

KANSAS GEOLOGICAL SURVEY

1930 Constant Ave., Campus West
The University of Kansas
Lawrence, Kansas 66047-3726
phone 785-864-3965
fax 785-864-5317

April 29, 2005

Mr. David E. Barber, Area Specialist
Rural Development
U. S. Department of Agriculture
2715 Canterbury Drive
Hays, Kansas 67601

RE: Agency Review Transmittal Form for City of Norton

Dear Mr. Barber:

I have received your request for comment by the Kansas Geological Survey on an application to USDA Rural Development by the City of Norton. The money will be used to affect repairs and renovations to the water treatment plant, water wells, and water lines.

I reviewed the information you provided that included a street map of Norton, schematic maps of the water treatment process and water plant layout, several maps of water wells and local water resources, and an orthophoto. Additionally, I examined data from a report on the geology of Norton County (Kansas Geological Survey Bulletin #81). Since this project involves repairs and renovations to existing facilities, the Kansas Geological Survey has no knowledge of geologic factors that would adversely affect this project.

I have signed and enclosed the "Agency Review Transmittal Form."

Sincerely,

Gregory Ohlmacher, P.G.
Associate Scientist

Enc.

AGENCY REVIEW TRANSMITTAL FORM

Comments by: KS Geological Survey,
1930 Constant Ave
Lawrence, KS 66047

Transmittal Date: April 20, 2005

PROJECT TITLE: City of Norton

CONTACT PERSON: David E. Barber

☐ Notification of Intent
☐ Preapplication
☐ Final Application
☐ Direct Development

This form provides notification and the opportunity for your agency to review and comment on this proposed project required by executive Order 12372. Please complete Parts II & III as appropriate. Your prompt response will be appreciated.

RETURN TO:
USDA, RURAL DEVELOPMENT
2715 CANTERBURY DRIVE
HAYS, KS 67601

PART I

REVIEW AGENCIES/COMMISSIONS

☐ Aging
☐ Agriculture-DWR
☐ Biological Survey, KS
☐ Conservation Commission
☐ Corporation Commission
☐ Commerce

☐ Education
☒ Geological Survey, KS
☐ Health & Environment
☐ Historical Society
☐ Human Resources
☐ Social & Rehab Services

☐ State Forester
☐ Transportation
☐ Water Office, Kansas
☐ Wildlife & Parks

PART II

(To be completed by review agency and returned to contact person)

AGENCY REVIEW COMMENTS

COMMENTS:

PART III

(To be completed by review agency and returned to contact person)

RECOMMENDED ACTION COMMENTS

☒ Clearance of the project should be granted.

☐ Clearance of the project should not be granted.

☐ Clearance of the project should be delayed until the
submission
issues or questions have been clarified.

☐ Request a State Process Recommendation in
concurrence with above comments.

☐ Clearance of the project should not be delayed but the applicant
should be (in the final application) address and clarify the questions
or concerns indicated above.

☐ Request the opportunity to review final application prior to
to the federal funding agency.

DIVISION/AGENCY/COMMISSION

Reviewer's Name:

Date:

Gregory C. Oltmacher
PLEASE FAX THIS FORM TO (785) 625-6065 As Soon As Possible. THANK YOU



**United States Department of Agriculture
Rural Development**

April 20, 2005

KS Geological Survey
Dr. Lee Allison, Director
1930 Constant Ave
Lawrence, KS 66047

Subject: Agency Review Transmittal Form

The City of Norton has submitted an application to USDA, Rural Development, 2715 Canterbury Drive, Hays, KS 67601 to effect repairs and renovation to the City's water treatment plant. At present time the space available in the water treatment plant building is adequate for both the existing and intended future functions, moreover the structure is sound. However, the building is showing signs of nearly forty years of continuous service and is in need of a major facelift. The following items are recommended to restore the building to an acceptable standard of maintenance and ensure its service for the next twenty years:

- Elastomeric roof replacement
- Exterior and interior painting
- Window and door replacement
- Grating replacement (Rapid mix and clarifier effluent)
- Floor replacement (Second floor only)
- HVAC upgrades

These upgrades will include improving the treatment process to address both ground water and surface water issues that are servicing the City's supply. The project will also include well rehabilitation and additional well sources to address water wells that are operating with very low pump efficiencies and water quality issues. Each well should be provided with a new weather tight enclosure. The existing raw water transmission main has a nominal capacity of 1845 gpm under minimum pool conditions and it is adequate for the required design conditions. However, the pneumatic control valve and inlet piping should be replaced or reconfigured to minimize losses and maximize control flexibility. A new tap will also be required in this line as far upstream from the plant as practical, to permit the addition of chlorine dioxide.

Maps showing the service area, plant and well locations and potential well sites along with the existing flow schematic and layout of the treatment plant are enclosed.

2715 Canterbury Drive • Hays, KS 67601
(785) 628-3081 • Fax (785) 625-6065 • www.rurdev.usda.gov/ks

Committed to the future of rural communities

Rural Development is an Equal Opportunity Lender, Provider, and Employer. Complaints of discrimination should be sent to USDA, Director, Office of Civil Rights, Washington, D. C. 20250-9410

More specific information is available from the project engineer at:

Thaniel Monaco, P.E.
Miller & Associates
109 East 2nd
McCook, NE 69001-3719

The project will comply with appropriate State laws concerning the application.

I have enclosed an "Agency Review Transmittal Form" for your response back to this office. You may also contact this office if you have any questions regarding the proposed project.

USDA, Rural Development will not obligate funds for this project until after the 30 days have expired and until we have completed an Environmental Assessment of the project. You may fax your response back to us at (785) 625-6065. Thank you for your attention to this matter.

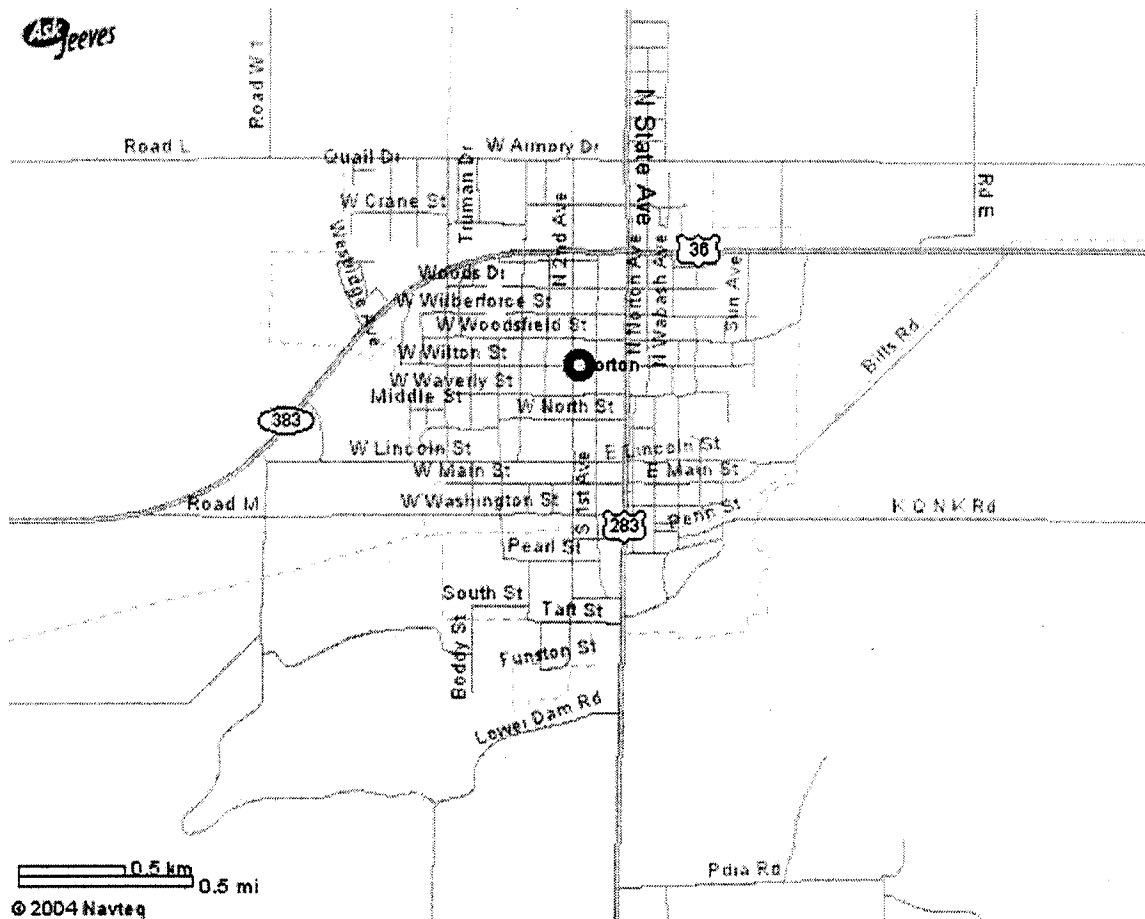
Sincerely,

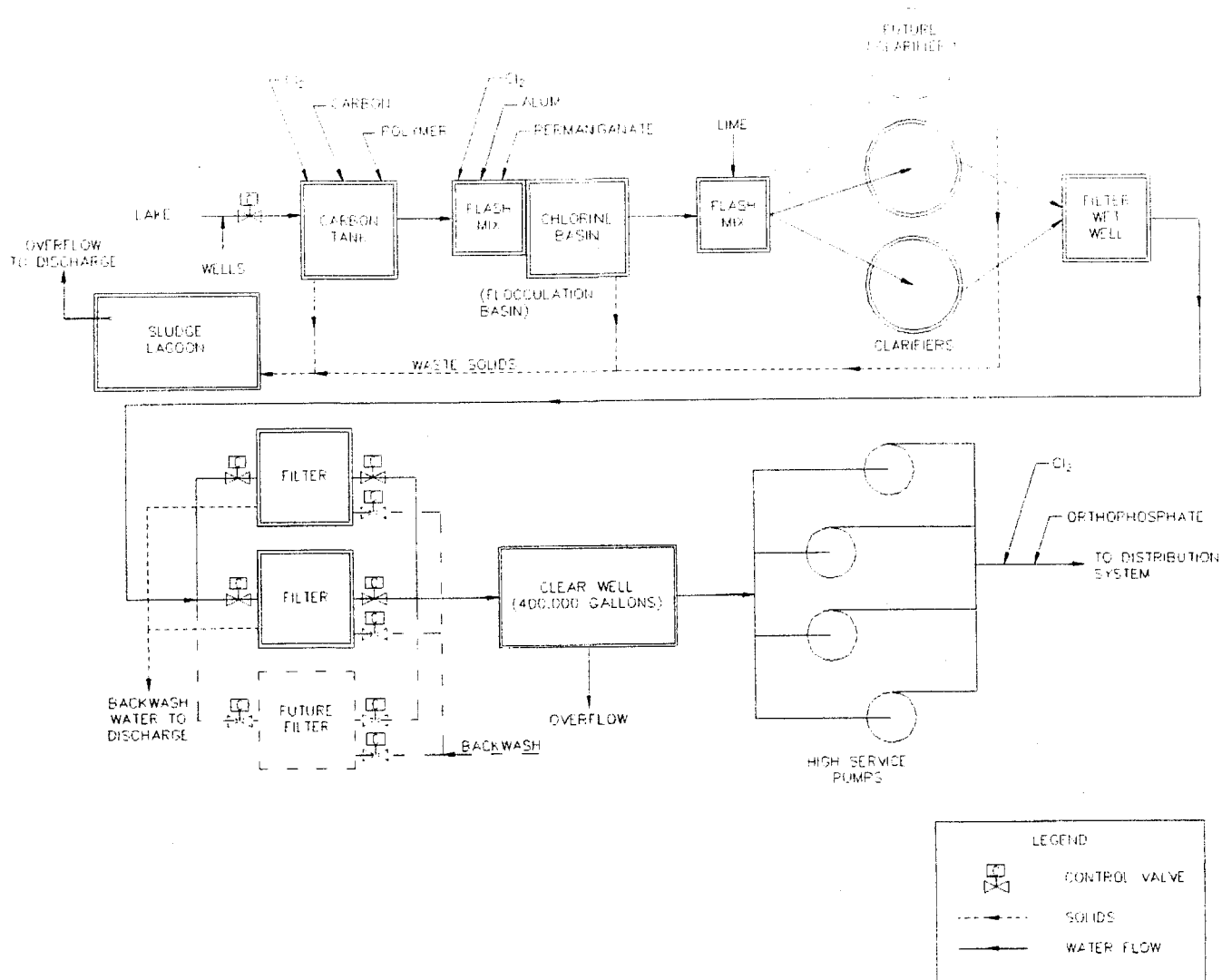
A handwritten signature in black ink, appearing to read "David E. Barber", written over a horizontal line.

David E. Barber
Area Specialist

Enclosure

DEBarber:lz





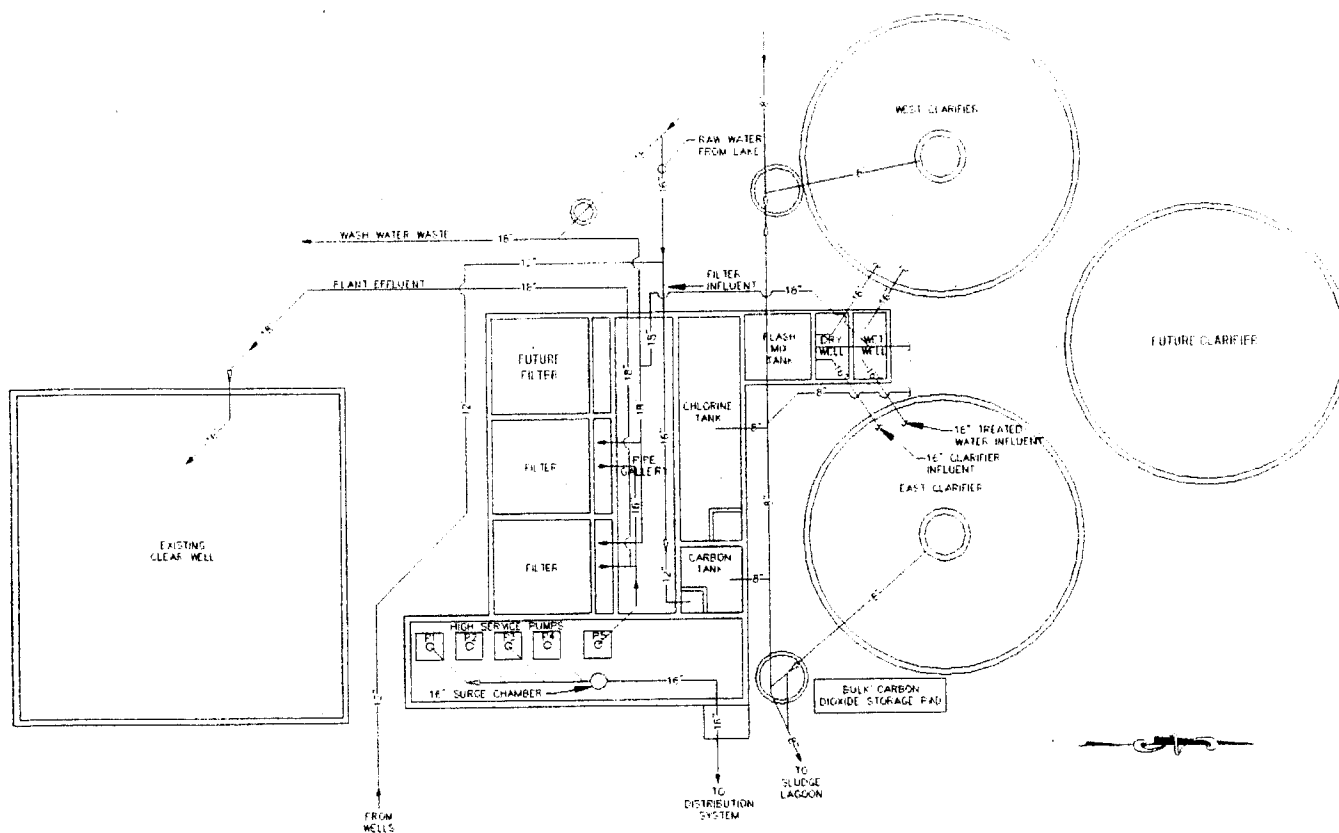
Prepared By:



Miller & Associates
CONSULTING ENGINEERS, P.C.

Existing Flow Schematic

Figure 1.2



Prepared By:



Miller & Associates
CONSULTING ENGINEERS, P.C.

Existing Plant Layout

Figure 1.3

1. Registered well information provided by the DASC -- August 28, 2002.

2. Registered well locations are positioned from well registration forms. Some errors may exist due to data input and inaccuracies within well registration records.

Prepared By:

109 East 2nd Street
McCook, Nebraska 69001
tel. (308) 345-3710
fax (308) 345-7370



Miller & Associates
Consulting Engineers, P.C.

Legend

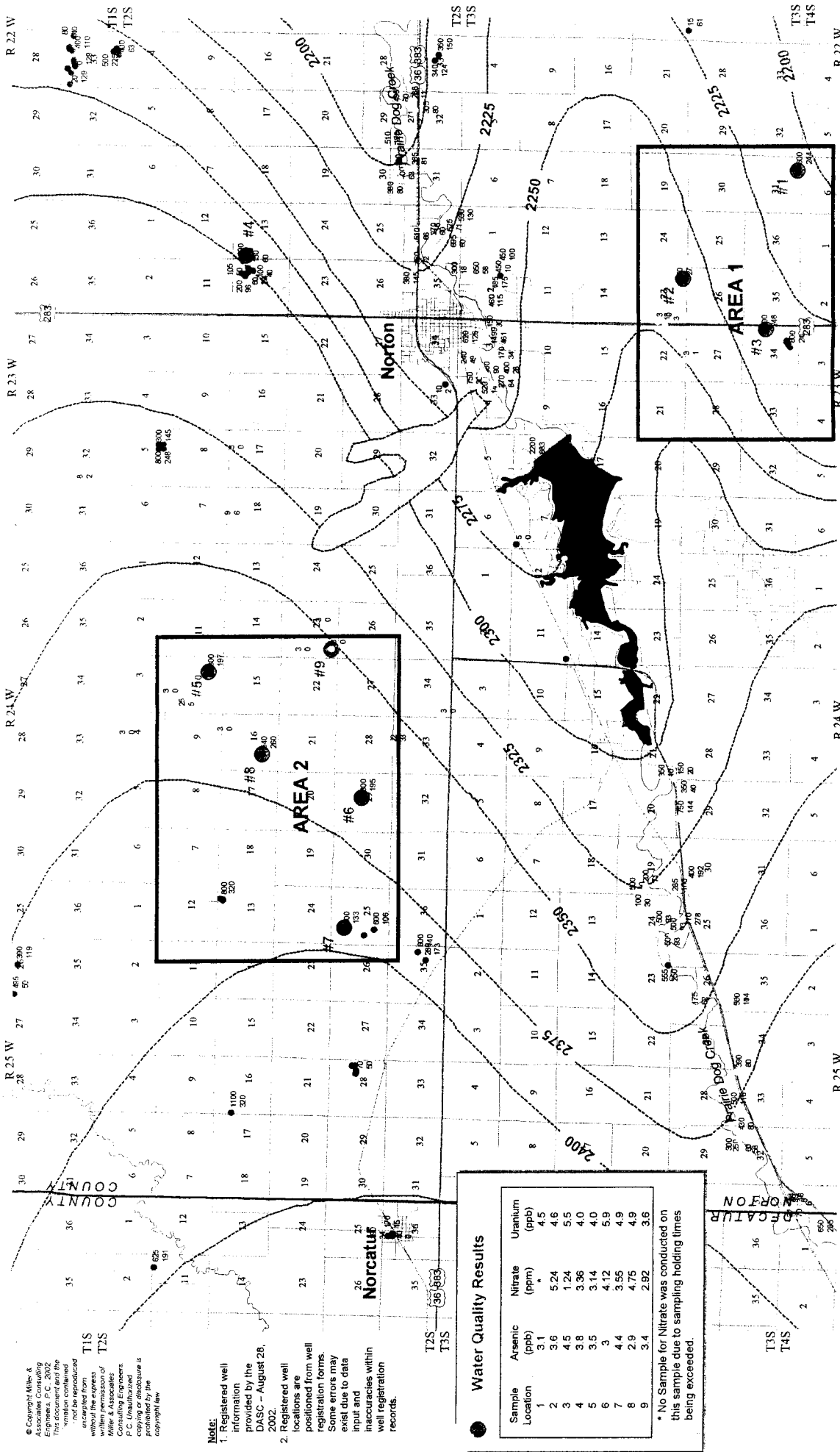
Selected Wells
Non-Selected Wells
Well Spacing (660' = 1 mi)
Alluvial Aquifer

North



Approx.
1-mile

Wellfield Research
R 22 W
Study Area
Figure 3.1
Norton, Kansas
3-2



Wellfield Research Groundwater Flow Figure 3.2 Norton, Kansas 3-9

Top of High Plains Aquifer Corridor
Wells (As of 8/28/2002 from DASC)

- (Authorized Rate - gpm)
- (Authorized Quantity - Acre Feet)
- Sampling Location



Prepared By:
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fax (308) 345-7370
Miller & Associates
Consulting Engineers, P.C.

Water Quality Results

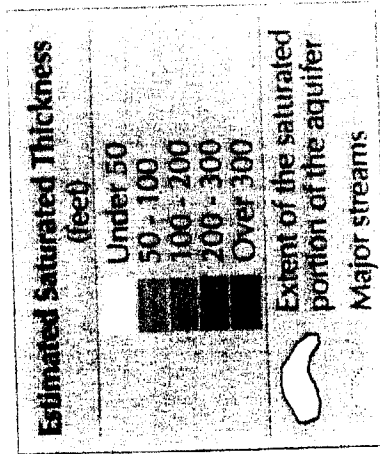
Sample Location	Arsenic (ppb)	Nitrate (ppm)	Uranium (ppb)
1	3.1	5.24	4.5
2	3.6	1.24	4.6
3	4.5	3.36	5.5
4	3.8	3.14	4.0
5	3.5	3.14	4.0
6	3	4.12	5.9
7	4.4	3.55	4.9
8	2.9	4.75	4.9
9	3.4	2.82	3.6

* No Sample for Nitrate was conducted on this sample due to sampling holding times being exceeded.

Note:
1. Registered well information provided by the DASC - August 28, 2002.
2. Registered well locations are positioned from well registration forms. Some errors may exist due to data input and inaccuracies within well registration records.

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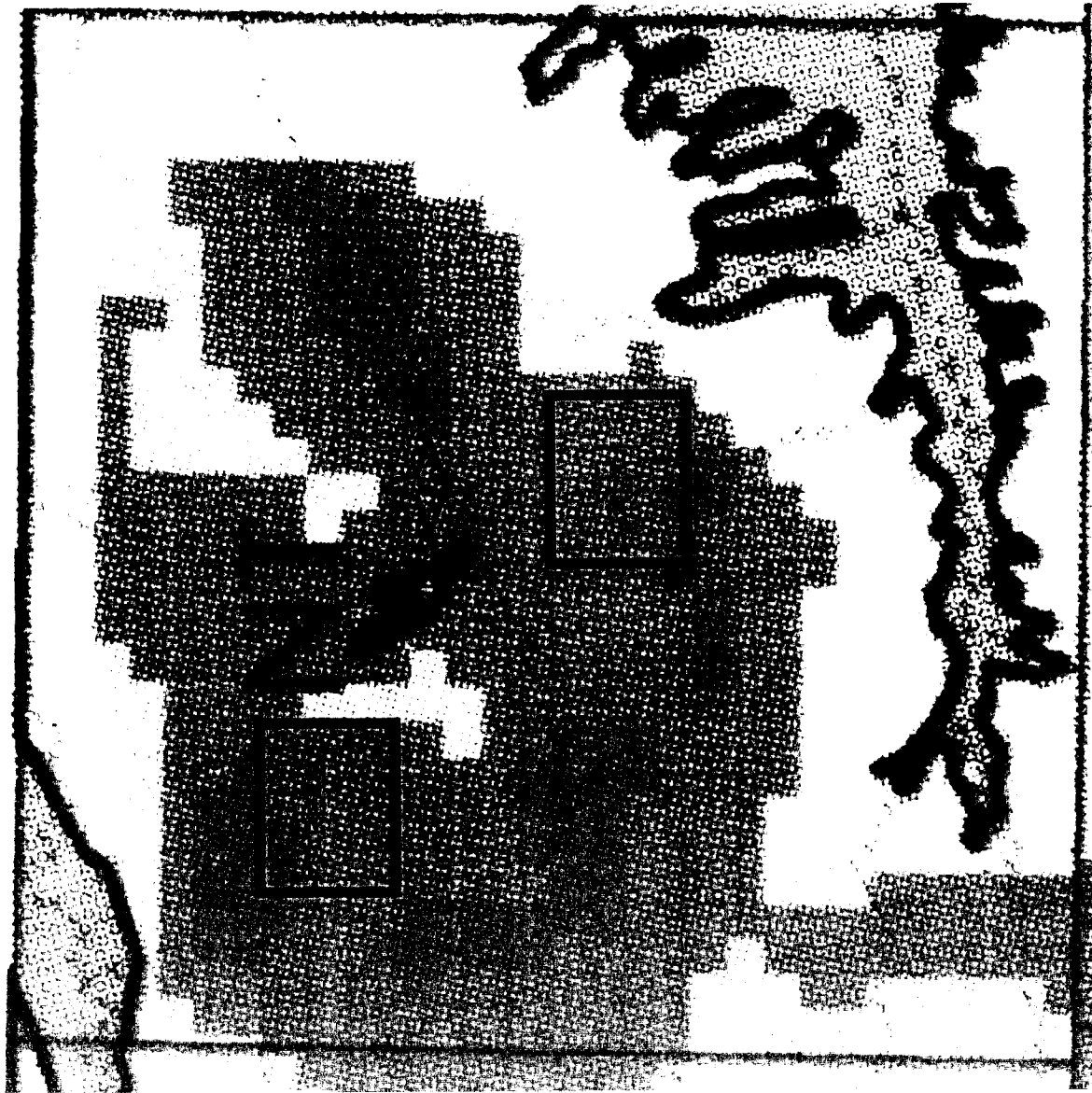
Legend



Wellfield Research Regional Saturated Thickness

Figure 3.3

Norton, Kansas



Prepared By:

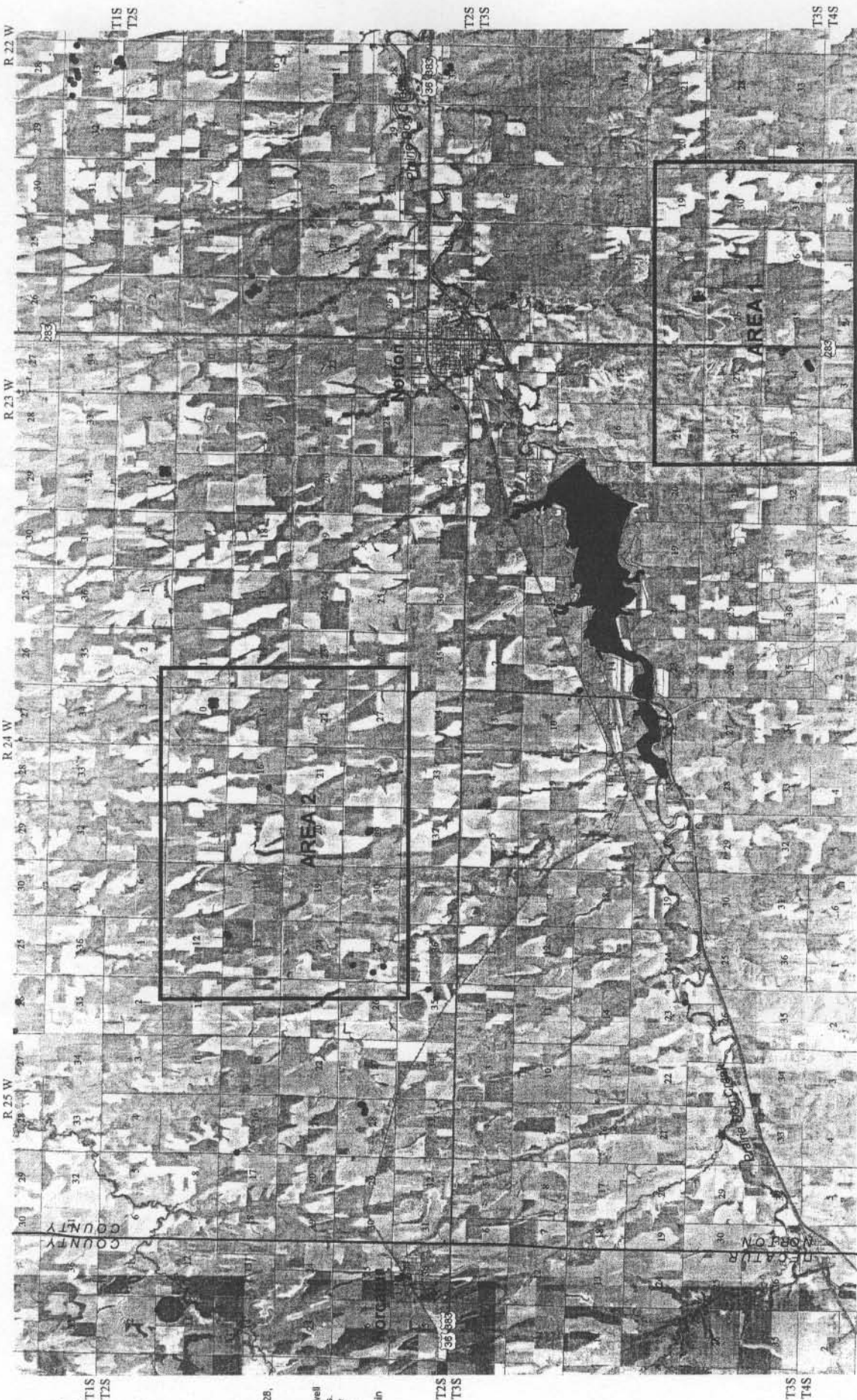
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- Legend**
- Selected Wells
 - Non-Selected Wells
 - Potential Wellfield Area



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Wellfield Research
Aerial Photo
Figure 3.5
 Norton, Kansas
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