

STATE OF IDAHO
DEPARTMENT OF WATER RESOURCES
BENEFICIAL USE FIELD REPORT

A. GENERAL INFORMATION

Permit No: 82-12259
Exam Date: 06/07/2022

1. Current Owner:
CITY OF STITES PO BOX 300 STITES ID 83552-0300
2. Accompanied by: Paul Jones
Phone No: 208-935-5621
Address: PO Box 327 Stites ID 83552
Relationship to permit Holder: City of Stites Maintenance Department Supervisor

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
82-7053	Groundwater	Municipal	Decreed
82-10220	Groundwater	Domestic	Decreed
85-7102	South Fork Clearwater River	Irrigation	Decreed
85-10106	Groundwater	Domestic	Decreed

Comments:

- Decreed Right 82-7053 is owned by the City of Stites (City) and uses the same water system infrastructure and POU as Permit 82-12259s. The two rights share PODs, and have the same POU, but there is no concern for overlap. The municipality doesn't have a diversion volume designated on each right, and the diversion rates between the two rights sum to reach the total of 0.43 cfs but are not recommended for combined use limitations as Permit 82-12259 adds additional diversion rate of 0.25 cfs in addition to the previous 0.18 cfs authorized by 82-7053. I did not recommend condition X35 for licensing purposes.
- Decreed Right 82-10220 uses a separate groundwater well than the City's municipal system. The domestic use is assigned a diversion rate of 0.04 cfs for domestic use occurring at parcel RPS00200120040, or 112 East St., which has been validated as being served water by the City. Condition X35 was added to describe that Rights 82-7053, 82-10220, & 82-12259 when combined shall not exceed water served for 1 home's domestic use located on parcel RPS0020012004A.
- Decreed Right 85-7102 uses the S.F. Clearwater River & for irrigation & domestic use associated with parcel RP32N04E208710 that was owned by Elva B Rowley at time of decree. Currently, this parcel has been subdivided into the following:
 - RP32N04E208871 – owned by Tom E Lee, 116 Agee Ln – 2 acres with home located in the SW1/4SE1/4, Sec 20, Twp 32N, Rge 04E. Right 85-7102 requires a change of ownership (split) to transfer the rights to Mr. Lee. The 2 acres associated with Mr. Lee's parcel do not overlap 82-12259's municipal service area.
 - RPS0020000801A – owned by Carol Robinett, 104 Agee Ln – 0.5 ac of 85-7102's irrigation located in the SE1/4SE1/4, Sec 20, Twp 32N, Rge 04E does overlap the municipal service area for 82-12259. Mr. Paul Jones, City of Stites Maintenance Supervisor, asserts that the home located at 104 Agee Ln is served water by the City. As no change of ownership has been submitted since 85-7102's parcel subdivision occurred, and the irrigation use is from a separate water system than the City's municipal infrastructure, I don't see any overlap concern between 85-7102 and 82-12259. In the event Carol Robinett or future owners of RPS0020000801A submit a change of ownership for 85-7102 and do use surface water for irrigation on the parcel there is no overlap concern substantiated as the source/system are separate.

- Decreed Right 85-10106 uses a separate groundwater source for domestic use occurring on the same parcel with resulting subdivision as discussed above for 85-7102. It is reasonable to associate the domestic use from the groundwater well serving the home owned by Tom E Lee vice Carol Robinett, considering the City actively serves water to the home located at 104 Agee Ln owned by Mrs. Robinett. I don't recommend overlapping conditions for licensing 82-12259.

2. Other water rights with the same point-of-diversion: YES Overlap

Water Right No.	Source	Purpose of Use	Basis
82-7053	Groundwater	Municipal	Decreed

Comments: Decreed Right 82-7053 is owned by the City of Stites which uses the same three groundwater well sources as this Right. Condition F06 was added to the Permit during licensing review describing the shared POD(s) between 82-7053 & 82-12259.

C. DIVERSION AND DELIVERY SYSTEM

1. LOCATION OF POINT(S) OF DIVERSION:

GROUND WATER NW¼ NW¼, Sec. 28, Twp 32N, Rge 04E, B.M. IDAHO County

GROUND WATER NE¼ NE¼, Sec. 29, Twp 32N, Rge 04E, B.M. IDAHO County

GROUND WATER SE¼ SE¼, Sec. 20, Twp 32N, Rge 04E, B.M. IDAHO County

Method of Determination: GPS located three well heads detailed below:

- NW¼ NW¼, Sec. 28: -115°58.3385, 46°5.3003; well D-TAG D0072339.
- NE¼ NE¼, Sec. 29: -115°58.4586, 46°5.2847; old artesian well no well log information available.
- SE¼ SE¼, Sec. 20: -115°58.4975, 46°5.4968; old deep well no well log information available.

PLACE OF USE: MUNICIPAL

Twp	Rng	Sec	NE				NW				SW				SE				Totals
			NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	
32N	04E	20													X		X	X	
32N	04E	28						X											
32N	04E	29	X																

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

3.

X Delivery System Diagram Attached (required). Indicate all major components and distances between components. Indicate weir size/pipe as applicable.

X Map Attached Showing Location(s) of point(s) of diversion and place(s) of use (required). Scale must be 1:24,000 or greater.

X Aerial Photo Attached (required for irrigation of 10+ acres).

X 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
D0072339		30			6inch discharge 3 inch check valve
ARTESIAN WELL	FRANKLIN ELECTRIC	7.5	UNKOWN		
DEEP WELL	FRANKLIN ELECTRIC	7.5	UNKOWN		

D. FLOW MEASUREMENTS

1.

Measurement Equipment	Type	Make	Model No.	Serial No.	Size	Calib. Date
FLOWMETER	VELOCITY	BADGER	RECORDALL T-1000			

2. Measurements: Flowmeter measurements were used to determine flow rates from the three wells which operate lead/lag during normal system operations. Average diversion rate of 196 gpm or 0.44 cfs from the new well with 30 hp pump; average diversion rate of 80 gpm from the Artesian well and Deep wells or 0.18 cfs considering department rounding standards.

E. FLOW CALCULATIONS

Measured Method: Flowmeter(s)

- D0072339 - Badger flowmeter: 200 gpm (1st run) + 190 gpm (2nd run) + 198 gpm (3rd run) = 518 gpm / 3 = 196 gpm average flow rate or 0.44 cfs considering department rounding standards.
- Artesian & Deep well – each well with 7.5 hp pump produced 80 gpm on average as backed up by a theoretic pump equation from the artesian well illustrating a 7.5 hp pump at depth of 225 ft operating at 45 psi equates to 76 gpm.

Right 82-7053 authorizes 0.18 cfs and this permit authorizes development of **0.25 cfs** for a total of 0.43 cfs, which is comparable to the 0.44 cfs observed during the beneficial use exam. There is no concern for enlargement based on the water system's lead/lag normal operation schedule.

F. VOLUME CALCULATIONS

- Volume Calculations for irrigation: N/A
- Volume Calculations for Other Uses: City of Stites is an incorporated city, and no volume limitations are applied to the license.

G. NARRATIVE/REMARKS/COMMENTS

Field exam performed on 6/7/2022 with the City of Stites (City) Maintenance Supervisor, Paul Jones, showed three groundwater wells serving the municipal water system PWS# ID2250060. The PODs are described below:

- Well D0072339 – co-located with the City's new 180,000 gal storage reservoir, a 30 hp pump/motor discharges to a 6 inch main service line to storage prior to distribution to the city's service connections. Flowmeter measurements identified an average flow rate of 196 gpm or 0.43 - 0.44 cfs depending on rounding. This permit is limited by the **0.25 cfs** authorized for development which is recommended for licensing. The difference of 0.18 cfs is accounted for by the City's prior Right 82-7053. The 30 hp pump provides the largest diversion rate operating at any time between the three wells, which normally operates under lead/lag conditions.
- Artesian Well – 7.5 hp Franklin pump motor installed at a depth of approximately 225 ft. A new SCADA monitoring system was being installed at the time of exam, but flow measurements taken from the well demonstrate a flow rate of 80 gpm or 0.18 cfs.

- Deep Well – 7.5 hp Franklin pump motor is installed in this well. This well has been isolated from serving potable water to the City due to contamination, but is still used by the city for fire protection uses and wash water and I'm recommending the well be kept on the Permit for licensing purposes. The 7.5 hp pump motor has a capacity of 80 gpm.

During the exam photographs were taken which show the major water system infrastructure, and the 180k storage replaced the City's historic 80-90k storage facility. Schematics of the water system show the 6-inch main line routes along major roadways throughout the city and do cross a bridge to cover a few service connections on the west side of the S.F. Clearwater River. I adapted the municipal POU during licensing review accounting for an extra connection on the north side of the City and removing 1 parcel indicated by Mr. Paul Jones that the City doesn't serve water too: RPS0020003001CA located at 414 Main Street.

Evaluations of the City's water rights show that an application for transfer to add the new well to Right 82-7053 was approved in 2018, and the new permit was filed for additional diversion rate increases from the 30 hp pump in well D0072339. Overlapping water rights have been discussed in detail above on PG 1 & 2 of the report. I've recommended licensing 82-12259 with condition X35 describing the limitations between the municipal service provider and a single parcel who has a private well & is still served water by the city.

I removed condition 046 during licensing review. I removed condition X35 (different than described above) which described that Rights 82-7053 and 82-12259 when combined shall not exceed a total diversion rate of 0.43 cfs; each Right's diversion rate is additive and doesn't necessitate a combined use condition for licensing purposes due to all three groundwater PODs being accounted for on each Right respectively. I have added condition F06 to describe the City's two Rights having the same POD(s). Aside from the overlap concerns discussed above which have been mitigated using condition X35, there are no additional overlapping concerns toward licensing this right.

Have conditions of permit approval been met? X Yes No

H. RECOMMENDATIONS

1. Recommended Amounts

<u>Beneficial Use</u>	<u>Period of Use</u>	<u>Rate of Diversion</u>
MUNICIPAL	01/01 to 12/31	0.25 CFS

Totals: 0.25 CFS

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 -

Field Examiner's Name J. D. D. Date 12/28/2023
Reviewer Chris Bell Date 6/5/2024

State of Idaho
Department of Water Resources
Attachment to Field Exam
82-12259

This map depicts the MUNICIPAL system diagram.



Bates, Luke

From: Paul Jones <pjstitesct@gmail.com>
Sent: Wednesday, December 27, 2023 12:45 PM
To: Bates, Luke
Subject: Re: IDWR water permit 82-12259

CAUTION: This email originated outside the State of Idaho network. Verify links and attachments BEFORE you click or open, even if you recognize and/or trust the sender. Contact your agency service desk with any concerns.

Hi Luke

sorry it took me so long to respond. the map is our service area there is one residents that is not served by the city. it is 414 main street parcel # RPS0020003001CA . we only serve water 104 Agee Ln to Carol Robinett RPS0020008014AA. we have a meter and service for a parcel north of town parcel #RP32N04E201802A currently there is no account open and is only horse pasture. And yes we do serve 112 East st. with water and sewer. I have looked for doc. as to the pump that was installed I know it is a 3 inch. and three phase. I will continue to look for doc. to prove that but will probably have to get it from TD&H engineering.

thanks Paul Jones

On Mon, Dec 18, 2023 at 11:49 AM Bates, Luke <Luke.Bates@idwr.idaho.gov> wrote:

Paul,

Attached is a DRAFT map that reflects what I believe is the accurate service area; I just need to confirm there aren't any lots that are served by private wells and city wells OR lots that need removed or added from the shape.

Thank you,

Luke Bates

From: Paul Jones <pjstitesct@gmail.com>
Sent: Monday, December 18, 2023 10:50 AM
To: Bates, Luke <Luke.Bates@idwr.idaho.gov>
Cc: stitesct@gmail.com
Subject: Re: IDWR water permit 82-12259

CAUTION: This email originated outside the State of Idaho network. Verify links and attachments BEFORE you click or open, even if you recognize and/or trust the sender. Contact your agency service desk with any concerns.

Bates, Luke

From: Bates, Luke
Sent: Monday, December 18, 2023 10:39 AM
To: pjstitesct@gmail.com; stitesct@gmail.com
Subject: IDWR water permit 82-12259

Mr. Paul Jones & the City of Stites –

Good morning. I hope this email finds you and your family(s) finding some time to enjoy the upcoming Christmas & New Years holidays.

I performed the field exam with Mr. Jones back in summer of 2022. IDWR shifted my priority from licensing during the winter of 2022 as the commencement of the adjudication process for Bonner County came full swing. Luckily, I've been shifted back to licensing this fall/winter and am currently working on finalizing Permit 82-12259 for licensing purposes.

I have two requests for information from the City:

1) during the exam we were unable to determine the size in HP of the new well pump installed in well D0072339. I noted the well pump produced approximately 200 gpm. IDWR requests validation of the size of the pump installed in this well.

2) Please provide a current map that clearly illustrates the City's service area. ✓

a) does the service area extend west across the river? **Yes**

b) does the service area extend south of Stites Canyon Road? **NO**

c) does the City serve water to Parcel RPS0020012004A (112 East Street)? **YES**

d) does the City serve water to Parcel RP32N04E208710 which was owned by Elva B Rowley, BUT may have been subdivided into parcels ~~RP32N04E208871 (116 Agee LN – owned by Tom E. Lee)~~ or **RPS002000801A (104 Agee Ln – owned by Carol A Robinett)?**

NOT ASSOCIATED

AB 12/27/23

Yes, served water

AB 12/27/23

Ownership questions are being asked as I evaluate other water rights located within the City's potential service area.

Thank you in advance for your assistance working through these questions. The answers will enable me to complete finalization of the permit for license approval.

Happy Holidays!,

Luke Bates

Sr. Water Resource Agent

Northern Region

P: 208-762-2817



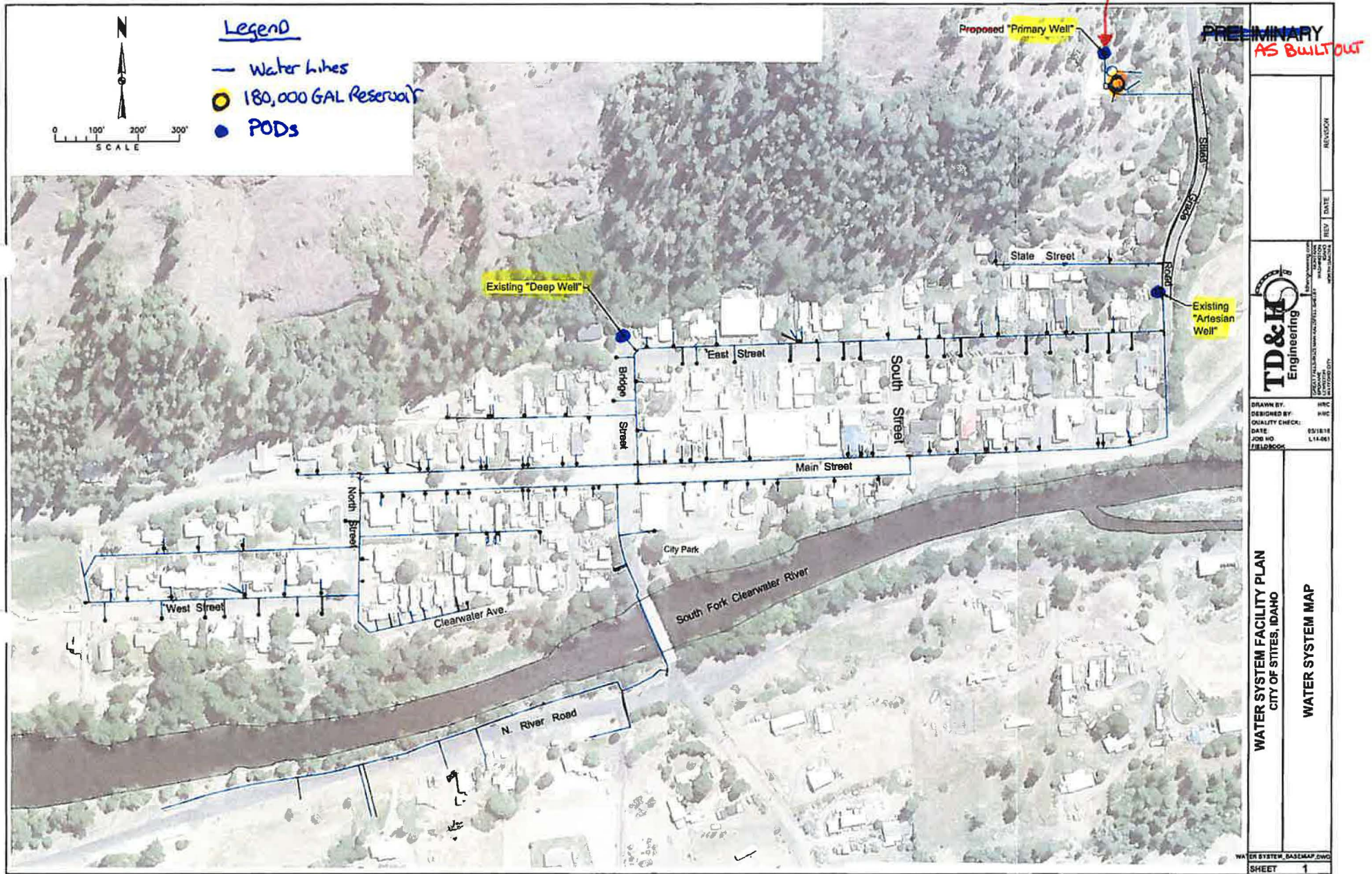
IDAHO DEPARTMENT OF
WATER RESOURCES

7600 N. Mineral Dr., Suite 100

Coeur D'Alene, ID 83815-7763

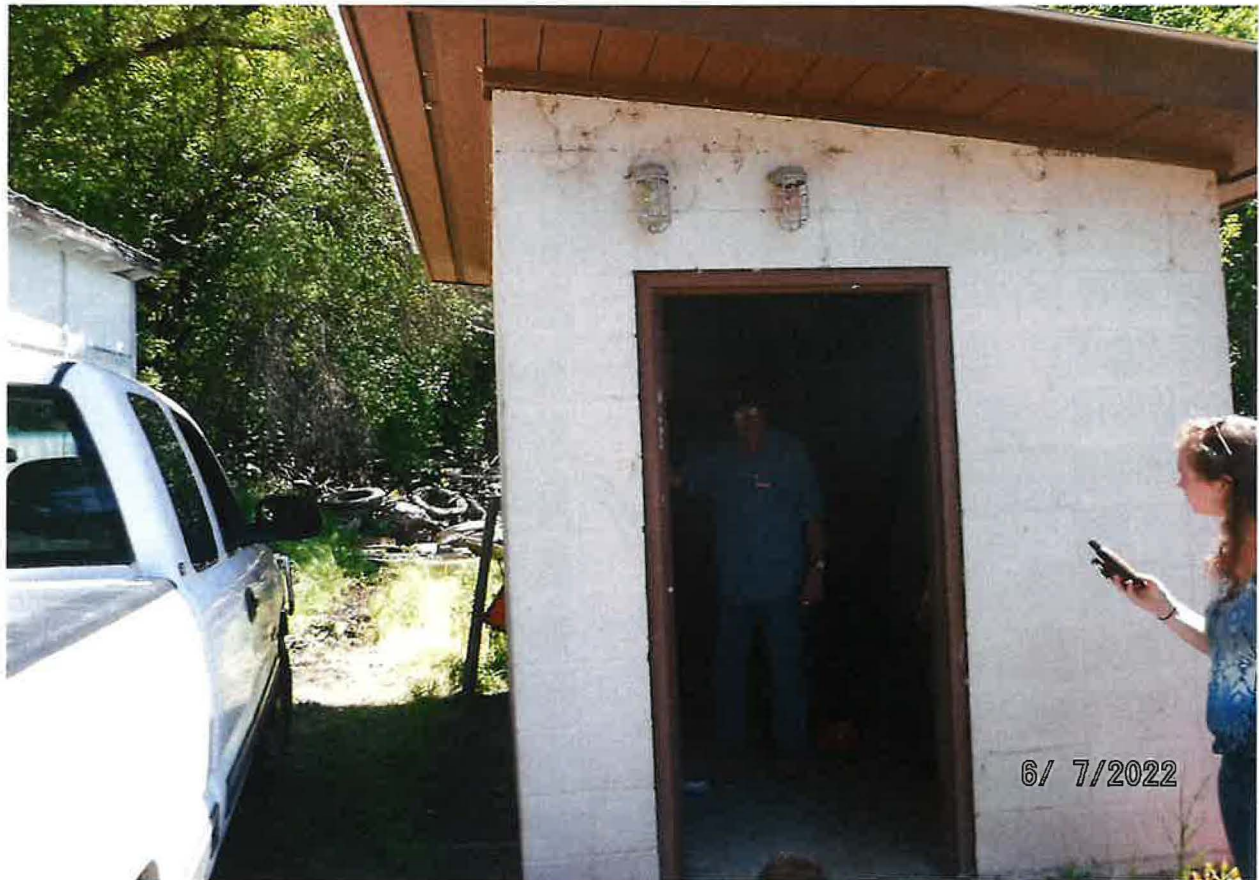
82-12259 POD/POLL SERVICE AREA MAP

DØØ 72339





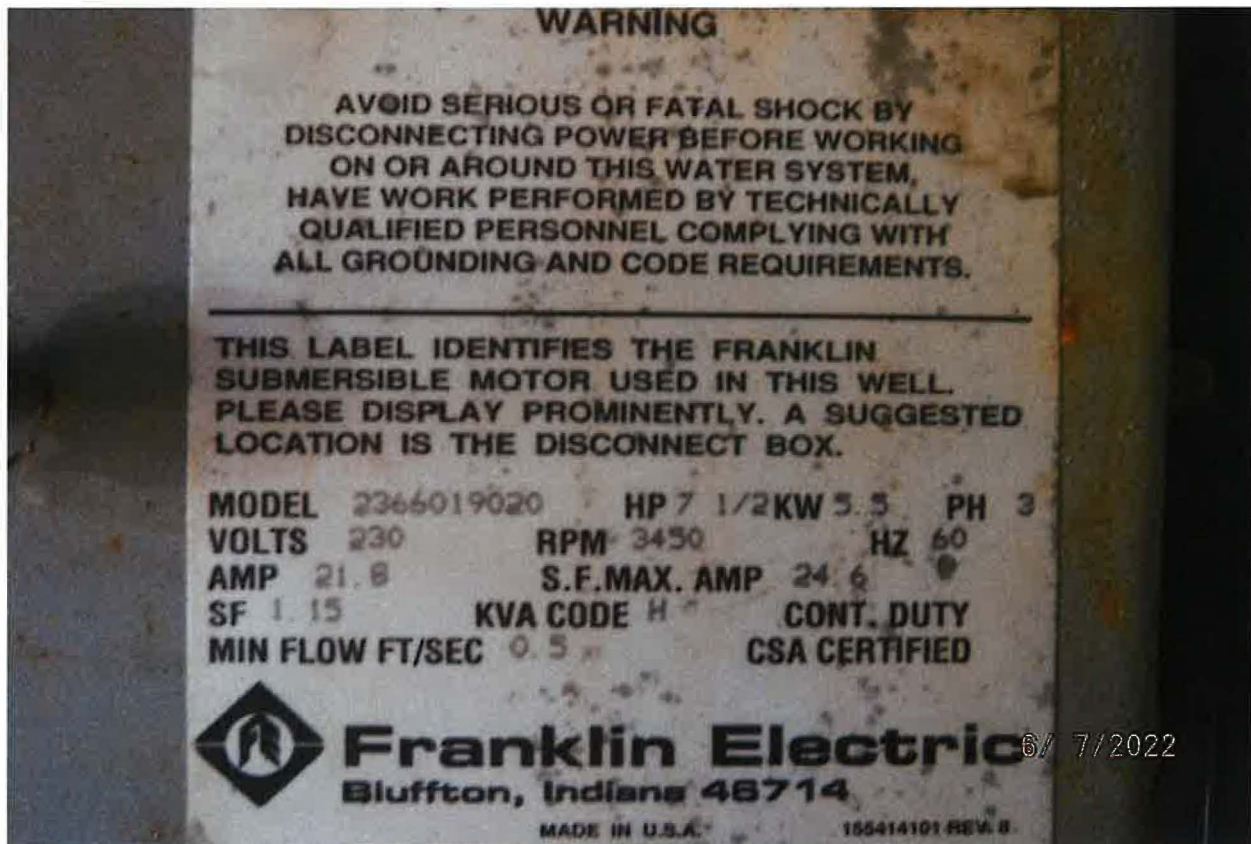
BENEFICIAL USE FIELD EXAMINATION DATE 6/7/2022



WELL HOUSE / PUMP HOUSE FOR GROUNDWATER WELL IN SE $\frac{1}{4}$ SE $\frac{1}{4}$, SEC. 20, TWP 32N, RGE 04E



POD – GROUNDWATER WELL SE¼SE¼, SEC. 20, TWP 32N, RGE 04E



FRANKLIN 7.5 HP PUMP MOTOR INSTALLED IN WELL



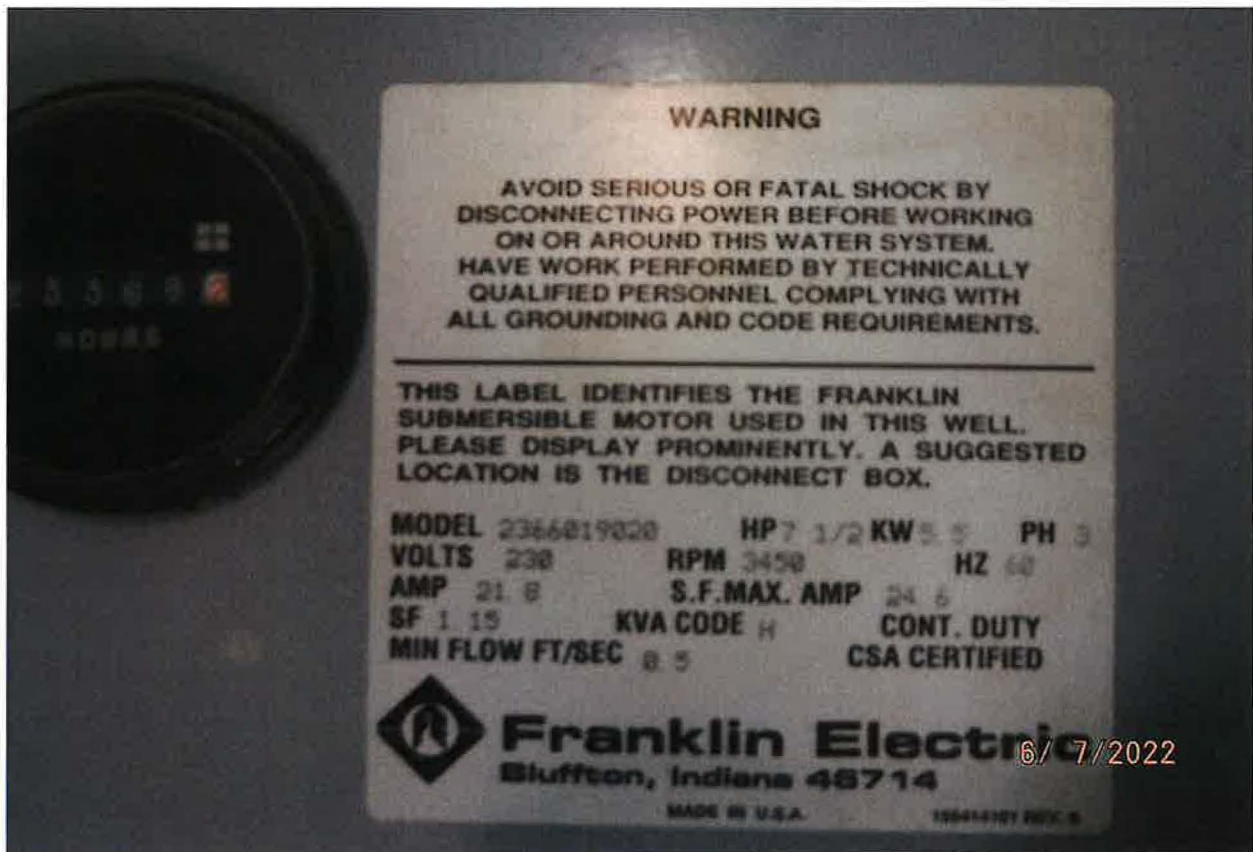
WELL HOUSE / PUMP HOUSE FOR GROUNDWATER WELL IN NE¼NE¼, SEC. 29, TWP 32N, RGE 04E



POD – GROUNDWATER WELL NE¼NE¼, SEC. 29, TWP 32N, RGE 04E



PUMP CONTROL PANEL, IN PROCESS INSTALLATION OF SCADA SYSTEM (R/H PANEL IN PHOTO)



7.5 HP FRANKLIN ELECTRIC PUMP MOTOR INSTALLED IN WELL



POD – GROUNDWATER WELL D007239





DIVERTING WORKS FOR WELL LOCATED IN THE NE¼NE¼, SEC. 29, TWP 32N, RGE 04E



CITY OF STITES IN PROCESS INSTALLING SCADA SYSTEM FOR WATER SYSTEM MANAGEMENT



SERVICE MAIN IN FROM D0072339 TO PUMP HOUSE PRIOR TO USE



DIVERTING WORKS FOR WELL D0072339; SCADA SYSTEM INSTALL IN-PROCESS



BADGER METER – FLOWMETER INSTALLED IN DIVERTING WORKS FOR WELL D0072339



180,000 GAL STORAGE RESERVOIR, PUMP STATION WELL D0072339 IN BACKGROUND