KANSAS DEPARTMENT OF AGRICULTURE
DIVISION OF WATER RESOURCES
MEMORANDUM

TO: File
DATE: May 1, 2018
FROM: Amber Herring
SUBJECT: Date Stamping Mail

On Friday, June 26th, 2015, The Administrative Assistant for Kansas Department of Agriculture, on the first floor signed for the certified mail containing the following Applications. I, Amber Herring, did not receive the documents until Monday, June 29th, 2015. Thus, the June 29th date is the correct date and time received by the Division of Water Resources.
APPLICATION FOR APPROVAL TO
CHANGE THE PLACE OF USE, THE
POINT OF DIVERSION OR THE USE
MADE OF THE WATER UNDER AN
EXISTING WATER RIGHT

Filing Fee Must Accompany the Application
(Please refer to Fee Schedule on signature page of application form.)

Paragraph Nos. 1, 2, 3, 4 & 8 must be completed. Complete all other applicable portions. A topographic map or detailed plat showing the authorized and proposed points(s) of diversion and/or place of use must accompany this application.

1. Application is hereby made for approval of the Chief Engineer to change the
   ☐ Place of Use
   ☐ Point of Diversion
   ☐ Use Made of Water

   File No. 21,731 Circles 2, 3, 4, & 5.

2. Name of applicant: City of Hays, Kansas and City of Russell, Kansas (See paragraph 2 of the cover letter.)
   Address: c/o Foulston Siefkin LLP, 1551 N. Waterfront Parkway, Suite 100
   City, State and Zip: Wichita, Kansas 67206
   Phone Number: (316) 291-9725 E-mail address: dtraster@foulston.com
   What is your relationship to the water right; ☑ owner ☐ tenant ☐ agent ☐ other? If other, please explain. Hays and Russell are co-owners of the authorized place of use on the R9 Ranch in Edwards County.

   Name of water use correspondent: City of Hays, Kansas
   Address: P.O. Box 490, 1507 Main Street
   City, State and Zip: Hays, Kansas 67601
   Phone Number: (785) 628-7320 E-mail address: tdougherty@haysusa.com

3. The change(s) proposed herein are desired for the following reasons (please be specific):
   See Paragraph 3 of the cover letter filed concurrently with this application. The cover letter is incorporated herin by reference.

   The change(s) (was) (will be) completed by See Paragraph 3 of the cover letter
   (Date)

For Office Use Only:
F.O. 2 GMD 5 Meets K.A.R. 5-5-1 (YES/NO) Use IRR Source 6 S County ED By KAB Date 6/29/15
Code 6-3 Fee $700 TR # Receipt Date 6/22/15 Check # 058328

of 21000 15053312

Assisted by: 6/30/2015 LJM
4. The presently authorized place of use is:

**Owner of Land — NAME:** City of Hays, Kansas

**ADDRESS:** P.O. Box 490, 1507 Main Street, Hays, Kansas 67601

<table>
<thead>
<tr>
<th>Sec. Twp. Range</th>
<th>NE%</th>
<th>NW%</th>
<th>SE%</th>
<th>SW%</th>
<th>Total Acres</th>
</tr>
</thead>
<tbody>
<tr>
<td>30-T25S-R19W</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>31-T25S-R19W</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>32-T25S-R19W</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>36-T25S-R20W</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

List any other water rights that cover this place of use: None

**Owner of Land — NAME:** City of Russell, Kansas

**ADDRESS:** 133 W. 8th Street, Russell, Kansas 67665

<table>
<thead>
<tr>
<th>Sec. Twp. Range</th>
<th>NE%</th>
<th>NW%</th>
<th>SE%</th>
<th>SW%</th>
<th>Total Acres</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Same as above</td>
</tr>
</tbody>
</table>

List any other water rights that cover this place of use: None

(If there are more than two landowners, attach additional sheets as necessary.)

5. It is proposed that the place of use be changed to:

**Owner of Land — NAME:** City of Hays, Kansas

**ADDRESS:** P.O. Box 490, 1507 Main Street, Hays, Kansas 67601

<table>
<thead>
<tr>
<th>Sec. Twp. Range</th>
<th>NE%</th>
<th>NW%</th>
<th>SE%</th>
<th>SW%</th>
<th>Total Acres</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>The City of Hays, Kansas and its immediate vicinity and other locations as more fully described in paragraph 5 of the cover letter.</td>
</tr>
</tbody>
</table>

List any other water rights that cover this place of use: See paragraph 5 of the cover letter.

**Owner of Land — NAME:** City of Russell, Kansas

**ADDRESS:** 133 W. 8th Street, Russell, Kansas 67665

<table>
<thead>
<tr>
<th>Sec. Twp. Range</th>
<th>NE%</th>
<th>NW%</th>
<th>SE%</th>
<th>SW%</th>
<th>Total Acres</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>The City of Russell, Kansas and its immediate vicinity and other locations as more fully described in paragraph 5 of the cover letter.</td>
</tr>
</tbody>
</table>

List any other water rights that cover this place of use: See paragraph 5 of the cover letter.
6. The presently authorized point(s) of diversion is (are) irrigation well(s) described in paragraph 8, infra. (Provide description and number of points)

7. The proposed point(s) of diversion is (are) one or more municipal wells; see paragraph 7 of the cover letter. (Provide description and number of points)

List all presently authorized point(s) of diversion:

8. Presently authorized point of diversion:
   One in the SW Quarter of the SE Quarter of the SW Quarter of Section 30 Township 25 South, Range 19 (E/W), in Edwards County, Kansas, 380 feet North 3,785 feet West of Southeast corner of section.
   Authorized Rate 450 gpm Authorized Quantity 80 a/f
   (DWR use only: Computer ID No.  G1_____ GPS __________ feet North __________ feet West)
   □ This point will not be changed  ✔ This point will be changed as follows:
   Proposed point of diversion: (Complete only if change is requested)
   One in the NW Quarter of the NE Quarter of the SW Quarter of Section 30 Township 25 South, Range 19 (E/W), in Edwards County, Kansas, 2,282 feet North 3,870 feet West of Southeast corner of section.
   Proposed Rate 1,075 gpm Proposed Quantity 222.93 a/f
   This point is: □ Additional Well  □ Geo Center  List other water rights that will use this point: 21,730

9. Presently authorized point of diversion:
   One in the near the center Quarter of the NE Quarter of the NE Quarter of Section 31 Township 25 South, Range 19 (E/W), in Edwards County, Kansas, 3,975 feet North 1,270 feet West of Southeast corner of section.
   Authorized Rate 605 gpm Authorized Quantity 162 a/f
   (DWR use only: Computer ID No.  G1_____ GPS __________ feet North __________ feet West)
   □ This point will not be changed  ✔ This point will be changed as follows:
   Proposed point of diversion: (Complete only if change is requested)
   One in the SW Quarter of the SW Quarter of the NE Quarter of Section 31 Township 25 South, Range 19 (E/W), in Edwards County, Kansas, 3,142 feet North 2,099 feet West of Southeast corner of section.
   Proposed Rate 2,490 gpm Proposed Quantity 768.07 a/f
   This point is: □ Additional Well  □ Geo Center  List other water rights that will use this point:

10. Presently authorized point of diversion:
    One in the NW Quarter of the NE Quarter of the SW Quarter of Section 31 Township 25 South, Range 19 (E/W), in Edwards County, Kansas, 2,460 feet North 3,660 feet West of Southeast corner of section.
    Authorized Rate 735 gpm Authorized Quantity 177 a/f
    (DWR use only: Computer ID No.  G1_____ GPS __________ feet North __________ feet West)
    □ This point will not be changed  ✔ This point will be changed as follows:
    Proposed point of diversion: (Complete only if change is requested)
    One in the SW Quarter of the SW Quarter of the NE Quarter of Section 31 Township 25 South, Range 19 (E/W), in Edwards County, Kansas, 3,142 feet North 2,099 feet West of Southeast corner of section.
    Proposed Rate 2,490 gpm Proposed Quantity 768.07 a/f
    This point is: □ Additional Well  □ Geo Center  List other water rights that will use this point:

11. Describe the current condition of and future plans for any point(s) of diversion which will no longer be used. See paragraph 11 of the cover letter.

   IF MORE SPACE IS NEEDED, ATTACH ADDITIONAL SHEETS AS NECESSARY
6. The presently authorized point(s) of diversion (is) (are) irrigation well(s) described in paragraph 8, infra. (Provide description and number of points)

7. The proposed point(s) of diversion (is) (are) one or more municipal wells; see paragraph 7 of the cover letter. (Provide description and number of points)

List all presently authorized point(s) of diversion:

8. Presently authorized point of diversion:
   One in the __________ Quarter of the ________ W/2 Quarter of the ________ NE of the SE Quarter of Section ________, Township ________, Range ________ (E/W), in ________ County, Kansas, ________ feet North ________ feet West of Southeast corner of section.
   Authorized Rate ________ gpm  Authorized Quantity ________ a/f
   (DWR use only: Computer ID No. __________ GPS __________ feet North __________ feet West)
   □ This point will not be changed  ☑ This point will be changed as follows:
   Proposed point of diversion: (Complete only if change is requested)
   One in the __________ Quarter of the ________ SW Quarter of the ________ NE Quarter of Section ________, Township ________, Range ________ (E/W), in ________ County, Kansas, ________ feet North ________ feet West of Southeast corner of section.
   Proposed Rate ________ gpm  Proposed Quantity ________ a/f
   This point is:  ☐ Additional Well  ☐ Geo Center  List other water rights that will use this point.

9. Presently authorized point of diversion:
   One in the __________ Quarter of the ________ NE Quarter of the ________ SE Quarter of Section ________, Township ________, Range ________ (E/W), in ________ County, Kansas, ________ feet North ________ feet West of Southeast corner of section.
   Authorized Rate ________ gpm  Authorized Quantity ________ a/f
   (DWR use only: Computer ID No. __________ GPS __________ feet North __________ feet West)
   □ This point will not be changed  ☑ This point will be changed as follows:
   Proposed point of diversion: (Complete only if change is requested)
   One in the __________ Quarter of the ________ SW Quarter of the ________ NE Quarter of Section ________, Township ________, Range ________ (E/W), in ________ County, Kansas, ________ feet North ________ feet West of Southeast corner of section.
   Proposed Rate ________ gpm  Proposed Quantity ________ a/f
   This point is:  ☐ Additional Well  ☐ Geo Center  List other water rights that will use this point.

10. Presently authorized point of diversion:
    One in the __________ Quarter of the ________ NE Quarter of the ________ SE Quarter of Section ________, Township ________, Range ________ (E/W), in ________ County, Kansas, ________ feet North ________ feet West of Southeast corner of section.
    Authorized Rate ________ gpm  Authorized Quantity ________ a/f
    (DWR use only: Computer ID No. __________ GPS __________ feet North __________ feet West)
    □ This point will not be changed  ☑ This point will be changed as follows:
    Proposed point of diversion: (Complete only if change is requested)
    One in the __________ Quarter of the ________ SW Quarter of the ________ NE Quarter of Section ________, Township ________, Range ________ (E/W), in ________ County, Kansas, ________ feet North ________ feet West of Southeast corner of section.
    Proposed Rate ________ gpm  Proposed Quantity ________ a/f
    This point is:  ☐ Additional Well  ☐ Geo Center  List other water rights that will use this point.

11. Describe the current condition of and future plans for any point(s) of diversion which will no longer be used.  See paragraph 11 of the cover letter.

   IF MORE SPACE IS NEEDED, ATTACH ADDITIONAL SHEETS AS NECESSARY

   WATER RESOURCES RECEIVED

   21731  Page 4 of 96

   SCANNED  JUN 2 0 1 5

   KS DEPT OF AGRICULTURE
6. The presently authorized point(s) of diversion (is) are irrigation well(s) described in paragraph 8, infra.
   (Provide description and number of points)

7. The proposed point(s) of diversion (is) are one or more municipal wells; see paragraph 7 of the cover letter.
   (Provide description and number of points)

8. Presently authorized point of diversion:
   One in the __________ Quarter of the ___________ Quarter of the __________ Quarter of the __________ Quarter of Section ___________ Township __________ South, Range __________ (E/W),
   in __________ County, Kansas, __________ feet North __________ feet West of Southeast corner of section.
   Authorized Rate __________ gpm  Authorized Quantity __________ a/f
   (DWR use only: Computer ID No. __________ GPS __________ feet North __________ feet West)
   □ This point will not be changed □ This point will be changed as follows:
   Proposed point of diversion: (Complete only if change is requested)
   One in the __________ Quarter of the __________ Quarter of the __________ Quarter of Section ___________ Township __________ South, Range __________ (E/W),
   in __________ County, Kansas, __________ feet North __________ feet West of Southeast corner of section.
   Proposed Rate __________ gpm  Proposed Quantity __________ a/f
   This point is: □ Additional Well □ Geo Center List other water rights that will use this point __________ & __________

9. Presently authorized point of diversion:
   One in the __________ Quarter of the __________ Quarter of the __________ Quarter of Section ___________ Township __________ South, Range __________ (E/W),
   in __________ County, Kansas, __________ feet North __________ feet West of Southeast corner of section.
   Authorized Rate __________ Authorized Quantity __________________
   (DWR use only: Computer ID No. __________ GPS __________ feet North __________ feet West)
   □ This point will not be changed □ This point will be changed as follows:
   Proposed point of diversion: (Complete only if change is requested)
   One in the __________ Quarter of the __________ Quarter of the __________ Quarter of Section ___________ Township __________ South, Range __________ (E/W),
   in __________ County, Kansas, __________ feet North __________ feet West of Southeast corner of section.
   Proposed Rate __________________ Proposed Quantity __________________
   This point is: □ Additional Well □ Geo Center List other water rights that will use this point __________________

10. Presently authorized point of diversion:
    One in the __________ Quarter of the __________ Quarter of the __________ Quarter of Section ___________ Township __________ South, Range __________ (E/W),
    in __________ County, Kansas, __________ feet North __________ feet West of Southeast corner of section.
    Authorized Rate __________________ Authorized Quantity __________________
    (DWR use only: Computer ID No. __________ GPS __________ feet North __________ feet West)
    □ This point will not be changed □ This point will be changed as follows:
    Proposed point of diversion: (Complete only if change is requested)
    One in the __________ Quarter of the __________ Quarter of the __________ Quarter of Section ___________ Township __________ South, Range __________ (E/W),
    in __________ County, Kansas, __________ feet North __________ feet West of Southeast corner of section.
    Proposed Rate __________________ Proposed Quantity __________________
    This point is: □ Additional Well □ Geo Center List other water rights that will use this point __________________

11. Describe the current condition of and future plans for any point(s) of diversion which will no longer be used.
    See paragraph 11 of the cover letter.

WATER RESOURCES RECEIVED
IF MORE SPACE IS NEEDED, ATTACH ADDITIONAL SHEETS AS NECESSARY

JUN 29 2015

KS DEPT OF AGRICULTURE
12. The presently authorized use of water is for irrigation purposes. It is proposed that the use be changed to municipal purposes.

13. If changing the place of use and/or use made of water, describe how the consumptive use will not be increased. See the attached discussion regarding the quantity of water to be changed to municipal use and paragraph 13 of the cover letter.

(Please show any calculations here.)

14. It is requested that the maximum annual quantity of water be reduced to not applicable (acre-feet or million gallons).

15. It is requested that the maximum rate of diversion of water be reduced to not applicable gallons per minute (___ c.f.s.).

16. The application must include either a topographic map or detailed plat. A U.S. Geological Survey Topographic Map, scale 1:24,000, is available through the Kansas Geological Survey, 1930 Constant Avenue, University of Kansas, Lawrence, Kansas 66047-3726 (www.usgs.gov). The map should show the location of the presently authorized point(s) of diversion. Distances North and West of the Southeast corner of the section must be shown. The presently authorized place of use should also be shown. Identify the center of the section, the section lines and the section corners and show the appropriate section, township, and range numbers on the map. In addition the following information must also be shown on the map.

a. If a change in the location of the point(s) of diversion is proposed, show:

   1) The location of the proposed point(s) of diversion. Distances North and West of the Southeast corner of the section must be shown. Please be certain that the information shown on the map agrees with the information shown in Paragraph Nos. 9, 10 and 11 of the application.

   2) If the source of supply is groundwater, please show the location of existing water wells of any kind, including domestic wells, within ½ mile of the proposed well or wells. Identify each well as to its use and furnish name and mailing address of the property owner or owners. If there are no wells within ½ mile, please indicate so on the map.

   3) If the source of supply is surface water, the names and mailing addresses of all landowner(s) ½ mile downstream and ½ mile upstream from your property lines must be shown.

b. If a change in the place of use is desired, show the proposed place of use by crosshatching on the map. Please be certain that the information shown on the map agrees with the information shown in paragraph No. 5 of the application.

17. Attach documentation to show the change(s) proposed herein will not impair existing water rights and relates to the same local source of supply as to which the water right relates. This information may include statements, plats, geology reports, well logs, test hole logs, and other information as necessary information to show the above. Additional comments may be made below.

See paragraph 17 of the cover letter.

18. If the proposed change(s) does not meet all applicable rules and regulations of the Kansas Water Appropriation Act, please identify the rules and regulations for which you request a waiver. State the reason why a waiver is needed and why the request should be granted. Attach documentation showing that granting the request will not impair existing water rights and will not prejudicially and unreasonably affect the public interest.

See paragraph 7 of the cover letter.
Any use of water that is not as authorized by the water right or permit to authorize water before the chief engineer approves this application is a violation of the Kansas Water Appropriation Act for which criminal or civil penalties may be assessed. Such violation is a class C misdemeanor, punishable by a fine not to exceed $500 and/or a term of confinement not to exceed one month in the county jail. K.S.A. 82a-728(b). Civil penalties shall be not less than $100 nor more than $1,000 per violation. In the case of a continuing violation, each day such violation continues may be deemed a separate violation. In addition to these penalties the water right may be modified or suspended. K.S.A. 82a-737, as amended.

The application must be signed by all owners of the place of use authorized under the water right and his or her spouse, if married. Please indicate if there is no spouse. If land is being purchased under contract, the seller must sign as landowner until such time as the contract is completed.

In the event that all applicants cannot appear before one notary public, they may as necessary sign separate copies of the application before any notary public conveniently available to them. All copies signed in this manner shall be considered to be valid parts of the application.

If the request is signed on behalf of any Owner by someone with legal authority to do so (for example, an agent, one who has power of attorney, or an executor, executrix, conservator), it will be necessary to attach proper documents showing such authority.

I declare that I am an owner of the currently authorized place of use as identified herein, or that I represent all such owners and am authorized to make this application on their behalf, and declare further that the statements contained herein are true, correct, and complete. By filing this application I authorize the chief engineer to permanently reduce the quantity of water and/or rate of diversion as specified in sections 14 and 15 of this application.

Dated at Russell, Russell County, Kansas, this 23rd day of June, 2015

City of Hays, Kansas, by Toby Dougherty, City Manager
(Please Print)

(Owner)

(Spouse)

(Please Print)

(Please Print)

(Please Print)

(Please Print)

(Please Print)

(Please Print)

(Please Print)

(Please Print)

(Please Print)

State of Kansas
County of Russell SS

I hereby certify that the foregoing application was signed in my presence and sworn to before me this 23rd day of June, 2015.

My Commission Expires 6/15/18

FEE SCHEDULE

Each application to change the place of use, the point of diversion or the use made of the water under this section shall be accompanied by the application fee set forth in the schedule below:

(1) Application to change a point of diversion 300 feet or less ................................................................. $100
(2) Application to change a point of diversion more than 300 feet ................................................................. $200
(3) Application to change the place of use .............................................................................................................. $200
(4) Application to change the use made of the water ........................................................................................... $300

Make check payable to Kansas Department of Agriculture.

WATER RESOURCES RECEIVED
JUN 29 2015

21731 Page 7 of 96 SCANNED KS DEPT OF AGRICULTURE
Any use of water that is not as authorized by the water right or permit to authorize water before the chief engineer approves this application is a violation of the Kansas Water Appropriation Act for which criminal or civil penalties may be assessed. Such violation is a class C misdemeanor, punishable by a fine not to exceed $500 and/or a term of confinement not to exceed one month in the county jail. K.S.A. 82a-728(b). Civil penalties shall be not less than $100 nor more than $1,000 per violation. In the case of a continuing violation, each day such violation continues may be deemed a separate violation. In addition to these penalties the water right may be modified or suspended. K.S.A. 82a-737, as amended.

The application must be signed by all owners of the place of use authorized under the water right and his or her spouse, if married. Please indicate if there is no spouse. If land is being purchased under contract, the seller must sign as landowner until such time as the contract is completed.

In the event that all applicants cannot appear before one notary public, they may as necessary sign separate copies of the application before any notary public conveniently available to them. All copies signed in this manner shall be considered to be valid parts of the application.

If the request is signed on behalf of any Owner by someone with legal authority to do so (for example, an agent, one who has power of attorney, or an executor, executrix, conservator), it will be necessary to attach proper documents showing such authority.

I declare that I am an owner of the currently authorized place of use as identified herein, or that I represent all such owners and am authorized to make this application on their behalf, and declare further that the statements contained herein are true, correct, and complete. By filing this application I authorize the chief engineer to permanently reduce the quantity of water and/or rate of diversion as specified in sections 14 and 15 of this application.

Dated at Russell, Russell County, Kansas, this 23rd day of June, 2015.

City of Russell, Kansas, by Jon Quinday, City Manager

Notary Public - State of Kansas
MALINDA MORSE
My Appt. Expires 6/15/18

I hereby certify that the foregoing application was signed in my presence and sworn to before me this 23rd day of June, 2015.


FEE SCHEDULE

Each application to change the place of use, the point of diversion or the use made of the water under this section shall be accompanied by the application fee set forth in the schedule below:

1. Application to change a point of diversion 300 feet or less ........................................... $100
2. Application to change a point of diversion more than 300 feet ......................................... $200
3. Application to change the place of use ................................................................................... $200
4. Application to change the use made of the water ................................................................. $300

Make check payable to Kansas Department of Agriculture.

WATER RESOURCES
RECEIVED
JUN 29 2015

KS DEPT OF AGRICULTURE
Proposed Rate and Quantity

The Cities are requesting a total of 991 acre-feet and 3,285 gallons per minute from the seven wells associated with this water right, which will be divided among new points of diversion G and H, as shown on Exhibit S. The two existing wells in the southwest quarter of section 30 and the northwest quarter of section 31 total 222.93 acre-feet and 1,075 gallons per minute to be diverted from new point of diversion G; and the remaining existing wells total 768.07 acre-feet and 2,490 gallons per minute to be diverted from new point of diversion H. When combined with existing wells from other water rights, new point of diversion G will have a cumulative total of 426.7 acre-feet and 1,870 gallons per minute and new point of diversion H will have a total of 768.07 acre-feet and 2,490 gallons per minute.

13. If changing the place of use and the use made of water, describe how the consumptive use will not be increased:

The following discussion is subject to paragraph 13 of the cover letter regarding consumptive use.

DWR Regulation, K.A.R. 5-5-9(a), provides that the default calculation used to address the consumptive use issue allows the conversion of 614.52 acre-feet for municipal use.\(^1\) As discussed below, 569 approved acres were irrigated during the perfection period; 569 acres multiplied by the Edwards County NIR for corn of 1.08 acre-feet per acre equals 614.52 acre-feet.\(^2\)

That same regulation goes on to allow the change to be based on the net consumptive use actually made during the perfection period.\(^3\)

Quantity authorized and perfected

The permit was issued on February 27, 1976, granting the applicant the right to divert up to 1,090 acre-feet annually at a rate of up to 3,900 gallons per minute for irrigation use\(^4\) on 621 acres in Sections 30, 31, and 32-T25S-R19W and Section 36-T25S-R20W,\(^5\) or 1.755 acre-feet per acre. The certificate further limited the quantity for the well located in the southwest quarter of section 30 and the well located in the northwest quarter of the northeast quarter of the northwest quarter of section 31 to 192 acre-feet when the wells were operated simultaneously.\(^6\)

In the cover letter transmitting the permit, DWR made findings of fact stating that “the proposed use is for a beneficial purpose and is within reasonable limitations. If priorities are observed and respected, the proposed use will neither impair any use under existing water rights nor prejudicially and unreasonably affect the public interest.”\(^7\)

The Field Inspection Reports indicate that 998.73 of the 1,090 acre-feet authorized by the permit were lawfully perfected. A total of 1,118 acre feet were applied to authorized acres.

---

\(^1\) K.A.R. 5-5-9(a) and (a)(1).
\(^2\) K.A.R. 5-5-12, NIR Requirements.
\(^3\) K.A.R. 5-5-9(b).
\(^4\) Permit, HAYS001010-11, Ex. A.
\(^5\) Application, HAYS001002, Ex. B.
\(^6\) Certificate, HAYS001034, Ex. C.
\(^7\) February 27, 1976, letter, HAYS001009, Ex. D (emphasis added).
• 230 acre-feet\textsuperscript{8} and 118 acre-feet\textsuperscript{9} (348 acre-feet) were applied to 128 approved acres.
• 159 acre-feet\textsuperscript{10} and 223 acre-feet\textsuperscript{11} (382 acre-feet) were applied to 211 approved acres.
• 56 acre-feet\textsuperscript{12} and 87 acre-feet\textsuperscript{13} (143 acre-feet) were applied to 122 approved acres.
• 245 acre-feet were applied to 108 approved acres.\textsuperscript{14}
• The permit authorized the perfection of 1,090 acre-feet on 621 acres, or 1,755 acre-feet per acre, but only 569 authorized acres were irrigated during the perfection period, resulting in perfection of 998.73 acre feet.

While the certificate limits the total quantity to 880 acre-feet based on DWR’s after-the-fact determination that 1.5 acre-feet per acre was a reasonable quantity for irrigation use, DWR did not have jurisdiction to make this reduction.\textsuperscript{15}

Since the perfection period has expired, the “authorized quantity” for this water right is the 998.73 acre-feet actually perfected even though it exceeds the certified quantity.

There are at least two alternative approaches to calculating consumptive use.

\textit{NIR for Alfalfa}

According to the Kansas Irrigation Guide, the NIR for the 50\% chance rainfall in Edwards County is 13 inches (1.083333 feet) for corn and 20.9 (1.741666 feet) inches for alfalfa.

Since alfalfa was grown on the authorized place of use during the year of record,\textsuperscript{16} it is reasonable to use the NIR for alfalfa, which yields a total quantity of 991.01 acre-feet consumed. While this quantity is greater than the quantity set out in the certificate, it is less than the 998.73 perfected acre-feet, the “maximum annual quantity authorized by the water right.”\textsuperscript{17}

\textit{An alternative approach}

DWR’s use of the NIR of 1.08 feet of water for corn is based on its maximum gross irrigation requirement of 1.5 acre-feet per acre.\textsuperscript{18} The regulation allows the conversion of 72\% of the maximum quantity to a new use; in other words, it assumes that 28\% of the quantity diverted returns to the aquifer.

\textsuperscript{8} FIR, HAYS000986, Ex. E, and HAYS000997, Ex. F.
\textsuperscript{9} FIR, HAYS000980, Ex. G.
\textsuperscript{10} FIR, HAYS000944, Ex. H.
\textsuperscript{11} FIR, HAYS000950, Ex. I.
\textsuperscript{12} FIR, HAYS000961, Ex. J.
\textsuperscript{13} FIR, HAYS000968, Ex. K.
\textsuperscript{14} FIR, HAYS000975, Ex. L.
\textsuperscript{16} FIRs, HAYS000947 (Ex. H), 953 (Ex. I), 964 (Ex. J), 971 (Ex. K), 978 (Ex. L), and 1000 (Ex. F). See also 1977WUR, HAYS000892, Ex. N, and HAYS004448-4453 (Ex. O).
\textsuperscript{17} See K.A.R. 5-5-9(a)(4).
\textsuperscript{18} Administrative Policy No. 86-8, dated Nov. 5, 1986, Ex. P, stating that: “In that area of Kansas located between the Range 5 East/Range 6 East Line and the Range 20 West/Range 21 West line, the maximum allowable quantity shall not exceed an average of 1.50 acre-feet per acre irrigated.” See also, K.A.R. 5-3-24 and Doug Bush Memo dated March 17, 1987, HAYS000679-70, Ex. Q.
If 28% of the 998.73 acre-feet legally applied during the perfection period percolates back to the aquifer, then 72%, or 719.08 acre-feet, should be available for conversion to municipal use. While this quantity is greater than the quantity set out in the certificate, it is less than the 998.73 perfected acre-feet, the “maximum annual quantity authorized by the water right.”

The applicants request that DWR approve a total of 991.01 acre-feet for municipal use.
APPROVAL OF APPLICATION
and
PERMIT TO PROCEED

(This Is Not a Certificate of Appropriation)

This is to certify that I have examined Application No. 21,731 of the applicant

Midwest Land and Cattle Company
C/o John Carson, Manager
Box 208
Kinsley, Kansas 67547

for a permit to appropriate water to beneficial use, together with the maps, plans and other submitted data, and that the application is hereby approved and the applicant is hereby authorized, subject to vested rights and prior appropriations, to proceed with the construction of the proposed diversion works and to proceed with all steps necessary for the application of the water to the approved and proposed beneficial use and otherwise perfect the proposed appropriation subject to the following terms, conditions and limitations:

1. That the priority date assigned to such application is January 2, 1974.

2. That the water sought to be appropriated shall be used for irrigation on the land described in the application.

3. That the source from which the appropriation is made shall be from

(See Paragraph No. 13)

4. That the appropriation sought shall be limited to a maximum diversion rate not in excess of 3900 gallons per minute (8.69 c.f.s.) and to a quantity of not to exceed 1090 acre-feet for any calendar year.
5. That installation of works for diversion of water shall be completed on or before December 31, 1977. The applicant shall notify the Chief Engineer of the Division of Water Resources when construction of the works has been completed.

6. That the proposed appropriation shall be perfected by the actual application of water to the proposed beneficial use on or before December 31, 1981.

7. That the applicant shall maintain records from which the quantity of water actually diverted during each calendar year may be readily determined. Such records shall be furnished to the Chief Engineer as soon as practicable after the close of each calendar year.

8. That the applicant shall not be deemed to have acquired a water appropriation for a quantity in excess of the amount approved herein nor in excess of the amount found by the Chief Engineer to have been actually used for the approved purpose during one calendar year subsequent to approval of the application and within the time specified or any authorized extension thereof.

9. That the use of water herein authorized shall not impair any use under existing water rights nor prejudicially and unreasonably affect the public interest.

10. That the right of the appropriator shall relate to a specific quantity of water and such right must allow for a reasonable raising or lowering of the static water level and for the reasonable increase or decrease of the streamflow at the appropriator's point of diversion.

11. That this permit does not constitute authority under K.S.A. 82a-301 to 305 to construct any dam or other obstruction; it does not give any right-of-way, or authorize any injury to, or trespass upon, public or private property; it does not obviate the necessity of obtaining assent from Federal or Local Governmental authorities when necessary.

12. That failure without cause to comply with provisions of the permit and its terms, conditions and limitations will result in the forfeiture of the priority date, revocation of the permit and dismissal of the application.

13. That the source from which the appropriation is made shall be from ground water in the drainage basin of the Arkansas River to be withdrawn by means of seven (7) wells: one well in the Southwest Quarter of the Southeast Quarter of the Southwest Quarter (SWQ SEQ SWQ) of Section 30, one well near the center of the Northeast Quarter (NEQ), one well in the Northwest Quarter of the Northeast Quarter of the Northwest Quarter (NWQ NEQ NWQ), one well in the Northwest Quarter of the Northwest Quarter of the Southwest Quarter (NWQ NEQ SWQ), one well near the center of the West side of the Northeast Quarter of the Southwest Quarter (NEQ SWQ) and two wells in the Southeast Quarter of the Northeast Quarter of the Southwest Quarter (SEQ NEQ SEQ) of Section 31, all in Township 25 South, Range 19 West, in Edwards County, Kansas, located substantially as shown on the aerial photograph accompanying the application.
APPLICATION FOR PERMIT TO
APPROPRIATE WATER FOR BENEFICIAL USE
(The Statutory Filing Fee of $50.00 Must Accompany the Application)

To the Chief Engineer of the Division of Water Resources, Kansas State Board of Agriculture:

(Mr.)
(Mrs.)

Comes now the applicant (Miss)

Stanley Joint Venture, whose post office address is
Box 208, Englewood, KS 67547
and makes application to the Chief Engineer of the Division of Water Resources, Kansas State Board of Agriculture, for a permit to appropriate for beneficial use such unappropriated

ground water
(surface water or ground water)
as may be available in the
Arkansas River Basin
(name of stream or drainage basin)
in the county of Edwards
(state of Kansas), to the extent and in accordance with the particulars hereinafter described:

1. The quantity of water desired is in the amount of 1090 acre feet per year, to be diverted at a maximum rate of 3900 gals per minute

2. The location of the proposed wells or other works for diversion of water is in the

quarter of the quarter of section township range
in Edwards County, Kansas.

3. The water is intended to be appropriated for:

(a) Domestic use  
(b) Municipal use  
(c) Irrigation use  
(d) Industrial use  
(e) Recreational use  

Water Power use

Amount

1090 acre ft.  
3900 gals per minute

(Attach schedule of use or uses and rule attached schedule for each use)
4. If for municipal use, attach tables or curves showing past, present and estimated future population and water requirements of the city.

5. If for industrial use, attach tables or curves showing past, present and estimated future water requirements.

6. If for irrigation use list below or attach name and address of each landowner and the legal description of the lands to be irrigated by designating the actual number of acres to be irrigated in each forty acre tract or fractional portion thereof: Kinsley Joint Venture is a partnership with the following owners;

<table>
<thead>
<tr>
<th>Sec. Twp. Range</th>
<th>NE1</th>
<th>NW1</th>
<th>SW1</th>
<th>SE1</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 NY1 25 19</td>
<td>25 24 25</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2 NY1 25 19</td>
<td>7</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

This acreage irrigated by pump, well and irrigation system located in SW/4 of NE/4 of 31-25-19 plus auxiliary well in SE/4 of SE/4 of SW/4 of 30-25-19.

Owner of Land—NAME: Kinsley Joint Venture

ADDRESS: 9/14 Andrew J. Moore, Attorney, 201 O. Box 399, Woodward, Oklahoma 73801

This acreage irrigated by pump, well and irrigation system located in NW/4 of NE/4 of SW/4 of 31-25-19 plus auxiliary well in SE/4 of SE/4 of SW/4 of 30-25-19.

Owner of Land—NAME: SAME AS ABOVE

ADDRESS: SAME AS ABOVE

This acreage irrigated by pump, well and irrigation system located in SW/4 of NE/4 of SE/4 of Section 31-25-19.

Owner of Land—NAME: SAME AS ABOVE

ADDRESS: SAME AS ABOVE

**This acreage irrigated by 2 wells and 2 pumps with the center of each irrigation system located in the SW/4 of NE/4 of SE/4 of Section 31-25-19.

**This acreage irrigated by pump, well and center of irrigation system located in SE/4 of NE/4 of SW/4 of Section 31-25-19.

Owner of Land—NAME: SAME AS ABOVE

ADDRESS: SAME AS ABOVE

WATER RESOURCES RECEIVED

JUN 29 2015
KS DEPT OF AGRICULTURE

* GUY E.11.5

SCANNED
7. The works for diversion of water will consist of...

and will be completed by already completed (Date)

8. The first actual application of water for the beneficial use proposed was or is estimated to be already used - use begun with 1973 growing season (Date)

9. The application must be accompanied either by a detailed plat prepared from an actual survey or by an aerial photograph of the area.

The plat or aerial photograph should show

(a) Location of the proposed point or points of diversion
(b) Location of the pipe lines, canals, reservoirs or other facilities for conveying water from the point of diversion to the place of use
(c) If for irrigation, show the location of the land proposed to be irrigated
(d) If for industrial or other use, show the location of the land where water will be used.

10. List and describe other applications filed or vested rights held by applicant:

None

11. The relation of the subscriber to this application is that of Attorney (Owner, agent or otherwise)

and he is authorized to make this application in behalf of the interest affected.

Dated at Kinsley, Kansas, this 15 day of Dec, 1973

KINSLEY JOINT VENTURE (Applicant)

By D. Allen Frame, Attorney

Note:

1 cubic foot per second = 448.8 gallons per minute = 646,317 gallons per day = 1.96 acre feet per day.
1 million gallons per day = 1,547 cubic feet per second = 3.07 acre feet per day.
1 acre foot = 43,560 cubic feet = 335,581 gallons.
Answers for No. 2.

Location for proposed wells -
- \( \text{NW}/4 \text{ of NE}/4 \text{ of NW}/4 \)
- \( \text{NW}/4 \text{ of NE}/4 \text{ of SW}/4 \)
- \( \text{SE}/4 \text{ of NE}/4 \text{ of SW}/4 \text{ near ctr. of W side of NE}/4\text{ of SW}/4 \)
- \( \text{SE}/4 \text{ of SE}/4 \text{ of SW}/4 \text{ near SE}/4\text{ of NE}/4 \text{ of SW}/4 \)

All in Section 31, Township 25, Range 19, Edwards County, Kansas

Sec. 30, T25s-R19w  SW/4 SE 1/4 SW/4
The circle system whose pivot is marked by point X has one well and pump at the pivot and one well and pump 500 yds. to the northeast at point Y. Points X and Y are joined by a pipe line. This irrigation system covers 112 acres and has a radius of 1250 feet.

The irrigation system whose pivot is marked by point B has one well and pump at point A which is 200 feet west of point B and one well and pump at point C which is 500 feet north of point B. There is a pipe line running from A to B and a pipe line running from C to B. This system covers 100 acres and has a radius of 1575 feet.

The irrigation system whose system is marked by point D has one well and pump at the pivot and another well and pump at point E which is 500 feet east of a mile north of point D. This system covers 75 acres and has a radius of 1007 feet.

The system whose pivot is marked by point F has one well and pump at the pivot, this covers 112 acres and has a radius of 1250 feet.
CERTIFICATE OF APPROPRIATION
FOR BENEFICIAL USE OF WATER
WATER RIGHT, File No. 21,731
PRIORITY DATE January 2, 1974

WHEREAS, It has been determined by the undersigned that construction of the appropriation diversion works has been completed, that water has been used for beneficial purposes and that the appropriation right has been perfected, all in conformity with the conditions of approval of the application pursuant to the water right referred to above and in conformity with the laws of the State of Kansas.

NOW, THEREFORE, Be It Known that DAVID L. POPE, the duly appointed, qualified and acting Chief Engineer of the Division of Water Resources of the Kansas Department of Agriculture, by authority of the laws of the State of Kansas, and particularly K.S.A. 82a-714, does hereby certify that, subject to vested rights and prior appropriation rights, the appropriator is entitled to make use of groundwater in the drainage basin of the Arkansas River to be withdrawn by means of seven (7) wells:

one (1) well located in the Southwest Quarter of the Southeast Quarter of the Southwest Quarter (SW1/4 SE1/4 SW1/4) of Section 30, more particularly described as being near a point 380 feet North and 3,785 feet West of the Southeast corner of said section, at a diversion rate not in excess of 450 gallons per minute (1.00 c.f.s.) and a quantity not to exceed 80 acre-feet of water per calendar year;

one (1) well located near the center of the Northeast Quarter (NE1/4) of Section 31, more particularly described as being near a point 3,975 feet North and 1,270 feet West of the Southeast corner of said section, at a diversion rate not in excess of 605 gallons per minute (1.35 c.f.s.) and a quantity not to exceed 162 acre-feet of water per calendar year;

one (1) well located in the Northwest Quarter of the Northeast Quarter of the Northwest Quarter (NW1/4 NE1/4 NW1/4) of Section 31, more particularly described as being near a point 3,920 feet West of the Southeast corner of said section, at a diversion rate
not in excess of 625 gallons per minute (1.39 c.f.s.) and a quantity not to exceed 192 acre-feet of water per calendar year;

one (1) well located in the Northwest Quarter of the Northeast Quarter of the Southwest Quarter (NW¼ NE¼ SW¼) of Section 31, more particularly described as being near a point 2,460 feet North and 3,660 feet West of the Southeast corner of said section, at a diversion rate not in excess of 735 gallons per minute (1.64 c.f.s.) and a quantity not to exceed 177 acre-feet of water per calendar year;

one (1) well located near the center of the West side of the Northeast Quarter of the Southwest Quarter (NE¼ SW¼) of Section 31, more particularly described as being near a point 1,925 feet North and 3,810 feet West of the Southeast corner of said section, at a diversion rate not in excess of 525 gallons per minute (1.17 c.f.s.) and a quantity not to exceed 126 acre-feet of water per calendar year;

one (1) well located in the Southeast Quarter of the Northeast Quarter of the Southwest Quarter (SE¼ NE¼ SE¼) of Section 31, more particularly described as being near a point 1,899 feet North and 54 feet West of the Southeast corner of said section, at a diversion rate not in excess of 380 gallons per minute (0.85 c.f.s.) and a quantity not to exceed 87 acre-feet of water per calendar year, and

one (1) well located in the Southeast Quarter of the Northeast Quarter of the Southwest Quarter (SE¼ NE¼ SE¼) of Section 31, more particularly described as being near a point 1,440 feet North and 405 feet West of the Southeast corner of said section, at a diversion rate not in excess of 245 gallons per minute (0.55 c.f.s.) and a quantity not to exceed 56 acre-feet of water per calendar year,

all in Township 25 South, Range 19 West, Edwards County, Kansas,

for irrigation use on the following described property:

23.00 acres in Lot 4 (SW¼ NE¼),
26.00 acres in the Southeast Quarter of the Northeast Quarter (SE¼ NE¼),
1.00 acre in the Southwest Quarter of the Northeast Quarter (SW¼ SE¼),

a total of 50.00 acres in Section 30, Township 25 South, Range 19 West,
37.00 acres in Lot 3 (NW\(\frac{1}{4}\) SW\(\frac{1}{4}\)),
13.00 acres in Lot 4 (SW\(\frac{1}{4}\) SW\(\frac{1}{4}\)),
6.00 acres in the Southeast Quarter of the Southwest Quarter (SE\(\frac{1}{4}\) SW\(\frac{1}{4}\)),
40.00 acres in the Northeast Quarter of the Southeast Quarter (NE\(\frac{1}{4}\) SE\(\frac{1}{4}\)),
35.00 acres in the Northwest Quarter of the Southwest Quarter (NW\(\frac{1}{4}\) SW\(\frac{1}{4}\)),
17.00 acres in the Southwest Quarter of the Southeast Quarter (SW\(\frac{1}{4}\) SE\(\frac{1}{4}\)),
39.00 acres in the Southeast Quarter of the Southwest Quarter (SE\(\frac{1}{4}\) SE\(\frac{1}{4}\)),

a total of 488.00 acres in Section 31, Township 25 South, Range 19 West,

1.00 acre in the Southwest Quarter of the Northwest Quarter (SW\(\frac{1}{4}\) NW\(\frac{1}{4}\)),
25.00 acres in the Northwest Quarter of the Southwest Quarter (NW\(\frac{1}{4}\) SW\(\frac{1}{4}\)),
23.00 acres in the Southwest Quarter of the Northwest Quarter (SW\(\frac{1}{4}\) SW\(\frac{1}{4}\)),

a total of 49.00 acres in Section 32, Township 25 South, Range 19 West,

7.00 acres in Lot 7,
17.30 acres in Lot 6,
7.00 acres in Lot 5,

a total of 31.30 acres in Lot 36, Township 25 South, Range 20 West,

all in Edwards County, Kansas.

The quantity for the two (2) wells, one (1) well located in the Southwest Quarter of the Southeast Quarter of the Southwest Quarter (SW\(\frac{1}{4}\) SE\(\frac{1}{4}\) SW\(\frac{1}{4}\)) of Section 30, more particularly described as being near a point 380 feet North and 3,785 feet West of the Southeast corner of said section, and one (1) well located in the Northwest Quarter of the Northeast Quarter of the Northwest Quarter (NW\(\frac{1}{4}\) NE\(\frac{1}{4}\) NW\(\frac{1}{4}\)) of Section 31, more particularly described as being near a point 5,125 feet North and 3,920 feet West of the Southeast corner of said section is further limited to (192) acre-feet of water per calendar year when the wells are operated simultaneously.

The appropriator shall maintain records from which the quantity of water actually diverted during each calendar year may be readily determined. Such records shall be furnished to the Chief Engineer by March 1 of each year following.

The appropriator shall maintain, in an operating condition satisfactory to the Chief Engineer, all check valves installed for the prevention of chemical or other foreign substance pollution of the water supply.

The appropriation right as perfected is appurtenant to and severable from the land herein described.

The appropriation right shall be deemed abandoned and shall terminate when without due and sufficient cause no lawful beneficial use is made of water under this appropriation for three (3) successive years.

RECEIVED: JUN 29 2005
HAYS 001036 KS DEPT OF AGRICULTURE

DIVISION OF WATER RESOURCES
STAFFORD
The right of the appropriator shall relate to a specific quantity of water and such right must allow for a reasonable raising or lowering of the static water level and for the reasonable increase or decrease of the stream flow at the appropriator’s point of diversion.

IN WITNESS WHEREOF, I have hereunto set my hand at my office at Topeka, Kansas, this 25th day of July, 1995.

David L. Pope, P.E.
Chief Engineer
Division of Water Resources
Kansas Department of Agriculture

State of Kansas } SS
County of Shawnee }

The foregoing instrument was acknowledged before me this 25th day of July, 1995, by David L. Pope, P.E., Chief Engineer, Division of Water Resources, Kansas Department of Agriculture.

Denise Ralph
Notary Public
My appointment expires: 3-1-98

WATER RESOURCES RECEIVED
JUN 29 2015
KS DEPT OF AGRICULTURE

CERTIFICATE OF APPROPRIATION FOR BENEFICIAL USE OF WATER

State of Kansas: 21,731

County: 21,731

Date: 3-1-95

Recorded in Book: 22 of 96

Page: 5

Fee $5

RECEIVED
AUG 31 1995

HAYS001037

MICROFILMED
February 27, 1976

Midwest Land and Cattle Company
C/o John Carson, Manager
Box 208
Kinsley, Kansas 67547

Re: Appropriation of Water
Application No. 21,731

Gentlemen:

Your application has been examined and is found to be in proper form. Further, we find that the proposed use is for a beneficial purpose and is within reasonable limitations. If priorities are observed and respected, the proposed use will neither impair any use under existing water rights nor prejudicially and unreasonably affect the public interest. It is presumed that the application is made in good faith, and that you are ready to proceed with the proposed diversion works and the application of water to the proposed use. The application has, therefore, been approved.

There is enclosed the approval of the application authorizing you to proceed with construction of the proposed diversion works, to divert such unappropriated water as may be available from the source and at the location specified in the approval of application, and to use it for the purpose and at the location described in the application.

There is also enclosed a memorandum setting forth the procedure to obtain a certificate of appropriation which will establish the extent of your water rights.

Should you have any questions or if we can be of any assistance to you, please feel free to write or call us.

Very truly yours,

WATER RESOURCES RECEIVED

Riley M. Dixon
Hydrologist

JUN 29 2015

Encs.

SCANNED KS DEPT OF AGRICULTURE

RECEIVED MAR 8 1976

FIELD OFFICE DIVISION OF WATER RESOURCES STAFFORD
FIELD INSPECTION REPORT

Test No. 1 of 7 diversion points. County: Edwards
(Circle 2, "W" if test #2)

File No. 21731 Inspection Date 2-23-95 Firm/Field Office: Evans-Bierly-Hutchison & Associates
Consulting Engineers

Current Landowner: City of Hays, KS Phone No. (922) 628-1350
Address: Lee Wellbrink, Public Works Director
1107 Main Hays, KS 67601

[Box to check for additional landowners and addresses]

Water Use: ( ) Domestic ( ) Industrial ( ) Irrigation ( ) Municipal ( ) Hydraulic Dredging
Classification: ( ) Recreation ( ) Stockwatering ( ) Water Power ( ) Artifical Recharge ( ) Contamination Remediation
Source: ( ) Groundwater ( ) Surface Water Basin/Stream: Hays, KS

Authorized Point of Diversion: NW 1/4 SE 1/4 Sec. 31, T. 25, R. 16W, ID No. 02
Approximately ——— ft. North and ——— ft. West of SE corner of Sec. 31

Actual Point of Diversion: NW 1/4 SE 1/4 Sec. 31, T. 25, R. 16W
Approximately 5742 ft. North and 9720 ft. West of SE corner of Sec. 31

How were distances determined? [Acreage Photo — Field Use Report]

"Approved" Quantity: 1690 AF "Approved" Diversion Rate: 500 g.p.m. (369 c.f.s.)
Priority Date: 1-2-94 Approval Date: 2-27-94 Perfection Date: 12-31-81

Other applications covering land and/or point of diversion: None

(include discussion of overlapping files in remarks section)

LAND TO BE INCLUDED ON CERTIFICATE:

<table>
<thead>
<tr>
<th>S</th>
<th>T</th>
<th>R</th>
<th>NEk</th>
<th>NWk</th>
<th>SWk</th>
<th>SEk</th>
<th>NEk</th>
<th>NWk</th>
<th>SWk</th>
<th>SEk</th>
<th>TOTAL ACRES</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>NE</td>
<td>NW</td>
<td>SW</td>
<td>SE</td>
<td>NE</td>
<td>NW</td>
<td>SW</td>
<td>SE</td>
<td></td>
</tr>
<tr>
<td>30</td>
<td>25</td>
<td>19</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>50</td>
</tr>
<tr>
<td>31</td>
<td>25</td>
<td>19</td>
<td>27</td>
<td>34</td>
<td>32</td>
<td>27</td>
<td>36</td>
<td>28</td>
<td>38</td>
<td>29</td>
<td>40 35 17 29</td>
</tr>
<tr>
<td>32</td>
<td>25</td>
<td>19</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>30</td>
<td>25</td>
<td>20</td>
<td>7</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>57</td>
</tr>
</tbody>
</table>

LAND IRRIGATED — YEAR OF RECORD: 1985

<table>
<thead>
<tr>
<th>S</th>
<th>T</th>
<th>R</th>
<th>NEk</th>
<th>NWk</th>
<th>SWk</th>
<th>SEk</th>
<th>NEk</th>
<th>NWk</th>
<th>SWk</th>
<th>SEk</th>
<th>TOTAL ACRES</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>NE</td>
<td>NW</td>
<td>SW</td>
<td>SE</td>
<td>NE</td>
<td>NW</td>
<td>SW</td>
<td>SE</td>
<td></td>
</tr>
<tr>
<td>30</td>
<td>25</td>
<td>19</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>55</td>
</tr>
<tr>
<td>31</td>
<td>25</td>
<td>19</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>20</td>
</tr>
</tbody>
</table>

TESTED DIVERSION RATES

Maximum G.P.M. (c.f.s.) Normal G.P.M. 567 (c.f.s. 126)

FOR D.W.R. USE ONLY

Year of Record: 1993 Extension of time needed: [ ] Yes [ ] No Attached? [ ] Yes [ ] No

AF Applied = 2200 hrs. x 567 g.p.m. x 4.419 AF kilocul. = 230 AF

"Approved" land irrigated: 12.8 acres, with 230 AF = 180 AF/Acre

12.8 acres x 1.5 A.F. per acre = 19.2 A.F.

HAYS0000986

Perfected Rate: 170 g.p.m. (1.139 c.f.s.) Perfected Quantity: 192 A.F. A.F.

DWR-101 (Rev. 03/29/91)
GENERAL INFORMATION ON IRRIGATION SYSTEM:

Center Pivot
Manufacturer Zimmatic Model Present Serial No. 41516
Drive: Water Electric Length of Pivot Arm Acres Irr. 128 (Asc's) Hired Land
Design Pressure-Pivot Operating Pressure-Pivot p.s.i. p.s.i.
Is there an end gun? Yes No Is end gun operating during test? Yes No
End Gun Model P&Y Sprinkle Rating g.p.m.

Gravity Irrigation
Items to be shown on sketch of system: 1) layout of pipe, 2) sizes of pipe, 3) type of pipe, 4) set which was tested, 5) test location and 6) hydrant location
Description

Other
Type
Manufacturer Model Serial No.

Unusual condition/other information

POWER UNIT INFORMATION:
Manufacturer Ford Model
Serial No. 3714186 Fuel Not Lost LP Rated RPM

PUMP INFORMATION:
Manufacturer Johnston Model No. Stages
Serial No. CF21849 Size/Type 8" Turbine Rated RPM

GEAR HEAD INFORMATION:
Manufacturer Pandiha Model 6
Serial No. 2183 Drive Dr Angle Ratio 6x5

WELL INFORMATION:
Date Drilled Original Depth ft. Static Water Level When Drilled ft.
Length of time well has operated prior to inspection days hours
Is measurement tube required? Yes No Is measurement tube present? Yes No
Depth to water ft. below LSD.

ADDITIONAL REQUIREMENTS:
Is a flow meter required? Yes No Make of flow meter
Serial No. 902340 Size 8" Flow meter conversion factor
Is the meter installed properly? Yes No Laborer Column pipe in pivot
Distance front and back of meter +5' Front +5' Back
Flow meter units: Acre-feet Acre-inches Gallons Other
Is check valve present? Yes No
Is low pressure drain present? Yes No
Is injection port present? Yes No
Was a Plant Health Chemigation Report completed? Yes No
TEST OF DIVERSION RATE: Location of test 5' East of Engine
Pipe Diameter (I.D.) 8.25 inches

Test No. 1—Normal Conditions
R.P.M. POWER UNIT 1890 cal
R.P.M. PUMP UNIT 1575 cal/s
Pressure at Pump 58 psi

Test No. 2—Maximum Conditions
R.P.M. POWER UNIT
R.P.M. PUMP UNIT
Pressure at Pump

☐ Jacuzzi Meter Test
Meter Identification No. 6 3
Area Constant K = 2.45 x I.D.² = 166.753125 Q (gpm) = VK

Velocity (fps)
1. 2.6 3.2
2. 3.0 3.2
3. 3.3 3.6
4. 3.4 3.6
5. 3.6 3.7
6. 3.6 3.7
7. 3.6 3.5
8. 3.5 3.5
9. 3.4 3.4
10. 3.1 3.3

Total 33.2 35.7
Avg. 3.32 3.57
G.P.M. 554 574

☐ Propeller Meter Test
Manufacturer
Model
Serial No. 302890

Ending gal.
Beginning gal.
Difference gal.
Time min.
Rate gpm

☐ Other Flow Meter
Use Supplemental Sheet (include meter identification, data and calculations).

- 3 -
<table>
<thead>
<tr>
<th>Year</th>
<th>Hours Pumped (hr)</th>
<th>Reported Pumping Rate (gpm)</th>
<th>Water Used (AF)</th>
<th>Acres Irrigated</th>
</tr>
</thead>
<tbody>
<tr>
<td>75</td>
<td>1168</td>
<td>1100</td>
<td></td>
<td>507</td>
</tr>
<tr>
<td>76</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>77</td>
<td>922</td>
<td>500</td>
<td></td>
<td>649 combined w/2s</td>
</tr>
<tr>
<td>78</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>79</td>
<td>1224</td>
<td>750</td>
<td></td>
<td>267</td>
</tr>
<tr>
<td>80</td>
<td>1416</td>
<td>750</td>
<td></td>
<td>267</td>
</tr>
<tr>
<td>81</td>
<td>1152</td>
<td>750</td>
<td></td>
<td>267</td>
</tr>
<tr>
<td>82</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>83</td>
<td>2250</td>
<td>6.21</td>
<td></td>
<td>128</td>
</tr>
<tr>
<td>84</td>
<td>1750</td>
<td>825</td>
<td></td>
<td>130</td>
</tr>
<tr>
<td>85</td>
<td>1850</td>
<td></td>
<td></td>
<td>130</td>
</tr>
</tbody>
</table>

Indicate Year of Record with (*)

Crops Irrigated: this year *Corn* year of record Unknown

FUEL RECORDS: (Complete only if water use information is not available)

- **Electricity**
  - Meter Manufacturer
  - Supplier
  - K __________ watt/rev
  - r __________ revolutions
  - t __________ seconds
  - Rate = \( \frac{K \times r}{t} \) kw/hr
  - Hours = __________ kw/hr = __________ rate

- **Other Fuels**
  - Supplier
  - Rate = Volume (test) = __________ kw/hr
  - How was the test volume determined? Always expected answer is right.

REMARKS: Landwasser change per farm managers instructor (Mr. Craig Estabrook) Owners meter is Subject of indicated Design of meter reads availability of comparing accuracy to our test. Large multiplier with no calibrating burn marks or rate of fuel dial present limiting meter. I am place to begin and end test within 5 to 10 second accuracy.

Person present at test: Greg Ebert

Water Use Correspondent: Same as listed

Conducted by: Martin Vonderhuegel

Approved by: Albert M. Hitchins, P.E.

WATER RESOURCES RECEIVED: HAYS000989

File No. 21.78

Page 27 of 96

JUN 29 2015

KS DEPT OF AGRICULTURE
EXHIBIT F

FIELD INSPECTION REPORT

Test 1 of 7 Diversion points
(Circle 2, 4, or 8)
Application No. 21731 Date 10/1/96 Inspector Klasse/Essett

Field Area No. 2 G.M.D. No. 5 County Edwards

Current Landowner Connecticut General Life Insurance Co. & Agri Affiliates
Address Box 1162 North Platte, NE 69303 ATTN TERRY WEATHER

Groundwater (X) Drainage Basin Arkansas River

Surface Water ( ) Stream

Authorized Point of Diversion: NW 1/4, NE 1/4, NE 1/4
Approximately 5125 ft. North and 3920 ft. West of SE corner of Sec. 31 T, 25, R 19

Actual Point of Diversion: NW 1/4, NE 1/4, NE 1/4
Approximately 5125 ft. North and 3920 ft. West of SE corner of Sec. 31

How were distances determined? By scaling on aerial photo, scale from original survey plat.

"Approved" Quantity 1040 ac-ft "Approved" Diversion Rate 3900 g.p.m. (8.69 c.f.s.)

Priority Date Jan 2, 1974 Approval of Application Date Feb 27, 1975

Perfection Date Dec 31, 1981

Other applications covering land and/or point of diversion None

LAND TO BE INCLUDED ON CERTIFICATE:

<table>
<thead>
<tr>
<th>S</th>
<th>T</th>
<th>R</th>
<th>NE</th>
<th>NW</th>
<th>SW</th>
<th>SE</th>
<th>NE</th>
<th>NW</th>
<th>SW</th>
<th>SE</th>
<th>TOTAL ACRES</th>
</tr>
</thead>
<tbody>
<tr>
<td>30</td>
<td>25</td>
<td>19</td>
<td>27</td>
<td>34</td>
<td>56</td>
<td>27</td>
<td>36</td>
<td>34</td>
<td>28</td>
<td>39</td>
<td>1 50</td>
</tr>
<tr>
<td>31</td>
<td>25</td>
<td>19</td>
<td>27</td>
<td>34</td>
<td>56</td>
<td>27</td>
<td>34</td>
<td>37</td>
<td>13</td>
<td>1</td>
<td>48</td>
</tr>
<tr>
<td>32</td>
<td>25</td>
<td>19</td>
<td>27</td>
<td>34</td>
<td>56</td>
<td>27</td>
<td>25</td>
<td>23</td>
<td>20</td>
<td>20</td>
<td>7 48</td>
</tr>
<tr>
<td>33</td>
<td>25</td>
<td>19</td>
<td>7</td>
<td>1</td>
<td>25</td>
<td>20</td>
<td>25</td>
<td>23</td>
<td>20</td>
<td>20</td>
<td>2 34</td>
</tr>
</tbody>
</table>

LAND IRRIGATED—YEAR OF RECORD 1983

<table>
<thead>
<tr>
<th>S</th>
<th>T</th>
<th>R</th>
<th>NE</th>
<th>NW</th>
<th>SW</th>
<th>SE</th>
<th>NE</th>
<th>NW</th>
<th>SW</th>
<th>SE</th>
<th>TOTAL ACRES</th>
</tr>
</thead>
<tbody>
<tr>
<td>30</td>
<td>25</td>
<td>19</td>
<td>34</td>
<td>33</td>
<td>1 2</td>
<td>25</td>
<td>29</td>
<td>1</td>
<td>55</td>
<td>73</td>
<td></td>
</tr>
<tr>
<td>31</td>
<td>25</td>
<td>19</td>
<td>34</td>
<td>33</td>
<td>1 2</td>
<td>25</td>
<td>29</td>
<td>1</td>
<td>55</td>
<td>73</td>
<td></td>
</tr>
</tbody>
</table>

APPLICATION OF WATER:

Year of Record 1983 Hours Pumped 2200 Normal Operating G.P.M. 1.21

Maximum Operating G.P.M. 1.21 Equivalent c.f.s. 1.38

Year of Record 1983 Extension of time requested: Yes No

Total No. of Hours on land covered by this application 2200

Ac. Ft. Applied = 2200 hrs. x 56.7 g.p.m. x 4.419 = 230 AF
24 x 1000

Acres of "Approved" Land irrigated 12 9

Ac. Ft. on "Approved" Land 230 (179 Acc. Ft./Ac.)

Ac. Ft. Used on "Approved" Land at "Approved" Rate or Less 230

Proration Calculations 12.9 acres x 1.5 AF. per acre = 19.4 AF

Perfected Rate 6.25 g.p.m. Perfected Quantity 19.2 AF

WATER RESOURCES RECEIVED

JUN 29 2015
KS DEPT. OF AGRICULTURE

SCANNED
WATER RESOURCES RECEIVED

MAR 10 1987
WATER RESOURCES RECEIVED

RECEIVED

MAR 10 1987
WATER RESOURCES RECEIVED

SCANNED
GENERAL INFORMATION ON IRRIGATION SYSTEM:

- Center Pivot: ☑️ High Pressure ☑️ Low Pressure
- Manufacturer: Zimmatic
- Model: 310
- Serial No: 3189
- Drive: Electric
- Length of Pivot Arm: 
- Design Pressure-Pivot: p.s.i.
- Operating Pressure-Pivot: p.s.i.
- End Gun: Yes
- End Gun Rating: g.p.m. 1 Rain Bird 85
- Is end gun operating during test? Yes

☐ Gravity Irrigation (show test set on sketch)

Number of Gates Open

Normal Pipe Size

Pressure at Pump: p.s.i.

☐ Other

Type

Manufacturer

Model

Serial No.

Unusual Conditions/Other Info.

POWER UNIT INFORMATION:

Manufacturer: Ford

Model No: 300

Serial No: 13812 T-4-TG

Fuel: Natural Gas

Rated RPM

PUMP INFORMATION:

Manufacturer: Johnston

Model No: 

Rated RPM

Serial No: CF 21243

Type: Vertical Turbine

No. of Stages: 

GEAR HEAD INFORMATION:

Manufacturer: Randolph

Model No: 680

Serial No: 85561

Drive: Right Angle

Ratio: 6:1

WELL INFORMATION:

Date Drilled:

Original Depth: ft.

Static Water Level When Drilled:

Tape Down Possible?: Yes 12'

Water Level Measurement Tube?

Measuring Point:

0 ft. above or below L.S.D.

* From 1975 water use report

WATER RESOURCES RECEIVED

JUN 29 2015

KS DEPT OF AGRICULTURE

HAYS000998

SCANNED

ADDITIONAL REQUIREMENTS:

- Meter Required: No
- Make of Meter:
- Meter Model No: 
- Serial No: 
- Size:
- Is Meter Installed Properly?
- Chemical Injection System: Yes
- Check Valve: Yes
- Low Pressure Drain: Yes
- Vacuum Breaker: Yes
- Are these anti-pollution devices installed properly? Yes

If chemicals are injected into system, please attach sketch of system.
SKETCH OF ACTUAL PLACE OF USE, LOCATION OF DIVERSION WORKS, AND DISTRIBUTION SYSTEM.
(Indicate distribution system layout at time of field test.)

TEST OF DIVERSION RATE:

Length of time well has been operating prior to test.
Location of test: horizontal pipe between pump and pivot.
Pipe Diameter (I.D.): _____ inches

<table>
<thead>
<tr>
<th>Test No. 1—Normal Conditions</th>
<th>Test No. 2—Maximum Conditions</th>
</tr>
</thead>
<tbody>
<tr>
<td>R.P.M. POWER UNIT: 2,028</td>
<td>R.P.M. POWER UNIT:</td>
</tr>
<tr>
<td>R.P.M. PUMP UNIT: 1,680</td>
<td>R.P.M. PUMP UNIT:</td>
</tr>
<tr>
<td>Pressure at Pump: 78 psi</td>
<td>Pressure at Pump:</td>
</tr>
</tbody>
</table>

☐ Jacuzzi Meter Test

Meter Identification No: ________________________________

Area Constant K = 2.45 x I.D. = _____________

<table>
<thead>
<tr>
<th>Velocity (fps)</th>
<th>Velocity (fps)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td></td>
</tr>
<tr>
<td>2.</td>
<td></td>
</tr>
<tr>
<td>3.</td>
<td></td>
</tr>
<tr>
<td>4.</td>
<td></td>
</tr>
<tr>
<td>5.</td>
<td></td>
</tr>
<tr>
<td>6.</td>
<td></td>
</tr>
<tr>
<td>7.</td>
<td></td>
</tr>
<tr>
<td>8.</td>
<td></td>
</tr>
<tr>
<td>9.</td>
<td></td>
</tr>
<tr>
<td>10.</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Total</th>
<th>Avg.</th>
<th>G.P.M.</th>
</tr>
</thead>
</table>

☐ Propeller Meter Test

Manufacturer: __________________ Model: __________________ Serial No: _____________

<table>
<thead>
<tr>
<th>Meter Diameter: ______ inches</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Time: ______ min.</td>
<td>Time: ______ min.</td>
</tr>
<tr>
<td>Rate: ______ gpm</td>
<td>Rate: ______ gpm</td>
</tr>
</tbody>
</table>

☐ Other Flow Meter

Use Supplemental Sheet (include meter identification, data and calculations).

21731  Page 30 of 96
FUEL RECORDS:

- Electricity
  - Supplier
  - Meter Manufacturer
  - Type
  - Serial No.
  - \( K \times \text{watt/rev} \times \text{revolutions} \div \text{seconds} \)
  - Rate = \( K \times 3.6 \div t \text{ kwh/hr} \)
  - Hours = \( t \text{ kw-hr} \)

Other Fuels
- Type: Natural Gas
- Supplier: Kansas - Nebraska
  - Rate = Volume (test) \( \text{time} \)

How was the test volume determined? Not determined because one meter used for many wells.

TABULATION OF WATER USE:

<table>
<thead>
<tr>
<th>Year</th>
<th>Hours Pumped</th>
<th>Tested Pumping Rate</th>
<th>Water Used (AF)</th>
<th>Acres Irrigated</th>
</tr>
</thead>
<tbody>
<tr>
<td>1975</td>
<td>1188</td>
<td>1100</td>
<td></td>
<td>507</td>
</tr>
<tr>
<td>1976</td>
<td>NO DATA AVAILABLE</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1977</td>
<td>922</td>
<td>500</td>
<td></td>
<td>639</td>
</tr>
<tr>
<td>1978</td>
<td>NO DATA AVAILABLE</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1979</td>
<td>1224</td>
<td>750</td>
<td></td>
<td>267</td>
</tr>
<tr>
<td>1980</td>
<td>1416</td>
<td>750</td>
<td></td>
<td>267</td>
</tr>
<tr>
<td>1981</td>
<td>1153</td>
<td>750</td>
<td></td>
<td>267</td>
</tr>
<tr>
<td>1982</td>
<td>*</td>
<td>*</td>
<td></td>
<td>*</td>
</tr>
<tr>
<td>1983</td>
<td>2200</td>
<td>621</td>
<td></td>
<td>128*</td>
</tr>
<tr>
<td>1984</td>
<td>1750*</td>
<td>825*</td>
<td></td>
<td>130*</td>
</tr>
<tr>
<td>1985</td>
<td>1850*</td>
<td>*</td>
<td></td>
<td>130*</td>
</tr>
<tr>
<td>1986</td>
<td>*</td>
<td>*</td>
<td></td>
<td>*</td>
</tr>
</tbody>
</table>

* From Test
† From Water Use Reports, sent by Jerry Weaver, Agr. Assissten

Indicate Year of Record with (*)
Source of Information: Sheffield Files

Crops Irrigated: this year = alfalfa
Year of record = 1980

REMARKS:

WATER RESOURCES RECEIVED

JUN 29 2015
KS DEPT OF AGRICULTURE

Person present at test: Kent Naber
Irrigation Manager
Water Use Correspondent: Lyle Kolbeck
Spearville, KS 67876 (316) 385-2803 (phone)

Conducted by: Daniel Klassen
Date: 10-14-96
HAYS001000

Approved by: Dale Murr
Date: 5/2/97

SCANNED
APPLICATION NO: 21731 NAME: Connecticut General Life Ins.

COLLINS METER TEST

Collins Meter No. 1-83 Meter Calibration Factor 2.9359
Pipe Inside Diameter (inches) 7 3/4 Flow Rate Factor 145.4
Test Pressure (psi) 78 Test RPM, Pump 169.0
Description of Test Location Horizontal pipe between pump and pivot

---

<table>
<thead>
<tr>
<th>Test Data: q</th>
<th>Check, Initial</th>
<th>4.70</th>
<th>Reversed</th>
<th>4.69</th>
</tr>
</thead>
<tbody>
<tr>
<td>Meter Setting From Center of Pipe</td>
<td>Left Side of Pipe</td>
<td>Right Side of Pipe</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(or Front Side if Vertical Test)</td>
<td>(or Back Side if Vertical Test)</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

1 3/4 | 4.61 | 4.65 | 4.63 | 4.66 |
2 3/4 | 4.52 | 4.57 | 4.46 | 4.50 |
3 3/4 | 4.50 | 4.20 | 4.10 | 4.24 |

Average Velocity of Water = Sum of Vel. ÷ 12 = 4.47
Corrected Ave. Vel. = (Ave. Vel.) x (Calibration Factor) = 4.47 x 2.9359 = 4.27
Flow Rate = (Corrected Ave. Vel.) x (Flow Rate Factor) = 4.27 x 145.4 = 621 GPM

WATER RESOURCES RECEIVED
PUMPING PLANT TESTING, INC. JUN 29 2015
KS DEPT OF AGRICULTURE

Reviewed By: [Signature] Professional Engineer
HAYS001001
EXHIBIT 21731

FIELD INSPECTION REPORT

DIVISION OF WATER RESOURCES — KANSAS STATE BOARD OF AGRICULTURE

Field Office No. 02
G.M.D. No. 05

Test 2 of 4 diversion points. County Edwards
(Circle 2, B knehl)

File No. 21731 Inspection Date 2-28-95 Firm/Field Office

Current Landowner City of Hays, KS Phone No. (913) 628-7350
Address Leo Wellbrock, Public Works Director 16th & Main, Hays KS 67601

Water Use ( ) Domestic ( ) Industrial ( ) Irrigation ( ) Municipal ( ) Hydraulic Dredging
Classification: ( ) Recreation ( ) Stockwatering ( ) Water Power ( ) Artificial Recharge ( ) Contamination Remediation
Source: ( ) Groundwater ( ) Surface Water Basin/Stream Arkansas River

Authorized Point of Diversion: SW, SE, SW - 1/4
Sec. 30, T. 25 R 19 W, ID No. 03
Approximately — ft. North and — ft. West of SE corner of Sec. 30

Actual Point of Diversion: SW, SE, SW
Sec. 30, T. 25 R 19 W
Approximately 380 ft. North and 3775 ft. West of SE corner of Sec. 30
How were distances determined? Scanning Off Aerial, FIELD INSPECTION

"Approved" Quantity 1690 AF "Approved" Diversion Rate 3900 g.p.m. (8.67 c.f.s.)
Priority Date 1-2-94 Approval Date 1-27-76 Perfection Date 12-31-81

Other applications covering land and/or point of diversion NONE
(include discussion of overlapping files in remarks section)

LAND TO BE INCLUDED ON CERTIFICATE:

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th>NEk</th>
<th>NWk</th>
<th>SWk</th>
<th>SEk</th>
</tr>
</thead>
<tbody>
<tr>
<td>30</td>
<td>25</td>
<td>12</td>
<td>26</td>
<td>126</td>
<td>26</td>
<td></td>
</tr>
<tr>
<td>21</td>
<td>27</td>
<td>27</td>
<td>27</td>
<td>37</td>
<td>26</td>
<td>26</td>
</tr>
<tr>
<td>22</td>
<td>25</td>
<td>25</td>
<td>16</td>
<td>16</td>
<td>16</td>
<td>16</td>
</tr>
<tr>
<td>36</td>
<td>25</td>
<td>25</td>
<td>7</td>
<td>7</td>
<td>7</td>
<td>7</td>
</tr>
</tbody>
</table>

TOTAL ACRES 50

LAND IRRIGATED — YEAR OF RECORD 1980

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th>NEk</th>
<th>NWk</th>
<th>SWk</th>
<th>SEk</th>
</tr>
</thead>
<tbody>
<tr>
<td>30</td>
<td>25</td>
<td>19</td>
<td>25</td>
<td>25</td>
<td>25</td>
<td></td>
</tr>
<tr>
<td>31</td>
<td>25</td>
<td>19</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td></td>
</tr>
</tbody>
</table>

TOTAL ACRES 72

TESTED DIVERSION RATES
Maximum G.P.M. 450 (c.f.s. 1.00) Normal G.P.M. 450 (c.f.s. 1.00)

FOR D.W.R. USE ONLY
Year of Record 1980 Extension of time needed: Unattached?
AF Applied = 1416 hrs. x 750 g.p.m. x 4.419 = 118 AF
"Approved" land irrigated 128 acres, with 118 AF 0.92 AF/acre
128 x 1.5 AF/acre = 192 AF

RECEIVED
HAYS000980

Perfected Rate 450 g.p.m. (1.00 c.f.s.) Perfected Quantity 118 AF

DWR-101 (Rev. 03/29/91)

MARCH 01 1995

FIELD OFFICE 2-16-45
GENERAL INFORMATION ON IRRIGATION SYSTEM:

- **Manufacturer**: Zimmatic
- **Model**: 
- **Serial No.**: 49516
- **Drive**: Water
- **Length of Pivot Arm**: 
- **Acres Irr.**: 128 (×SC:
- **Design Pressure-Pivot**: 58 p.s.i.
- **Operating Pressure-Pivot**: 58 p.s.i.
- **Is there an end gun?**: Yes
- **End Gun Model**: P85 Single Sprinkler
- **Rating**: 
- **Gravity Irrigation**: 
  - Items to be shown on sketch of system: 1) layout of pipe, 2) sizes of pipe, 3) type of pipe, 4) set which was tested, 5) test location and 6) hydrant location
- **Type**: 
- **Unusual condition/other information**: 

POWER UNIT INFORMATION:

- **Manufacturer**: Ford
- **Model**: CS6-W13C-L403-C
- **Serial No.**: 1217741374
- **Fuel**: Gas LP
- **Rated RPM**: 

PUMP INFORMATION:

- **Manufacturer**: Johnson
- **Model**: 
- **Serial No.**: 4666
- **Size/Type**: 8" Turbine
- **Rated RPM**: 

GEAR HEAD INFORMATION:

- **Manufacturer**: Johnson
- **Model**: HGO
- **Serial No.** 71521
- **Drive**: DR Angle
- **Ratio**: 6x5

WELL INFORMATION:

- **Date Drilled**: NA
- **Original Depth**: ft.
- **Static Water Level When Drilled**: ft.
- **Length of time well has operated/rested**: 7 days
- **Is measurement tube required?**: Yes
- **Is measurement tube present?**: Yes
- **Depth to water**: ft. below LSD.

ADDITIONAL REQUIREMENTS:

- **Is a flow meter required?**: Yes
- **Make of flow meter**: Sigma
- **Serial No.**: 3023-90
- **Size**: 8"
- **Flow meter conversion factor**: x1000
- **Is the meter installed properly?**: Yes
- **Is vacuum breaker present?**: Yes
- **Distance front and back of meter**: 5' from and 5' back
- **Flow meter units**: Acre-feet
- **Is low pressure drain present?**: Yes
- **Is injection system being operated?**: Yes
- **Is injection port present?**: Yes
- **Was a Plant Health Chemigation Report completed?**: Yes

HAYSO00981

File No. 21731
SKETCH OF ACTUAL PLACE OF LOCATION OF DIVERSION WORKS, DISTRIBUTION SYSTEM.
(Indicate distribution system layout at time of field test.)

TEST OF DIVERSION RATE:
Location of test: 24" North of Pot
Pipe Diameter (I.D.) 8.25" inches

Test No. 1 — Normal Conditions
R.P.M. POWER UNIT 1786 colo.
R.P.M. PUMP UNIT 1440 medx
Pressure at Pump +30 psi

Test No. 2 — Maximum Conditions
R.P.M. POWER UNIT 1822 colo.
R.P.M. PUMP UNIT 1662 rmx
Pressure at Pump 150 psi

Jacuzzi Meter Test
Meter Identification No. 3
Area Constant K = 2.45 x I.D.² = 166,753,125
Q (gpm) = VK

<table>
<thead>
<tr>
<th>Velocity (fps)</th>
<th>1.</th>
<th>2.</th>
<th>3.</th>
<th>4.</th>
<th>5.</th>
<th>6.</th>
<th>7.</th>
<th>8.</th>
<th>9.</th>
<th>10.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>2.2</td>
<td>2.3</td>
<td>2.1</td>
<td>2.3</td>
<td>2.2</td>
<td>2.3</td>
<td>2.1</td>
<td>2.3</td>
<td>2.5</td>
<td>2.5</td>
</tr>
<tr>
<td>Total Avg. G.P.M.</td>
<td>2.3</td>
<td>2.3</td>
<td>2.1</td>
<td>2.3</td>
<td>2.2</td>
<td>2.3</td>
<td>2.1</td>
<td>2.3</td>
<td>2.5</td>
<td>2.5</td>
</tr>
</tbody>
</table>

Average Alone: 488 gpm

Propeller Meter Test
Manufacturer: 
Model: 
Serial No. 302390

Other Flow Meter
Use Supplemental Sheet (include meter identification, data and calculations).

21731
Page 35 of 96
FIELD REPORT
DIVISION OF WATER RESOURCES
SHASTA
File No. 21731

JUN 29 2015
KS DEPT OF AGRICULTURE

WATER RESOURCES RECEIVED

NOTABLE TO USE
RECEIVED

HAYS000082

AUG 31 2015
### Tabulation of Water Use Determined at the Time of This Report:

<table>
<thead>
<tr>
<th>Year</th>
<th>Hours Pumped (hr)</th>
<th>Reported Pumping Rate (gpm)</th>
<th>Water Used (AF)</th>
<th>Acres Irrigated</th>
</tr>
</thead>
<tbody>
<tr>
<td>1975</td>
<td>1188</td>
<td>1100</td>
<td></td>
<td></td>
</tr>
<tr>
<td>76</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>77</td>
<td>922</td>
<td>500</td>
<td></td>
<td></td>
</tr>
<tr>
<td>79</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>80</td>
<td>1416</td>
<td>650</td>
<td></td>
<td></td>
</tr>
<tr>
<td>81</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>82</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>83</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>84</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>85</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Indicate Year of Record with (*)

Source of Information: Water Use Report

Crops Irrigated: this year **Corn**

Year of record: **Unknown**

### Fuel Records:

- **Electricity**
  - Meter Manufacturer __________________ Type __________________ Serial No. __________________
  - \( K \times \text{watt/rev} \times r \times \text{revolutions} \times t \times \text{seconds} \)
  - \( \text{Rate} = \frac{K \times 36}{t} \text{kw/hr} \), \( \text{Hours} = \frac{\text{Volume} \text{(test)}}{\text{time}} \text{kw/hr} \)
- **Other Fuels**
  - Type __________________ Supplier __________________
  - \( \text{Rate} = \frac{\text{Volume} \text{(test)}}{\text{time}} \text{kw/hr} \)

How was the test volume determined? **Please report as requested.**

### Remarks:

Field inspection form for this file by Pumping Plant Testing dated 10-14-86 for this well is included in this file. No test was done at that time due to lack of equipment. Owner's meter is a Signet brand and has totalizer only. Due to lack of incremental marks, it is not possible to run a comparison test on this meter at this time. Manager Mr. Greg Ebert, said to change ownership to City of Hays, Kansas since the sale of this land is final. He has an interest in this property so is qualified to make that statement. They plan on operating as in the past for some time and so the Water Use Reports should be sent to the current address on file for that purpose.

Person present at test: **Greg Ebert** (Name) **(P.E.)** (relationship)

Water Use Correspondent: **Jim Kepowski** (Name) **(Address)** **(phone number)**

Conducted by: **Jim Kepowski** (Name) **(Address)** Date **2-23-95**

Approved by: **Stuart M. Hutchins** (Signature) **(P.E.)** (Title) Date **2-27-95**

WATER RESOURCES RECEIVED: **HAYS000983**

File No. **21731**
Date: Feb. 27, 1995

Project: FIELD INSPECTION REPORTS
File No. 21731

To: Larry Sheets
Water Rights Section
Division of Water Resources
901 S Kansas Ave. 2nd Floor
Topeka, Kansas 66612-1283

Gentlemen: We are transmitting the following:

Description:  

Field Inspection Report ID 02  
Field Inspection Report ID 03

Copies Dated

2-23-95

Remarks:  
This property has recently changed hands and these tests were needed to complete some of the water right certification.

Copies to: City of Hays, Leo Wellbrock  
Stafford Field Office

By: Stuart M. Hutchison, P.E.
**EXHIBIT H**

**DIVERSE RESOURCES—KANSAS STATE BOARD OF AGRICULTURE**

**FIELD INSPECTION REPORT**

Test 3 of 7 Diversion points (Circle 3, A Well)
Application No. 21731 Date 10/1/96 Firm/Field Office Pumping Plant Testing Inc.
Inspector Klassen/Herb

Field Area No. 2 C.M.D. No. 5 County, Edwards

Current Landowner Connecticut General Life Insurance Co. % Agri Affiliates
Address Box 1162 North Platte, NE 69103 ATTN JERRY WEAVER


Groundwater (X) Drainage Basin Arkansas River

Surface Water ( ) Stream

Authorized Point of Diversion: [Well] NE 1/4, S W 1/4 Sec 31 T 25 R 19
Approximately ft. North and ft. West of SE corner of Sec.

Actual Point of Diversion: [Well] SW 1/4, NE 1/4, S W 1/4 Sec 31 T 25 R 19
Approximately 1925 ft. North and 3810 ft. West of SE corner of Sec. 31

How were distances determined? By Scaling off Aerial Photo, Scale from Original Survey Plats

“Approved” Quantity 1040 ac-fe “Approved” Diversion Rate 3900 g.p.m. (.69 c.f.s.)

Priority Date Jan 2, 1974 Approval of Application Date Feb 27, 1976
Perfection Date Dec 31, 1981

Other applications covering land and/or point of diversion None

(include discussion of overlapping files in remarks section)

**LAND TO BE INCLUDED ON CERTIFICATE:**

<table>
<thead>
<tr>
<th>S</th>
<th>T</th>
<th>R</th>
<th>NE%</th>
<th>NW%</th>
<th>SW%</th>
<th>SE%</th>
<th>NE%</th>
<th>NW%</th>
<th>SW%</th>
<th>SE%</th>
<th>TOTAL ACRES</th>
</tr>
</thead>
<tbody>
<tr>
<td>30</td>
<td>25</td>
<td>19</td>
<td>27</td>
<td>34</td>
<td>38</td>
<td>27</td>
<td>36</td>
<td>24</td>
<td>38</td>
<td>39</td>
<td>14</td>
</tr>
<tr>
<td>31</td>
<td>25</td>
<td>19</td>
<td>27</td>
<td>34</td>
<td>38</td>
<td>27</td>
<td>36</td>
<td>24</td>
<td>38</td>
<td>39</td>
<td>14</td>
</tr>
<tr>
<td>32</td>
<td>25</td>
<td>19</td>
<td>7</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>4</td>
</tr>
<tr>
<td>33</td>
<td>25</td>
<td>20</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>4</td>
</tr>
</tbody>
</table>

**LAND IRRIGATED—YEAR OF RECORD 1983**

<table>
<thead>
<tr>
<th>S</th>
<th>T</th>
<th>R</th>
<th>NE%</th>
<th>NW%</th>
<th>SW%</th>
<th>SE%</th>
<th>NE%</th>
<th>NW%</th>
<th>SW%</th>
<th>SE%</th>
<th>TOTAL ACRES</th>
</tr>
</thead>
<tbody>
<tr>
<td>31</td>
<td>25</td>
<td>19</td>
<td>9</td>
<td>30</td>
<td>35</td>
<td>40</td>
<td>27</td>
<td>36</td>
<td>10</td>
<td>1.5</td>
<td>13</td>
</tr>
<tr>
<td>30</td>
<td>25</td>
<td>20</td>
<td>1.5</td>
<td>30</td>
<td>35</td>
<td>40</td>
<td>27</td>
<td>36</td>
<td>10</td>
<td>1.5</td>
<td>13</td>
</tr>
</tbody>
</table>

**APPLICATION OF WATER:**

Year of Record 1983 Hours Pumped 2200 ft. Quantity 381.2 ac-fe

Both wells pumping together (revised flowrate)
Normal Operating G.P.M. 941 Equiv. c.f.s. 21
Individuals 523 Equivalent 104.3 ft. c.f.s.

FOR D.W.R. USE ONLY

**Year of Record 1983**

| Ac. Ft. | Hours Pumpe | G.P.M. | 24 x 1000 | Total No. of Hours on land covered by this application 2200 | acres of "Approved" Land irrigated 211

Scanned by KS DEPT OF AGRICULTURE

WATER RESOURCES RECEIVED

JUN 29 2015

Dated 10/1/96

Revised March 1986
GENERAL INFORMATION ON IRRIGATION SYSTEM:

- **Center Pivot**
- **Low Pressure**

- **Manufacturer:** Zimmatic
- **Model:**
- **Serial No.:**

- **Drive:** Electric
- **Length of Pivot Arm:** 15 Towers

- **Design Pressure-Pivot:** p.s.i.
- **Operating Pressure-Pivot:** p.s.i.

- **End Gun?:** Yes
- **End Gun Rating:** g.p.m. 1000

- **Is end gun operating during test?:** Yes

- **Gravity Irrigation (show test set on sketch):**
  - **Number of gates open:**
  - **Normal Pipe Size:**
  - **Pressure at pump:** p.s.i.

- **Other**

- **Manufacturer:**
- **Model:**
- **Serial No.:**

- **Unusual Conditions/Other Info.:** This system has 15 towers and covers 267 acres - 2 times the size of a 'normal' center pivot system.

POWER UNIT INFORMATION:

- **Manufacturer:** Ford
- **Model No.:** 300
- **Serial No.:** 11907 K-29-7A
- **Fuel:** Natural Gas
- **Rated RPM:**

PUMP INFORMATION:

- **Manufacturer:** Jacuzzi
- **Model No.:** 10 X A
- **Serial No.:** N2424 232X
- **Type:** Vertical Turbine
- **No. stages:** 6

GEAR HEAD INFORMATION:

- **Manufacturer:** U.S. Motors
- **Model No.:** N5001522
- **Serial No.:** B-958B-00-H-420
- **Drive:** Right Angle
- **Ratio:** 6:1

WELL INFORMATION:

- **No records available on well.**

- **Date Drilled:**
- **Original Depth:** ft.
- **Static Water Level When Drilled:** ft.

- **Tape Down Possible?:** No
- **Water Level Measurement Tube?:** No

- **Measuring Point:** ft. above or below L.S.D.

WATER RESOURCES RECEIVED:

- **SCANNED JUN 29 2015**

ADDITIONAL REQUIREMENTS:

- **Meter Required?:** No
- **Make of Meter:**

- **Meter Model No.:**
- **Serial No.:**
- **Size:**

- **Is Meter Installed Properly?:**

- **Chemical Injection System?:** No
- **Check Valve?:** Yes
- **Low Pressure Drain?:** Yes

- **Vacuum Breaker?:** Yes
- **Are these anti-pollution devices installed properly?:** Yes

If chemicals are injected into system, please attach batch of system.
SKETCH OF ACTUAL PLACE OF U.S.E., LOCATION OF DIVERSION WORKS, AND DISTRIBUTION SYSTEM.
(Indicate distribution system layout at time of field test).

<p>| | | | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Scale
1" = ___ ft.

TEST OF DIVERSION RATE:
Length of time well has been operating prior to test: ___
Location of test: In horizontal pipe between riser and pivot
Pipe Diameter (I.D.): 7 7/8 inches

Test No. 1—Normal Conditions
R.P.M. POWER UNIT: 2100
R.P.M. PUMP UNIT: 1740
Pressure at Pump: 86 psi

Test No. 2—Apparition: Pumping
R.P.M. POWER UNIT: 2112
R.P.M. PUMP UNIT: 1762
Pressure at Pump: 47 psi

☐ Jacuzzi Meter Test
Meter Identification No. ________________________________
Area Constant K = 2.45 × I.D. 4

<table>
<thead>
<tr>
<th>Velocity (fps)</th>
<th>Velocity (fps)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>1.</td>
</tr>
<tr>
<td>2.</td>
<td>2.</td>
</tr>
<tr>
<td>3.</td>
<td>3.</td>
</tr>
<tr>
<td>4.</td>
<td>4.</td>
</tr>
<tr>
<td>5.</td>
<td>5.</td>
</tr>
<tr>
<td>6.</td>
<td>6.</td>
</tr>
<tr>
<td>7.</td>
<td>7.</td>
</tr>
<tr>
<td>8.</td>
<td>8.</td>
</tr>
<tr>
<td>9.</td>
<td>9.</td>
</tr>
<tr>
<td>10.</td>
<td>10.</td>
</tr>
</tbody>
</table>
Total: __________________________
Avg. G.P.M. __________________________

☐ Propeller Meter Test
Manufacturer: __________________________
Model: __________________________
Serial No. __________________________

<table>
<thead>
<tr>
<th>Meter Diameter</th>
<th>Ending</th>
<th>Beginning</th>
<th>Difference</th>
<th>Time</th>
<th>Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>inches</td>
<td>gal.</td>
<td>gal.</td>
<td>gal.</td>
<td>min.</td>
<td>gpm</td>
</tr>
</tbody>
</table>

☐ Other Flow Meter
Use Supplemental Sheet (include meter identification, data and calculations).

WATER RESOURCES RECEIVED
JUN 29 2015
KS DEPT OF AGRICULTURE

HAYS000946
FUEL RECORDS:

☐ Electricity
Supplier ____________________________

Meter Manufacturer _____________________ Type ___________________ Serial No. ___________________

K __________ watt/rev r __________ revolutions t __________ seconds

Rate = Kr × 3.6 = __________ kw/hr Hours = __________ kw-hr = __________

☐ Other Fuels
Type, Natural Gas   Supplier, Kansas, Nebraska

Rate = Volume (test) = __________

How was the test volume determined? Not Determined. Because One Meter Used For Many Wells

TABULATION OF WATER USE:

<table>
<thead>
<tr>
<th>Year</th>
<th>Hours Pumped</th>
<th>Tested Pumping Rate</th>
<th>Water Used</th>
<th>Acres Irrigated</th>
</tr>
</thead>
<tbody>
<tr>
<td>1975</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1976</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1977</td>
<td>897</td>
<td>750</td>
<td></td>
<td>639</td>
</tr>
<tr>
<td>1978</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1979</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1980</td>
<td>1416</td>
<td>400</td>
<td></td>
<td>140</td>
</tr>
<tr>
<td>1981</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1982</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1983</td>
<td><em>2200</em></td>
<td><em>523</em></td>
<td><em>212</em></td>
<td><em>217</em></td>
</tr>
<tr>
<td>1984</td>
<td><em>1750</em></td>
<td><em>700</em></td>
<td><em>267</em></td>
<td><em>267</em></td>
</tr>
<tr>
<td>1985</td>
<td><em>1850</em></td>
<td><em>700</em></td>
<td><em>267</em></td>
<td><em>267</em></td>
</tr>
<tr>
<td>1986</td>
<td></td>
<td><em>523</em></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

* From Test Data

* From Water Use Reports Sent By Jerry Weaver of Agri Affiliates

Indicate Year of Record with (*) Source of Information, Stafford Files

Crops Irrigated: this year wheat Year of record 1979

REMARKS: WE ARE UNSURE AS TO WHAT THE ACTUAL ACRES ARE ON THIS 200 GALLON PER MINUTE PUMP, THE ONLY DATA WE CAN USE TO SUPPORT OUR 200 GALLON PER MINUTE PUMP IS DATA FROM THE STAFFORD CLUES SHOWING 640 1/4MIWEST LAND & CATTLE CO. PLT FROM LATE '79 OR EARLY '80.

SIGNED

WATER RESOURCES
RECEIVED

SCANNED JUN 29 2015

KS DEPT OF AGRICULTURE

Person present at test: Kent Naber (signature) Irrigation Manager

Water Use Correspondent: Lyle Helberg (signature) Spooner, KS 67876 (316) 385-2903

Conducted by: Daniel Weadon (signature) Date: 6/14/86 HAYS0001947

Approved by: L. W. (signature) Date: 3/7/87
APPLICATION NO: 21731  NAME: Connecticut General Life Ins.

COLLINS METER TEST ON WELL SW NE SW 31-25-19, "A" WELL ON CIRCLE 3

Collins Meter No. 1-83  Meter Calibration Factor 9559
Pipe Inside Diameter (inches) 7 1/8  Flow Rate Factor 143.0
Test Pressure (psi) 47  Test RPM, Pump 1765

Description of Test Location In horizontal pipe between riser and pivot

<table>
<thead>
<tr>
<th>TEST DATA:</th>
<th>Q</th>
<th>Check, Initial</th>
<th>3.90</th>
<th>Reversed</th>
<th>3.90</th>
</tr>
</thead>
<tbody>
<tr>
<td>Meter Setting From Center of Pipe</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Left Side of Pipe (or Front Side if Vertical Test)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Right Side of Pipe (or Back Side if Vertical Test)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1 1/4</td>
<td>3.81</td>
<td>3.89</td>
<td>4.02</td>
<td>4.03</td>
<td></td>
</tr>
<tr>
<td>2 3/4</td>
<td>3.77</td>
<td>3.80</td>
<td>3.99</td>
<td>3.97</td>
<td></td>
</tr>
<tr>
<td>3 1/2</td>
<td>3.57</td>
<td>3.77</td>
<td>3.69</td>
<td>3.61</td>
<td></td>
</tr>
</tbody>
</table>

Average Velocity of Water = Sum of Vel. / 12 = 3.83

Corrected Ave. Vel. = (Ave. Vel.) x (Calibration Factor) = 3.83 x 9559 = 3.66

Flow Rate = (Corrected Ave. Vel.) x (Flow Rate Factor) = 3.66 x 143.0 = 523 GPM

SCANNED
WATER RESOURCES
RECEIVED
MAR 10 1987
DIVISION OF WATER RESOURCES
STATE BOARD OF AGRICULTURE

PUMPING PLANT TESTING, INC.

Reviewed By: Professional Engineer
AUG 31 1995

HAYS000948
MICROFILMED
Page 43 of FIELD OFFICE
DIVISION OF WATER RESOURCES
STAFFORD
APPLICATION NO: 21731 NAME: Connecticut General Life Ins.

COLLINS METER TEST Both A and B Wells (NW & SW 31-25-19 and NW NE & SW 31-25-19) Pumping Together Into Pivots 3

Collins Meter No. 1-84 Meter Calibration Factor 943.5
Pipe Inside Diameter (inches) 7 1/4 Flow Rate Factor 143.0
Test Pressure (psi) 86 Test RPM, Pump 1750

Description of Test Location In horizontal pipe between riser and pivot

<table>
<thead>
<tr>
<th>Meter Setting From Center of Pipe</th>
<th>Left Side of Pipe (or Front Side if Vertical Test)</th>
<th>Right Side of Pipe (or Back Side if Vertical Test)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 9/16</td>
<td>6.98</td>
<td>7.09</td>
</tr>
<tr>
<td>2 3/4</td>
<td>6.80</td>
<td>6.96</td>
</tr>
<tr>
<td>3/4</td>
<td>6.73</td>
<td>6.75</td>
</tr>
</tbody>
</table>

Average Velocity of Water = Sum of Vel. ÷ 12 = 6.83

Corrected Ave. Vel. = (Ave. Vel.) x (Calibration Factor) = 6.83 x 943.5 = 6.58

Flow Rate = (Corrected Ave. Vel.) x (Flow Rate Factor) = 6.58 x 143.0 = 941 GPM

WATER RESOURCES RECEIVED
PUMPING PLANT TESTING, INC. JUN 29 2015
Reviewed By: REESE Profesional Engineer
HAYS000949
EXHIBIT 1

DIVISION OF WATER RESOURCES—KANSAS STATE BOARD OF AGRICULTURE

FIELD INSPECTION REPORT

Test No. 4 of 7 Diversion points
Well No. 3, Circle 2
Application No. 21731 Date 10/1/86 Firm/Field Office Ponding Plant Testing Inc.
Inspector: Hollis E. Hare

Field Area No. 2 G.M.D. No. 5 County: Edwards

Current Landowner: Conneciticut General Life Insurance Co. % Agri Affiliates
Address: Box 112 North Platte, NE 69103 ATTN: Jerry Weaver

Additional landowners and addresses identified in remarks section.


Groundwater (X) Drainage Basin: Arkansas River

Surface Water ( ) Stream

Authorized Point of Diversion: Well NW 1/4, NE 1/4, SW 1/4 Sec. 31, T. 25, R. 19
Approximately ft. North and ft. West of SE corner of Sec.

Actual Point of Diversion: Well NW 1/4, NE 1/4, SW 1/4 Sec. 31, T. 25, R. 19
Approximately ft. North and ft. West of SE corner of Sec. 31

How were distances determined? By Scaling of Aerial Photo, Scale from Original Survey, Plats

"Approved" Quantity 1090 ac-ft "Approved" Diversion Rate 3900 g.p.m. (269 c.f.s.)

Priority Date Jan 2, 1974 Approval of Application Date Feb. 27, 1976

Perfection Date Dec. 31, 1981

Other applications covering land and/or point of diversion: None

(includes discussion of overlapping files in remarks section)

LAND TO BE INCLUDED ON CERTIFICATE:

<table>
<thead>
<tr>
<th>S</th>
<th>T</th>
<th>R</th>
<th>NE4%</th>
<th>NW4%</th>
<th>SW4%</th>
<th>SE4%</th>
<th>TOTAL ACRES</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>NE</td>
<td>NW</td>
<td>SW</td>
<td>SE</td>
<td></td>
</tr>
<tr>
<td>30</td>
<td>25</td>
<td>19</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>31</td>
<td>25</td>
<td>19</td>
<td>27</td>
<td>34</td>
<td>12</td>
<td>1</td>
<td>50</td>
</tr>
<tr>
<td>32</td>
<td>25</td>
<td>19</td>
<td>34</td>
<td>28</td>
<td>39</td>
<td>6</td>
<td>48</td>
</tr>
<tr>
<td>34</td>
<td>25</td>
<td>20</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>3</td>
</tr>
</tbody>
</table>

LAND IRRIGATED—YEAR OF RECORD 1983

<table>
<thead>
<tr>
<th>S</th>
<th>T</th>
<th>R</th>
<th>NE4%</th>
<th>NW4%</th>
<th>SW4%</th>
<th>SE4%</th>
<th>TOTAL ACRES</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>NE</td>
<td>NW</td>
<td>SW</td>
<td>SE</td>
<td></td>
</tr>
<tr>
<td>31</td>
<td>25</td>
<td>19</td>
<td>0</td>
<td>30</td>
<td>35</td>
<td>20</td>
<td>2.54</td>
</tr>
<tr>
<td>36</td>
<td>25</td>
<td>20</td>
<td>15</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0.67</td>
</tr>
</tbody>
</table>

APPLICATION OF WATER:

Year of Record: 1983 Hours Pumped: 2200 or Quantity: 381.2

Normal Operating C.P.M.: 941 Equiv. c.f.s.: 2.1

Maximum Operating C.P.M.: 732 Equiv. c.f.s.: 1.6

FOR D.W.R. USE ONLY

Year of Record: 1983 Extension of time requested: Yes No AUG 31 1995

Total No. of Hours on land covered by this application 2200

Ac. Ft. Applied = 2200 hrs. x 549 g.p.m. x 4.419 2200 = 5092

Acres of "Approved" Land irrigated 211

Ac. Ft. on "Approved" Land at "Approved" Rate or Less = 0.84 Ac. Ft./Ac.

Ac. Ft. Used on "Approved" Land at "Approved" Rate or Less = 177

Proportion Calculations 267 acres x 0.74 percent of approved acres is = 211 acres

Perfected Rate 735 g.p.m. Perfected Quantity 177

Completed by: Doreen E. Bush 3/16/85

Same Date

REVISED MARCH 1986

WATER RESOURCES RECEIVED

JUN 29 2015

KS DEPT. OF AGRICULTURE

SCANNED
GENERAL INFORMATION ON IRRIGATION SYSTEM:

- Center Pivot
- Low Pressure

Manufacturer: **Bimmatic**  
Model: **No Tag**  
Serial No.

Drive: **Electric**  
Length of Pivot Arm: **15 Towers**

Design Pressure-Pivot: **p.s.i.**  
Operating Pressure-Pivot: **p.s.i.**

End Gun? **Yes**  
End Gun Rating: **g.p.m. Toro**

Is end gun operating during test? **Yes**

Gravity Irrigation (show test set on sketch)

Number of gates open:  
Normal Pipe Size:  
Pressure at pump: **p.s.i.**

Other

Manufacturer:  
Model:  
Serial No.

Unusual Conditions/Other Info: **This is an exceptionally large pivot system - about twice the acres of a normal pivot system at 247 acres.**

POWER UNIT INFORMATION:

Manufacturer: **Ford**  
Model No. 300  
HP:

Serial No. 08949 L23 TL  
Fuel: **Natural Gas**  
Rated RPM:

PUMP INFORMATION:

Manufacturer: **Jacuzzi**  
Model No. **NBC/T-703**  
Rated RPM:

Serial No. 467 22145  
Type: **Vertical Turbine**  
No. stages:

GEAR HEAD INFORMATION:

Manufacturer: **Amarillo**  
Model No. 5100

Serial No. 58289  
Drive: **Right Angle**  
Ratio: **4:3**

WELL INFORMATION: **No well records available.**

Date Drilled:  
Original Depth: **ft.**  
Static Water Level When Drilled: **ft.**

Tape Down Possible? **Yes**  
Water Level Measurement Tube?: **No**

Measuring Point: **ft.** above or below L.S.D.

ADDITIONAL REQUIREMENTS:

Meter Required? **No**  
Make of Meter:  
Meter Model No.  
Serial No.  
Size:

Is Meter Installed Properly?  
Chemical Injection System? **Yes**  
Check Valve? **Yes**  
Low Pressure Drain? **Yes**

Vacuum Breaker? **Yes**  
Are these anti-pollution devices installed properly? **Yes**

If chemicals are injected into system, please attach sketch of system.
SKETCH OF ACTUAL PLACE OF USE, LOCATION OF DIVERSION WORKS, AND DISTRIBUTION SYSTEM.
(Indicate distribution system layout at time of field test).

N

Scale
1" = __ ft.

TEST OF DIVERSION RATE:

Length of time well has been operating prior to test: __
Location of test: In horizontal pipe between discharge head and pressure tank.
Pipe Diameter (I.D.) __

WELL IN THIS PUMP UNIT INTO PUMP UNIT

Test No. 1 - Normal Conditions

R.P.M. POWER UNIT __
R.P.M. PUMP UNIT __
Pressure at Pump __ psi

Test No. 2 - Maximum Conditions

R.P.M. POWER UNIT __
R.P.M. PUMP UNIT __
Pressure at Pump __ psi

☐ Jacuzzi Meter Test

Meter Identification No. ________________

Area Constant K = 2.45 x I.D. \(^2\) = __________

Q (gpm) = VK

Velocity (fps)
1. __________
2. __________
3. __________
4. __________
5. __________
6. __________
7. __________
8. __________
9. __________
10. __________
Total __________
Avg. __________
G.P.M. __________

☐ Propeller Meter Test

Manufacturer __________ Model __________ Serial No. __________

Meter Diameter __________ inches

Ending __________ gal.
Beginning __________ gal.
Difference __________ gal.
Time __________ min.
Rate __________ gpm

☐ Other Flow Meter

Use Supplemental Sheet (include meter identification, data and calculations).

21731 Page 47 of 96
FUEL RECORDS:

Electricity

- Supplier:
- Meter Manufacturer: Type: Serial No.:
- \( K \) watt/rev \( r \) revolutions \( t \) seconds
- \( \text{Rate} = \frac{Kr \times 3.6}{t} = \frac{\text{kwh/hr}}{\text{hour}} \)
- Hours: \( \text{kw-hr} = \frac{\text{kwh/hr}}{\text{rate}} \)

Other Fuels

- Type: Natural Gas
- Supplier:Kansas-Nebraska
- Rate = \( \frac{\text{Volume (test)}}{\text{time}} \)
- How was the test volume determined? Not Determined Because Only One Meter Used For Many Wells

TABULATION OF WATER USE:

<table>
<thead>
<tr>
<th>Year</th>
<th>Hours Pumped (hr)</th>
<th>Tested Pumping Rate (gpm)</th>
<th>Water Used (AF)</th>
<th>Acres Irrigated</th>
</tr>
</thead>
<tbody>
<tr>
<td>1975</td>
<td>2376</td>
<td>1500</td>
<td></td>
<td>507</td>
</tr>
<tr>
<td>1977</td>
<td>897</td>
<td>750</td>
<td></td>
<td>632</td>
</tr>
<tr>
<td>1978</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1979</td>
<td>1224</td>
<td>650</td>
<td></td>
<td>127</td>
</tr>
<tr>
<td>1980</td>
<td>1416</td>
<td>450</td>
<td></td>
<td>127</td>
</tr>
<tr>
<td>1981</td>
<td>1152</td>
<td>670</td>
<td></td>
<td>127</td>
</tr>
<tr>
<td>1982</td>
<td></td>
<td></td>
<td>Not under normal conditions, only when pumping by itself</td>
<td></td>
</tr>
<tr>
<td>1983</td>
<td>22.00*</td>
<td>732*</td>
<td>296.5*</td>
<td>267*</td>
</tr>
<tr>
<td>1984</td>
<td>1750*</td>
<td>800*</td>
<td>267*</td>
<td></td>
</tr>
<tr>
<td>1985</td>
<td>1850*</td>
<td>800*</td>
<td>267*</td>
<td></td>
</tr>
<tr>
<td>1986</td>
<td></td>
<td>732*</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

* From Test Data
* From Water Use Reports sent by Jerry Weaver of Agri Affiliates

Indicate Year of Record with (*)

Source of Information: Stafford Files

Crops Irrigated: this year wheat

Year of record: 1975-80

REMARKS:

SCANNED

WATER RESOURCES RECEIVED

JUN 29 2015

KS DEPT OF AGRICULTURE

Person present at test: Kent Naber

Irrigation Manager

Water Use Correspondent: Lyle Kolbeck

Spearsville, KS 67876 (316) 285-2803

Conducted by: Daniel Alleman

Date: 10-14-86

Approved by:

Date: 3/7/87

HAYS000953
APPLICATION 21731

LEGEND
@ Well
++ Pivot
--- Underground Pipe
// Land On Application
// Land Irrigated Presently, Which
// Is The Same As Land Irrigated
In Years To Be To Perfect
And Year of Record
APPLICATION NO: 21731  NAME: Connecticut General Life Ins.

COLLINS METER TEST

Collins Meter No. 1-85  Meter Calibration Factor .9826
Pipe Inside Diameter (inches) 8 3/4  Flow Rate Factor 16.79
Test Pressure (psi) 20  Test RPM, Pump 1759
Description of Test Location: In horizontal pipe between discharge bend and pressure tank

TEST DATA:

<table>
<thead>
<tr>
<th>Meter Setting From Center of Pipe</th>
<th>Left Side of Pipe (or Front Side if Vertical Test)</th>
<th>Reversed Right Side of Pipe (or Back Side if Vertical Test)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 1/8</td>
<td>4.59 4.63</td>
<td>4.71 4.80</td>
</tr>
<tr>
<td>2 1/8</td>
<td>4.35 4.50</td>
<td>4.57 4.48</td>
</tr>
<tr>
<td>3 1/8</td>
<td>4.13 4.10</td>
<td>4.05 4.37</td>
</tr>
</tbody>
</table>

Average Velocity of Water = Sum of Vel. ÷ 12 = 4.44
Corrected Ave. Vel. = (Ave. Vel.) x (Calibration Factor) = 4.44 x .9826 = 4.36
Flow Rate = (Corrected Ave. Vel.) x (Flow Rate Factor) = 4.36 x 16.79 = 73.2 BPM

WATER RESOURCES RECEIVED
MAR 10 1987

PUMPING PLANT TESTING, INCEM 29 2015

Reviewed By: ____________________  Professional Engineer
KS DEPT OF AGRICULTURE

AUG 31 1995  MICROFILMED
Page 55 of 96  SCANNED
DIVISION OF WATER RESOURCES
FIELD OFFICE
FIELD INSPECTION REPORT

Test 5 of 7 Diversion points
Firm/Field Office Pumping Plant Testing Inc.
Application No. 21731 Date 1-28-87 Inspector, Klaeser/Ebert
Field Area No. 2 G.M.D. No. 5 County, Edwards
Current Landowner Connecticut General Life Insurance Co & Agri Affiliates
Address Box 1162 North Platte, NE 69103 ATTN Jerry Weaver

Surface Water ( ) Stream

Authorized Point of Diversion: 1 well SE 1/4, NE 1/4, SE 1/4 Sec 31, T.25 R.19
Approximately ft. North and ft. West of SE corner of Sec.

Actual Point of Diversion: 1 well SE 1/4, NE 1/4, SE 1/4 Sec 31, T.25 R.19
Approximately ft. North and ft. West of SE corner of Sec.

How were distances determined? By Scaling 0.5 Actual Photo, Scale From Original Survey Plat

"Approved" Quantity 1090 ac-ft "Approved" Diversion Rate 3900 g.p.m. (5.69 c.f.s.)

Priority Date Jan 2, 1974 Approval of Application Date Feb 27, 1976
Perfection Date Dec. 31, 1981

Other applications covering land and/or point of diversion None

LAND TO BE INCLUDED ON CERTIFICATE:

<table>
<thead>
<tr>
<th>S</th>
<th>T</th>
<th>B</th>
<th>NE%</th>
<th>NW%</th>
<th>SW%</th>
<th>SE%</th>
<th>TOTAL ACRES</th>
</tr>
</thead>
<tbody>
<tr>
<td>30</td>
<td>5</td>
<td>19</td>
<td>62</td>
<td>47</td>
<td>23</td>
<td>21</td>
<td>56</td>
</tr>
<tr>
<td>31</td>
<td>5</td>
<td>19</td>
<td>27</td>
<td>34</td>
<td>38</td>
<td>27</td>
<td>54</td>
</tr>
<tr>
<td>32</td>
<td>5</td>
<td>19</td>
<td>34</td>
<td>28</td>
<td>38</td>
<td>39</td>
<td>57</td>
</tr>
<tr>
<td>33</td>
<td>5</td>
<td>20</td>
<td>7</td>
<td>1</td>
<td>25</td>
<td>23</td>
<td>55</td>
</tr>
</tbody>
</table>

621

LAND IRRIGATED—YEAR OF RECORD 1985

<table>
<thead>
<tr>
<th>S</th>
<th>T</th>
<th>B</th>
<th>NE%</th>
<th>NW%</th>
<th>SW%</th>
<th>SE%</th>
<th>TOTAL ACRES</th>
</tr>
</thead>
<tbody>
<tr>
<td>31</td>
<td>5</td>
<td>19</td>
<td>2.5</td>
<td>62</td>
<td>56</td>
<td>3</td>
<td>22</td>
</tr>
<tr>
<td>32</td>
<td>5</td>
<td>19</td>
<td>.5</td>
<td>62</td>
<td>56</td>
<td>3</td>
<td>22</td>
</tr>
</tbody>
</table>

82.8

APPLICATION OF WATER:
Year of Record 1983 Hours Pumped 1000
Combined Hours with well pumping
Normal Operating C.P.M. 3.79
This well pumping alone
Maximum Operating C.P.M. 3.44

483.3 g.p.m. 1983

FOR DIVISION USE ONLY

975,0000961

WATER RESOURCES RECEIVED

JUN 29 2015

KS DEPT OF AGRICULTURE

SCANNED

Ac. Ft. Applied = 2200 hrs. x 138 g.p.m. x 4.419 = 122
24 x 1000

Acres of "Approved" Land irrigated 22

Ac. Ft. on "Approved" Land 56 (0.46 Ac. Ft./Ac.)

Ac. Ft. Used on "Approved" Land at "Approved" Rate or Less.

Proration Calculations 97 A.F. x (.175 A.F./.56 A.F.) = 1.75

Perfected Rate 245 g.p.m. Perfected Quantity 122 A.F.

Revised March 1986
GENERAL INFORMATION ON IRRIGATION SYSTEM:

☐ Center Pivot  ☐ High Pressure  ☑ Low Pressure

Manufacturer: Zimmatic  Model: 310  Serial No: 2999

Drive: Electric  Length of Pivot Arm: ________________

Design Pressure-Pivot: ________________ p.s.i.  Operating Pressure-Pivot: ________________ p.s.i.

End Gun: Yes  End Gun Rating: ________________ g.p.m.  Toro

Is end gun operating during test? Yes

☐ Gravity Irrigation (show test set on sketch)

Number of gates open: ________________  Normal Pipe Size: ________________

Pressure at pump: ________________ p.s.i.

☐ Other  Type: ________________

Manufacturer: ________________  Model: ________________  Serial No: ________________

Unusual Conditions/Other Info: ________________

POWER UNIT INFORMATION:

Manufacturer: Ford  Model: 300  HP: ________________

Serial No: 09946  F-23-TL  Fuel: Natural Gas  Rated RPM: ________________

PUMP INFORMATION:

Manufacturer: Johnston  Model: ________________  Rated RPM: ________________

Serial No: CF-21237  Type: Vertical Turbine  No. stages: ________________

GEAR HEAD INFORMATION:

Manufacturer: Ameco  Model: S-8.0

Serial No: 87932  Drive: Right Angle  Ratio: 5:4

WELL INFORMATION: NO WELL RECORDS AVAILABLE

Date Drilled: ________________  Original Depth: ________________ ft.  Static Water Level When Drilled: 10 ft.

Tape Down Possible? Yes  Water Level Measurement Tube? No

Measuring Point: ________________ ft. above L.S.D.  Static Level: 19'

ADDITIONAL REQUIREMENTS:

Meter Required? No  Make of Meter: ________________

Meter Model No: ________________  Serial No: ________________  Size: ________________

Is Meter Installed Properly? ________________

Chemical Injection System? Yes  Check Valve? Yes  Low Pressure Drain? Yes

Vacuum Breaker? Yes  Are these anti-pollution devices installed properly? Yes

21731  Page 57 of 96

If chemicals are injected into system, please attach sketch of system.
## Sketch of Actual Place of Use, Location of Diversion Works, and Distribution System

Indicate distribution system layout at time of field test.

![Sketch](image)

### Test of Diversion Rate:

- **Length of time well has been operating prior to test:** 0 days
- **Location of test:** 6' from discharge head (water elevation)
- **Pipe Diameter (I.D.):** 8 3/4 inches

### Test No. 1 - Normal Conditions

<table>
<thead>
<tr>
<th>Test No. 1</th>
<th>Test No. 2 - Maximum Conditions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Torque into 1 pivot</td>
<td>Torque into 1 pivot</td>
</tr>
<tr>
<td>R.P.M. Power Unit</td>
<td>2168</td>
</tr>
<tr>
<td>R.P.M. Pump Unit</td>
<td>1756</td>
</tr>
<tr>
<td>Pressure at Pump</td>
<td>55 psi</td>
</tr>
</tbody>
</table>

- **Jacuzzi Meter Test**
  - **Area Constant K:** $2.45 \times I.D.$
  - **Meter Identification No.:**
  - **Velocity (fps):**
    - 1.
    - 2.
    - 3.
    - 4.
    - 5.
    - 6.
    - 7.
    - 8.
    - 9.
    - 10.
    - **Total**
    - **Avg.**
    - **G.P.M.**

- **Propeller Meter Test**
  - **Manufacturer:**
  - **Model:**
  - **Serial No.:**

- **Other Flow Meter**
  - **Use Supplemental Sheet (include meter identification, data and calculations).**

**Water Resources Received**

![Stamp](image)

**Field Office**

**Division of Water Resources**

**Stafford**

**Jun 29 2015**

**KS Dept of Agriculture**

**Microfilmed**

**Hays000963**
FUEL RECORDS:

☐ Electricity

Supplier

Meter Manufacturer Type Serial No.

K watt/rev r revolutions t seconds

Rate = Kr x 3.6 = kw/hr Hours = kw-hr = rate

☐ Other Fuels

Type Natural Gas Supplier Kansas - Nebraska

Rate = Volume (test) = time

How was the test volume determined? Not Determined Because only one meter used for many well

TABULATION OF WATER USE:

<table>
<thead>
<tr>
<th>Year</th>
<th>Hours Pumped (hr)</th>
<th>Tested Pumping Rate (gpm)</th>
<th>Water Used (AF)</th>
<th>Acres Irrigated</th>
</tr>
</thead>
<tbody>
<tr>
<td>1975</td>
<td>1296</td>
<td>900</td>
<td></td>
<td>567</td>
</tr>
<tr>
<td>1976</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1977</td>
<td>590</td>
<td>1000</td>
<td></td>
<td>139</td>
</tr>
<tr>
<td>1978</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1979</td>
<td>1224</td>
<td>400</td>
<td></td>
<td>121</td>
</tr>
<tr>
<td>1980</td>
<td>1416</td>
<td>400</td>
<td></td>
<td>121</td>
</tr>
<tr>
<td>1981</td>
<td>1152</td>
<td>400</td>
<td></td>
<td>121</td>
</tr>
<tr>
<td>1982</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>*1983</td>
<td>2200</td>
<td>56</td>
<td>22.7</td>
<td>122</td>
</tr>
<tr>
<td>1984</td>
<td>1850</td>
<td>450</td>
<td>121</td>
<td></td>
</tr>
<tr>
<td>1985</td>
<td>1850</td>
<td>450</td>
<td>121</td>
<td></td>
</tr>
<tr>
<td>1986</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

* From Test Date

+ From Water Use Reports. Sent By Jerry Weaver Of Agri Affiliates

Indicate Year of Record with (*)

Source of Information: Staffed Files

Crops Irrigated: this year Soybeans Year of record ALFALFA

REMARKS:

WATER RESOURCES RECEIVED

JUN 29 2015

KS DEPT OF AGRICULTURE

Person present at test Kent Naber Irrigation Manager

Water Use Correspondent Lyle Koberk Spearville, KS 67876 (316) 385-2803

Conducted by Daniel Klasen Date 2-4-77 HAYS000964

Approved by L.J. West Y.P.E. Date 3-7-77
MEMORANDUM

To: Files
Re: Appropriation of Water
   File No.

From: Tony Sleeth
Date: 3-30-87

The Field Inspection Report for the above referenced file, conducted under contract by Pawnee Plains, has been reviewed. It meets the requirements specified in the Scope of Work. The certificate of appropriation has not been drafted for the following reason(s):

6 of 7 wells tested

I don't understand. How can 6 of 7 wells tested meet the specification of the 6 untreated wells. Unless the untreated well is met to be deleted, the issuance of the certificate sheets should explain.)

9-21-90

WATER RESOURCES
RECEIVED
JUN 29 2015
KS DEPT. OF AGRICULTURE

SCANNED
RECEIVED
AUG 31 1995
HAYS000965

FIELD OFFICE
Page 6
DIVISION OF WATER RESOURCES
STAFFORD

CIRCLE 5-E', N-E', S-E'

COLLINS METER TEST ON B well pumping alone. Check valve at otherwell leaking, allowing
some water to run back into other well, resulting in low pressure

Collins Meter No. 1-93  Meter Calibration Factor 9.635
Pipe Inside Diameter (inches) 9/4  Flow Rate Factor 165.3
Test Pressure (psi) 7.8  Test RPM, Pump 112.0

Description of Test Location: horizontal pipe 6' from discharge head under drive shaft

TEST DATA: Q Check, Initial 1.70  Reversed 1.74

<table>
<thead>
<tr>
<th>Test Data</th>
<th>Initial</th>
<th>Reversed</th>
</tr>
</thead>
<tbody>
<tr>
<td>Meter Setting From Center of Pipe</td>
<td>19/6</td>
<td>1.65 1.60 1.60 1.63</td>
</tr>
<tr>
<td>Left Side of Pipe (or Front Side if Vertical Test)</td>
<td>2 5/16</td>
<td>1.60 1.50 1.58 1.55</td>
</tr>
<tr>
<td>Right Side of Pipe (or Back Side if Vertical Test)</td>
<td>3 7/4</td>
<td>1.40 1.35 1.40 1.50</td>
</tr>
</tbody>
</table>

Average Velocity of Water = Sum of Vel. ÷ 12 = 1.53

Corrected Ave. Vel. = (Ave. Vel.) x (Calibration Factor) =

Flow Rate = (Corrected Ave. Vel.) x (Flow Rate Factor) =

SCANNED
PUMPING PLANT TESTING, INC.  JUN 29 2015

Reviewed By: [Signature]

WATER RESOURCES
RECEIVED
Mar 10 1997
STATE BOARD OF AGRICULTURE
DIVISION OF WATER RESOURCES

WATER RESOURCES
RECEIVED
Page 61 of 90
FIELD OFFICE
DIVISION OF WATER RESOURCES

CIRCLE 4 - BOTH WELLS TOGETHER

COLLINS METER TEST  OF combined Flowrate, both wells pumping together into pivot

Collins Meter No. 1-83  Meter Calibration Factor 2.635
Pipe Inside Diameter (inches) 7 3/4  Flow Rate Factor 145.4
Test Pressure (psi) 50  Test RPM, Pump 17.88  17.34

Description of Test Location: In vertical pipe inside pivot stand

<table>
<thead>
<tr>
<th>TEST DATA:</th>
<th>Check, Initial</th>
<th>Reversed</th>
</tr>
</thead>
<tbody>
<tr>
<td>Meter Setting From Center of Pipe</td>
<td>Left Side of Pipe (or Front Side if Vertical Test)</td>
<td>Right Side of Pipe (or Back Side if Vertical Test)</td>
</tr>
<tr>
<td>1 3/16</td>
<td>2.63</td>
<td>2.63</td>
</tr>
<tr>
<td>2 3/4</td>
<td>2.49</td>
<td>2.55</td>
</tr>
<tr>
<td>3 3/16</td>
<td>2.37</td>
<td>2.09</td>
</tr>
</tbody>
</table>

Average Velocity of Water = Sum of Vel. ÷ 12 = 2.52

Corrected Ave. Vel. = (Ave. Vel.) x (Calibration Factor) = 2.52 x 2.635 = 2.429

Flow Rate = (Corrected Ave. Vel.) x (Flow Rate Factor) = 2.429 x 145.4 = 353 GPM
DIVISION OF *WATER RESOURCES—KANSAS STATE BOARD OF AGRICULTURE

FIELD INSPECTION REPORT

Test 6 of 7 Diversion points
Application No. 21731 Date 1-28-87 Firm/Field Office: Pumping Plant Testing Inc.
Field Area No. 2 G.M.D. No. 5 County. Edwards
Current Landowner: CONNECTICUT GENERAL LIFE INSURANCE Co. % Agri. Affiliates
Address: Box 1162 North Plattee, NE 69103 ATN: Jerry Weaver
Additional landowners and addresses identified in remarks section.
Water Use Classification: 1. Domestic ( ) 2. Industrial ( ) 3. Irrigation (X) 4. Municipal ( ) 5. Recreation ( ) 6. Stockwatering ( ) 7. Water Power (X)
Groundwater (Y) Drainage Basin: Arkansas River
Surface Water ( ) Stream
Authorized Point of Diversion: well SE 1/4, NE 1/4, SE 1/4 Sec 31, T.25 R.19
Approximately ft. North and ft. West of SE corner of Sec.
Actual Point of Diversion: well SE 1/4, NE 1/4, SE 1/4 Sec 31, T.25 R.19
Approximately ft. North and ft. West of SE corner of Sec.
How were distances determined? By Scaling Off Aerial Photo, Scale From Original Survey Plats
"Approved" Quantity: 1040 ac-ft. "Approved" Diversion Rate: 3900 g.p.m. (8.69 c.f.s.)
Priority Date: Jan 2, 1974 Approval of Application Date: Feb. 27, 1976
Perfection Date: Dec. 31, 1981
Other applications covering land and/or point of diversion: None
(include discussion of overlapping files in remarks section).

LAND TO BE INCLUDED ON CERTIFICATE:

<table>
<thead>
<tr>
<th>S</th>
<th>T</th>
<th>R</th>
<th>NE%</th>
<th>NW%</th>
<th>SW%</th>
<th>SE%</th>
<th>TOTAL ACRES</th>
</tr>
</thead>
<tbody>
<tr>
<td>30</td>
<td>25</td>
<td>19</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>30</td>
</tr>
<tr>
<td>31</td>
<td>25</td>
<td>19</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>31</td>
</tr>
<tr>
<td>32</td>
<td>25</td>
<td>19</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>32</td>
</tr>
</tbody>
</table>

LAND IRRIGATED—YEAR OF RECORD 1993

<table>
<thead>
<tr>
<th>S</th>
<th>T</th>
<th>R</th>
<th>NE%</th>
<th>NW%</th>
<th>SW%</th>
<th>SE%</th>
<th>TOTAL ACRES</th>
</tr>
</thead>
<tbody>
<tr>
<td>31</td>
<td>25</td>
<td>19</td>
<td>39</td>
<td>6.5</td>
<td>3.4</td>
<td>39</td>
<td>42.2</td>
</tr>
<tr>
<td>32</td>
<td>25</td>
<td>19</td>
<td>2.5</td>
<td></td>
<td>.5</td>
<td>2.5</td>
<td>3.1</td>
</tr>
</tbody>
</table>

APPLICATION OF WATER:

Year of Record: 1993 Hours Pumped: 2200 or Quantity: 1043
combined flowrate: both wells pumping Normal Operating G.P.M. rate rate: 353 Equiv. c.f.s.: .79
Maximum Operating G.P.M. rate: 379 Equiv. c.f.s.: .84

WATER RESOURCES RECEIVED

FOR D.W.R. USE ONLY

Year of Record: 1993 Extension of time requested: Yes No
Total No. of Hours on land covered by this application: 2200
Ac. Ft. Applied: 2200 hrs. x .215 g.p.m. x 4.419 = 87 AF
Acres of "Approved" Land irrigated: 122
Ac. Ft. on "Approved" Land: 97 (0.71 Ac. Ft./Ac.)
Ac. Ft. Used on "Approved" Land at "Approved" Rate or Less: 87

Proration Calculations: 87 A.F. (well A) + 56 A.F. (well B) = 143 A.F.

Perfected Rate: 390 g.p.m. Perfected Quantity: 87 AF

DWR: 21731

Page 1

Revised March 1986

Page 2

Hay Mfg. Co.

Page 3

Rev. 1986
GENERAL INFORMATION ON IRRIGATION SYSTEM:

☐ Center Pivot  ☐ High Pressure  ☑ Low Pressure

Manufacturer: Zimmatic  Model: 310  Serial No: 2999

Drive: Electric  Length of Pivot Arm: ___

Design Pressure-Pivot: ___ p.s.i.  Operating Pressure-Pivot: ___ p.s.i.

End Gun?: Yes  End Gun Rating: ___ g.p.m. Toro

Is end gun operating during test?: Yes

☐ Gravity Irrigation (show test set on sketch)

Number of gates open: ___  Normal Pipe Size: ___

Pressure at pump: ___ p.s.i.

☐ Other  Type: ___

Manufacturer: ___  Model: ___  Serial No: ___

Unusual Conditions/Other Info: ___

POWER UNIT INFORMATION:

Manufacturer: Ford  Model No: 300  HP: ___

Serial No: 08941  E-23-TL  Fuel: Natural Gas  Rated RPM: ___

PUMP INFORMATION:

Manufacturer: Fairbanks Morse  Model No: 10M  Rated RPM: ___

Serial No: N25X204996X  Type: Vertical Turbine  No. stages: ___

GEAR HEAD INFORMATION:

Manufacturer: Randall  Model No: 560  ___

Serial No: 2183  Drive: Right Angle  Ratio: 6:1

WELL INFORMATION:

Date Drilled: ___  Original Depth: 38 ft.  Static Water Level When Drilled: 10 ft.

Tape Down Possible?: No  Can't Extract Plug: ___

Water Level Measurement Tube?: 12  Measuring Point: ___ ft. above or below L.S.D.

ADDITIONAL REQUIREMENTS:

Meter Required?: Yes  Make of Meter: ___

Meter Model No: ___  Serial No: ___  Size: ___

Is Meter Installed Properly?: ___

Chemical Injection System?: Yes  Check Valve?: Yes  Low Pressure Drain?: Yes

Vacuum Breaker?: Yes  Are these anti-pollution devices installed properly?: Yes

If chemicals are injected into system, please attach sketch of system.
SKETCH OF ACTUAL PLACE OF USE, LOCATION OF DIVERSION WORKS, AND DISTRIBUTION SYSTEM.
(Indicate distribution system layout at time of field test).

N

Scale
1" = ___ ft.

TEST OF DIVERSION RATE:

Length of time well has been operating prior to test ___ days
Location of test: 10' downstream from discharge head (under engine)
Pipe Diameter (I.D.) ___ inches

Test No. 1—Normal Conditions

Well in the report testing

Test No. 2—Maximum Conditions

Well in the report testing

R.P.M. POWER UNIT 2148
R.P.M. PUMP UNIT 1748
Pressure at Pump 50 psi

R.P.M. POWER UNIT 2113
R.P.M. PUMP UNIT 1761
Pressure at Pump 63 psi

☐ Jacuzzi Meter Test  

Area Constant K = 2.45 x 1.01 = ________________

Q (gpm) = VK

Velocity (fps) 
1. __________  
2. __________  
3. __________  
4. __________  
5. __________  
6. __________  
7. __________  
8. __________  
9. __________  
10. __________

Total __________
Avg. __________
G.P.M. __________

☐ Propeller Meter Test  

Manufacturer ____________________ Model ____________________ 

Meter Diameter ___ inches

Ending _________ gal.  
Beginning _________ gal.  
Difference _________ gal.  
Time _________ min.  
Rate _________ gpm

☐ Other Flow Meter  

Use Supplemental Sheet (include meter identification, data and calculations).

RECEIVED JUN 29 2015
WATER RESOURCES RECEIVED

KS DEPT OF AGRICULTURE

FIELD OFFICE ATTOC

SCANNED 21731  
HAYS000970

Page 65 of 96
FUEL RECORDS:

- Electricity
  - Supplier
  - Meter Manufacturer
  - Type
  - Serial No.
  - \( K \) watt/rev
  - revolution
  - \( t \) seconds
  - Rate = \( \frac{Kr \times 3.6}{t} \) kw/hr
  - Hours = \( \frac{kw-hr}{rate} \)

- Other Fuels
  - Type: Natural Gas
  - Supplier: Kansas - Nebraska
  - Rate = \( \frac{Volume\ (test)}{time} \)

How was the test volume determined? Not Determined. Because Only One Meter Used For Many Wells

TABULATION OF WATER USE:

<table>
<thead>
<tr>
<th>Year</th>
<th>Hours Pumped (hr)</th>
<th>Tested Pumping Rate (gpm)</th>
<th>Water Used (AF)</th>
<th>Area Irrigated</th>
</tr>
</thead>
<tbody>
<tr>
<td>1975</td>
<td>1296</td>
<td>900</td>
<td>507</td>
<td></td>
</tr>
<tr>
<td>1976</td>
<td>590</td>
<td>1000</td>
<td>639</td>
<td></td>
</tr>
<tr>
<td>1977</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1978</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1979</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1980</td>
<td>1416</td>
<td>450</td>
<td>130</td>
<td></td>
</tr>
<tr>
<td>1981</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1982</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>*1983</td>
<td>2200</td>
<td>297</td>
<td>120.3 *</td>
<td>12.2 *</td>
</tr>
<tr>
<td>1984</td>
<td>1850 *</td>
<td>400</td>
<td>121 *</td>
<td></td>
</tr>
<tr>
<td>1985</td>
<td>1850 *</td>
<td>400</td>
<td>121 *</td>
<td></td>
</tr>
<tr>
<td>1986</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

* From Test Data
* From Water Use Reports Sent By Jerry Weaver of Agri Affiliates

Indicate Year of Record with (*)
Source of Information: Stafford Files
Crops Irrigated: this year: Soybeans
Year of record: 2015

REMARKS:

WATER RESOURCES RECEIVED

JUN 29 2015

KS DEPT OF AGRICULTURE

Person present at test: Kent Naber

Water Use Correspondent: Lyle Kolbeck

Conducted by: Daniel Hassen

Approved by: Dan Wetz

Date: 2-4-87

HAYS000971

SCANNE
APPLICATION NO: 21731  NAME: Connecticut General Life Ins.

COLLINS METER TEST  On a well under normal conditions before flow is combined with 8 well (Both wells operating and pumping into pivot)

Collins Meter No. 1-85  Meter Calibration Factor 198.26
Pipe Inside Diameter (inches) 7-3/4  Flow Rate Factor 145.4
Test Pressure (psi) 52  Test RPM, Pump 17.64
Description of Test Location in horizontal pipe 10' from discharge head under pivot

<table>
<thead>
<tr>
<th>TEST DATA: Q, Check, Initial</th>
<th>2.40</th>
<th>Reversed</th>
<th>2.38</th>
</tr>
</thead>
<tbody>
<tr>
<td>Velocity</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Meter Setting From Center of Pipe</td>
<td>Left Side of Pipe (or Front Side if Vertical Test)</td>
<td>Right Side of Pipe (or Back Side if Vertical Test)</td>
<td></td>
</tr>
<tr>
<td>1 7/6</td>
<td>2.15</td>
<td>2.15</td>
<td>2.30</td>
</tr>
<tr>
<td>2 3/4</td>
<td>1.94</td>
<td>2.02</td>
<td>2.12</td>
</tr>
<tr>
<td>3 9/16</td>
<td>1.70</td>
<td>1.80</td>
<td>2.10</td>
</tr>
</tbody>
</table>

Average Velocity of Water = Sum of Vel. ÷ 12 = 2.09

Corrected Ave. Vel. = (Ave. Vel.) x (Calibration Factor) = 2.08 x 198.26 = 2.04

Flow Rate = (Corrected Ave. Vel.) x (Flow Rate Factor) = 2.04 x 145.4 = 296.6 GPM

WATER RESOURCES RECEIVED
PUMPING PLANT TESTING, INC.
KS DEPT OF AGRICULTURE
AUG 3 1 1995
HAYS000972
MICROFILMED
APPLICATION NO: 21731  NAME: Connecticut General Life Ins.

COLLINS METER TEST
A well pumping alone (check valve leaking, allowing some water to run back to other well, resulting in low pressure)

Collins Meter No. 1-85  Meter Calibration Factor 9826
Pipe Inside Diameter (inches) 7 3/4  Flow Rate Factor 145.4
Test Pressure (psi) 6.7  Test RPM, Pump 1761
Description of Test Location 10' after discharge head in vertical pipe under engine

<table>
<thead>
<tr>
<th>Meter Setting From Center of Pipe</th>
<th>Left Side of Pipe (or Front Side if Vertical Test)</th>
<th>Right Side of Pipe (or Back Side if Vertical Test)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 3/16</td>
<td>2.75  2.80</td>
<td>2.95  2.82</td>
</tr>
<tr>
<td>2 3/4</td>
<td>2.48  2.58</td>
<td>2.80  2.75</td>
</tr>
<tr>
<td>3 3/16</td>
<td>2.35  2.38</td>
<td>2.60  2.65</td>
</tr>
</tbody>
</table>

Average Velocity of Water = Sum of Vel. ÷ 12 = 2.6525

Corrected Ave. Vel. = (Ave. Vel.) x ( Calibration Factor ) = 2.6525 9826  = 2.6

Flow Rate = (Corrected Ave. Vel.) x (Flow Rate Factor) = 2.6 x 145.4 = 378 GPM

WATER RESOURCES RECEIVED
PUMPING PLANT TESTING, INC. JUN 29 2015
KS DEPT OF AGRICULTURE

Reviewed by
Professional Engineer

Page 68 6190 OFFICE
DIVISION OF WATER RESOURCES
STAFFORD.

COLLINS METER TEST of combined flow rate, both wells pumping together

Collins Meter No. 1-33    Meter Calibration Factor 9635
Pipe Inside Diameter (inches) 7 3/4    Flow Rate Factor 1.454
Test Pressure (psi) 50    Test RPM, Pump 1788 1734

Description of Test Location In vertical pipe, inside pivot stand

TEST DATA: QL Check, Initial 2.70    Reversed 2.68

<table>
<thead>
<tr>
<th>Meter Setting From Center of Pipe</th>
<th>Left Side of Pipe (or Front Side if Vertical Test)</th>
<th>Right Side of Pipe (or Back Side if Vertical Test)</th>
</tr>
</thead>
<tbody>
<tr>
<td>3/16</td>
<td>2.63  2.64</td>
<td>2.69  2.68</td>
</tr>
<tr>
<td>2 3/4</td>
<td>2.48  2.55</td>
<td>2.61  2.64</td>
</tr>
<tr>
<td>3 3/16</td>
<td>2.07  2.09</td>
<td>2.42  2.45</td>
</tr>
</tbody>
</table>

Average Velocity of Water = Sum of Vel. ÷ 12 = 2.52
Corrected Ave. Vel. = (Ave. Vel.) x (Calibration Factor) = 2.52 x 9635 = 2.429

Flow Rate = (Corrected Ave. Vel.) x (Flow Rate Factor) = 2.429 x 145.4 = 353 GPM

WATER RESOURCES RECEIVED
PUMPING PLANT TESTING, INC. JUN 29 2015

RECEIVED
Professional Engineer HAYS000974

MAR 10 1987 AUG 3 1 1995

Page 8 of 8
EXHIBIT 21731

DIVISION OF \:
WATER RESOURCES—KANSAS STATE BOARD OF AGRICULTURE

FIELD INSPECTION REPORT

Test 7 of 7 Diversion points

Application No. 21731 Date 10/1/86 Firm/Field Office Pumping Plant Testing, Inc.

Field Area No. 2 G.M.D. No. 5 County, Edwards

Current Landowner Connecticut General Life Ins. 10% Agri. Affiliates

Address Box 1159 North Platte, NE 69103 Agent, Jerry Weaver

Additional landowners and addresses identified in remarks section.


Groundwater (X) Drainage Basin Arkansas River

Surface Water ( ) Stream

Authorized Point of Diversion: Sec. 31, T. 25, R. 19

Approximately 9765 ft. North and 1270 ft. West of SE corner of Sec. 31

Actual Point of Diversion: 1 well, Sec. 31, T. 25, R. 19

Approximately 9765 ft. North and 1270 ft. West of SE corner of Sec. 31

How were distances determined? By Scaling 60% Aerial Photo, Scale from Survey Plats

"Approved" Quantity 1090 AF “Approved” Diversion Rate 3900 g.p.m. (8.69 c.f.s.)

Priority Date Jan 2, 1974 Approval of Application Date Feb. 27, 1974

Perfection Date Dec. 31, 1981

Other applications covering land and/or point of diversion None

(include discussion of overlapping files in remarks section)

LAND TO BE INCLUDED ON CERTIFICATE:

<table>
<thead>
<tr>
<th>S</th>
<th>T</th>
<th>R</th>
<th>NE%</th>
<th>NW%</th>
<th>SW%</th>
<th>SE%</th>
<th>TOTAL ACRES</th>
</tr>
</thead>
<tbody>
<tr>
<td>31</td>
<td>25</td>
<td>19</td>
<td>37</td>
<td>25</td>
<td>38</td>
<td>27</td>
<td>60</td>
</tr>
<tr>
<td>31</td>
<td>25</td>
<td>19</td>
<td>37</td>
<td>25</td>
<td>38</td>
<td>27</td>
<td>60</td>
</tr>
<tr>
<td>31</td>
<td>25</td>
<td>19</td>
<td>37</td>
<td>25</td>
<td>38</td>
<td>27</td>
<td>60</td>
</tr>
</tbody>
</table>

LAND IRRIGATED—YEAR OF RECORD 1983

<table>
<thead>
<tr>
<th>S</th>
<th>T</th>
<th>R</th>
<th>NE%</th>
<th>NW%</th>
<th>SW%</th>
<th>SE%</th>
<th>TOTAL ACRES</th>
</tr>
</thead>
<tbody>
<tr>
<td>31</td>
<td>25</td>
<td>19</td>
<td>20</td>
<td>275</td>
<td>235</td>
<td>27</td>
<td>306</td>
</tr>
</tbody>
</table>

APPLICATION OF WATER:

Year of Record 1983 Hours Pumped 2200 or Quantity 244 AF

Normal Operating C.P.M. 603 Equiv. c.f.s. 1.34

Maximum Operating C.P.M. Equiv. c.f.s.

FOR D.W.R. USE ONLY

Year of Record 1983 Extension of time requested: Yes No

Total No. of Hours on land covered by this application 2200

Ac. Ft. Applied = 2200 hrs. x 603 g.p.m. x 4.419 = 245 AF AUG 31 1995

Acres of "Approved" Land irrigated 108

Ac. Ft. on "Approved" Land 245 (2.27 Ac. Ft./Ac.)

Ac. Ft. Used on "Approved" Land at "Approved" Rate or Less 245

Proration Calculations 108 acres x 1.5 A. ft. per acre = 162 AF

Perfected Rate 605 g.p.m. Perfected Quantity 162 AF

D.W.R. 21731

COMPILER

KS DEPT OF AGRICULTURE

WATER RESOURCES RECEIVED

JUN 29 2015

DIVISION OF WATER RESOURCES STAFFORD

HAYS00975

Revised March 1996
GENERAL INFORMATION ON IRRIGATION SYSTEM:

☑ Center Pivot ☐ High Pressure ☑ Low Pressure

Manufacturer_ Olson_ Model_ 103 PL_ Serial No._ 3984_

Drive_ Electric_ Length of Pivot Arm_ ___________

Design Pressure-Pivot_ ___________ p.s.i. Operating Pressure-Pivot_ ___________ p.s.i.

End Gun? yes End Gun Rating_ 2500_ g.p.m.

Is end gun operating during test? yes

☐ Gravity Irrigation (show test set on sketch)

Number of gates open_ ___________ Normal Pipe Size_ ___________

Pressure at pump_ ___________ p.s.i.

☐ Other Type_ ___________

Manufacturer_ ___________ Model_ ___________ Serial No._ ___________

Unusual Conditions/Other Info._ ___________

---

POWER UNIT INFORMATION:

Manufacturer_ Ford_ Model No._ 300_ HP_ ___________

Serial No._ 34843_ F-13-HK_ Fuel_ Natural Gas_ Rated RPM_ ___________

PUMP INFORMATION:

Manufacturer_ Johnston_ Model No._ ___________ Rated RPM_ ___________

Serial No._ CF21231_ Type_ Vertical Turbine_ No. stages_ ___________

GEAR HEAD INFORMATION:

Manufacturer_ Amarillo_ Model No._ 5100_ ___________

Serial No._ 75505_ Drive_ Right Angle_ Ratio_ 6:5

WELL INFORMATION: NO WELL RECORDS AVAILABLE (Below data came from use report)

Date Drilled_ ___________ Original Depth_ 55 ft. Static Water Level When Drilled_ 10 ft.

Tape Down Possible? yes 14', Water Level Measurement Tube? no

Measuring Point_ 1 ft. above or below L.S.D.

ADDITIONAL REQUIREMENTS:

Meter Required? no Make of Meter_ ___________

Meter Model No._ ___________ Serial No._ ___________ Size_ ___________

Is Meter Installed Properly? ___________

Chemical Injection System? no Check Valve? yes Low Pressure Drain? yes

Vacuum Breaker? yes Are these anti-pollution devices installed properly? yes

If chemicals are injected into system, please attach sketch of system.
SKETCH OF ACTUAL PLACE OF USE, LOCATION OF DIVERSION WORKS, AND DISTRIBUTION SYSTEM.
(Indicate distribution system layout at time of field test).

TEST OF DIVERSION RATE:
Length of time well has been operating prior to test ____________
Location of test __________________________
Pipe Diameter (I.D.) ____________ inches

Test No. 1—Normal Conditions
R.P.M. POWER UNIT ____________
R.P.M. PUMP UNIT ____________ psi
Pressure at Pump ____________ psi

Test No. 2—Maximum Conditions
R.P.M. POWER UNIT ____________
R.P.M. PUMP UNIT ____________ psi
Pressure at Pump ____________ psi

☐ Jacuzzi Meter Test
Meter Identification No. ____________
Area Constant K = 2.45 × I.D.² = ____________
Q (gpm) = VK

Velocity (fps)
1. ____________
2. ____________
3. ____________
4. ____________
5. ____________
6. ____________
7. ____________
8. ____________
9. ____________
10. ____________
Total ____________
Avg. ____________
G.P.M. ____________

☐ Propeller Meter Test
Manufacturer ____________________________ Model ____________________________
Serial No. ____________________________

Meter Diameter ____________ inches
Ending ____________ gal.
Beginning ____________ gal.
Difference ____________ gal.
Time ____________ min.
Rate ____________ gpm

☐ Other Flow Meter
Use Supplemental Sheet (include meter identification, data and calculations).

21731 Page 72 of 96
FUEL RECORDS:

☐ Electricity

Supplier ____________________________

Meter Manufacturer __________________ Type __________________ Serial No. ________________

K ______ watt/sec r ______ revolutions t ______ seconds

Rate $= \frac{K \times 3.6}{t} = \frac{kwhr}{rate}$

☐ Other Fuel:

Type Natural Gas Supplier Kansas-Nebraska

Rate $= \frac{Volume (test)}{time}$

How was the test volume determined? Not Determined Because Only One Meter For Many Wells

TABULATION OF WATER USE:

<table>
<thead>
<tr>
<th>Year</th>
<th>Hours Pumped (hr)</th>
<th>Tested Pumping Rate (gpm)</th>
<th>Water Used (AF)</th>
<th>Acres Irrigated</th>
</tr>
</thead>
<tbody>
<tr>
<td>1975</td>
<td>1680</td>
<td>900</td>
<td></td>
<td>507</td>
</tr>
<tr>
<td>1976</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1977</td>
<td>821</td>
<td>1000</td>
<td></td>
<td>630</td>
</tr>
<tr>
<td>1978</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1979</td>
<td>1224</td>
<td>550</td>
<td></td>
<td>106</td>
</tr>
<tr>
<td>1980</td>
<td>1416</td>
<td>550</td>
<td></td>
<td>106</td>
</tr>
<tr>
<td>1981</td>
<td>1152</td>
<td>550</td>
<td></td>
<td>106</td>
</tr>
<tr>
<td>1982</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1983</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

* From Test Data

† From Water Use Reports Sent By Jerry Weaver of Agri Affiliates

Indicate Year of Record with (*)

Source of Information: Stafford Files

Crops Irrigated: this year Alfalfa

Year of record Alfalfa

REMARKS:

WATER RESOURCES RECEIVED

JUN 29 2015

KS DEPT OF AGRICULTURE

Person present at test Kent Baker

Irrigation Manager

Water Use Correspondent Kyle Kalbach

Speerville, KS 67876 (620) 362-2803

Conducted by Nick Elston

Date 10/14/86

Approved by Jay Hsieh

Date 3/7/87

HAY5000978
COLLINS METER TEST

Collins Meter No. ___1-84___ Meter Calibration Factor ___96.35___
Pipe Inside Diameter (inches) ___7 3/4___ Flow Rate Factor ___145.4___
Test Pressure (psi) ___88___ Test RPM, Pump ___1766___
Description of Test Location In horizontal pipe between pump and pivot

<table>
<thead>
<tr>
<th>Meter Setting From Center of Pipe</th>
<th>Velocity (Left Side of Pipe or Front Side if Vertical Test)</th>
<th>Reversed Velocity (Right Side of Pipe or Back Side if Vertical Test)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 3/4</td>
<td>4.55 4.58</td>
<td>4.54 4.52</td>
</tr>
<tr>
<td>2 3/4</td>
<td>4.32 4.38</td>
<td>4.17 4.30</td>
</tr>
<tr>
<td>3 3/4</td>
<td>3.99 4.02</td>
<td>4.16 4.12</td>
</tr>
</tbody>
</table>

Average Velocity of Water = Sum of Vel. ÷ 12 = ___4.304___

Corrected Ave. Vel. = (Ave. Vel.) x (Calibration Factor) = ___4.304___ x __96.35___ = ___4.147___

Flow Rate = (Corrected Ave. Vel.) x (Flow Rate Factor) = ___4.147___ x __145.4___ = ___603___ GPM
KANSAS STATE BOARD OF AGRICULTURE  
Division of Water Resources  

MEMORANDUM

TO: Files  
DATE: March 20, 1995

FROM: Douglas E. Bush  
RE: Appropriation of Water  
File No. 21,731

The Certificate of Appropriation is based on field inspections conducted October 1, 1986 and February 23, 1995. The latter field inspection was conducted because one (1) of the seven (7) wells was not operable during the earlier field inspection.

The quantity for the wells located in the Southwest Quarter of the Southeast Quarter of the Southwest Quarter (SW₁ SE₂ SW₂) of Section 30 and in the Northwest Quarter of the Northeast Quarter of the Northwest Quarter (NW₁ NE₂ NW₂) of Section 31 were limited to 192 acre-feet when the wells are operated together. Both wells are used together to operate a 128 acre pivot. During the year 1980 the well when operating together perfected the maximum allowable quantity of 192 acre-feet of water. During the year 1983, the well located in the Northwest Quarter of the Northeast Quarter of the Northwest Quarter (NW₁ NE₂ NW₂) of Section 31 when operating by itself perfected 192 acre-feet of water. By limiting these two (2) wells, no limitation was needed for all seven (7) wells. All rates shown on the Certificate of Appropriation were from individual tested rates. The well located in the Northwest Quarter of the Northeast Quarter of the Northwest Quarter (NW₁ NE₂ NW₂) of Section 31 for many years pumped adequate water to run the pivot system by itself when the well located in the Southwest Quarter of the Southeast Quarter of the Southwest Quarter (SW₁ SE₂ SW₂) of Section 30 was out of order. The well located in the Southwest Quarter of the Southeast Quarter of the Southwest Quarter (SW₁ SE₂ SW₂) of Section 30 was pumped in 1988 and has been operated since.

Four (4) of the remaining wells are operated such that two (2) wells are paired together to operate two (2) pivots. The quantities were prorated by rate on the hours pumped and the combined rate. The well located in the Northwest Quarter of the Northeast Quarter of the Southwest Quarter (NW₁ NE₂ SW₂) and the well located in the Southwest Quarter of the Northeast Quarter of the Southwest Quarter (SW₁ NE₂ SW₂) of Section 31 were operated together through a 267 acre pivot. However, only 211 acres were approved to be irrigated by the pivot. Therefore, the perfected quantity was prorated to the approved acres irrigated as the maximum allowable for the irrigation of 211 acres at 1.5 acre-feet per acre was not exceeded. The quantity perfected by the two (2) wells located in the Southeast Quarter of the Northeast Quarter of the Southwest Quarter (SE₂ NE₁ SE₁) of Section 31, were calculated using the pumped quantity from each well as the maximum allowable was not exceeded.
MEMO
Page 2
File No. 21,731
March 20, 1995

The ownership of the land pertaining to the above referenced file was recently changed. The ownership shown on the FIRs are therefore incorrect.

Water use was reviewed and water use has been shown in the recent past, therefore the water right appears to be active.

Douglas E. Bush
Environmental Scientist

DEB:jt
1979 WATER USE REPORT AND ASSESSMENT FORM  
for  
BIG BEND GROUNDWATER MANAGEMENT DISTRICT NO. 5  

Name Paul Mann and First National Investors  
Address 453 South Webb Road  
City Wichita  
County Edwards  

Water Application # 21731  
Section 31, Township 25 South, Range 19 West  
State Kansas  
Zip code 67207  

Fill out a separate report for each vested right and each appropriation right or permit. 
Identify each by vested right code or application number above.  

This report applies to: (X only 1)  
a. [ ] A vested right  
   [X] Appropriation right  

Purpose of use:  
[X] Irrigation;  
[ ] Municipal*;  
[ ] Industrial*;  
[ ] Recreational*  

<table>
<thead>
<tr>
<th>Hours Pumped and Average</th>
<th>If Water is Metered</th>
<th>WELL INFORMATION (if available)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pumping Rate</td>
<td>Gallons</td>
<td>Depth</td>
</tr>
<tr>
<td>Hours</td>
<td>GPM</td>
<td>1 Acre-feet</td>
</tr>
</tbody>
</table>

1. SW 1/4 SE 1/4 SE 1/4 SW 1/4 Sec 30 T 25 R 19  
   922 500 85 A-F  
   Mar 9 1978  

2. SW 1/4 SE 1/4 Sec 31 T 25 R 19  
   922 500 85  
   Mar 17 1978  

3. NW 1/4 NE 1/4 Sec 31 T 25 R 19  
   922 500 85  
   Mar 17 1978  

4. SE 1/4 NE 1/4 Sec 31 T 25 R 19  
   922 108  
   Mar 17 1978  

TOTAL  

(See reverse side for example of how to record acre-feet)  

If irrigation use, total acres irrigated 639  
Type of fuel for pump  

Crop(s) irrigated under this right  ALFALFA  

I hereby affirm that the statement of water use on this form contains a full and true account of such water use by me, to the best of my knowledge and belief.  

Date 3-RECEIVED  
AUG 28 1978  

WATER RESOURCES RECEIVED  
JUN 29 2015  

THIS FORM MUST BE FILLED OUT BY ALL WATER USERS!  
[Those using less than one (1) acre-foot 
   total water usage (not per acre) need not report.]  

Prescribed under the authority of K.S.A. 82a-1030. Big Bend Groundwater Management District No. 5  
P O Box 1954, St. John, KS 67576. Call us if you need assistance. (316) 549-3891.  

*ALL MONITORING, INDUSTRIAL, AND RECREATIONAL USERS MUST FILL OUT THE REVERSE SIDE OF THIS FORM.
March 25, 1982

Slentz-McAllaster Inc.
P O Box 38
Lewis, Kansas 67552

Dear Don,

This letter is in reference to our conversation concerning the alfalfa insurance on the alfalfa located at the Lucerne Farms in Kinsley, Kansas.

As of today, we will no longer be responsible for the insurance on the alfalfa that you have paid us for but have not removed from the farm.

Our records show that you have paid us $416,000.00 (this includes the March payment of $52,000.00) for alfalfa. At $65.00 per ton this figures that you have paid for 6,400 ton of hay. We show that you have removed 2278 bales at 1800 lbs average weight. That is 2050.2 Tons removed. So there is 4,349.80 tons of alfalfa on this farm that you have paid for but you have not removed.

If you have any question on how I have arrived at these figures please contact me.

Best Regards,

Pamela Meadows
Secretary

*Note: This figure of 2278 removed doesn't include the 54 bales taken this week.
<table>
<thead>
<tr>
<th>McALLASTERS 4/5</th>
<th>TOTAL BALES</th>
<th>ANIBYPRO 1/5</th>
</tr>
</thead>
<tbody>
<tr>
<td>#0</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1st 13</td>
<td>16</td>
<td>1st 4</td>
</tr>
<tr>
<td>2nd 52</td>
<td>65</td>
<td>2nd 13</td>
</tr>
<tr>
<td>3rd 83</td>
<td>104</td>
<td>3rd 21</td>
</tr>
<tr>
<td>4th 31</td>
<td>39</td>
<td>4th 8</td>
</tr>
<tr>
<td>#1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1st 73</td>
<td>91</td>
<td>1st 18</td>
</tr>
<tr>
<td>2nd 113</td>
<td>141</td>
<td>2nd 28</td>
</tr>
<tr>
<td>3rd 127</td>
<td>159</td>
<td>3rd 32</td>
</tr>
<tr>
<td>4th 46</td>
<td>58</td>
<td>4th 12</td>
</tr>
<tr>
<td>#2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1st 54</td>
<td>68</td>
<td>1st 14</td>
</tr>
<tr>
<td>2nd 106</td>
<td>133</td>
<td>2nd 27</td>
</tr>
<tr>
<td>3rd 144</td>
<td>180</td>
<td>3rd 36</td>
</tr>
<tr>
<td>4th 48</td>
<td>60</td>
<td>4th 12</td>
</tr>
<tr>
<td>#3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1st 153</td>
<td>191</td>
<td>1st 38</td>
</tr>
<tr>
<td>2nd 164</td>
<td>205</td>
<td>2nd 41</td>
</tr>
<tr>
<td>3rd 373</td>
<td>466</td>
<td>3rd 93</td>
</tr>
<tr>
<td>4th 121</td>
<td>152</td>
<td>4th 31</td>
</tr>
<tr>
<td>#4</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1st 82</td>
<td>103</td>
<td>1st 21</td>
</tr>
<tr>
<td>2nd 85</td>
<td>106</td>
<td>2nd 21</td>
</tr>
<tr>
<td>3rd 170</td>
<td>212</td>
<td>3rd 42</td>
</tr>
<tr>
<td>4th 32</td>
<td>40</td>
<td>4th 8</td>
</tr>
<tr>
<td>#5</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1st 44</td>
<td>55</td>
<td>1st 11</td>
</tr>
<tr>
<td>2nd 155</td>
<td>194</td>
<td>2nd 39</td>
</tr>
<tr>
<td>3rd 135</td>
<td>169</td>
<td>3rd 34</td>
</tr>
<tr>
<td>4th 38</td>
<td>47</td>
<td>4th 9</td>
</tr>
<tr>
<td>#6</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1st 41</td>
<td>51</td>
<td>1st 10</td>
</tr>
<tr>
<td>2nd 82</td>
<td>103</td>
<td>2nd 21</td>
</tr>
<tr>
<td>3rd 164</td>
<td>205</td>
<td>3rd 41</td>
</tr>
<tr>
<td>4th 82</td>
<td>102</td>
<td>4th 20</td>
</tr>
<tr>
<td>#7</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1st 141</td>
<td>176</td>
<td>1st 35</td>
</tr>
<tr>
<td>2nd 170</td>
<td>212</td>
<td>2nd 42</td>
</tr>
<tr>
<td>3rd 206</td>
<td>258</td>
<td>3rd 52</td>
</tr>
<tr>
<td>4th 96</td>
<td>120</td>
<td>4th 24</td>
</tr>
<tr>
<td>#8</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1st 82</td>
<td>103</td>
<td>1st 21</td>
</tr>
<tr>
<td>2nd 122</td>
<td>153</td>
<td>2nd 21</td>
</tr>
<tr>
<td>3rd 177</td>
<td>221</td>
<td>3rd 21</td>
</tr>
<tr>
<td>4th 99</td>
<td>124</td>
<td>4th 25</td>
</tr>
<tr>
<td>#9</td>
<td>1st</td>
<td>119</td>
</tr>
<tr>
<td></td>
<td>2nd</td>
<td>194</td>
</tr>
<tr>
<td></td>
<td>3rd</td>
<td>167</td>
</tr>
<tr>
<td></td>
<td>4th</td>
<td>82</td>
</tr>
<tr>
<td>#10</td>
<td>1st</td>
<td>77</td>
</tr>
<tr>
<td></td>
<td>2nd</td>
<td>261</td>
</tr>
<tr>
<td></td>
<td>3rd</td>
<td>201</td>
</tr>
<tr>
<td></td>
<td>4th</td>
<td>118</td>
</tr>
<tr>
<td>#11</td>
<td>1st</td>
<td>116</td>
</tr>
<tr>
<td></td>
<td>2nd</td>
<td>208</td>
</tr>
<tr>
<td></td>
<td>3rd</td>
<td>162</td>
</tr>
<tr>
<td></td>
<td>4th</td>
<td>42</td>
</tr>
<tr>
<td>#12</td>
<td>1st</td>
<td>130</td>
</tr>
<tr>
<td></td>
<td>2nd</td>
<td>302</td>
</tr>
<tr>
<td></td>
<td>3rd</td>
<td>257</td>
</tr>
<tr>
<td></td>
<td>4th</td>
<td>42</td>
</tr>
<tr>
<td>#13</td>
<td>1st</td>
<td>75</td>
</tr>
<tr>
<td></td>
<td>2nd</td>
<td>122</td>
</tr>
<tr>
<td></td>
<td>3rd</td>
<td>121</td>
</tr>
<tr>
<td></td>
<td>4th</td>
<td>13</td>
</tr>
<tr>
<td>#16</td>
<td>1st</td>
<td>70</td>
</tr>
<tr>
<td></td>
<td>2nd</td>
<td>144</td>
</tr>
<tr>
<td></td>
<td>3rd</td>
<td>86</td>
</tr>
<tr>
<td></td>
<td>4th</td>
<td>15</td>
</tr>
<tr>
<td>#17</td>
<td>1st</td>
<td>107</td>
</tr>
<tr>
<td></td>
<td>2nd</td>
<td>218</td>
</tr>
<tr>
<td></td>
<td>3rd</td>
<td>122</td>
</tr>
<tr>
<td></td>
<td>4th</td>
<td>42</td>
</tr>
<tr>
<td>#18</td>
<td>1st</td>
<td>23</td>
</tr>
<tr>
<td>#19</td>
<td>1st</td>
<td>47</td>
</tr>
<tr>
<td></td>
<td>2nd</td>
<td>42</td>
</tr>
<tr>
<td></td>
<td>3rd</td>
<td>50</td>
</tr>
<tr>
<td>#30</td>
<td>1st</td>
<td>126</td>
</tr>
<tr>
<td></td>
<td>2nd</td>
<td>157</td>
</tr>
<tr>
<td></td>
<td>3rd</td>
<td>90</td>
</tr>
<tr>
<td></td>
<td>4th</td>
<td>18</td>
</tr>
<tr>
<td>#38</td>
<td>1st</td>
<td>98</td>
</tr>
<tr>
<td></td>
<td>2nd</td>
<td>162</td>
</tr>
<tr>
<td></td>
<td>3rd</td>
<td>95</td>
</tr>
<tr>
<td></td>
<td>4th</td>
<td>52</td>
</tr>
</tbody>
</table>
#39

<table>
<thead>
<tr>
<th></th>
<th>1st</th>
<th>2nd</th>
<th>3rd</th>
<th>Total Bales</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>16</td>
<td>26</td>
<td>31</td>
<td>10776</td>
</tr>
<tr>
<td></td>
<td>20</td>
<td>33</td>
<td>39</td>
<td></td>
</tr>
</tbody>
</table>

McAllasters 4/5's  8621
Anibypros 1/5's  2155

*Note* In order to come up to 8,000 Tons it will take 8.889 bales of 1800lbs. This will leave Anibypro 1887 bales
<table>
<thead>
<tr>
<th>Date</th>
<th>Circle #</th>
<th>Cutting</th>
<th>Amount of Bales Taken</th>
<th>Tons per Scale Tickets</th>
</tr>
</thead>
<tbody>
<tr>
<td>8-30</td>
<td>7</td>
<td>3rd</td>
<td>52</td>
<td>45.58</td>
</tr>
<tr>
<td></td>
<td>10</td>
<td>3rd</td>
<td>50</td>
<td>43.2</td>
</tr>
<tr>
<td>9-7</td>
<td>7</td>
<td>3rd</td>
<td>108</td>
<td>94.34</td>
</tr>
<tr>
<td></td>
<td>12</td>
<td>3rd</td>
<td>104</td>
<td>86.92</td>
</tr>
<tr>
<td>9-14</td>
<td>12</td>
<td>3rd</td>
<td>78</td>
<td>66.05</td>
</tr>
<tr>
<td></td>
<td>5</td>
<td>3rd</td>
<td>113</td>
<td>93.85</td>
</tr>
<tr>
<td></td>
<td>10</td>
<td>3rd</td>
<td>116</td>
<td>92.39</td>
</tr>
<tr>
<td></td>
<td>11</td>
<td>2nd</td>
<td>30</td>
<td>18.38</td>
</tr>
<tr>
<td></td>
<td>4</td>
<td>3rd</td>
<td>138</td>
<td>128.08</td>
</tr>
<tr>
<td>9-21</td>
<td>12</td>
<td>3rd</td>
<td>30</td>
<td>26.24</td>
</tr>
<tr>
<td></td>
<td>30</td>
<td>3rd</td>
<td>69</td>
<td>57.46</td>
</tr>
<tr>
<td></td>
<td>98</td>
<td>3rd</td>
<td>79</td>
<td>60.99</td>
</tr>
<tr>
<td>10-5</td>
<td>6</td>
<td>4th</td>
<td>21</td>
<td>21.97</td>
</tr>
<tr>
<td>10-12</td>
<td>8</td>
<td>4th</td>
<td>83</td>
<td>89.20</td>
</tr>
<tr>
<td>10-19</td>
<td>7</td>
<td>4th</td>
<td>52</td>
<td>55.89</td>
</tr>
<tr>
<td>10-26</td>
<td>9</td>
<td>4th</td>
<td>42</td>
<td>38.54</td>
</tr>
<tr>
<td>11-2</td>
<td>10</td>
<td>4th</td>
<td>78</td>
<td>68.8</td>
</tr>
<tr>
<td></td>
<td>12</td>
<td>4th</td>
<td>56</td>
<td>58.83</td>
</tr>
<tr>
<td>11-9</td>
<td>9</td>
<td>4th</td>
<td>52</td>
<td>48.76</td>
</tr>
<tr>
<td>11-16</td>
<td>2</td>
<td>4th</td>
<td>22</td>
<td>22.82</td>
</tr>
<tr>
<td></td>
<td>9</td>
<td>4th</td>
<td>3</td>
<td>3.00</td>
</tr>
<tr>
<td></td>
<td>8</td>
<td>4th</td>
<td>41</td>
<td>42.36</td>
</tr>
<tr>
<td>11-23</td>
<td>10</td>
<td>3rd</td>
<td>20</td>
<td>16.47</td>
</tr>
<tr>
<td></td>
<td>6</td>
<td>4th</td>
<td>26</td>
<td>26.54</td>
</tr>
<tr>
<td></td>
<td>7</td>
<td>4th</td>
<td>34</td>
<td>36.74</td>
</tr>
<tr>
<td>12-7</td>
<td>2</td>
<td>4th</td>
<td>22</td>
<td>22.73</td>
</tr>
<tr>
<td></td>
<td>11</td>
<td>4th</td>
<td>26</td>
<td>24.55</td>
</tr>
<tr>
<td></td>
<td>38</td>
<td>4th</td>
<td>52</td>
<td>52.02</td>
</tr>
<tr>
<td>12-21</td>
<td>30</td>
<td>4th</td>
<td>22</td>
<td>21.51</td>
</tr>
<tr>
<td></td>
<td>38</td>
<td>4th</td>
<td>4</td>
<td>3.91</td>
</tr>
<tr>
<td>1-4</td>
<td>7</td>
<td>3rd</td>
<td>47</td>
<td>41.31</td>
</tr>
<tr>
<td></td>
<td>7</td>
<td>2nd</td>
<td>8</td>
<td>7.30</td>
</tr>
<tr>
<td></td>
<td>7</td>
<td>4th</td>
<td>28</td>
<td>20.98</td>
</tr>
<tr>
<td>1-17</td>
<td>3</td>
<td>4th</td>
<td>11</td>
<td>9.14</td>
</tr>
<tr>
<td></td>
<td>7</td>
<td>4th</td>
<td>15</td>
<td>12.17</td>
</tr>
<tr>
<td>1-19</td>
<td>3</td>
<td>4th</td>
<td>28</td>
<td>26.39</td>
</tr>
<tr>
<td></td>
<td>12</td>
<td>4th</td>
<td>56</td>
<td>43.63</td>
</tr>
<tr>
<td>1-29</td>
<td>12</td>
<td>3rd</td>
<td>28</td>
<td>18.78</td>
</tr>
<tr>
<td>1-30</td>
<td>12</td>
<td>3rd</td>
<td>7</td>
<td>1.75</td>
</tr>
<tr>
<td></td>
<td>12</td>
<td>1st</td>
<td>78</td>
<td>70.52</td>
</tr>
<tr>
<td>2-2</td>
<td>5</td>
<td>4th</td>
<td>28</td>
<td>23.51</td>
</tr>
<tr>
<td></td>
<td>12</td>
<td>1st</td>
<td>26</td>
<td>23.17</td>
</tr>
<tr>
<td>2-4</td>
<td>7</td>
<td>1st</td>
<td>7</td>
<td>5.44</td>
</tr>
<tr>
<td></td>
<td>7</td>
<td>2nd</td>
<td>8</td>
<td>6.21</td>
</tr>
<tr>
<td></td>
<td>7</td>
<td>1st</td>
<td>12</td>
<td>5.94</td>
</tr>
<tr>
<td>2-11</td>
<td>7</td>
<td>2nd</td>
<td>14</td>
<td>12.38</td>
</tr>
<tr>
<td>2-22</td>
<td>30</td>
<td>2nd</td>
<td>52</td>
<td>44.21</td>
</tr>
<tr>
<td>DATE</td>
<td>CIRCLE #</td>
<td>CUTTING</td>
<td>AMOUNT OF BALES TAKEN</td>
<td>TONS PER SCALE TICKET</td>
</tr>
<tr>
<td>--------</td>
<td>----------</td>
<td>---------</td>
<td>-----------------------</td>
<td>-----------------------</td>
</tr>
<tr>
<td>2-24</td>
<td>38</td>
<td>1st</td>
<td>26</td>
<td>23.75</td>
</tr>
<tr>
<td>3-9</td>
<td>7</td>
<td>2nd</td>
<td>30</td>
<td>21.64</td>
</tr>
<tr>
<td>3-10</td>
<td>10</td>
<td>3rd</td>
<td>5</td>
<td>3.95</td>
</tr>
<tr>
<td>3-15</td>
<td>11</td>
<td>4th</td>
<td>25</td>
<td>23.60</td>
</tr>
<tr>
<td>3-15</td>
<td>7</td>
<td>1st</td>
<td>23</td>
<td>21.21</td>
</tr>
<tr>
<td></td>
<td>7</td>
<td>2nd</td>
<td>5</td>
<td>4.61</td>
</tr>
<tr>
<td>3-17</td>
<td>8</td>
<td>1st</td>
<td>26</td>
<td>24.58</td>
</tr>
</tbody>
</table>

(* This does not include hay taken this week 3/25/12)

Totals: 2278' 2.3558
Kansas State Board of Agriculture  
Division of Water Resources

**ADMINISTRATIVE POLICY**  
No. 86-8

**Subject:** Allowable Rates of Diversion and Maximum Annual Quantities for Irrigation Use - Permits and Approvals

**Reference:** K.S.A. 82a-708a and K.A.R. 5-3-1

**Date:** November 5, 1986

**History:** Effective November 5, 1986

**Approved by:** David L. Pope  
Chief Engineer

During the review of an APPLICATION FOR PERMIT TO APPROPRIATE WATER FOR BENEFICIAL USE for irrigation purposes the following guidelines shall be considered in determining the maximum reasonable rate of diversion to be allowed under any APPROVAL OF APPLICATION AND PERMIT TO PROCEED:

<table>
<thead>
<tr>
<th>Area, Place of use</th>
<th>Max. Allowable Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>up to 10 acres</td>
<td>450 g.p.m.</td>
</tr>
<tr>
<td>10 - 40 acres</td>
<td>(+) 450 g.p.m.</td>
</tr>
<tr>
<td>40 - 120 acres</td>
<td>(+) 8 g.p.m./acre</td>
</tr>
<tr>
<td>more than 120 acres</td>
<td>(+) 7 g.p.m./acre</td>
</tr>
</tbody>
</table>

**EXAMPLES:**

A. 37 acres requested; since this area is less than 40 acres, a rate of up to 900 g.p.m. is allowed.

B. 83 acres requested;

- 10 acres = 450 g.p.m.
- (+) 40 acres (10 + 30) = 450 g.p.m.
- (+) 43 acres @ 8 g.p.m./acre = 344 g.p.m.  
  1,244 (allow 1,245 g.p.m.)

A further limiting factor of this procedure is the availability of water from the proposed source of supply. In those instances whereby the source of supply is incapable of yielding a reasonably, sustainable (computed) rate, then the source becomes a further limiting factor.

A further limiting factor is well design and equipment, which shall be reasonable to divert the requested rate.
Further, the rate authorized should not impair senior water rights in the area, including domestic rights.

In reviewing an APPLICATION FOR PERMIT TO APPROPRIATE WATER FOR BENEFICIAL USE for irrigation purposes, the following guidelines shall be considered when determining a maximum allowable annual quantity of water request:

In that area of Kansas located between the Kansas/Missouri border and the Range 5 East/Range 6 East line, the maximum allowable quantity shall not exceed an average of 1.00 acre-foot per acre to be irrigated.

In that area of Kansas located between the Range 5 East/Range 6 East Line and the Range 20 West/Range 21 West line, the maximum allowable quantity shall not exceed an average of 1.50 acre-feet per acre irrigated.

In that area of Kansas located between the Range 20 West/Range 21 West line and the Kansas/Colorado border, the maximum allowable quantity shall not exceed an average of 2.00 acre-feet per acre irrigated.

A further limiting factor to maximum allowable quantity is the availability of water from the proposed source of supply. If the source of supply is incapable of yielding a reasonably, sustainable (computed) quantity during the irrigation season in that area of the state, then the source becomes a further limiting factor.

That if an applicant can show that his or her system design is reasonable for the use intended and approval of the proposed rate and/or maximum annual quantity will not impair any senior water right or prejudicially and unreasonably affect the public interest, the Chief Engineer may waive the above guidelines. Documentation shall be placed in the file clearly demonstrating any exceptions to the above policy.
KANSAS STATE BOARD OF AGRICULTURE
Division of Water Resources

MEMORANDUM

To: Files
From: Douglas E. Bush

Date: March 17, 1987
Re: Appropriation of Water
File No. 21,729

The Field Inspection Report for the above referenced file, conducted under contract by Pumping Plant Testing, Inc. has been reviewed. It meets the requirement specified in the scope of work.

The quantity perfected under the above referenced File No. was fully perfected in accordance to the acres irrigated. That is 500 acres irrigated x 1.5 acre-feet per acre = 750 acre-feet or 752 acre-feet because of the rounding of quantity.

The combined tested rates for the two wells located in the Northwest Quarter (NW½) of Section 29, Township 25 South, Range 19 West, Edwards County, Kansas, did not equal the rate when the wells were tested pumping by themselves and then added together. Pumping Plant Testing was contacted on March 17, 1987. It was learned that because of air being in the system, the rates were lower when tested by themselves. Therefore the rates for the two wells were prorated up to the combined rate as such: 263 gallons per minute + 313 gallons per minute = 576 gallons per minute. 263 gallons per minute divided by 576 gallons per minute = 0.46 x 599 (combined rate) = 273 gallons per minute [near the center of the Northwest Quarter (NW½)]. 313 gallons per minute divided by 576 gallons per minute = 0.54 x 599 gallons per minute (combined rate) = 325 gallons per minute [in the Northeast Quarter of the Southwest Quarter of the Northwest Quarter (NE¼ SW½ NW½)].

The quantities for the wells located near the center of the Northwest Quarter (NW½) and in the Northeast Quarter of the Southwest Quarter of the Northwest Quarter (NE¼ SW½ NW½) were prorated by rate so the total quantity did not exceed a reasonable quantity for the land irrigated. The quantities were prorated as such: 263 gallons per minute + 313 gallons per minute = 576 gallons per minute. 263 gallons per minute divided by 576 gallons per minute = 0.46 x 188 acre-feet (maximum allowed for irrigating 125 acres at 1.5 acre-feet per acre) = 86 acre-feet [near the center of the Northwest Quarter (NW½)], 313 gallons per minute divided by 576 gallons per minute = 0.54 x 188 acre-feet (maximum allowed for irrigating 125 acres at 1.5 acre-feet per acre) = 102 acre-feet [Northeast Quarter of the Southwest Quarter of the Northwest Quarter (NE¼ SW½ NW½)].

The quantities for the wells located near the center of the Southwest Quarter (SW½) and in the Northeast Quarter of the Southwest Quarter of the Southwest Quarter (NE¼ SW½ SW½) were prorated by rate so the total quantity did not exceed a reasonable quantity for the land irrigated. The quantities were prorated as such: 274 gallons per minute + .425 gallons per minute = 699 gallons per minute. 274 gallons per minute divided by 699 gallons per minute = 0.39 x 188 acre-feet (maximum allowed for irrigating 125 acres at 1.5 acre-feet per
gallons per minute divided by 699 gallons per minute = 0.61 x 188 acre-feet
(maximum allowed for irrigating 125 acres at 1.5 acre-feet per acre) = 114 acre-
feet.

The acres shown to be irrigated by some pivots were over the 125 approved acres. The actual acres irrigated under all pivot irrigation systems is probably close to 125 acres as shown by the ASCS aerial photograph. Therefore, no prorating of quantity was done for irrigating unapproved land.

The WUC shown on the Field Inspection Report was changed to show Agri Affiliates as correspondent. This information was obtained in a March 25, 1987 phone call from Larry Sheets, Division of Water Resources, to Jerry Weaver of Agri Affiliates.

A limitation was needed on the combined rate, for the well located in the Southwest Quarter (SW ¼) of said section and the well located in the Northeast Quarter of the Southwest Quarter of the Southwest Quarter (NE ¼ SW ¼ SW ¼) of said section. This limitation limits the combined rate of these two wells to 700 gallons per minute when the wells are run simultaneously.

A limitation was needed on the total rate when all wells are being run simultaneously. The limitation limits the rate to 2,900 gallons per minute, the maximum approved rate.

Douglas E. Bush
Douglas E. Bush
Hydrologist

DEB:jt
## MUNICIPAL (PUBLIC WATER SUPPLY) APPLICATION SUPPLEMENTAL INFORMATION SHEET

### SECTION 1: PRESENT WATER USE SUMMARY (IF NO PREVIOUS MUNICIPAL WATER USE HAS BEEN UTILIZED, PROCEED TO SECTION 3)

**NOTE:** WORKSHEET FOR WATER PUMPED, PURCHASED, AND SOLD BY YOUR WATER DISTRIBUTION SYSTEM.

<table>
<thead>
<tr>
<th>Column 1</th>
<th>Column 2</th>
<th>Column 3</th>
<th>Column 4</th>
<th>Column 5</th>
<th>Column 6</th>
<th>Column 7</th>
</tr>
</thead>
<tbody>
<tr>
<td>Raw Water Diverted Under Your Rights</td>
<td>Water Purchased From All Sources</td>
<td>Water Sold to Other Public Water Suppliers</td>
<td>Water Sold to Your Industrial, Stock, and Bulk Customers</td>
<td>Water Sold to Your Residential and Commercial Customers</td>
<td>Other Mtered Water</td>
<td>Remaining Water Used (See Below Explanation)</td>
</tr>
<tr>
<td>684,559,000</td>
<td>10,806,000</td>
<td>505,254,000</td>
<td>16,327,000</td>
<td>62,172,000</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**TOTAL WATER = Columns 1 + 2**

**ACCOUNTED FOR WATER = Columns 3 + 4 + 5 + 6**

**UNACCOUNTED FOR WATER = TOTAL WATER - ACCOUNTED FOR WATER**

**Column 1:** The amount of raw water diverted from all of your points of diversion.

**Column 2:** The amount of water purchased wholesale from all other public water supply systems or the Kansas Water Office.

**Column 3:** The amount of water sold wholesale to all other public water supply systems.

**Column 4:** The amount of water sold retail to all industrial, pasture, stockwater, feedlot, and bulk water service connections. Include the amount of water sold to all farmsteads using at least 200,000 gallons of water per year.

**Column 5:** The amount of water sold retail to your residential and commercial customers and to industries and farmsteads using less than 200,000 gallons of water per year.

**Column 6:** The amount of water used that is metered at individual service connections and supplied free, such as for public service, treatment processes, and connections receiving free water.

**Column 7:** The amount of remaining water used. The gallons reported in this column are found by adding the numbers in Columns 1 and 2 and subtracting the numbers in Columns 3, 4, 5, and 6.

**UNACCOUNTED FOR WATER**

Use the following to calculate your distribution system’s Unaccounted For Water:

Start with the amount in Column 1 and add the amount in Column 2, then subtract the amounts in Columns 3, 4, 5, and 6 leaving an amount of water representing your unaccounted for water to enter in Column 7.

Use the following to calculate the percent Unaccounted For Water versus the Total Water of your system:

\[
\text{Percent Unaccounted For Water} = \frac{\text{Unaccounted For Water}}{\text{Total Water (Columns 1, 2)}} \times 100
\]

If this number exceeds 20%, please explain the large amount of unaccounted for water and describe any steps being taken to reduce it.

### SECTION 2: PAST WATER USE

COMPLETE THE FOLLOWING TABLE FROM YOUR PAST WATER USE RECORDS.

<table>
<thead>
<tr>
<th>WATER RECORD</th>
<th>Column 1</th>
<th>Column 2</th>
<th>Column 3</th>
<th>Column 4</th>
<th>Column 5</th>
<th>Column 6</th>
<th>Column 7</th>
</tr>
</thead>
<tbody>
<tr>
<td>20 years ago</td>
<td>592,323,000</td>
<td>10,819,000</td>
<td>469,314,000</td>
<td>16,327,000</td>
<td>112,825,000</td>
<td></td>
<td></td>
</tr>
<tr>
<td>15 years ago</td>
<td>780,527,000</td>
<td>7,103,000</td>
<td>639,222,000</td>
<td>20,851,000</td>
<td>171,473,000</td>
<td></td>
<td></td>
</tr>
<tr>
<td>10 years ago</td>
<td>708,926,000</td>
<td>13,537,000</td>
<td>581,900,000</td>
<td>19,362,000</td>
<td>39,740,000</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5 years ago</td>
<td>693,966,000</td>
<td></td>
<td></td>
<td></td>
<td>114,383,000</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**TOTAL WATER = Columns 1 + 2**

**ACCOUNTED FOR WATER = Columns 3 + 4 + 5 + 6**

**UNACCOUNTED FOR WATER**

DWR 1-99-44 (Revised 08/15/2002)
### SECTION 3: PROJECTED FUTURE WATER NEEDS

Please complete the following table showing your future water requirements for the next 20 years:

<table>
<thead>
<tr>
<th></th>
<th>Column 1</th>
<th>Column 2</th>
<th>Column 3</th>
<th>Column 4</th>
<th>Column 5</th>
<th>Column 6</th>
<th>Column 7</th>
<th>Remaining Water Used (See Explanation on other side)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Raw Water Diverted Under Your Rights</td>
<td>Water Purchased From All Sources</td>
<td>Water Sold to Other Industrial, Stock, and Bulk Customers</td>
<td>Water Sold to Your Residential and Commercial Customers</td>
<td>Other Metered Water</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Year 5</td>
<td>753,014,300</td>
<td></td>
<td>11,886,600</td>
<td>654,779,400</td>
<td>17,859,700</td>
<td>68,389,200</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Year 10</td>
<td>826,316,300</td>
<td></td>
<td>13,075,260</td>
<td>720,257,340</td>
<td>19,755,670</td>
<td>75,228,120</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Year 15</td>
<td>911,148,029</td>
<td></td>
<td>14,382,786</td>
<td>792,283,074</td>
<td>21,731,237</td>
<td>82,750,932</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Year 20</td>
<td>1,002,262,832</td>
<td></td>
<td>15,821,065</td>
<td>871,511,381</td>
<td>23,904,361</td>
<td>91,026,025</td>
<td></td>
<td></td>
</tr>
<tr>
<td>TOTAL WATER = Columns 1 + 2</td>
<td>ACCOUNTED FOR WATER = Columns 3 + 4 + 5 + 6</td>
<td>UNACCOUNTED FOR WATER</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### SECTION 4: POPULATION AND SERVICE CONNECTIONS

Estimate the number of persons directly served by your water distribution system.

#### PAST POPULATION - PROVIDE INFORMATION BELOW:

(CENSUS BUREAU INFORMATION)

<table>
<thead>
<tr>
<th>LAST 20 YEARS</th>
<th>POPULATION</th>
</tr>
</thead>
<tbody>
<tr>
<td>20 years ago</td>
<td>17,636</td>
</tr>
<tr>
<td>15 years ago</td>
<td>18,750</td>
</tr>
<tr>
<td>10 years ago</td>
<td>20,013</td>
</tr>
<tr>
<td>5 years ago</td>
<td>20,106</td>
</tr>
<tr>
<td>Last Year</td>
<td>21,038</td>
</tr>
</tbody>
</table>

Provide number of current active service connections:

- Residential: 6,824
- Commercial: 1,256
- Industrial: 2
- Pasture/Stockwater/Feedlot: 8,082
- Other (specify) _[Blank]_
- Total: _[Blank]_

### SECTION 5: PRESENT GALLONS PER PERSON PER DAY

Calculate your gallons per person per day.

Water in Columns 5, 6, and 7 + Population + 365 Days/Year = Gallons per Person per Day

<table>
<thead>
<tr>
<th>WATER RESOURCES</th>
</tr>
</thead>
<tbody>
<tr>
<td>673,753,000</td>
</tr>
</tbody>
</table>

+ 21,038

+ 365 Days/Year = 88 GALLONS PER PERSON PER DAY.

### SECTION 6: AREA TO BE SERVED

Describe the area to be served or provide the legal description of the location where the water is to be used including any other city of water supply system (i.e. Rural Water District):

City of Hays, KS Municipal Water Supply

2013 is year one and 2033 will be year twenty. 2 percent growth is used for estimate. Hays had a reasonable 9.1 percent unaccounted water in 2013.

You may attach additional information you believe will assist in informing the Division of the need for your request.

21731 Page 94 of 96
SECTION 1: PRESENT WATER USE SUMMARY (IF NO PREVIOUS MUNICIPAL WATER USE HAS BEEN UTILIZED, PROCEED TO SECTION 3)
NOTE: WORKSHEET FOR WATER PUMPED, PURCHASED, AND SOLD BY YOUR WATER DISTRIBUTION SYSTEM

<table>
<thead>
<tr>
<th>Column 1</th>
<th>Column 2</th>
<th>Column 3</th>
<th>Column 4</th>
<th>Column 5</th>
<th>Column 6</th>
<th>Column 7</th>
</tr>
</thead>
<tbody>
<tr>
<td>Raw Water Diverted Under Your Rights</td>
<td>Water Purchased From All Sources</td>
<td>Water Sold to Other Public Water Suppliers</td>
<td>Water Sold to Your Industrial, Stock, and Bulk Customers</td>
<td>Water Sold to Your Residential and Commercial Customers</td>
<td>Other Metered Water</td>
<td>Remaining Water Used (See Below Explanation)</td>
</tr>
<tr>
<td>327,288,100</td>
<td>0</td>
<td>0</td>
<td>105,295,000</td>
<td>108,743,000</td>
<td>19,944,000</td>
<td>93,306,100</td>
</tr>
</tbody>
</table>

TOTAL WATER = Columns 1 + 2
ACCOUNTED FOR WATER = Columns 3 + 4 + 5 + 6
UNACCOUNTED FOR WATER

UNACCOUNTED FOR WATER = TOTAL WATER - ACCOUNTED FOR WATER

Column 1: The amount of raw water diverted from all of your points of diversion.

Column 2: The amount of water purchased wholesale from all other public water supply systems or the Kansas Water Office.

Column 3: The amount of water sold wholesale to all other public water supply systems.

Column 4: The amount of water sold retail to all industrial, pasture, stockwater, feedlot, and bulk water service connections. Include the amount of water sold to all farmsteads using at least 200,000 gallons of water per year.

Column 5: The amount of water sold retail to your residential and commercial customers and to industries and farmsteads using less than 200,000 gallons of water per year.

Column 6: The amount of water used that is metered at individual service connections and supplied free, such as for public service, treatment processes, and connections receiving free water.

Column 7: The amount of remaining water used. The gallons reported in this column are found by adding the numbers in Columns 1 and 2 and subtracting the numbers in Columns 3, 4, 5, and 6.

UNACCOUNTED FOR WATER

Use the following to calculate your distribution system’s Unaccounted For Water:

Start with the amount in Column 1 and add the amount in Column 2, then subtract the amounts in Columns 3, 4, 5, and 6 leaving an amount of water representing your unaccounted for water to enter in Column 7.

Use the following to calculate the percent Unaccounted For Water versus the Total Water of your system:

\[
\text{Percent Unaccounted} = \frac{\text{Unaccounted For Water}}{\text{Total Water (Columns 1, 2)}} \times 100
\]

If this number exceeds 20%, please explain the large amount of unaccounted for water and describe any steps being taken to reduce it.

SECTION 2: PAST WATER USE
COMPLETE THE FOLLOWING TABLE FROM YOUR PAST WATER USE RECORDS.

<table>
<thead>
<tr>
<th>Column 1</th>
<th>Column 2</th>
<th>Column 3</th>
<th>Column 4</th>
<th>Column 5</th>
<th>Column 6</th>
<th>Column 7</th>
</tr>
</thead>
<tbody>
<tr>
<td>Raw Water Diverted Under Your Rights</td>
<td>Water Purchased From All Sources</td>
<td>Water Sold to Other Public Water Suppliers</td>
<td>Water Sold to Your Industrial, Stock, and Bulk Customers</td>
<td>Water Sold to Your Residential and Commercial Customers</td>
<td>Other Metered Water</td>
<td>Remaining Water Used (See Above Explanation)</td>
</tr>
<tr>
<td>20 years ago</td>
<td>373,757,000</td>
<td>0</td>
<td>0</td>
<td>171,928,220</td>
<td>115,864,470</td>
<td>16,687,650</td>
</tr>
<tr>
<td>15 years ago</td>
<td>477,486,000</td>
<td>0</td>
<td>0</td>
<td>222,781,000</td>
<td>147,346,000</td>
<td>19,483,000</td>
</tr>
<tr>
<td>10 years ago</td>
<td>375,790,000</td>
<td>0</td>
<td>0</td>
<td>144,277,000</td>
<td>123,343,000</td>
<td>18,807,000</td>
</tr>
<tr>
<td>5 years ago</td>
<td>375,790,000</td>
<td>0</td>
<td>0</td>
<td>144,277,000</td>
<td>123,343,000</td>
<td>18,807,000</td>
</tr>
</tbody>
</table>

TOTAL WATER = Columns 1 + 2
ACCOUNTED FOR WATER = Columns 3 + 4 + 5 + 6
UNACCOUNTED FOR WATER
### SECTION 3: PROJECTED FUTURE WATER NEEDS

PLEASE COMPLETE THE FOLLOWING TABLE SHOWING YOUR FUTURE WATER REQUIREMENTS FOR THE NEXT 20 YEARS:

| Year | Column 1 Raw Water Diverted Under Your Rights | Column 2 Water Purchased From All Sources | Column 3 Water Sold to Other Public Water Suppliers | Column 4 Water Sold to Your Industrial, Stock, and Bulk Customers | Column 5 Water Sold to Your Residential and Commercial Customers | Column 6 Other Metered Water | Column 7 Remaining Water Used
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Year 5</td>
<td>386,346,512</td>
<td>0</td>
<td>0</td>
<td>177,719,396</td>
<td>119,767,419</td>
<td>15,453,861</td>
<td>73,405,836</td>
</tr>
<tr>
<td>Year 10</td>
<td>405,513,682</td>
<td>0</td>
<td>0</td>
<td>186,536,377</td>
<td>125,709,241</td>
<td>16,220,547</td>
<td>77,047,517</td>
</tr>
<tr>
<td>Year 15</td>
<td>426,310,852</td>
<td>0</td>
<td>0</td>
<td>196,192,592</td>
<td>132,156,364</td>
<td>17,052,434</td>
<td>80,999,062</td>
</tr>
<tr>
<td>Year 20</td>
<td>443,849,022</td>
<td>0</td>
<td>0</td>
<td>204,170,090</td>
<td>137,592,887</td>
<td>17,753,921</td>
<td>84,331,124</td>
</tr>
</tbody>
</table>

**TOTAL WATER = Columns 1 + 2**

**ACCOUNTED FOR WATER = Columns 3 + 4 + 5 + 6**

**UNACCOUNTED FOR WATER**

### SECTION 4: POPULATION AND SERVICE CONNECTIONS

ESTIMATE THE NUMBER OF PERSONS DIRECTLY SERVED BY YOUR WATER DISTRIBUTION SYSTEM

**PAST POPULATION - PROVIDE INFORMATION BELOW:**

(CENSUS BUREAU INFORMATION)

<table>
<thead>
<tr>
<th>LAST 20 YEARS</th>
<th>POPULATION</th>
</tr>
</thead>
<tbody>
<tr>
<td>20 years ago</td>
<td>4,710</td>
</tr>
<tr>
<td>15 years ago</td>
<td>4,696</td>
</tr>
<tr>
<td>10 years ago</td>
<td>4,666</td>
</tr>
<tr>
<td>5 years ago</td>
<td>4,656</td>
</tr>
<tr>
<td>Last Year</td>
<td>4,620</td>
</tr>
</tbody>
</table>

Provide number of current active service connections:

- Residential: 2,049
- Commercial: 360
- Industrial: 9
- Pasture/Stockwater/Feedlot: 0
- Other (specify) Free Service: 30

**TOTAL: 2,449**

### SECTION 5: PRESENT GALLONS PER PERSON PER DAY

CALCULATE YOUR GALLONS PER PERSON PER DAY

\[
\frac{211,991,000 \div 4,475 \div 365 \text{ Days/Year}}{\text{Population from Last Year of Section 4}} = 135.9 \text{ GALLONS PER PERSON PER DAY.}
\]

### SECTION 6: AREA TO BE SERVED

Describe the area to be served or provide the legal description of the location where the water is to be used including any other city of water supply system (i.e. Rural Water District): 

City of Russell

Note that the actual quantity of "Unaccounted for Water" is lower than shown here. Large quantities diverted from the Pfeiffer Wells are returned to the aquifer in the "Collector Well." See detailed explanation in the cover letter accompanying this application. Projected future water needs include losses in the collector well but when repaired or replaced, total raw water diversion will be reduced.

You may attach additional information you believe will assist in informing the Division of this application.