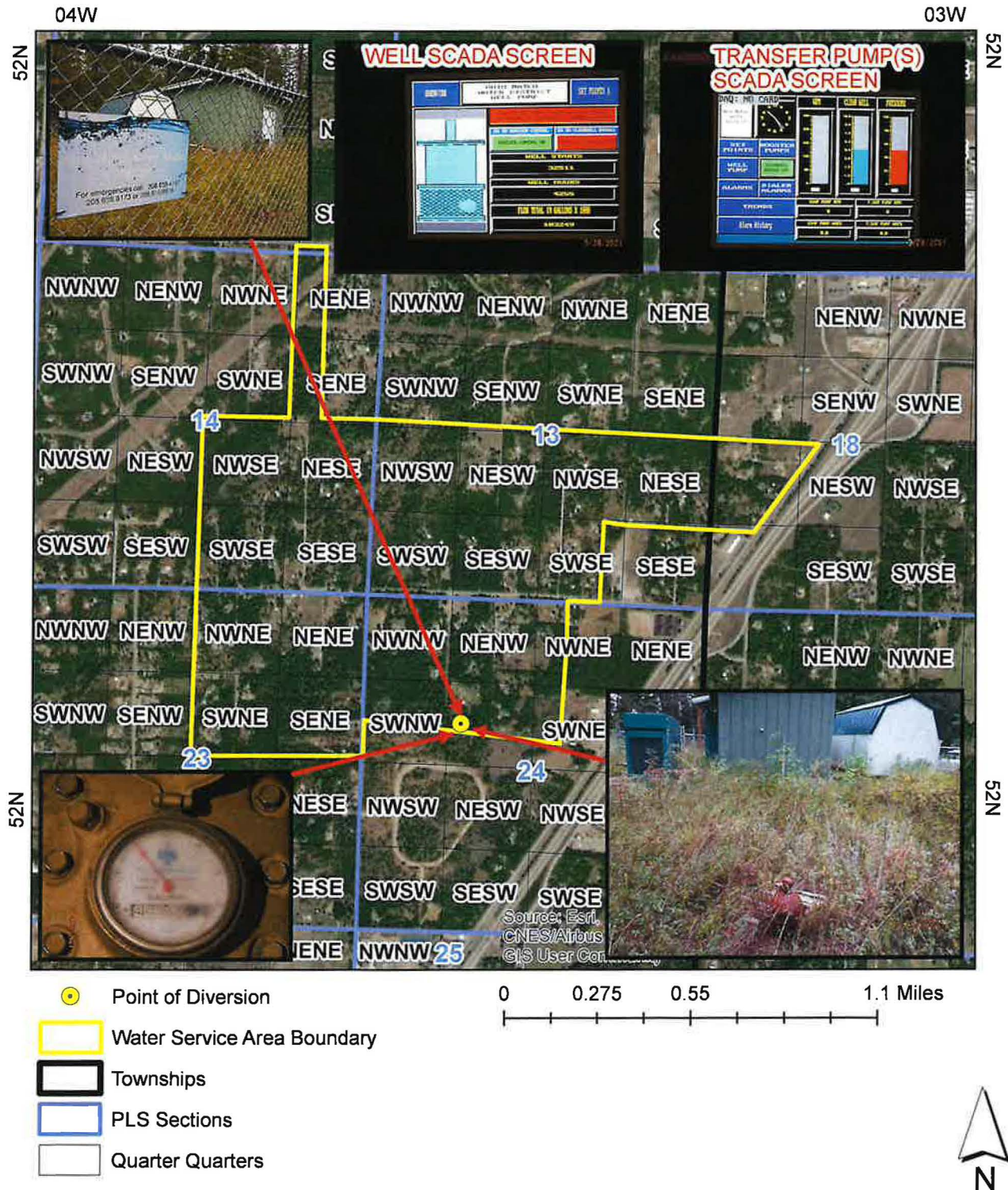
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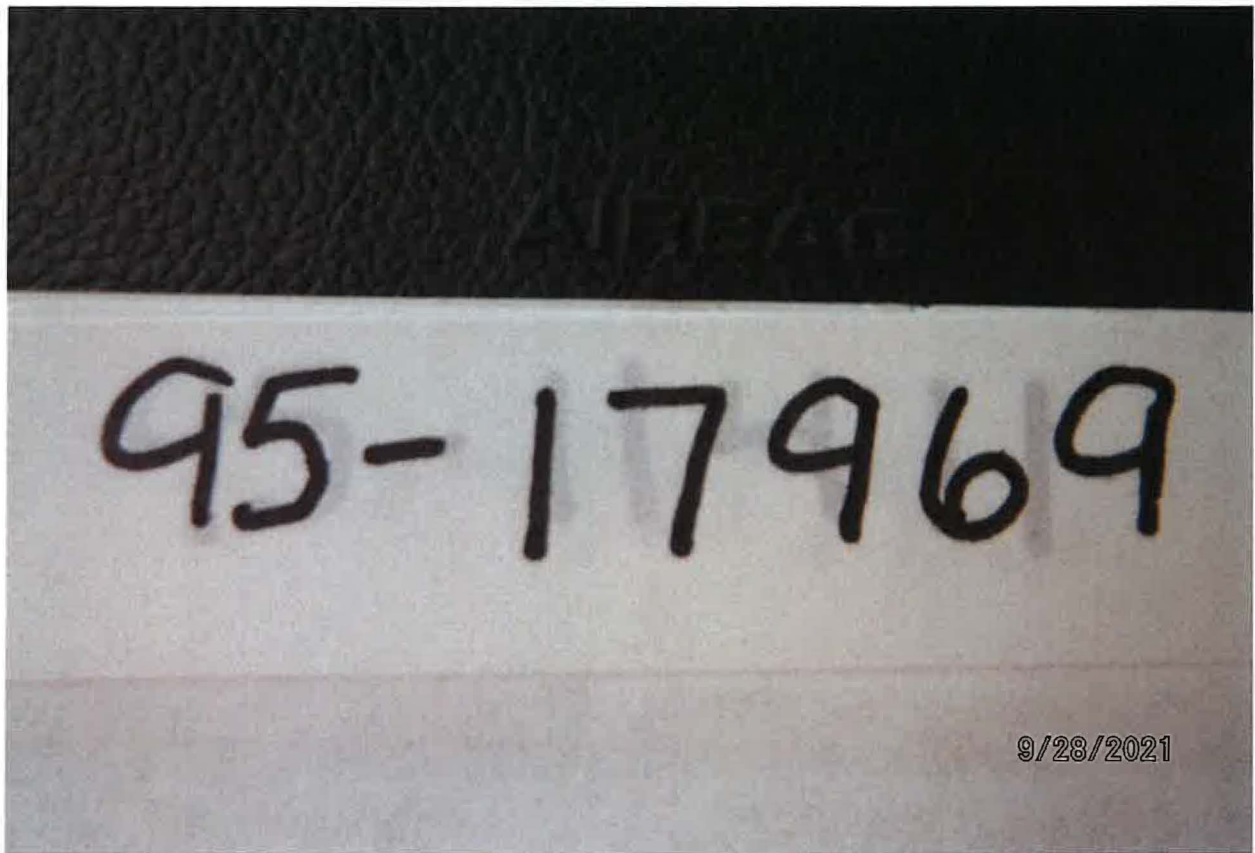
[Signature] 11/17/2021
[Signature] 1/31/2022

Attachment to Field Exam

95-17969

MUNICIPAL system diagram.





FIELD EXAM DATE 9/29/2021



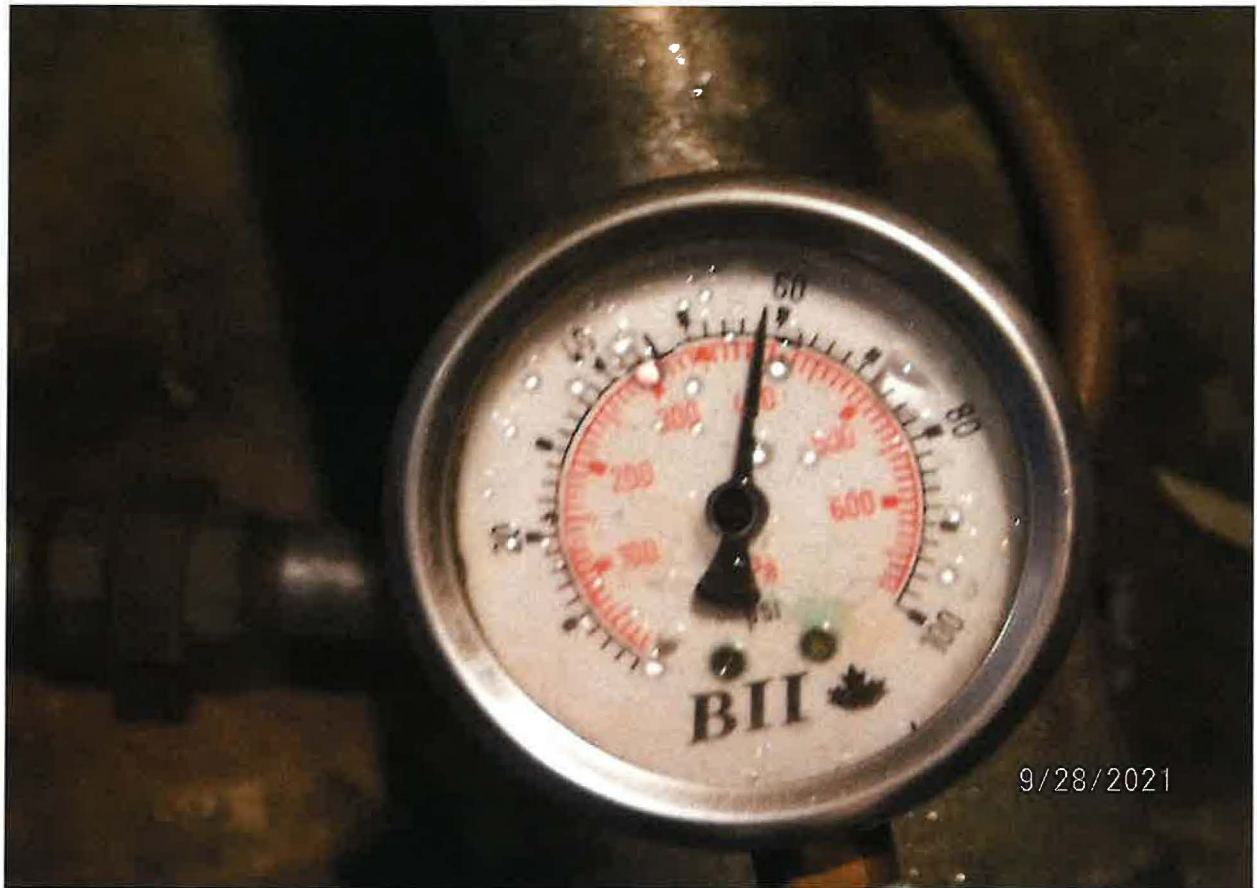
SECURED WELL AND PUMP STATION



POD – WELL 95-81-N-74 WITH 30 HP PUMP INSTALLED



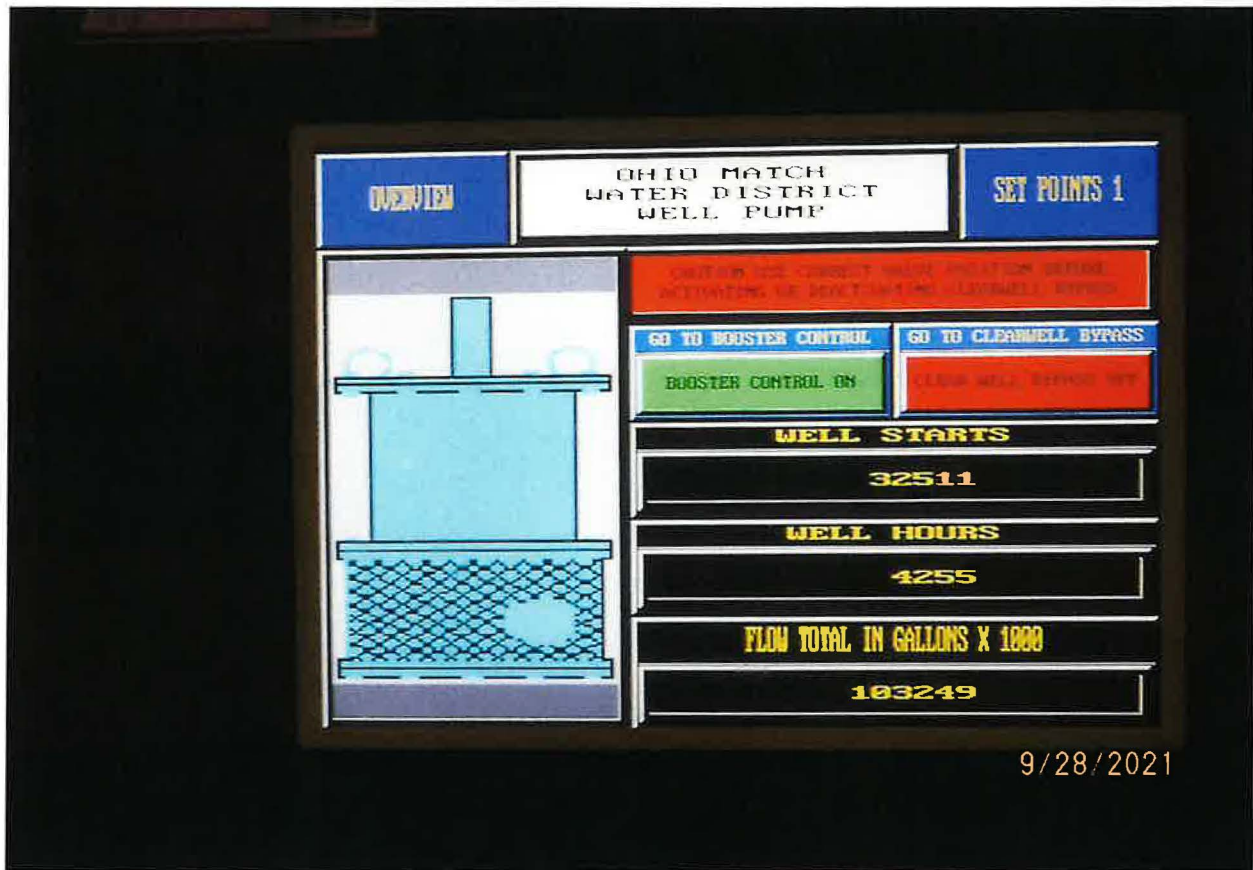
DEQ TAG E0005188



55-60 PSI OPERATING PRESSURE



ROCKWELL INTERNATIONAL FLOW METER INSTALLED ON WELL MAIN WATER LINE



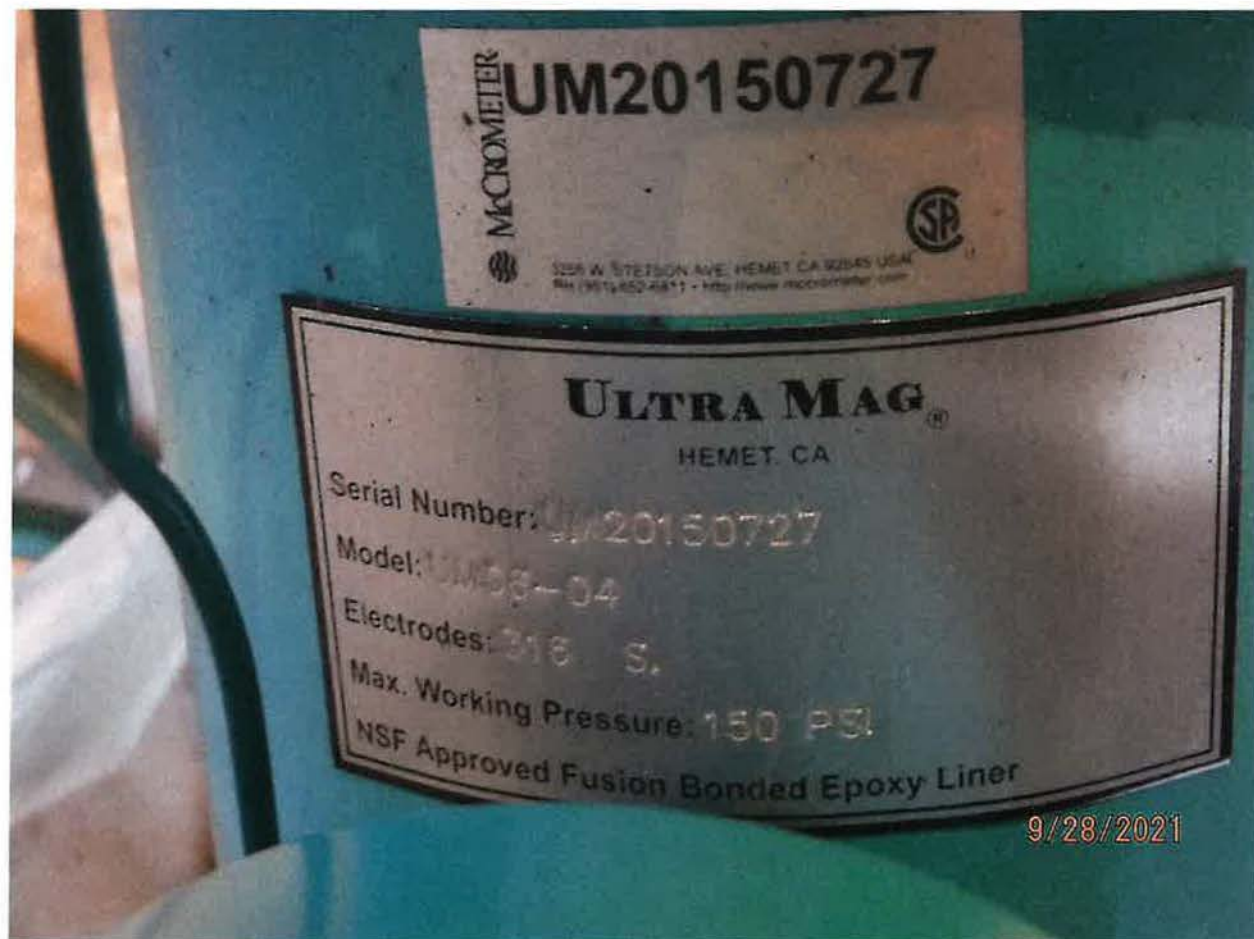
WELL AND PUMP SCADA MONITORING SYSTEM SCREEN



WATER SYSTEM DIVERTING WORKS

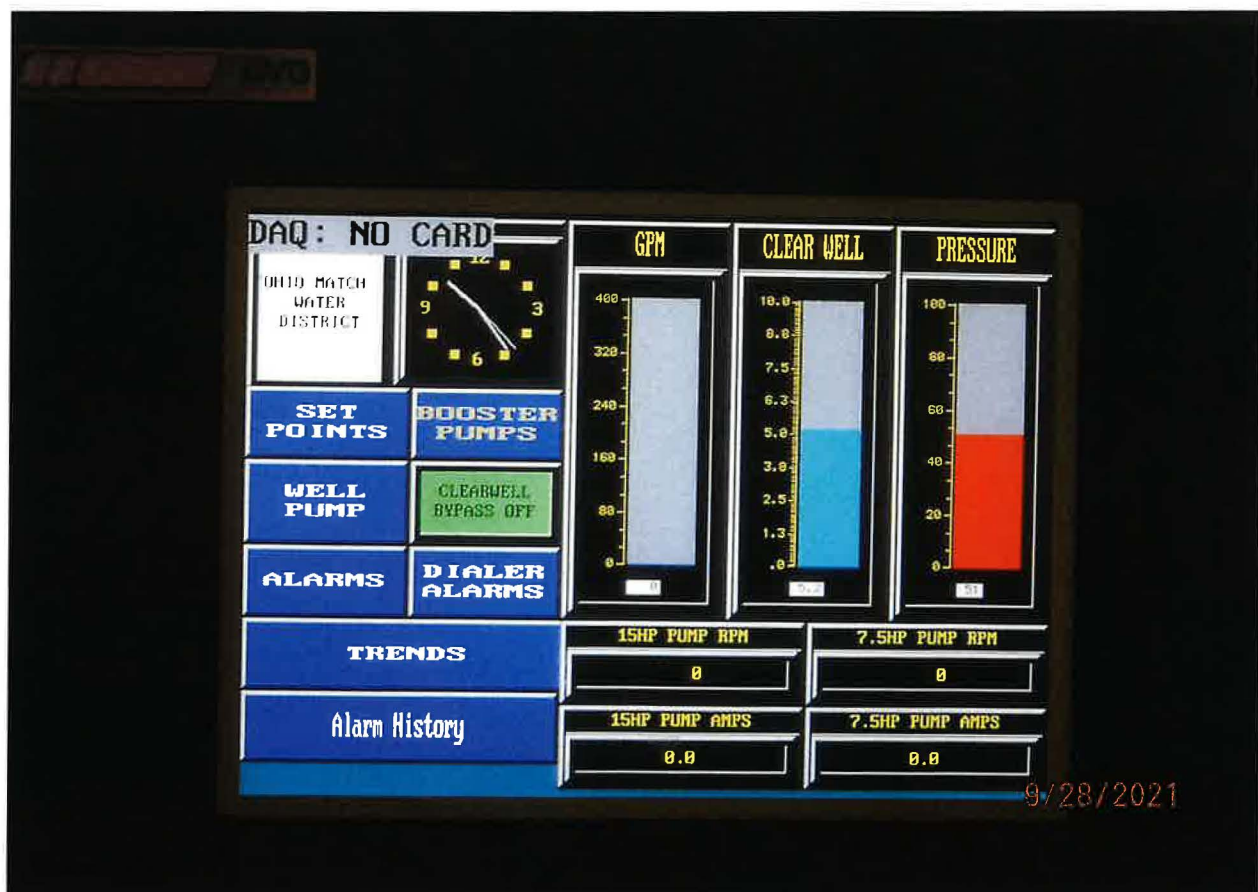


FLOW METER INSTALLED FROM 15,000 GAL STORAGE TANK TO USES





FROM STORAGE TANK WATER SYSTEM PIPES



SCADA MONITORING SYSTEM FOR 7.5 HP AND 15.0 HP TRANSFER PUMPS AND STORAGE TANK