

Division #/

WATER PERMIT NO. 5822-3

Phone: 507 537-0577

Name of Applicant: Minnesota Corn Processors

Post Office Address: 400 West Main Street, Suite 201, Marshall, MN 56258

Amount of Water Claimed: 0.89 cfs Total Acres: N/A

Source of Water Supply: 2 wells (Medary Creek Aquifer)

Water to be used for: commercial County: Brookings

Location: NW1/4 SW1/4 and SW1/4 NW14 Section 28, T110N, R47W -- approximately 4 miles north of Elkton

PRIORITY Date Received: 5/10/94 Fee: _____ Remarks: _____

Corrected Application Received: _____ Period of Annual Use: Jan 1 - Dec 31

Diversion Point: _____

NW1/4 SW1/4 and SW1/4 NW1/4 Section 28, T110N,

R47W

Land to be Irrigated: _____

	x				
	x		28		

Well Log. Driller: Minnett Licensed YES _____ NO _____

Depth of Well: up to 240' REMARKS: _____

Type of Map: plat PREPARED BY: Ritterhaus Reviewed and the Number

Assigned on: 5/10/94 By: Eric Gronlund



No. 5822-3 Hydrologic Unit 10170202
Map No. _____ Basin Big Sioux
Newspaper Brookings Daily Register, Box 177

Mail to: Water Rights Div.
523 E. Capitol
Pierre, SD 57501
(605)773-3352

Application For Permit To Appropriate Water Within The State of South Dakota

Check use of water: Industrial ☐ Commercial ☒ Municipal ☐ Other Common Distribution System ☐
Rural Water System ☐ Suburban Housing ☐ Geothermal Heat ☐ Institutional ☐ Recreational ☐
Domestic ☐ (above 18 gpm) Other ☐

Type of Application: Check one or more of the following:

- New ☒ Vested Right ☐ Future Use ☐ Change Use ☐
☐ Amend Permit No. _____ with old priority date retained.
Change diversion point(s) ☐ Add diversion point(s) ☐ Other ☐ _____
☐ Application to: Change diversion point(s) ☐ Add diversion point(s) ☐ on Permit No. _____
☐ Construction to use water reserved by Future Use Permit No. _____.

1. Name Of Applicant Minnesota Corn Processors Phone No. 507-537-0577
Post Office Address 400 West Main Street, Suite 201, Marshall State MN 56258
(Street, RR, or Box) (City) Zip Code
2. Amount of water claimed (c.f.s.) 0.89
3. Source of water supply ~~Medary Creek Aquifer~~ Rutland Aquifer
4. Location of point of diversion Site #1 - N.W. Corner of SW 1/4, Sec.28, T110N, R47W. Location is 177 ft. east of
Hwy. 14 centerline and 279 ft. south of 1/2-mile line fence. NW 1/4 SW 1/4
Site #2 - S.W. corner of NW 1/4, Sec.28, T110N, R47W. Location is 161 ft. east of
Hwy. 14 centerline and 140 ft. north of 1/2-mile line fence SW 1/4 NW 1/4 County Brookings
5. Counties where water will be used Brookings
6. Annual Period during which water is to be used Year around

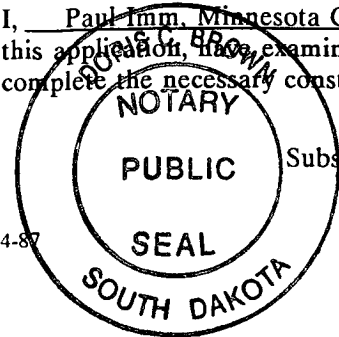
7. Give a brief description of proposed project. When available include any preliminary engineering report or other reports or information that will help explain the project. (Attach sheet if more space is needed).

Project consists of a cattle feedlot with a peak capacity of 35,000 head. Water supply needs will be year around at a rate of 400 gpm. Two wells with a capacity of 400 gpm each are needed. One of the wells will be operated while the other well is available in a standby mode.

Attachments: Attach Form 2A if diversion from a well or dugout, or if storage of water, is proposed. Attach map (see instruction)

STATE OF SOUTH DAKOTA)
County of Brookings) ss

I, Paul Imm, Minnesota Corn Processors the applicant, certify that I have read this application, have examined the attached map and that the matters stated are true and that I intend, and am able to complete the necessary construction.



Signed Paul Imm
Subscribed and sworn to before me this 9th day of May 19 94
Dorothy Brown
Notary Public 12-4-97

**SOUTH DAKOTA
WATER PERMIT NO. 5822-3**

Date of first receipt of application May 10, 1994.

The Water Management Board approved Water Permit Application No. 5822-3 on August 31, 1994 for Minnesota Corn Processors, 400 West Main Street, Suite 201, Marshall MN 56258 authorizing the construction of the water use system and the placing of water to beneficial use subject to the following limitations, conditions and qualifications:

1. Water Permit No. 5822-3 appropriates 0.89 cubic feet of water per second (cfs) [400 gallons per minute] from 2 wells (Rutland Aquifer) located in the NW 1/4 SW 1/4 and SW 1/4 NW 1/4 Section 28-T110N-R47W. Both wells will have a capacity of producing 0.89 cfs, however, only one of the wells will be operated while the other well will be used for standby purposes.
2. The water appropriated shall be used for the purpose of supplying water to a livestock confinement facility and may not exceed the amount of water needed for beneficial use for commercial purposes.
3. The water is to be used during the following described annual period: January 1 - December 31.
4. The date from which applicant may claim right is May 10, 1994.
5. One-fifth of the construction is to be completed on or before February 28, 1996.
6. All construction is to be completed on or before August 31, 1999.
7. Water is to be put to beneficial use on or before August 31, 2003.
8. Water rights obtained in compliance with the laws of the State of South Dakota may not be unlawfully impaired by this appropriation.

QUALIFICATIONS

1. The wells approved under this Permit will be located near domestic wells and other wells which may obtain water from the same aquifer. The well owner under this Permit shall control his withdrawals so there is not a reduction of needed water supplies in adequate domestic wells or in adequate wells having prior water rights.
2. Approval of this Permit is subject to submission of plans and specifications for the animal waste management system to the Chief Engineer and the Division of Environmental Regulation prior to construction, for review and approval. The plans and specifications shall be prepared by a person who is registered as a professional engineer pursuant to SDCL 36-18.
3. The confinement area shall be designed so that it does not receive surface runoff from the surrounding area.
4. Operation of the disposal systems to dispose of waste and wastewater shall be in a manner that
1) prevents discharge of runoff from the disposal sites and 2) prevents disposal site runoff water from entering the waters of the State.

(continued)

5. The storage lagoons shall be designed with a minimum of 30 inches from the crest of the dike to the maximum operating pool elevation for each lagoon. This requirement is to ensure that a Probable Maximum Precipitation (PMP) event does not cause overtopping of the dikes.
6. Design, construction and management of the lagoons shall be sufficient to maintain seepage rate of less than ten to the minus seven (10^{-7}) centimeters per second. Compaction of the soils within the wastewater lagoon must be at least ninety percent of the Standard Procter Density (ASTM D6980-70).
7. Approval of Permit No. 5822-3 is subject to compliance with the following then existing and applicable Water Management Board rules:
 - a. Chapter 74:03:15 Ground Water Quality Standards,
 - b. Chapter 74:03:16 Ground Water Discharge Permit,
 - c. Chapter 74:03:02 Surface Water Quality Standards,
 - d. Chapter 74:03:04 Uses Assigned to Streams, and
 - e. Chapters 74:03:17 through 74:03:26 Surface Water Discharge Provisions.

WATER MANAGEMENT BOARD

By: 

John Hatch, Chief Engineer
Water Rights Division
Department of Environment and Natural Resources

NOV 14 1994

date

Supplemental Information

(type or print in ink)

1. Well Information - Proposed construction

- a) Drill Hole Diameter Site #1-12" Site #2-14" Depth Site #1 - 224 ft.; Site #2 - 237 ft.
- b) Casing Type Steel Diameter 8-inch Thickness 0.322 inches
- c) Screen Type Stainless Steel Diameter 8-inch Thickness Wire-Wrapped
- d) Gravel Pack Thickness 3 inches Length of Gravel Pack Site #1- 0 ft.; Site #2-14 ft.
- e) Depth to Top of Water Bearing Material Site #1-209 ft.; Site #2-226 ft.
- f) Depth to Water (ground surface to water level) _____
- g) Distance to nearest existing domestic well:
- On applicants property None On property owned by others 1/2 mile south

2. Dugout Information Estimates

- a) Surface Dimensions _____ Depth _____
- b) Depth to water (ground surface to water level) _____

3. Water Storage Dams

If the proposed water use system contains one or more storage dams, please furnish the information requested below. The locations of each dam should be shown on the map submitted with the application.

- a) If a private engineering firm or government agency was involved in the design of this dam please give their name and address

b) Freeboard _____

c) Crest Width _____

Crest Length _____

d) Height _____

e) Primary Outlet Capacity _____
If Pipe, diameter _____

f) Secondary Spillway Capacity _____
Spillway width _____

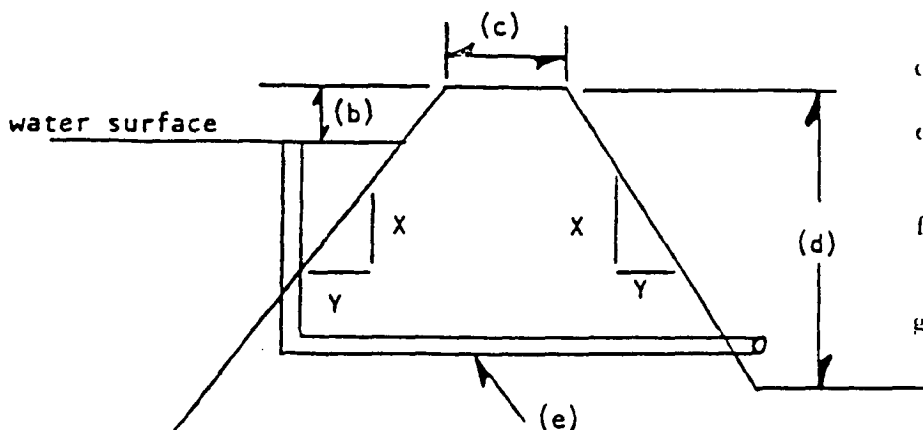
g) X & Y Slope
Upstream _____

Downstream _____

Surface Area of Impoundment _____

Storage _____ acre feet

Drainage area above dam _____



Signature of Applicant



Parties of Record List
Water Permit Application No. 5822-3
Minnesota Corn Processors

Applicant

Minnesota Corn Processors
400 West Main St., Suite 201
Marshall, MN 56258

Petition of Support

John Nagel
S.D. Cattlemen's Association
RR 1, Box 108
Avon, SD 57315

Petitioners

Rufus A. (Rudy) DeZeeuw
RR 2, Box 51
Elkton, SD 57026-9436

Maxine McKeown
Route 2, Box 321
Elkton, SD 57026

Darrell G. Wells
RR 4, Box 233
Brookings, SD 57006

Representing Arvid & Nellie Peterson - Landowner

Doug Loen, Attorney
P.O. Box 495
Sioux Falls, SD 57101-0495

CONSULTING ENGINEERS & ARCHITECTS

BANNER ASSOCIATES, INC.
409 22nd Avenue South • P.O. Box 298
Brookings, South Dakota 57006-0298
(605) 692-6342
FAX: (605) 692-5714



May 9, 1994

Mr. Eric Gronlund
Water Rights Division
523 E. Capitol
Pierre, S.D. 57501

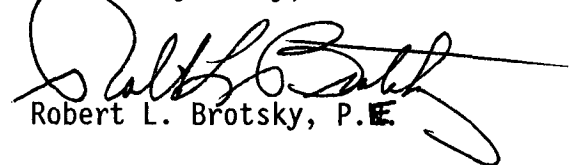
RE: Minnesota Corn Processors
BAI #7668-04

Dear Mr. Gronlund:

On behalf of Minnesota Corn Processors we are transmitting two (2) copies of Application for Permit for 400 gallons per minute withdrawal rate.

In addition, we are enclosing Check No. 25659 in the amount of \$325.00 as the water rights application fee. This is in accordance with our phone conversation this date.

Yours very truly,



Robert L. Brotsky, P.E.

RLB/db

Enclosures

RECEIPT

414166

Division of Water Rights

South Dakota Department of Environment and Natural Resources

Pierre, _____ May 10 _____, 19 94

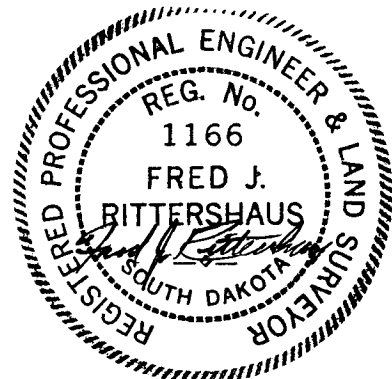
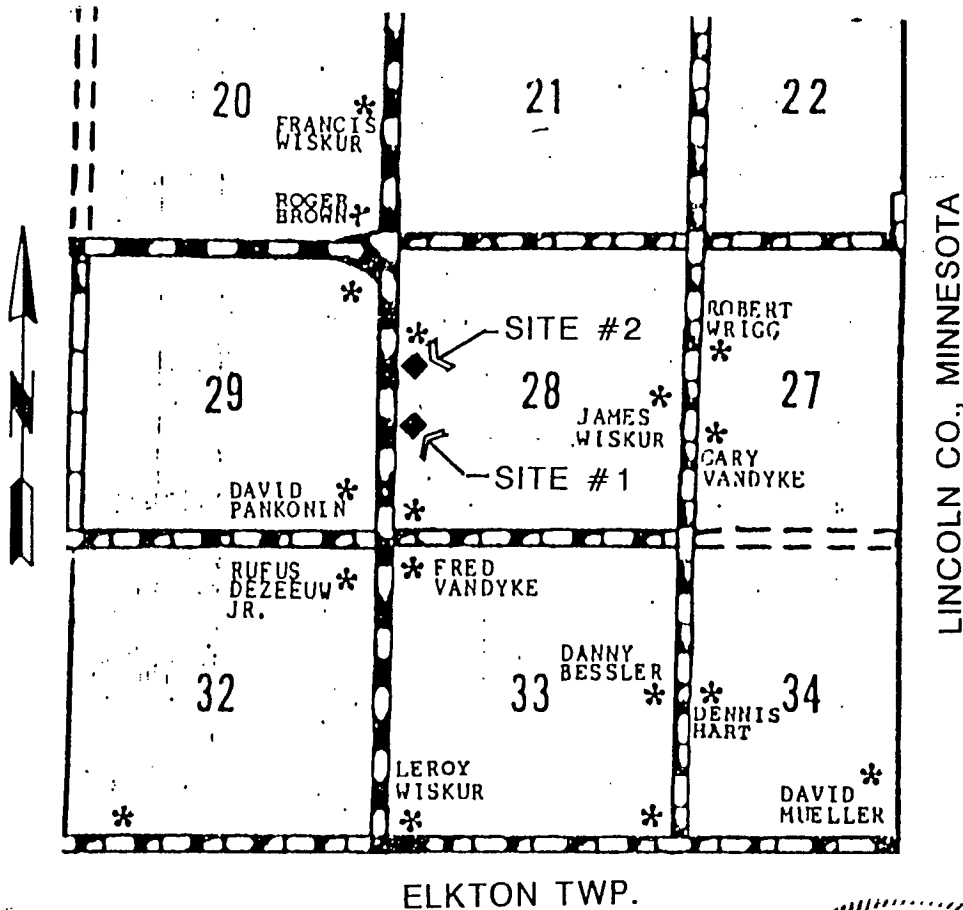
RECEIVED OF Minnesota Corn Processors, Inc., 400 W Main St, Ste 201, Marshall, MN 56258-1236
the following amount in fees for services rendered as provided for by law:

Fee for Application for Permit No. <u>5822-3</u> to Appropriate Water, to construct and to put water to beneficial use _____	325	00
Fee for Application for Permit No. _____ to Appropriate Water, for Future Use _____		
Fee to retain Future Use Permit No. _____ after period of seven years.		
Fee for Inspecting Constructed Works ^{Rutland Aquifer} confirming beneficial use and issuing Water License No. _____		
Fee for Filing Transfer Form _____		
Fee for Filing Extension Request _____		
Fee for _____		

(Any Other Work Provided by Law) <u>Rutland Aquifer</u>	Total	325 00

By John Hatch
Chief Engineer

MAP TO ACCOMPANY WATER RIGHT APPLICATION
SW 1/4, SECTION 28, T110N, R47W
NW 1/4, SECTION 28, T110N, R47W
BROOKINGS COUNTY



SURVEYOR'S CERTIFICATION

I, Fred J. Bittershaus, a Registered Land Surveyor in the State of South Dakota, do hereby certify that at the request of the Minnesota Corn Processors, Marshall, Minnesota, I did prepare the map on this sheet from existing information and that I did survey and locate the sites for which application for and appropriate water rights to withdraw underground waters for Cattle Feed Lot water supply purposes is made, and that this map is a true representation thereof.

IN WITNESS WHEREOF, I have hereunto set my hand and seal this 9th day of May, 1994.

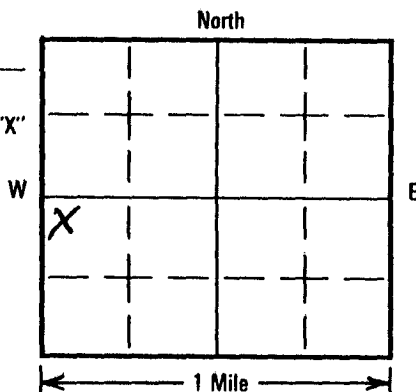
Fred J. Bittershaus #1166
Registered Land Surveyor

SOUTH DAKOTA WATER WELL COMPLETION REPORT

07-92

Location NW 1/4 SW 1/4 Sec 28 Twp 14N Rg 47WCounty Brookings

Please mark well location with an "X"

Well Completion Date May 8 1994

LOCATION:

Distance from nearest potential pollution source (septic tank, abandoned well, feed lot, etc.)? _____ ft. from None (identify source).

PROPOSED USE:

☒ Domestic/Stock ☐ Municipal ☐ Business ☐ Test Holes
☐ Irrigation ☐ Industrial ☐ Institutional ☐ Monitoring well

METHOD OF DRILLING:

Air rotary.

CASING DATA:

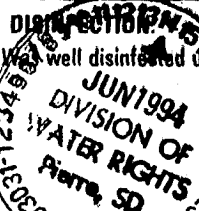
☒ Steel ☐ Plastic ☐ Other

If other describe _____

PIPEWEIGHT	DIAMETER	FROM	TO	HOLE DIAMETER
_____ LB/FT	_____ IN	_____ FT	_____ FT	_____ IN
_____ LB/FT	_____ IN	_____ FT	_____ FT	_____ IN
_____ LB/FT	_____ IN	_____ FT	_____ FT	_____ IN

GROUTING DATA

Grout Type	No. of Sacks	Grout Weight	From	To
<u>Baroid Bentonite</u>	_____	_____ lb./gal	_____ ft	_____ ft
_____	_____	_____ lb./gal	_____ ft	_____ ft

Describe grouting procedure Tramline line to bottom then grouted with bentonite grout. This is heavy grout, not drilling fluid.SCREEN: ☐ Perforated pipe ☒ ManufacturedDiameter 8 IN Length 15 FEETMaterial Stainless steelSlot Size 60 Set From 225 Feet to 220 FeetOther information 50 5/8" - 219-215 ft
40 5/8" - 214-211 ftJohnson well screenWAS A PACKER OR SEAL USED? ☒ YES ☐ NOIf so, what material? rubberDescribe packer(s) and location? Packer at 210 ftWas well disinfected upon completion? ☒ YES, How: with a heavy chlorine solution

NO, Why Not? _____

Laboratory sent to for water quality analysis

Minnesota Corn Processorstook water sampleWell Owner: Minnesota Corn Processors

Business Name: _____

Address: Marshall MN

WELL LOG:

FORMATION	DEPTH	
	FROM	TO
Dirt	0	2
Yellow Clay	3	5
Gravel	6	8
Yellow Clay	9	17
Black Dirt	18	21
Blue Clay	22	58
Yellow Clay	59	111
Blue Clay	112	159
Sand & Gravel	160	164
Blue Clay	165	169
Yellow Clay	170	185
Blue Clay	186	209
Sand & Gravel	210	225

STATIC WATER LEVEL 67 ft from top Feet

If flowing: closed in pressure _____ PSI

GPM flow, 320 g.p.m. inch pipeControlled by ☐ Valve ☐ Reducers ☐ Other None

Reduced Flowrate _____ GPM

Can well be completely shut in? _____

WELL TEST DATA:

☒ Pumped Describe: 30 hp goulds pump
☐ Bailed 320 g.p.m. for 72 hrs
☐ Other _____

Pumping Level Below Land Surface

190 ft. After 72 Hrs. pumped 370 GPM

_____ ft. After _____ Hrs. pumped _____ GPM

If pump installed, pump rate 370 g.p.m. GPM

REMARKS Water in well was clear at start of pumping, well performed well after 72 hrs of pumping.
Well was not sealed with cement on top, but will be if well is put in use.

This well was drilled under license # 632

And this report is true and accurate.

Drilling firm Minett Well DrillingSignature of License Representative: Joel Meneth

Signature of Well Owner or Equitable Property Holder: _____

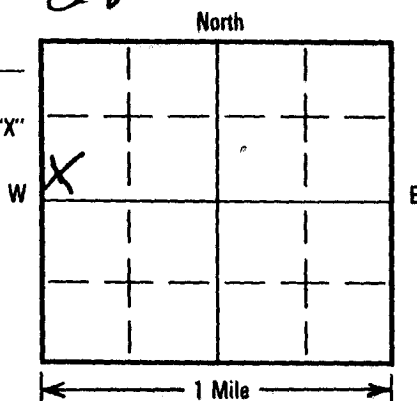
Date: June 8 1994

SOUTH DAKOTA WATER WELL COMPLETION REPORT

07-92

Location SW 1/4 NW 1/4 Sec 28 Twp 41N Rg 47WCounty Brookings

Please mark well location with an "X"



Well Completion Date

May 7 1994

LOCATION:

Distance from nearest potential pollution source (septic tank, abandoned well, feed lot, etc.)? None ft. from None (identify source).

PROPOSED USE:

☒ Domestic/Stock ☐ Municipal ☐ Business ☐ Test Holes
☐ Irrigation ☐ Industrial ☐ Institutional ☐ Monitoring well

METHOD OF DRILLING:

rotary

CASING DATA:

☒ Steel ☐ Plastic ☐ Other

If other describe _____

PIPEWEIGHT	DIAMETER	FROM	TO	HOLE DIAMETER
_____ LB/FT	<u>8</u> IN	<u>0</u> FT	<u>220</u> FT	_____ IN
_____ LB/FT	_____ IN	_____ FT	_____ FT	_____ IN
_____ LB/FT	_____ IN	_____ FT	_____ FT	_____ IN

GROUTING DATA

Grout Type	No. of Sacks	Grout Weight	From	To
<u>Bentonite</u>	_____	_____ lb./gal	<u>0</u> ft	<u>220</u> ft
_____	_____	_____ lb./gal	_____ ft	_____ ft

Describe grouting procedure I ran a tremie line to the bottom, then grouted with heavy bentonite grout.SCREEN: ☐ Perforated pipe ☒ ManufacturedDiameter 8 IN Length 12 FEETMaterial Stainless SteelSlot Size 50 Set From 226 Feet To 232 FeetOther information 35 slot 220-225 ftJohnson well screenWAS A PACKER OR SEAL USED? ☒ YES ☐ NOIf so, what material? rubberDescribe packer(s) and location? 220 ft

DISINFECTION

Was well disinfected upon completion? ☒ YES, How: heavy chlorine solution

NO, Why Not? _____

Well Owner: Minnesota Corn Processors

Business Name: _____

Address: Marshall MN

WELL LOG:

FORMATION	DEPTH	
	FROM	TO
<u>Yellow Clay</u>	<u>3</u>	<u>9</u>
<u>Sand</u>	<u>10</u>	<u>12</u>
<u>Yellow Clay</u>	<u>13</u>	<u>34</u>
<u>Sand & Gravel</u>	<u>35</u>	<u>51</u>
<u>Blue Clay</u>	<u>52</u>	<u>69</u>
<u>Yellow Clay</u>	<u>70</u>	<u>118</u>
<u>Blue Clay</u>	<u>119</u>	<u>171</u>
<u>Yellow Clay</u>	<u>172</u>	<u>176</u>
<u>Blue Clay</u>	<u>177</u>	<u>186</u>
<u>Black Clay</u>	<u>187</u>	<u>192</u>
<u>Sand & Gravel</u>	<u>193</u>	<u>197</u>
<u>Blue Clay</u>	<u>198</u>	<u>219</u>
<u>Sand & Gravel</u>	<u>220</u>	<u>232</u>

STATIC WATER LEVEL 68 ft from top Feet

If flowing: closed in pressure _____ PSI

GPM flow _____ through _____ inch pipe

Controlled by ☐ Valve ☐ Reducers ☐ Other _____

Reduced Flowrate _____ GPM

Can well be completely shut in? _____

WELL TEST DATA:

☐ Pumped Describe: The well was
☐ Bailed blown with air until
☒ Other water was clear.

Pumping Level Below Land Surface

_____ ft. After _____ Hrs. pumped _____ GPM

_____ ft. After _____ Hrs. pumped _____ GPM

If pump installed, pump rate _____ GPM

REMARKS

The well was not sealed with cement on top, but will be if well is put to use.This well was drilled under license # 632

And this report is true and accurate.

Drilling firm Minett Well DrillingSignature of License Representative: [Signature]

Signature of Well Owner or Equitable Property Holder: _____

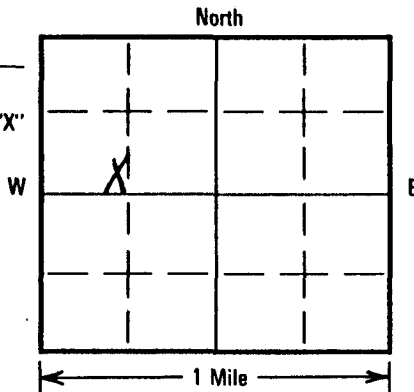
Date: June 6 1994Laboratory sent to for water quality analysis Minnesota CornProcessors to take a water sample

SOUTH DAKOTA WATER WELL COMPLETION REPORT

07-92

Location SW 1/4 NW 1/4 Sec 28 Twp 110N Rg 47WCounty Brookings

Please mark well location with an "X"



Well Completion Date

Testhole
4-19-94Well Owner: Minnesota Corn Processors

Business Name:

Address:

Marshall MN

WELL LOG:

FORMATION	DEPTH	
	FROM	TO
Black Dirt	0	2
Yellow Clay	3	10
Yellow Gravel	11	
Yellow Clay	12	19
Blue Clay	20	26
Sand & Gravel	27	31
Blue Clay	32	38
Black Clay	39	42
Blue Clay	43	68
Yellow Clay	69	134
Blue Clay	135	165
Sand & Gravel	166	169
Blue Clay	170	248

LOCATION:

Distance from nearest potential pollution source (septic tank, abandoned well, feed lot, etc.)? _____ ft. from None (identify source).

PROPOSED USE:

☐ Domestic/Stock ☐ Municipal ☐ Business ☒ Test Holes
☐ Irrigation ☐ Industrial ☐ Institutional ☐ Monitoring well

METHOD OF DRILLING:

Air rotary

CASING DATA:

☒ Steel ☐ Plastic ☐ Other

If other describe _____

PIPEWEIGHT DIAMETER FROM TO HOLE DIAMETER
19.25 LB/FT 6 IN 0 FT 42 FT 6 IN
____ LB/FT ____ IN ____ FT ____ FT ____ IN
____ LB/FT ____ IN ____ FT ____ FT ____ IN

GROUTING DATA

Grout Type No. of Sacks Grout Weight From To
Bentonite 5-10016 _____ lb./gal _____ ft. _____ ft.
____ lb./gal _____ ft. _____ ft.

Describe grouting procedure I used the
natural clay cuttings and
5 10016 bags of bentonite
to grout the well.

SCREEN: ☐ Perforated pipe ☐ Manufactured

Diameter _____ IN Length _____ FEET

Material _____

Slot Size _____ Set From _____ Feet to _____ Feet

Other information _____

WAS A PACKER OR SEAL USED? ☐ YES ☐ NO

If so, what material? _____

Describe packer(s) and location? _____

DISINFECTION:

Was well disinfected upon completion? _____ YES, How: _____

____ NO, Why Not? _____

Laboratory sent to for water quality analysis _____

STATIC WATER LEVEL _____ Feet

If flowing: closed in pressure _____ PSI

GPM flow _____ through _____ inch pipe

Controlled by ☐ Valve ☐ Reducers ☐ Other _____

Reduced Flowrate _____ GPM

Can well be completely shut in? _____

WELL TEST DATA:

☐ Pumped

Describe: _____

☐ Bailed☐ Other _____

Pumping Level Below Land Surface

____ ft. After _____ Hrs. pumped _____ GPM

____ ft. After _____ Hrs. pumped _____ GPM

If pump installed, pump rate _____ GPM

REMARKS

This was a test hole
the casing was removed
and test hole was
grouted.

This well was drilled under license # 632

And this report is true and accurate.

Drilling firm Minett Well DrillingSignature of License Representative: Joe Minett

Signature of Well Owner or Equitable Property Holder: _____

Date: _____

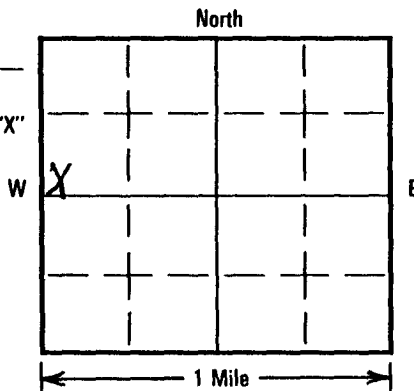


SOUTH DAKOTA WATER WELL COMPLETION REPORT

07-92

Location SW 1/4 NW 1/4 Sec 28 Twp 111N Rg 47WCounty Brookings

Please mark well location with an "X"

Testhole Apr 15 94
Well Completion DateWell Owner: Minnesota Corn Processors
Business Name: Minnesota Corn Processors
Address: Marshall MN

WELL LOG: <u>Black Dirt</u>	DEPTH <u>2</u>	
	FROM	TO
<u>Yellow Clay</u>	<u>3</u>	<u>9</u>
<u>Dry sand</u>	<u>10</u>	<u>12</u>
<u>Yellow Clay</u>	<u>13</u>	<u>34</u>
<u>Yellow Sand & Gravel</u>	<u>35</u>	<u>51</u>
<u>Blue Clay</u>	<u>52</u>	<u>69</u>
<u>Yellow Clay</u>	<u>70</u>	<u>118</u>
<u>Blue Clay</u>	<u>119</u>	<u>171</u>
<u>Yellow Clay</u>	<u>172</u>	<u>176</u>
<u>Blue Clay</u>	<u>177</u>	<u>186</u>
<u>Black Clay</u>	<u>187</u>	<u>192</u>
<u>Blue Clay</u>	<u>193</u>	
<u>Dry Sand & Gravel</u>	<u>194</u>	<u>197</u>
<u>Blue Clay</u>	<u>198</u>	<u>214</u>
<u>Sand & Gravel</u>	<u>215</u>	<u>218</u>
<u>Blue Clay</u>	<u>219</u>	<u>225</u>
<u>Sand & Gravel</u>	<u>226</u>	<u>236</u>

LOCATION:

Distance from nearest potential pollution source (septic tank, abandoned well, feed lot, etc.)? None ft. from (identify source).

PROPOSED USE:

☐ Domestic/Stock ☐ Municipal ☐ Business ☒ Test Holes
☐ Irrigation ☐ Industrial ☐ Institutional ☐ Monitoring wellMETHOD OF DRILLING: Air rotary

CASING DATA:

☒ Steel ☐ Plastic ☐ Other

If other describe _____

PIPEWEIGHT	DIAMETER	FROM	TO	HOLE DIAMETER
<u>19.25</u> LB/FT	<u>6</u> IN	<u>0</u> FT	<u>63</u> FT	<u>6</u> IN
_____ LB/FT	_____ IN	_____ FT	_____ FT	_____ IN
_____ LB/FT	_____ IN	_____ FT	_____ FT	_____ IN

GROUTING DATA

Grout Type: Bentonite No. of Sacks 4-100lb Grout Weight _____ lb./gal _____ ft. _____ ft.Describe grouting procedure I used the natural clay cuttings and 4-100lb bags of bentoniteSCREEN: ☐ Perforated pipe ☐ Manufactured

Diameter _____ IN Length _____ FEET

Material _____

Slot Size _____ Set From _____ Feet to _____ Feet

Other information _____

WAS A PACKER OR SEAL USED? ☐ YES ☐ NO

If so, what material? _____

Describe packer(s) and location? _____

DISINFECTION:

Was well disinfected upon completion? _____ YES, How: _____

_____ NO, Why Not? _____

Laboratory sent to for water quality analysis _____

STATIC WATER LEVEL Blue Clay 237 Feet

If flowing: closed in pressure _____ PSI

GPM flow _____ through _____ inch pipe

Controlled by ☐ Valve ☐ Reducers ☐ Other _____

Reduced Flowrate _____ GPM

Can well be completely shut in? _____

WELL TEST DATA:

☐ Pumped

Describe: _____

☐ Bailed☐ Other

Pumping Level Below Land Surface

_____ ft. After _____ Hrs. pumped _____ GPM

_____ ft. After _____ Hrs. pumped _____ GPM

If pump installed, pump rate _____ GPM

REMARKS

This was a test hole drilled for Minnesota Corn Processors. The casing was removed and test hole was grouted

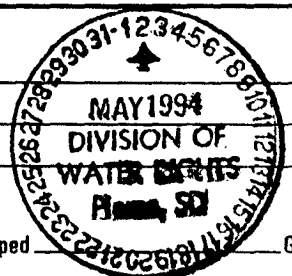
This well was drilled under license # 632

And this report is true and accurate

Drilling firm Minett Well DrillingSignature of License Representative: Joel Minett

Signature of Well Owner or Equitable Property Holder: _____

Date: _____

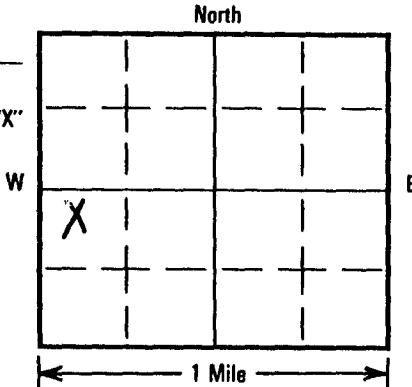


SOUTH DAKOTA WATER WELL COMPLETION REPORT

07-92

Location NW ¼ SW ¼ Sec 28 Twp 116N Rg 47WCounty Brookings

Please mark well location with an "X"

Test hole
Well Completion Date May 1 - 94

LOCATION:

Distance from nearest potential pollution source (septic tank, abandoned well, feed lot, etc.)? _____ ft. from None (identify source).

PROPOSED USE:

☐ Domestic/Stock ☐ Municipal ☐ Business ☒ Test Holes
☐ Irrigation ☐ Industrial ☐ Institutional ☐ Monitoring well

METHOD OF DRILLING:

Air rotary

CASING DATA:

☐ Steel ☐ Plastic ☐ Other

If other describe _____

PIPEWEIGHT	DIAMETER	FROM	TO	HOLE DIAMETER
_____ LB/FT	_____ IN	_____ FT	_____ FT	_____ IN
_____ LB/FT	_____ IN	_____ FT	_____ FT	_____ IN
_____ LB/FT	_____ IN	_____ FT	_____ FT	_____ IN

GROUTING DATA

Grout Type	No. of Sacks	Grout Weight	From	To
<u>Bentonite</u>	<u>7 100 lb</u>	_____ lb./gal	_____ ft.	_____ ft.
		_____ lb./gal	_____ ft.	_____ ft.

Describe grouting procedure I used the natural clay cuttings and 7-100 lb bags of bentonite to grout the well.SCREEN: ☐ Perforated pipe ☐ Manufactured

Diameter _____ IN Length _____ FEET

Material _____

Slot Size _____ Set From _____ Feet to _____ Feet

Other information _____

WAS A PACKER OR SEAL USED? ☐ YES ☐ NO

If so, what material? _____

Describe packer(s) and location? _____

DISINFECTION:

Was well disinfected upon completion? _____ YES, How: _____
_____ NO, Why Not? _____

Laboratory sent to for water quality analysis _____

Well Owner: Minnesota Corn Processors

Business Name: _____

Address: Marshall MN

WELL LOG:

FORMATION	DEPTH	
	FROM	TO
Black Dirt	0	2
Yellow Clay	3	5
Gravel	6	8
Yellow Clay	9	17
Black Dirt	18	21
Blue Clay	22	58
Yellow Clay	59	111
Blue Clay	112	159
Sand & Gravel	160	164
Blue Clay	165	169
Yellow Clay	170	185
Blue Clay	186	208
Sand & Gravel	209	223
Blue Clay	224	

STATIC WATER LEVEL _____ Feet

If flowing: closed in pressure _____ PSI

GPM flow _____ through _____ inch pipe

Controlled by ☐ Valve ☐ Reducers ☐ Other _____

Reduced Flowrate _____ GPM

Can well be completely shut in? _____

WELL TEST DATA:

☐ Pumped Describe: _____
☐ Bailed _____
☐ Other _____

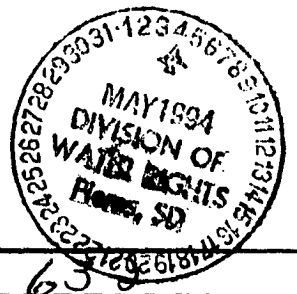
Pumping Level Below Land Surface

_____ ft. After _____ Hrs. pumped _____ GPM

_____ ft. After _____ Hrs. pumped _____ GPM

If pump installed, pump rate _____ GPM

REMARKS

This well was drilled under license # 638

And this report is true and accurate.

Drilling firm Minett Well Drilling

Signature of License Representative:

Joel Minett
Signature of Well Owner or Equitable Property Holder:

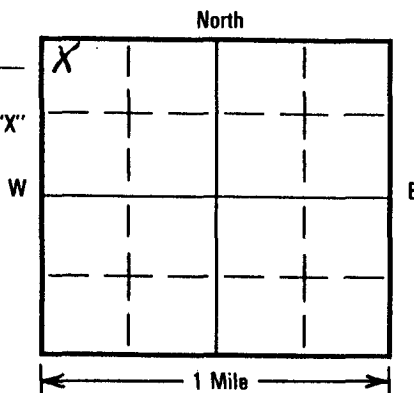
Date: _____

SOUTH DAKOTA WATER WELL COMPLETION REPORT

07-92

Location NW 1/4 NW 1/4 Sec 28 Twp 111 N Rg 47 WCounty Brooking

Please mark well location with an "X"

Test hole
Well Completion Date4-1-94Well Owner: Minnesota Corn ProcessorsBusiness Name: Marshall MNAddress: Black DirtYellow Clay6 DEPTH 9WELL LOG: Yellow Sand

FORMATION	FROM	TO
Yellow Clay	10	15
Yellow Sand	16	17
Yellow Clay	18	34
Blue Clay	35	87
Sand & Gravel	88	96
Blue Clay	97	127
Yellow Clay	128	169
Blue Clay	170	183
Black Clay	184	189
Blue Clay	190	205
Yellow Clay	206	207
Sand & Gravel	208	212
Yellow Clay	213	217
Blue Clay	218	230
Dry Sand & Gravel	231	232
Blue Clay	233	235

STATIC WATER LEVEL 236 Feet
Blue Clay 242 PSI

If flowing: closed in pressure _____ PSI

GPM flow _____ through _____ inch pipe

Controlled by ☐ Valve ☐ Reducers ☐ Other _____

Reduced Flowrate _____ GPM

Can well be completely shut in? _____

LOCATION:

Distance from nearest potential pollution source (septic tank, abandoned well, feed lot, etc.)? _____ ft. from None (identify source).

PROPOSED USE:

☐ Domestic/Stock ☐ Municipal ☐ Business ☒ Test Holes
☐ Irrigation ☐ Industrial ☐ Institutional ☐ Monitoring well

METHOD OF DRILLING:

Air rotary

CASING DATA:

☒ Steel ☐ Plastic ☐ Other

If other describe _____

PIPEWEIGHT	DIAMETER	FROM	TO	HOLE DIAMETER
<u>19.25</u> LB/FT	<u>6</u> IN	<u>0</u> FT	<u>125</u> FT	<u>6</u> IN
_____ LB/FT	_____ IN	_____ FT	_____ FT	_____ IN
_____ LB/FT	_____ IN	_____ FT	_____ FT	_____ IN

GROUTING DATA

Grout Type	No. of Sacks	Grout Weight	From	To
<u>Bentonite</u>	<u>6-10016</u>	_____ lb./gal	_____ ft.	_____ ft.
		_____ lb./gal	_____ ft.	_____ ft.

Describe grouting procedure I used the natural clay cuttings and 6 10016 bags of bentoniteSCREEN: ☐ Perforated pipe ☐ Manufactured

Diameter _____ IN Length _____ FEET

Material _____

Slot Size _____ Set From _____ Feet to _____ Feet

Other information _____

WAS A PACKER OR SEAL USED? ☐ YES ☐ NO

If so, what material? _____

Describe packer(s) and location? _____

DISINFECTION:

Was well disinfected upon completion? _____ YES, How: _____

_____ NO, Why Not? _____

Laboratory sent to for water quality analysis _____

WELL TEST DATA:

☐ Pumped

Describe: _____

☐ Bailed☐ Other

Pumping Level Below Land Surface

_____ ft. After _____ Hrs. _____ GPM

_____ ft. After _____ Hrs. pumped _____ GPM

If pump installed, pump rate _____ GPM

REMARKS

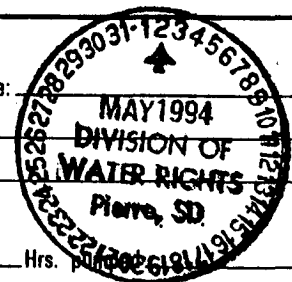
This was a test hole, casing was removed and the test hole was grouted.This well was drilled under license # 632

And this report is true and accurate.

Drilling firm Minett Well DrillingSignature of License Representative: Joel Minett

Signature of Well Owner or Equitable Property Holder: _____

Date: _____





Five-G Consulting, Inc.
32854 South Dryland Road
Molalla, Oregon 97038
503/829-4844

PRELIMINARY ENGINEERING DESIGN STUDY

For

JOE L. PIRES CO.
132 E. Kern Avenue
Tulare, California 93274
209-686-4730

Covering the Proposed New 1200 Cow
Expandable to 1500 Cow Dairy Operation
To be located at Elkton, South Dakota.

Owner

Joe L. Pires

Prepared By

Five-G Consulting, Inc.

Represented By

Donald L. Gribble, P.E.
Ted Gribble, Project Designer
32854 South Dryland Road
Molalla, Oregon 97038

February 1994

I. GENERAL INFORMATION

THE NEW JOE L. PIRES FARM is located in Eastern South Dakota near the town of Elkton, in Brookings County. This farm lies along Highway 14 & County Road 13.

JOE L PIRES OWNS 240 continuous acres of land in Tulare, California which contains his existing dairy. He has an option to buy 320 acres in South Dakota which encompasses the new dairy site. A large portion of the new land is currently tillable. The rest is suitable for pastures. The new location is surrounded by good farm land currently in production. The new farm is serviced by two all-weather roads, Highway 14 and County Road 13. Some of the land at the new farm is wooded or brushy, with drainage ways. Waterways drain the property to various nearby intermittent streams. The soils are mostly of a clay loam or loam. The cleared portions of the farm are currently being used to grow corn.

THE EXISTING DAIRY in California includes a milking parlor housing, feed storage, and various pens and pastures for 1300 head of cattle. Most of these buildings are in good, serviceable condition, this facility will be leased out upon moving to South Dakota.

THE NEW FARM has few improvements and is relatively undeveloped, improvements do include fencing and developed farm land.

WATER at the new farm is available from the parcel adjacent to the south. This land is being bought by Joe L. Pires' son Larry Pires'. Two wells on this property will supply 800 GPM from a depth of 300'. This water is of fairly good quality and quantity although it is "hard". It is considered adequate for the potable water needs for the proposed new dairy facilities and expansion to the complete herd sizes. A new supply line from the existing wells to the new dairy sites will be required for the proposed dairies.

THREE-PHASE ELECTRICAL POWER is currently available in the area.

LOCAL WEATHER is moderate in temperature during much of the year. This is a medium to low rainfall area with annual average precipitation of approximately 22 inches. The maximum 24 hour rainfall expected on a 25 year recurrence is 4.5 inches. Snow storms can be expected during the winter months with normal accumulations of 12" or less. Extended periods of continuous below freezing weather can last three to four weeks. Engineering data sources show the frost penetration depth to be less than 42" in this area. These general conditions are conducive to high milk

production. Adequate wind and weather protection, in the winter, and ventilation and shade in the summer will be the primary considerations for cattle comfort. Good production levels can be maintained during the winter if the cows are kept out of winds and dry. Summer heat will be the worst deterrent to high milk production.

THE CURRENT DAIRY CATTLE herd in California consists of 1100 milk cows and 200 support animals. The milking cows are all grade Holsteins. The Pires' have run a dairy operation in California for a number of years and currently maintain a production level of 20,000 lbs. With new modern facilities, the dairy is expected to maintain good production levels while expanding the herd and eventually improve to a higher average when construction is complete. New herd expansion will be with purchased bred Holsteins.

FEED SUITABLE FOR DAIRY ANIMALS is currently being raised on the cropland. Feed in the local area is available for purchase. Purchasing of concentrates and minerals will be from other nearby sources. The Pires' are very conscious of good nutrition. They work closely with their nutritionist adjusting feed rations to desired levels of production and available roughage quality.

THE DAIRY MANAGEMENT/LABOR force consists of Joe L. Pires as overall Operations Manager and Larry Pires as Dairy and Animal Health Manager. The operation is run as a sole proprietorship with Joe L. Pires as owner.

BUILDING A NEW MILKING/COW HANDLING FACILITY at the new site plus new freestall housing barns for 1200 head along with a complete waste management system and feed storage facilities is the immediate goal. Expansion to 1350 milking and 150 dry and treatment cows in new facilities plus extension of the waste management system is planned for the near future. Provisions will be made for the ultimate capability to handle 1500 cows at this site. Heifer raising will be at other locations on pastures or they will be purchased. The Pires would like to make this transition in a logical, planned, step-by-step program over the next few months. During the transition, they would like to have their plans, permits, and construction sequence in place to ensure this facility will meet current requirements and will provide the best return from the investment and the best long term facilities for this operation. Before starting these big expenditures, they want to be sure they can comply with current sanitation and pollution control regulations and obtain an adequate financing commitment.

II. RECOMMENDATIONS & COMMENTS

VARIOUS CONSTRUCTION SITES were considered on the new farm. It is our recommendation the new milking and cow handling facility be located on the sloping site along the south property line of the new farm with the new structures oriented to follow the general slopes of the site. The Pires had already considered this general location. In our opinion, after reviewing the options, it is the correct one. The ground drains well; there is ample slope to aid in grading; there is room for expansion; the new buildings can orient well with the weather. The new site will have good access to all-weather county roadways. There is a good site to develop a new waste retention pond in a low area to the north. There is also a good location for new feed storage adjacent to the new dairy facilities. This site is considered excellent, it will stand on its own merits as one of the best available on the farm.

THE "GENERAL LAYOUT" sheet of the attached drawings depicts the configuration Five-G recommends. This drawing represents the long range master plan for expansion up to 1500 head and shows where support facilities required for a large commercial dairy would be located.

A NEW HEAVY DUTY SERVICE ROAD will be required around the site. This roadway will be connected to the county roads on the west and south.

WITH MODERN STATE-OF-THE-ART milking equipment, the smallest practical milking parlor that should be considered, falls in the double 10 to double 12 range. This sizing hinges around one man in the parlor, with a fully automated milking system, working at a steady, efficient rate. For this application, we favor a milking parlor layout, as shown on the attached drawings, utilizing the double 12 rapid exit herringbone parlors with a single return lane. There will be two such parlors at full expansion side by side and arranged so that each parlor has its' own holding pen. With full automation each parlor can be operated with one man or woman. Following proper procedures, this person will have time to practice good milking and cow care. The single return lane will enhance the cattle traffic. Two parlors of this size can handle a 1500 cow milking herd with proper management operating around the clock. During expansion the parlors may be built one at a time. The holding pens will each be fitted with a travelling crowd gate and sized to hold 150 plus head. We recommend that the waste management system be laid out initially to accept the waste from the entire 1500 head. Any further expansion would require more waste pond storage capacity.

FLUSH CLEANING is, in our opinion, the most economical and efficient of the common waste clean-up practices in use today. Therefore, we have laid this facility out to flush clean all new hardstand areas the animals normally use. This arrangement will also facilitate scrape cleaning, when necessary, during periods of severe cold weather.

RETENTION PONDS will be sized and engineered according to the local Soils Conservation Service and EPA requirements. They and any state agencies should be conferred with as soon as possible to obtain their input and approval of the overall waste system design. A waste retention pond for 1500 head at 120 days storage is recommended initially.

MANURE SOLIDS SEPARATION provides an efficient and convenient means of handling animal waste. In this system the solids and liquids are separated; the liquids are stored in the retention pond(s) for timely application to cropland with conventional irrigation equipment. The stored waste water can also be used as recycle flush water in the housing areas during winter months. The reclaimed solids are put to use as bedding, plant mulch, etc. The proposed new layout will be designed to accept this system.

WASTE WATER SPREADING will be via conventional irrigation equipment onto adjacent cropland. All of the cropped and open portions of the new farm will be available for waste application. The Pires plan to obtain agreements with nearby farmers to allow spreading of waste water onto additional farm land as the dairy expands. The solids not utilized in other ways may be sold or otherwise utilized off-site.

THE FEED BUNK LAYOUT, as shown, provides drive-by bunks, with headlocks for 150 cow groups. There will be two of these feed bunks down the center of each freestall housing barn with a truck lane between.

HOUSING will be in new freestall facilities for the milking herd. Each freestall barn will contain freestalls for 300 head with two (2) groups of 150 cows. The barns are laid out around the covered central transfer lanes to fit the general slopes of the site. Initially there will be four such barns for a total of 1200 freestalls. An additional freestall barn will be added identical to the others with freestalls for 300 head. Each group will have access to waterers and free choice feed bunks. There is space for five such barns at ultimate expansion for a total of 1500 freestalls.

COW TRAFFIC in the new facilities is laid out to eliminate back traffic. This is accomplished by utilizing twin transfer lanes. Cows will enter the parlors through one lane, from the freestall areas to the rear of the holding pen. The holding pen will be fitted with an automatic crowd gate to divide groups and help coax the cows into the parlor. This gate will be of the type that can raise and be returned over the next incoming group. The cows will leave the parlor down one side through a single return lane and to the housing areas through the second lane. This allows multiple groups to be in the milking pattern at the same time, under low stress conditions, without getting them mixed. The transfer lanes will be designed to flush clean where possible. The layout has provisions for a cattle sorting area in each exit lane. The sorting lanes will lead to a common catch pen.

HEIFERS AND CALVES will be raised on remote farms or purchased as needed. During expansion, some of the new facilities will be utilized for dry cows and springing heifers for a time.

MATERNITY AND TREATMENT COWS will be in a separate area at the new dairy at one end of one freestall group. There will be a transfer lane to move cows to and from the parlor and treatment facilities. There will be a treatment area at the rear of the parlor building provided with working chutes, pens, and maternity areas as well as a small lab area.

WATER USAGE is going to increase as the operation modernizes and expands. Therefore, it is important that ample water supplies be provided to guard against the possibility of a water shortage. It is estimated that the new facilities will use approximately 71,000 GPD of potable water at peak demand for 1200 head milking while flushing the housing areas with recycled water. An additional 55,000 GPD would be used to flush the housing areas with fresh water. For 1500 head these numbers would be 83,000 gpd and 70,000 gpd respectively. Based on this estimate, 120 GPM minimum continuous should be provided for at the new dairy site. The existing wells at the P & M Farm just south of this site need to be enhanced and a new pipeline installed to provide the required new dairy with potable water. Additional fresh flush water may come from the rural water supply as a back-up. Over a given design period for the waste water pond, fresh water would be used for flushing the housing areas approximately 35% of the time and recycled water would be used the other 65% of the time.

THREE-PHASE ELECTRICAL POWER is currently near this site. A dairy operation of this size will be using large quantities of electricity. The possibility of utilizing three-phase electrical power should be pursued. All pumps and other motors will need to be sized to utilize the phase power available. It is estimated the electrical demand for the new operation, at 1200 head milking, will be approximately 2300 to 2900 kwh per day. This will be a relatively steady usage being spread over a 24 hour period, 365 days a year. At 1500 head, this will increase into the 3400 kwh per day range.

FEED APPEARS to be well accounted for with the current farming at this site and especially the availability of feeds for purchase nearby. Crop production will be enhanced by regular applications of liquid manure via travelling gun sprinkler. Additional roughage are also available for purchase at reasonable prices from local sources if required. Hay and silage will be mostly grown on this and other nearby farms. Grains and concentrates will generally be purchased from outside sources. Feed storage will be required in the form of new trench silos, a commodities barn and hay barns at the new dairy.

PROPOSED MARKETING has been researched and will most likely consist of selling the milk product to Land O' Lakes in Sioux Falls, South Dakota or Valley Queen in Millbank, South Dakota. Current price is running about \$13.55 cwt or greater.

MILKERS, FEEDERS AND OTHER LABOR will be hired locally. At the 1200 cow level with three times daily milking, it is projected a typical eight hour shift will contain two milkers, two feed handlers, one cow mover, a maintenance man, a supervisor and a cow hospital person. One of the relief milkers or the cow hospital person usually acts as the shift supervisor. Each shift at a dairy of this size would usually have one or two additional "helpers" to assist the other workers and attend to various odd tasks. The night shifts may be run with two or three less people with a modified division of tasks. As the herd expands to 1500,

additional labor will be required. Good training and job descriptions will be important on a facility of this size. Large commercial dairies lend themselves to sound labor training practices due to the repetitive nature of the tasks. The same things need to be done every day, 365 days a year, three times daily.

III. CONSTRUCTION STAGES AND COST ESTIMATES

A. CONSTRUCTION STAGE I: The first stage of construction will include new facilities for milking, housing and feeding 1200 head with provisions for expansion to 1500 at ultimate capacity. The complete waste management system will be constructed and utilized. Construction of a trench silo, commodity barn and hay barns will be performed at this time. Milking will be accomplished in the new parlor. Support animals will be handled in the new facilities during expansion.

1. Grading and Site Preparation:

The new dairy site is generally sloping to the South and West. The configuration of this slope is such that most natural runoff from the surrounding terrain can be diverted away from the site. There is a good site to develop a new waste retention pond on low ground North of the dairy. A small surge pond will be located just East of the site. Surface drainage and roof drainage from the new dairy site will be routed away from the buildings and new waste retention ponds. Roads in and around the dairy site will be developed. These roadways

will be surfaced with gravel as required. It is anticipated that cuts, fills and road base materials can be balanced so there will be no need to import or export major amounts of material from off the farm. The initial five freestall barn sites, for 1500 head, main dairy building site, trench silo, commodity barn, hay barns and shop will be developed at this time. The new waste retention pond for up to 1500 head will be developed at this time. It is important to coordinate this activity with the local Soil Conservation Service (SCS) personnel and the state water pollution control agency. These agencies have jurisdiction over the acceptability of this site for operation of the proposed large, commercial dairy. These agencies frequently will assist in waste system sizing and pond site surveys. In some cases there is funding available to assist farmers in the construction of pollution control ponds, dikes, terraces, and related facilities.

ESTIMATED COST OF DEVELOPMENT OF INITIAL DAIRY SITE, AND
WASTE POND GRADING AND ROADWAYS. \$172,000.00

2. New Main Dairy Building:

The new milking parlor building will be primarily of masonry, concrete, and steel construction with wood utilized in the upper level office area. The building will be approximately 75' wide by 264' long. The building will contain 2 holding pens for 150 plus head of mature cows each. Two double 12 rapid exit herringbone type milking parlors will be provided for. The parlor area will have translucent vertical louvers on both sides to permit natural light and ventilation. The side walls of the holding pen will be fitted with roll-up curtains for winter protection. Roll-up doors will be utilized between the parlor and holding pen for freeze protection during non-use periods. The front of the building will contain a milk room, equipment rooms, storage area, lavatories, shift foreman's office, breakroom, and breezeway in the lower area. Offices, observation area, storage and another lavatory will be overhead. The milk room and equipment room are sized to accept two 7000 gallon milk tanks. The parlor area will be provided with closable roof ridge vents. The holding pen area will have a continuous open roof ridge vent. The cost

estimate includes rough plumbing, electrical, trim and painting where needed. Concrete, galvanized steel, and other such surfaces will be left in their natural state and sealed if required. The exterior will be metal siding with a baked on paint final coat. Framing lumber in contact with masonry will be pressure treated. An appropriate section of the cattle transfer lanes and fences are included in this estimate. Provisions will be made for a cow sorting area in the return lane. This building will be constructed with space required for a 60' x 36' treatment area. The parlor holding pen and treatment areas will be provided with adequate heat to keep these areas above freezing. During severe cold spells.

**ESTIMATED ERECTED COST FOR THE MAIN DAIRY BUILDING, AND
LISTED ACCESSORIES. \$428,000.00**

3. Dairy Barn and Treatment area Equipment:

All of the dairy barn equipment in this stage will be new. This includes two double 12 herringbone rapid exit type parlors with a single return lane each, 24 milking

units fitted with ACR, automatic CIP, back flush will be installed at each pit. Provisions will be made for a future fully automatic computer I.D. and related systems. Two new 7000 gallon tanks will be installed initially. The holding pens will each be fitted with new automatic travelling crowd gates to help coax cows into the parlors in an efficient, low stress manner. The dairy barn will be fitted with a new Superflush floor cleaning system to flush clean the parlors, holding pens, and return lanes utilizing valves and an exterior reservoir. Fences, gates and ventilators are included in this estimate. This basic equipment will be designed to accept expansion to the full size of 1500 head milking. Necessary provisions will be made to add extra equipment as needed in the future for expansion or upgrades. All utility services will be sized accordingly at this stage. The treatment area will contain various cow working areas, cutting gates, stalls for treatment, lanes, box stalls, lab, operating area and gates and fences.

ESTIMATED COST FOR INSTALLING THE NEW DAIRY BARN EQUIPMENT.	\$453,000.00
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4. The First Four New Housing and Feeding Barns for 1200 Head: The first four housing and feeding barns for 300 head each will be constructed at this time. These buildings will be 100' x 360' each. Building frames will be sized for local snow and wind loads. Roofing will be natural galvanized metal. These barns will be connected, by twin covered transfer lanes, to the new parlor for milking. Housing will be in freestalls grouped 150 per side, with two rows per group. The freestalls will have loop dividers, overhead cow trainers and bedding retaining rails. Twin feed bunks will be provided and fitted with headlock stanchions. There will be a central drive-through lane for feed trucks between the feed bunks. The headlock stanchions will have total lock-out, automatic lock-in, total release, individual release, and a down cow release. These buildings will be laid out on a 4% slope. The barns will be provided with a flush system with valves to clean each cow lane. The entire flush system will be laid out and will have twin reservoirs and a 12" pipe to supply the valves. A 2' wide slurry collection ditch will be provided at the low end of each building. The installation will include four self-cleaning water troughs for each cow group in the

housing and feeding areas. The estimate includes the cattle transfer lanes, fencing, and gates as required. Transfer lanes will be laid on a slope between the buildings and to the parlor. Concrete work will include proper curbs, surfaces and reinforcing to accommodate the cattle traffic, truck traffic and flush clean-up system. All equipment will be of heavy commercial construction. All construction will be planned to integrate with additional new dairy facilities when expansion occurs. The ends of these buildings will have enclosed gables and roll-up doors for weather protection. A continuous open ridge vent will be provided for maximum natural ventilation. Roll-up curtains will be on the sides for winter weather protection. The first four barns will be the ones on either side of the parlor.

ESTIMATED COST FOR THE INITIAL 1200 COW FREESTALL HOUSING
AND FEEDING AREAS. \$1,144,000.00

5. Waste Recovery and Utilization System:

At this time the flush system will be under full operation with twin manure solids separators being provided to handle solid wastes. The liquids will drain into the new small waste retention pond and be pumped to the large remote pond. Collection ditches will be

provided to allow flushing of the new milking and housing areas and accept liquid waste from the transfer areas. The collection ditch will be provided with covers as needed. The collection ditches will be connected by 12" pipe to two new separators of the gravity plow elevating screen type. The separators will be provided with an enclosure for winter weather protection. The separators will gravity drain liquids to the small waste pond. There will be a gravity overflow to back-up the separator. A stacking pad and push wall for the reclaimed solids will be built with drainage into the pond, this pad will have provisions for a future enclosure if desired. A stacking auger will be provided at the solids pad to aide in solids handling. Piping, as required for this system, is included in this estimate. A pump and piping to the remote main waste pond is included in this estimate. A pump and piping system for flushing with recycle water from the waste pond will be installed.

Note: An irrigation pump and distribution system will be required at the large waste pond. These items are not included in this estimate.

ESTIMATED COST FOR THE WASTE HANDLING SYSTEM.

\$156,000.00

6. Trench Silos, Commodity Barn and Hay Barns:

A new trench silo will be built at this time. This silo will have approximate dimensions of 160' x 240' x 12' deep. The floors will be of concrete with proper reinforcement for vehicle traffic. The sides will be precast concrete, set in place and back-filled as required. Roadways will be provided to both top and bottom ends, as well as a drainage system as required. Provisions will be made to allow the addition of interior walls in the future if desired. A new commodity barn will be constructed near the trench silos. This building will have overall dimensions of 40' x 144' and have ten separate 14.5' x 30' bays for commodities. Basic construction will be concrete floor and walls with a steel roof. Two new hay barns will be constructed with approximate dimensions of 48' x 192' each. These buildings will be open sided with metal roofs and 18' eave height.

ESTIMATED COST FOR THE TRENCH SILO, COMMODITY BARN AND
HAY BARNs. \$171,000.00

7. Farm Shop/Machinery Storage, and Scale:

The new farm shop building will be 40' X 48' and contain two full length drive-through bays as well as various equipment and tool areas. The machinery storage portion will be 40' X 48' and open to the south, this will be part of the same structure as the shop. The scale will be of the self contained full length type for large trucks with a small adjacent office.

ESTIMATED COST OF THE SHOP, MACHINE STORAGE AND SCALE.

\$87,000.00

TOTAL NEW INVESTMENT FOR STAGE I CONSTRUCTION.

\$2,611,000.00

NEW INVESTMENT PER COW FOR STAGE I AT THE 1200 COW
MILKING LEVEL.

\$2,175.83

B. CONSTRUCTION STAGE II: Construction of the fifth freestall housing barn for a total of 1350 head milking and 150 dry, treatment and maternity cows.

1. Grading and Site Preparation:

The new freestall building pad will have been rough graded previously and only require finish grading at this time. New roadways will be developed as needed.

ESTIMATED COST OF DRESSING THE NEW FREESTALL SITE.

\$4,000.00

3. Construction of the fifth Freestall Barn for 300 Head:

The fifth housing and feeding barn for 300 head will be constructed at this time. This building will be 100' x 360'. Building frames will be sized for local snow and wind loads. The roofing will be natural galvanized metal. This barn will be connected by transfer lanes to the new parlor for milking. Housing will be in freestalls grouped 150 per side, with two rows per group. The freestalls will have loop dividers, overhead cow trainers and bedding retaining rails. Twin feed bunks will be provided and fitted with headlock stanchions. There will be a center drive-through lane for feed trucks between the feed bunks. The headlock stanchions will have total lock-out, automatic lock-in, total release, individual release, and a down cow release. This building will be laid out on a 4% slope. The barn will

be provided with flush valves to clean each cow lane connected to the previously installed 12" supply pipe and reservoirs. A 2' wide slurry collection ditch will be provided at the low end. The installation will include four self-cleaning water troughs for each cow group in the housing and feeding areas. The estimate includes twin cattle transfer lanes, fencing, and gates as required. Concrete work will include proper curbs, surfaces and reinforcing to accommodate the cattle traffic, truck traffic and flush clean-up system. All equipment will be of heavy commercial construction. The gable ends of this building will be enclosed and fitted with roll-up doors. A continuous open ridge vent will be provided for maximum natural ventilation. Roll-up curtains will be used on the sides for winter weather protection. This barn will be immediately north of the parlor. At this time 150 head of treatment and dry cows will be housed in a portion of the new freestall facilities, this will provide for a total of 1350 freestalls for milking cows.

ESTIMATED COST FOR THE FIFTH 300 COW FREESTALL HOUSING
AND FEEDING AREA. \$235,000.00

4. Waste System Expansion:

The waste management system will be expanded to accommodate the additional facilities. This will include additional piping, ditch covers, and drain lines as required.

ESTIMATED COST OF THE WASTE SYSTEM EXPANSION.

\$6,000.00

TOTAL NEW INVESTMENT FOR COMPLETION OF STAGE II.

\$245,000.00

TOTAL INVESTMENT AT STAGE I BROUGHT FORWARD.

\$2,611,000.00

TOTAL INVESTMENT (STAGES I AND II)

\$2,856,000.00

TOTAL INVESTMENT PER MILKING COW AT THE 1350 HEAD MILKING
LEVEL.

\$2,115.55

NOTE: Some items not included in this estimate are an irrigation pump, irrigation system, cost for the main water piping system from the main wells or site housing. Also note that the numbers of milking cows do not include overloading, only total numbers of freestalls.

THE COMPONENT LISTINGS in this report are intended to outline scope and are not necessarily all inclusive. When preparing cost estimates we attempt to show a contractor built, all new material, middle of the road, commercial quality facility that is 100% complete, ready to house, feed and milk cows. Owner preference, in-house labor, construction industry climate, second hand materials and equipment, unusual soil conditions, inflation, etc. can substantially alter these costs.

Ted Gribble
Design/Structural Specialist
Five-G Consulting Services
32854 S. Dryland Rd.
Molalla, OR 97038
(503) 829-4844

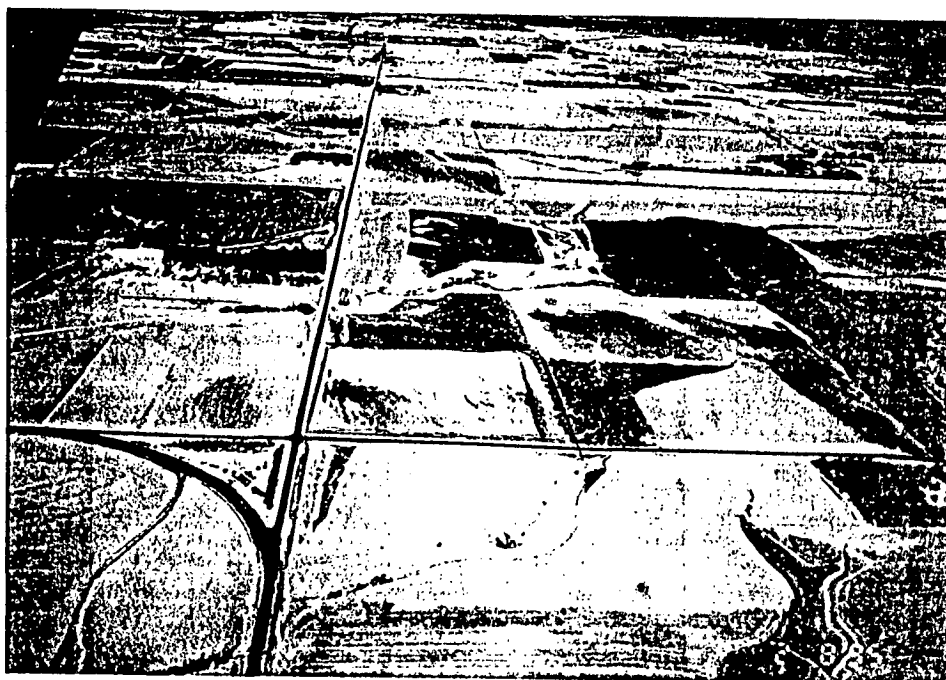
JOE L. PIRES DAIRY

PHOTO SECTION

The following series of photos were taken at the new dairy location and at several Five-G dairy projects with equipment similar to the proposals in this report. The new site at Joe L. Pires Dairy is open and sloping with no existing structures.



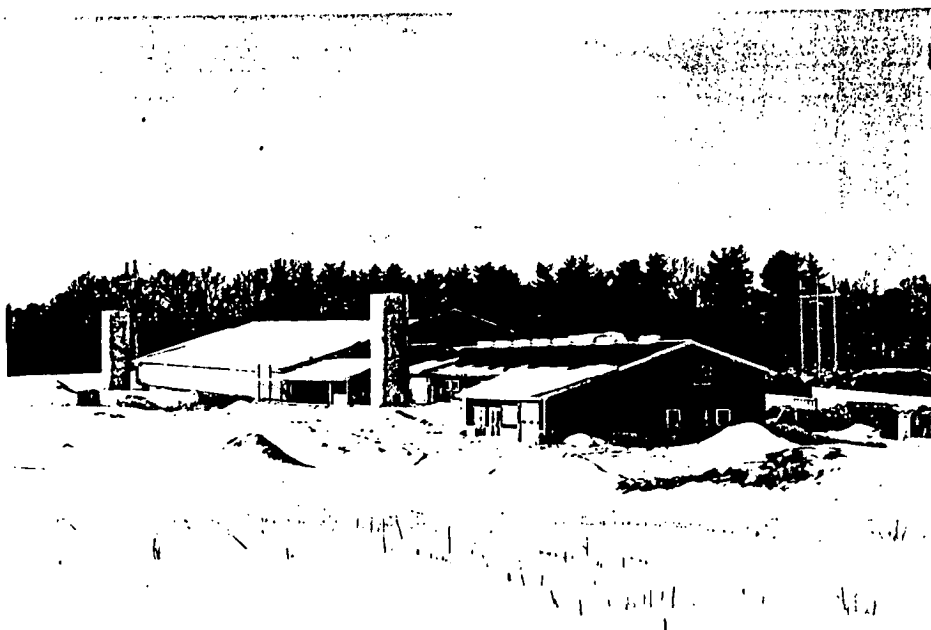
The city of Brookings South Dakota Lies 12 miles west of the new Joe L. Pires Dairy site.



The new Joe L. Pires Dairy site will occupy the area outlined in red ink. State Highway 14 is visible curving south in the left foreground.



Joe L. Pires was the head photographer on this aerial photo mission.



All of the new construction will be of good high quality. The milking center will be designed to provide an aesthetically pleasing impression for the new dairy as well as provide efficient functionality. This and other buildings will be designed to fit the overall slopes of the site.



The new milking parlors will be of the herringbone type in a double 12 configuration. There will be two such parlors side by side. The building will primarily of masonry, concrete, and steel construction.



The milking systems will be all new and fitted with ACR, CIP, backflush, and a computer system.



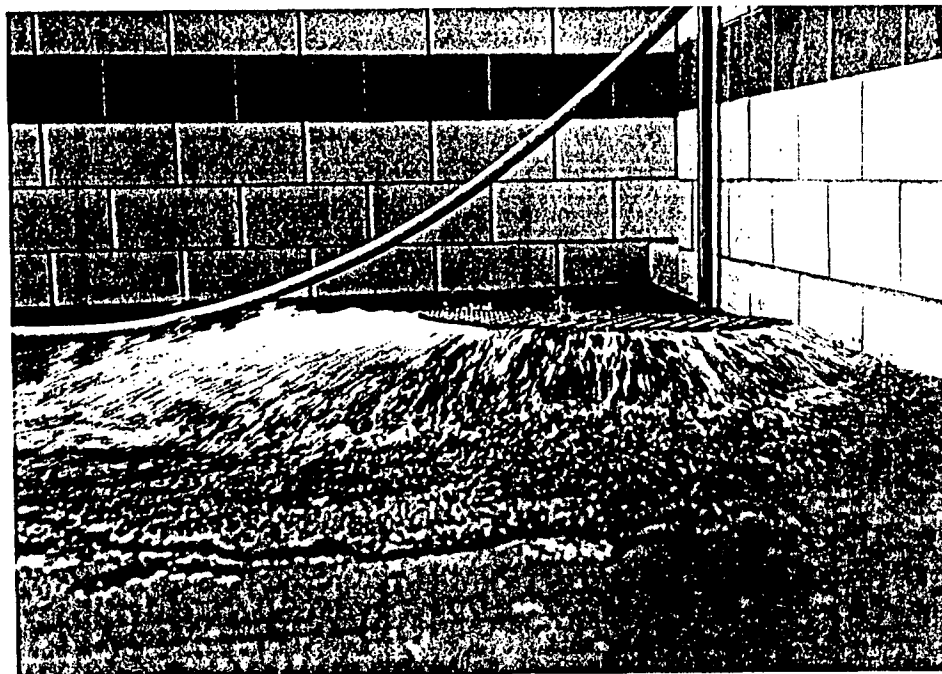
The milk will be stored in two new 7000 gallon bulk milk tanks.



A fully automatic crowd gate will be used in the holding pen to help coax the cows into the parlor in an efficient low stress manner. This gate will be of the type that can raise and travel back over the next incoming group.



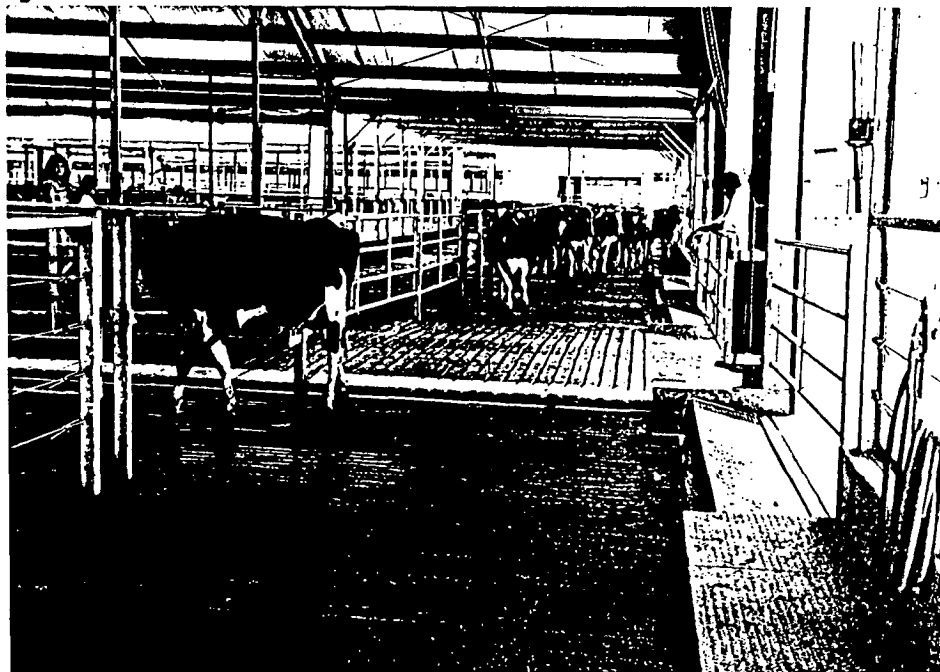
There will be provisions for a sorting area in the return lane utilizing an air operated cutting gate for separating treatment cows. The catch pen will have integral head catches, working chutes, treating and box stalls for holding treated/ maternity cows.



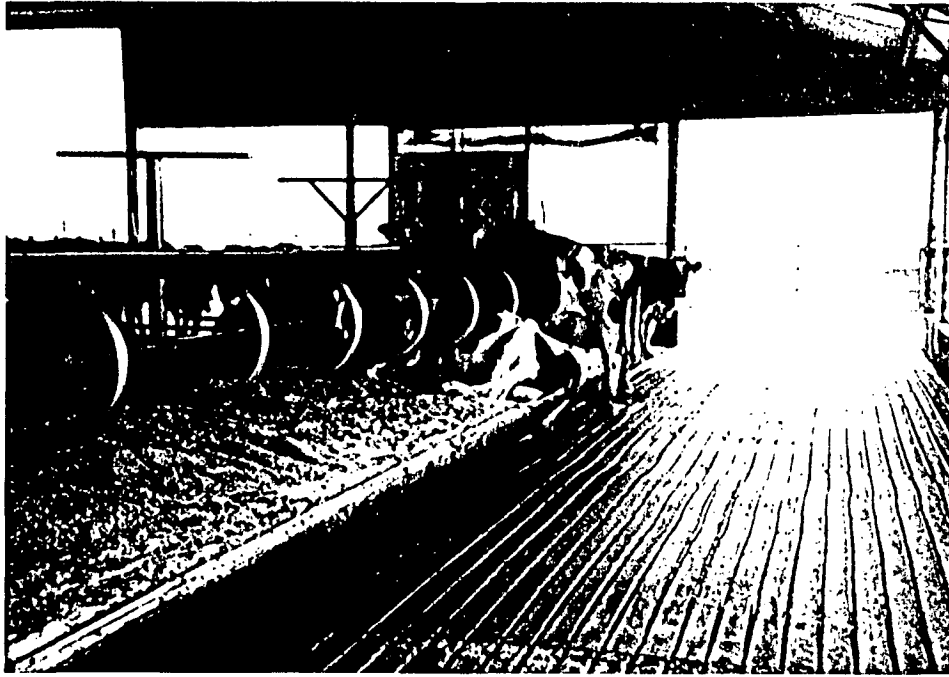
The new milking parlor, holding pen, and return lanes will be flush cleaned with fresh water utilizing superflush valves of this type supplied by an exterior reservoir. It is common practice to reuse water from a milk pre-cooler for this type of flushing.



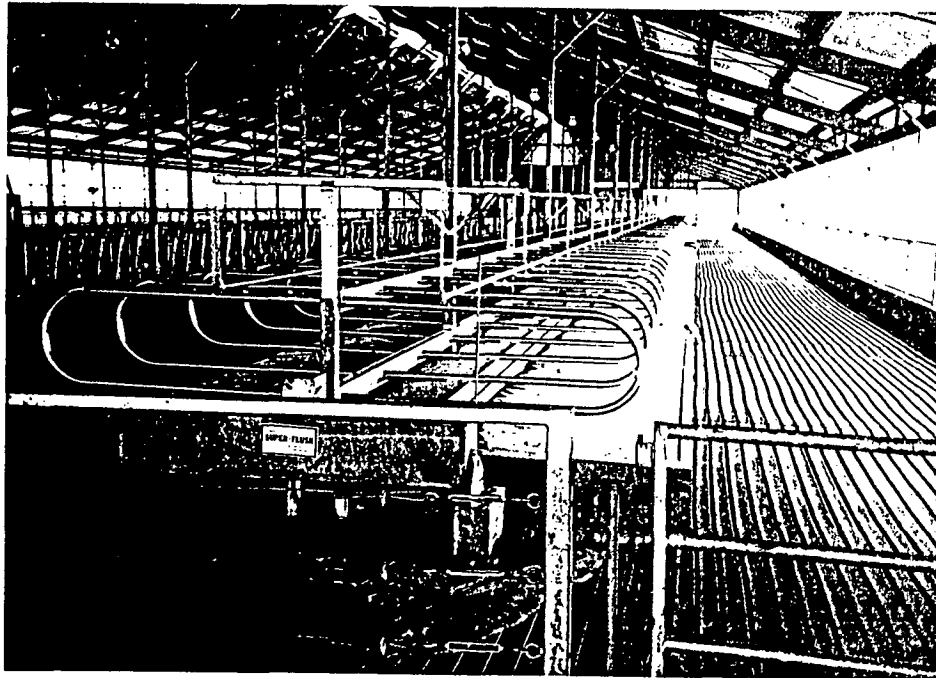
The parlor will be provided with translucent operable vertical louvers on each side such as these to permit natural light and ventilation. The holding pen will have roll-up curtains on the sides. Enough heat will be provided to keep these areas above freezing at all times.



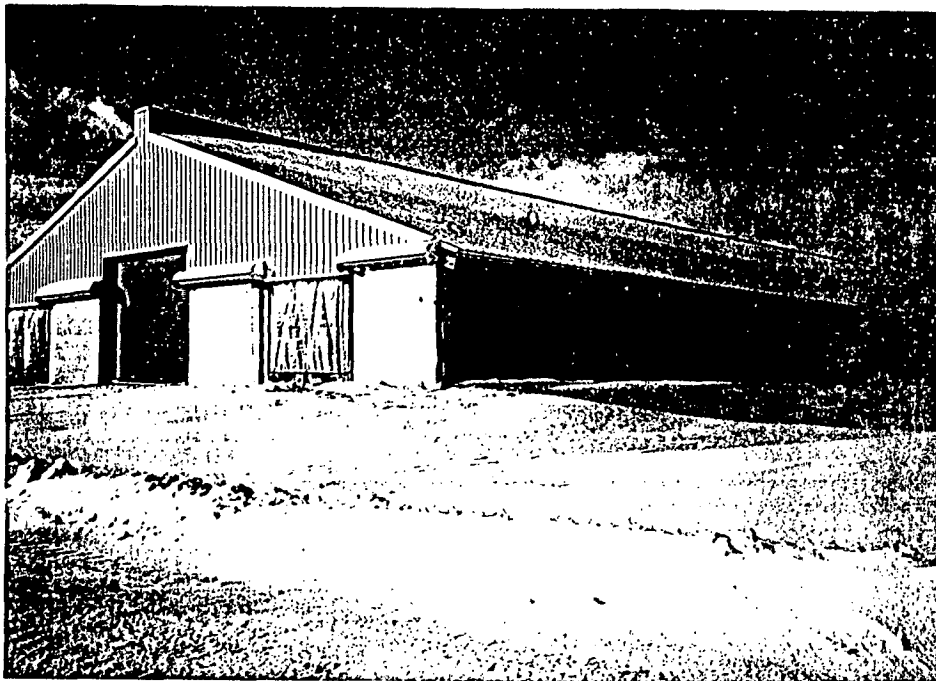
Twin enclosed transfer lanes such as these will be used to move cows to and from the parlor.



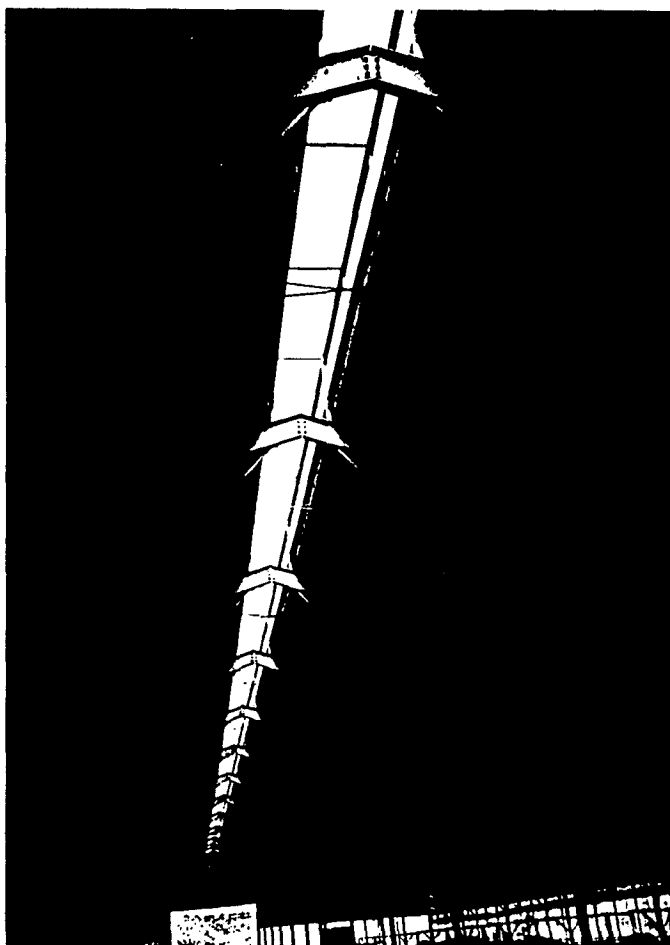
The new freestall housing will incorporate loop type stall dividers with overhead cow trainers and a steel bedding retaining rail.



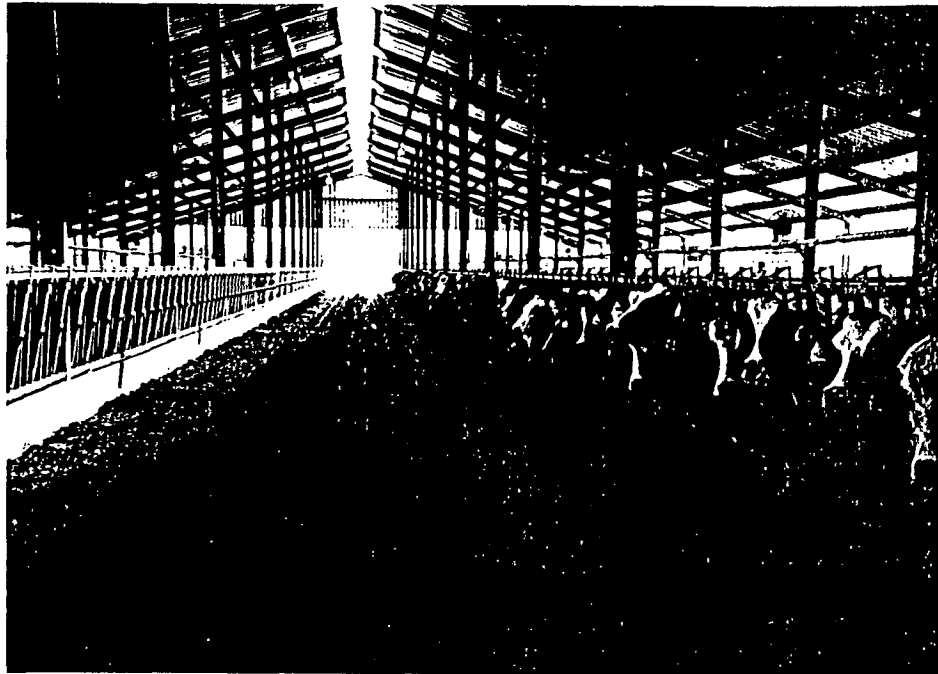
Each group in the housing barns will have a row of head to head freestalls with a feed pad and head locks adjacent.



The freestall buildings will be fitted with a full coverage roof, roll-up curtains on the sides, enclosed ends with doors and an open ridge vent, to allow for shade and maximum ventilation, as well as weather protection in the winter.



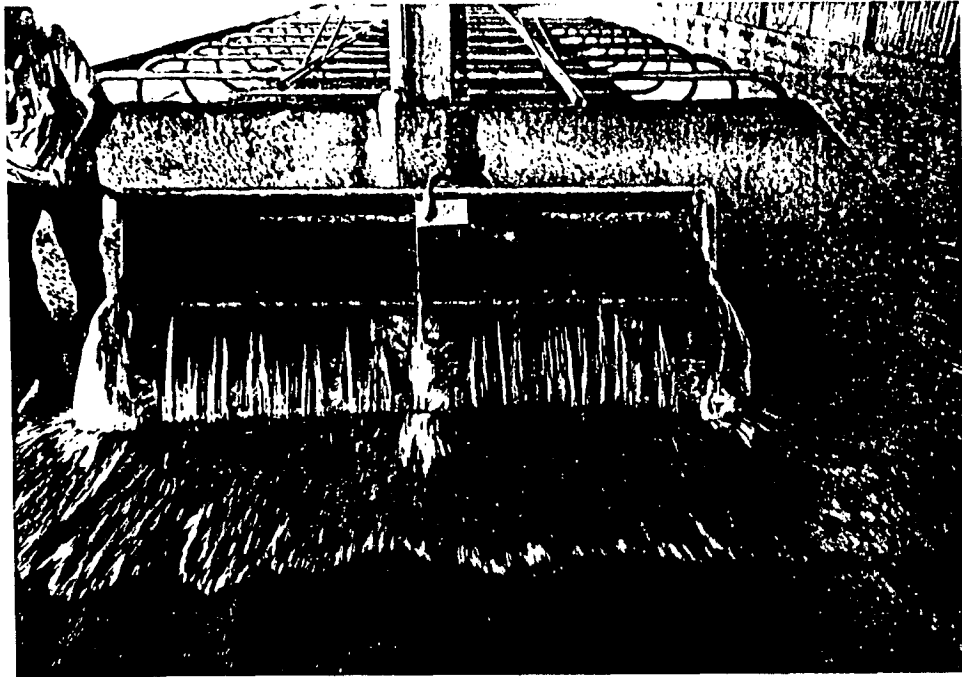
A continuous open ridge vent such as this will be utilized in the housing barns, and holding pen to enhance natural air flow.



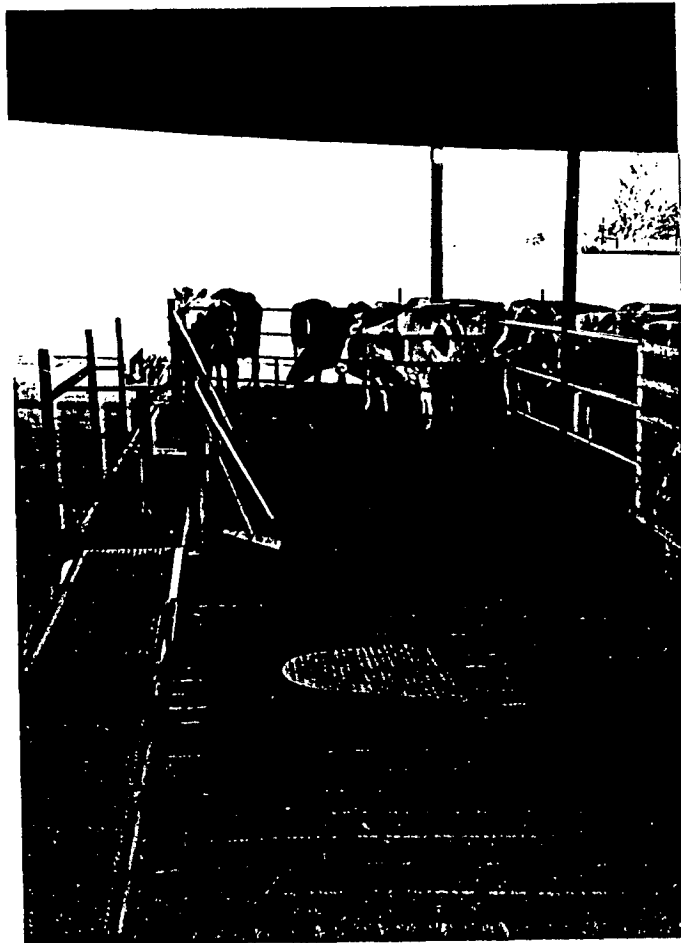
Feeding will be accomplished at feed lanes through the center of each freestall building. These will be fitted with automatic headlock stanchions.



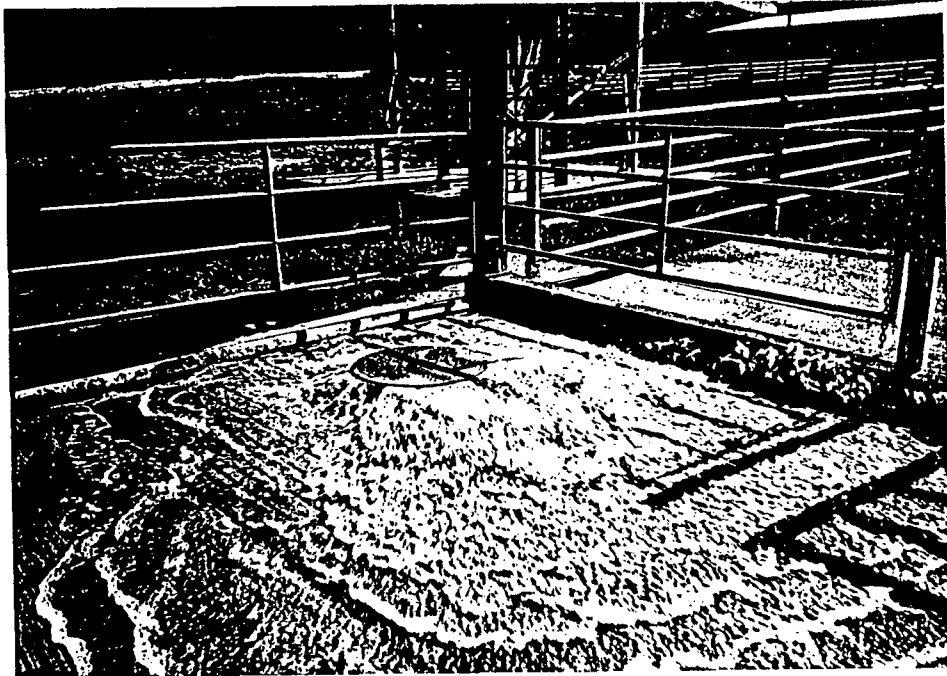
The feeding will be via a truck or wagon mounted mixer utilizing a drive-by arrangement.



Roll-over water troughs of this type provide a convenient way to flush clean small areas, and at the same time, giving the cows new, fresh water. A freeze protected model of these will be used in the freestall areas and in the transfer lanes.



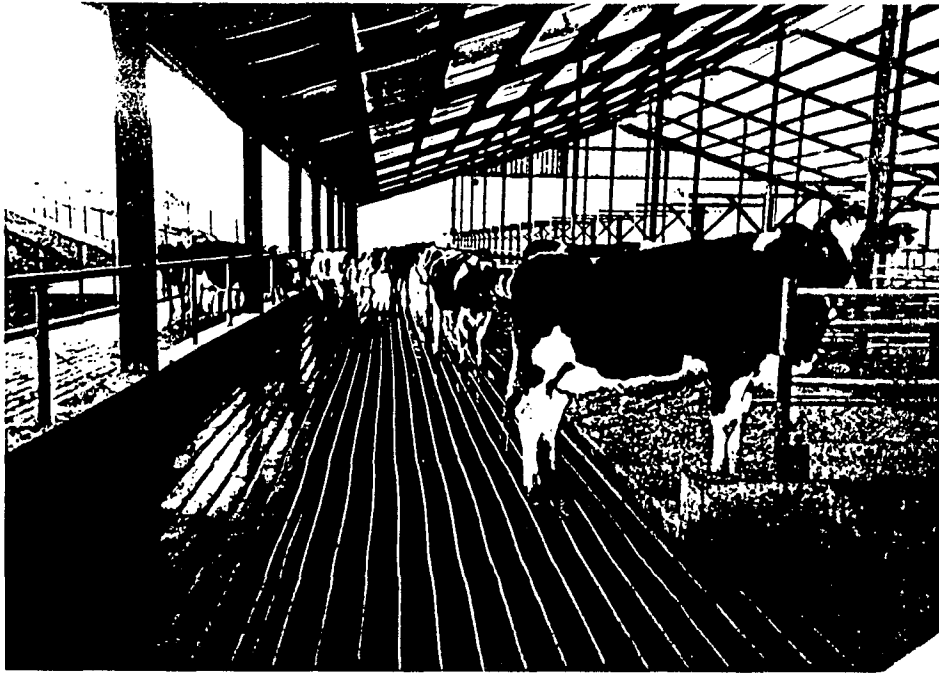
New cow housing and feeding areas will be fitted with superflush floor cleaning fixtures of this type used to clean cattle lanes. These are supplied by a 12" PVC pipe.



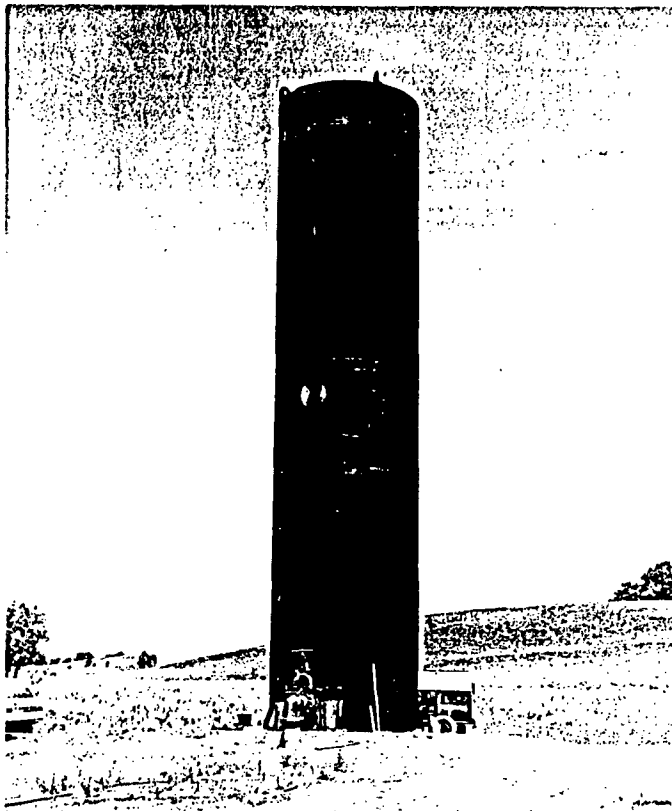
When in place the superflush pop-up bonnet lies flush to the adjacent floors. This convenience allows easy cattle and vehicle access. During periods of freezing weather it is possible to tractor scrape over the fixture. Note the high flow rate.



Superflush in action. Notice the cleanliness of the cows legs and flanks. It is also convenient to be able to clean the facilities with the cattle in place.



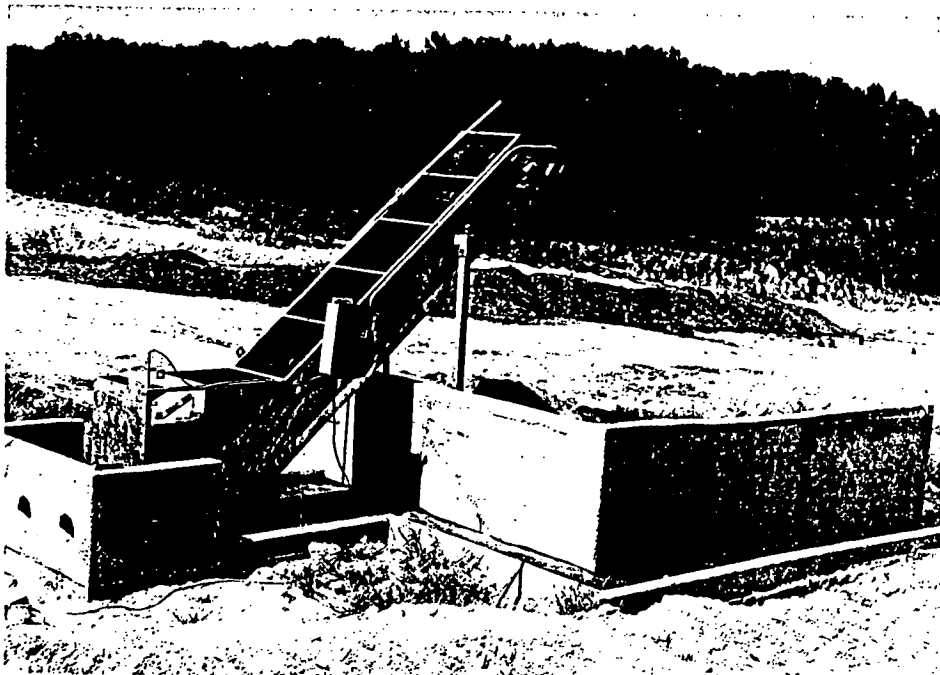
With proper design and slopes the flush system can provide an efficient total clean-up of the cattle lanes.



The flush valves in the housing/feeding areas will be supplied by twin upright reservoirs such as this.



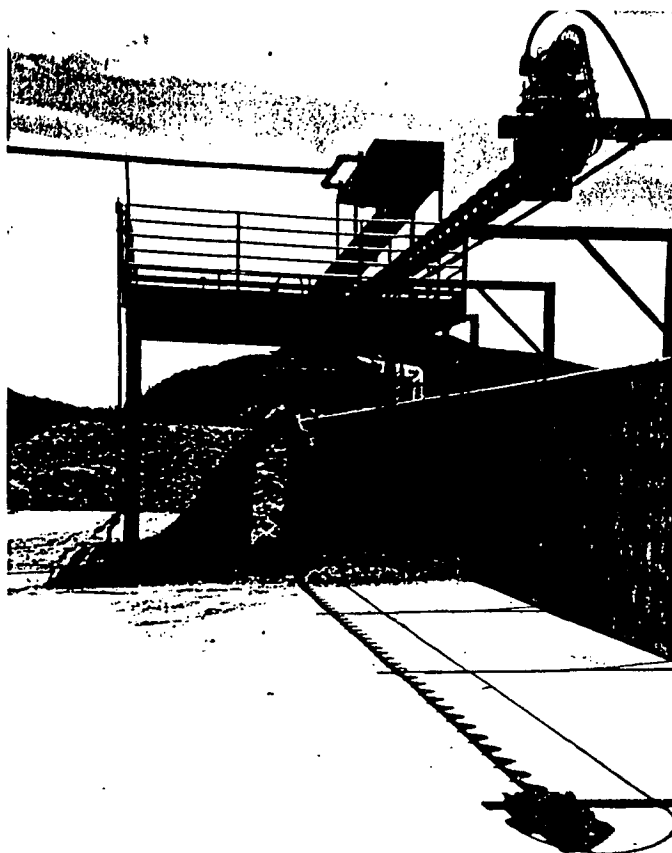
The liquid manure slurry will be collected in ditches fitted with operable and fixed steel covers as required. The operable covers will raise to accept the flush and lay flat to allow cow and vehicle access and tractor scraping if required.



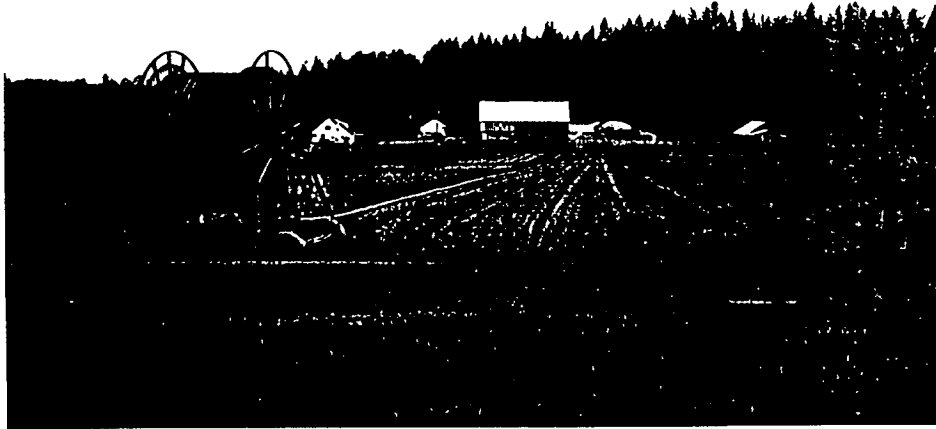
The collection ditches will deliver the slurry to an elevating screen type manure solids separator similar to this. The recovered solids have been used for bedding, feed supplement or nursery mulch. This separator will be in an enclosure for winter weather protection.



The liquid fraction of the slurry will be stored in a new waste retention pond for recycle flush cleaning of the housing/feeding areas and ultimately irrigation.



A reversible stacking auger such as this will be utilized to enhance the solids handling at the stacking pad



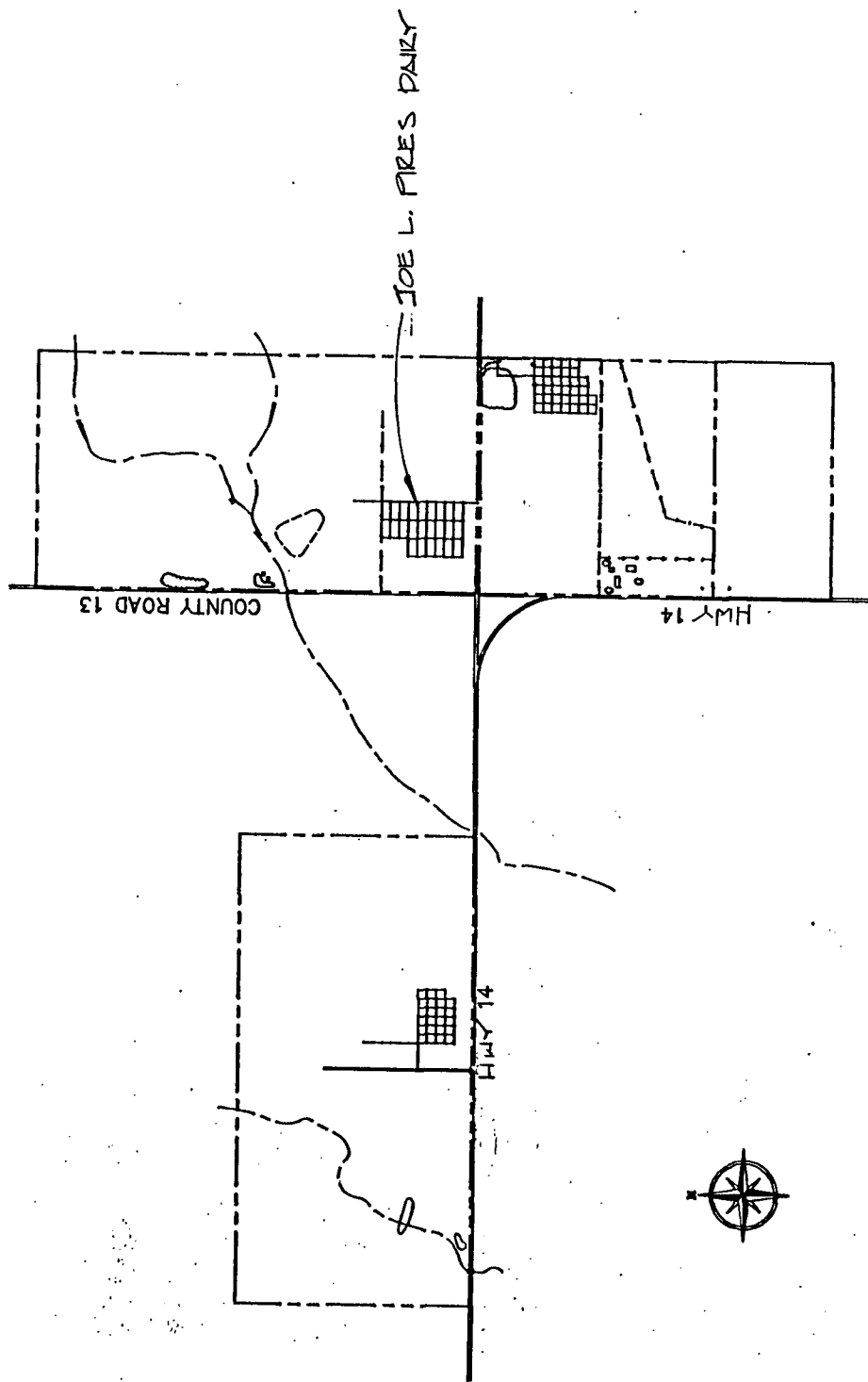
At appropriate times the excess water in the waste retention pond will be spread onto adjacent and nearby cropland through conventional irrigation equipment such as this.

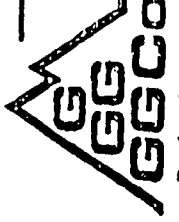


New trench silos will be built at the site for roughage storage.



There will be a new commodities barn located near the new trench silos.



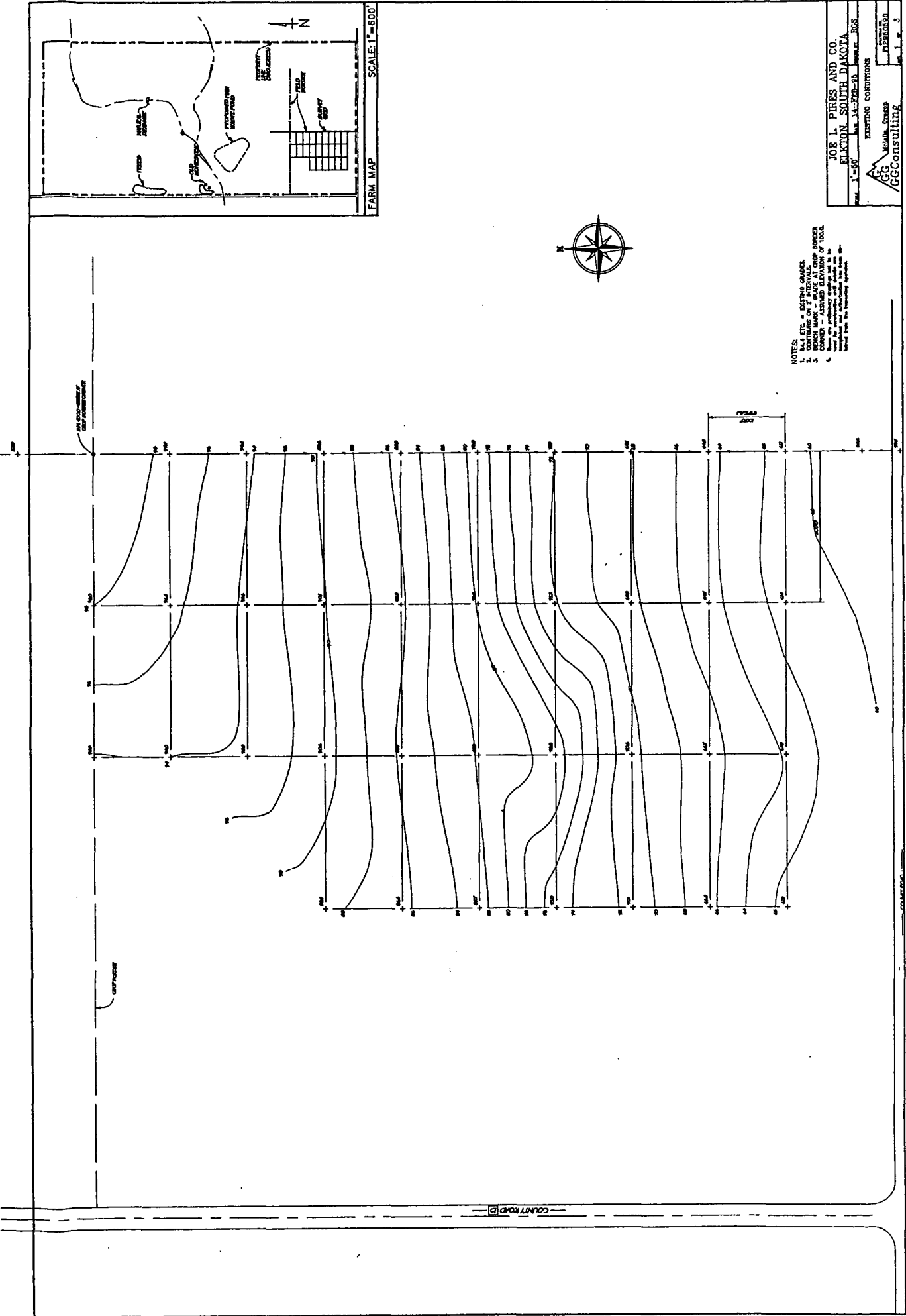


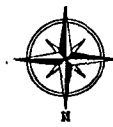
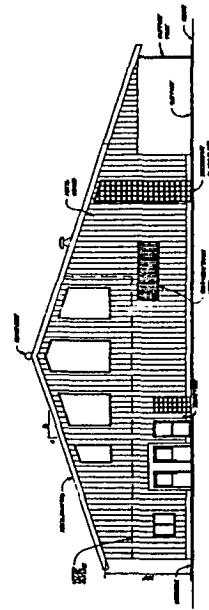
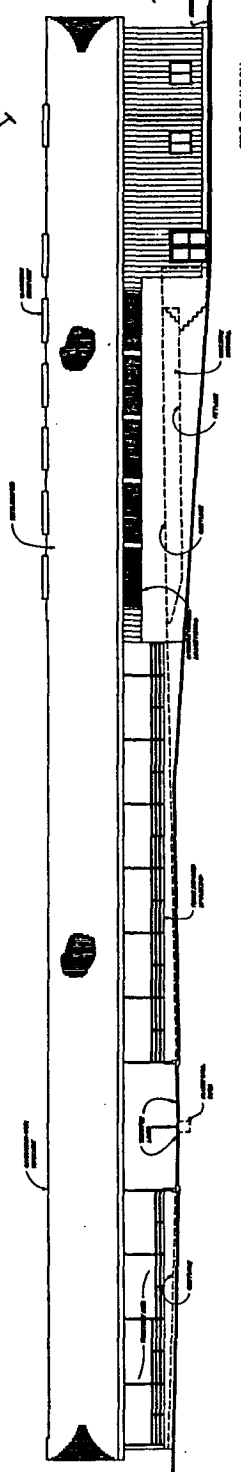
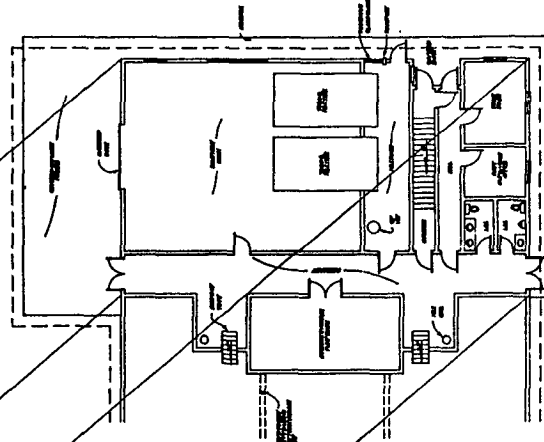
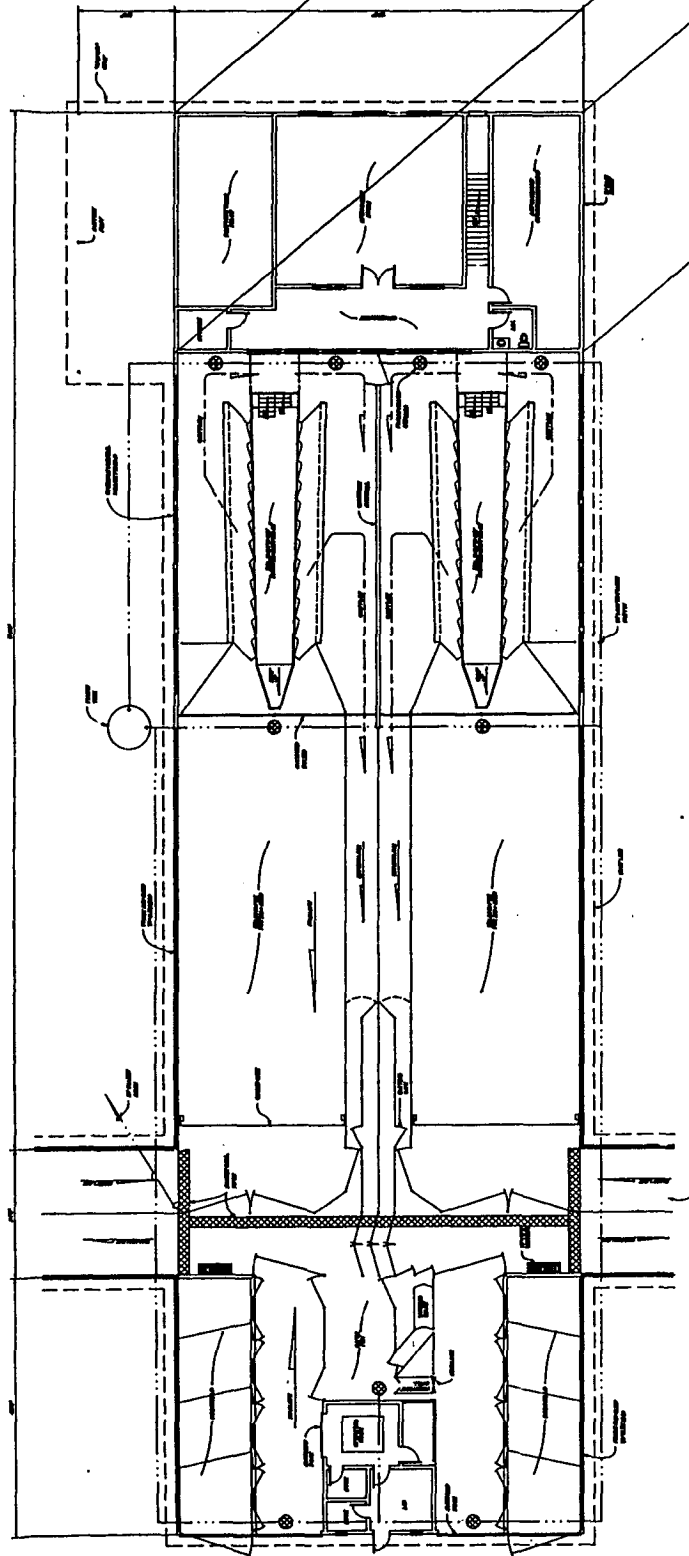
GG Consulting
Professional Engineering Services

SOUTH DAKOTA DAIRY SITES

Five-G Consulting, Inc.
32854 South Dryland Road
Molalla, Oregon 97038
503/829-4844

DATE: 24-FEB-95	SCALE: 1"=2000'	SHT:
BY: RGS	NUM:	





JOE L. PIERES AND CO.
 ELKTON, SOUTH DAKOTA
 3/22-117 No. 12-232-24
 MAIN DART BUILDING
 1/20/2012
 GG Consulting

These drawings are prepared for the use of the client and are not to be used for any other purpose without the written consent of the architect.

FRONT ELEVATION

SIDE ELEVATION

Dairymen

By Molly Miron

The Brookings Register

BROOKINGS — If area residents have any objections to the plans of three California families to build large-scale dairies north of Elkton, the dairymen want to hear about it now.

"If there's some reason those dairies shouldn't be built up there, we want to smoke it out," said D. Joe Gribble, an agricultural engineer hired to design the three 1,200-head free stall barns.

Gribble and his son Donald Gribble of Five G Consulting, Molalla, Ore., presented slides at the Brookings County Planning and Zoning Commission meeting Tuesday night showing barns his company has built in various parts of the world, including Saudi Arabia.

The engineers explained that the barns are designed to keep the cows comfortable and ensure high milk production.

The families plan to spend \$8 to \$10 million for land, buildings and livestock, Gribble said. They would also buy feed locally and

hire 40-50 regular employees. "I tell you, it's steady work — 365 days a year those cows want to be milked," he said.

If the design, financing and permitting procedures move according to plan, Joe Pires said they hope to begin building in the late spring and start milking next fall. In addition to state and federal environment permits, the zoning commission would have to issue a special exception to county regulations because of the size of the operation. A request is expected to be filed in April.

The dairy complexes would include the free stall barns, milking parlor, refrigeration room, cow hospital and manure management system.

"We are talking about sanitation, cleanliness, waste management and pollution control," Gribble said. "I'm not going to tell you manure don't smell ... but it can be a lot less offensive."

He said the barns would be flushed with a stream of water twice a day. The slurry would be separated and the water recycled

for several flushes. The solid manure, corn cobs and bits of straw would be dried and used for cow bedding, or as nursery mulch or spread as fertilizer on crop land. The slurry would be stored in lagoons and used as fertilizer through traveling gun or center pivot irrigation systems.

"It's a very effective way to clean up, process and distribute manure," Gribble said. "The ultimate disposition of all that manure has to be on the land."

Joe and Larry Pires said they plan to buy five quarters of land, but that would not be enough to raise the feed for the cows. They would contract with neighbors for feed and to take the manure as part of their fertilizer.

County Commissioner Barbara Telkamp warned the dairymen that they must protect the Brookings-Deuel Rural Water System wellhead southeast of the land they have chosen. The concern, she said, is nitrate percolation into the aquifer from manure spread as fertilizer.

Nancy Hartenhoff, chair of the

Dakota Rural Action groundwater protection team, said her organization has not taken a stand on the proposed dairies. However, DRA opposed the 20,000-35,000-head cattle feedlot Minnesota Corn Processors of Marshall, Minn., had planned to build on the same land. MCP pulled out after six months of controversy among neighbors and various county boards.

"We'd just hope the local boards are more receptive to the people's voice and the facts presented them," she said.

Pat Gilligan, manager of Brookings-Deuel RWS, said his board did not oppose MCP's manure handling plans at the proposed feedlot. But spreading manure on nearby cropland above the Elkton aquifer could pollute the rural water supply, he said.

He said he supported the Pires' project because of the "huge difference" in cattle numbers and because the operation would be family owned and managed.

"People who live on the land tend to be more concerned about the land," he said.

Put it in writing

County wants written proposal before acting on drainage law changes

dations conflicted with highway department business and state drainage laws.

The commissioners asked the township officers to write up their drainage permit revisions and submit them for discussion at the Feb. 21 meeting.

The rural residents said the

water standing on their fields too long.

Weed, Zoning and Drainage Officer David Rusten said people get used to having a bridge or culvert in place, even if it is not adequate, and any change in the drainage system upsets them. The recent abnormally wet years have

drop the hydrology study requirement for putting in culverts. Replacing a culvert with a pipe of the same caliber should only require the signature of the township officer and county drainage officer, they said.

"We just want some cooperation between townships and the

Laurence Groon and about 15 other township officials told

Habitat pla

BROOKINGS — Brook Area Habitat for Humanity hold its inaugural annualer and meeting at 5:30 Sunday at First United Methodist Church.

The event is open to the public and includes spaghetti dinner with bread, beverage dessert, and a slide presentation showcasing the summer's Butte Blitz Build. A free offering will be taken. The

3-Day Fore

THURSDAY		P/C
M/cloudy	High 20	High
	Low 5	Low
Flurries likely		Ch

LOCAL ALMANAC

Yesterday's high/low.....
Precip.....
Year to date.....
Normal by this date.....
Record high: 1987.....
Record low: 1899.....
Average temps.....
Temperature @ 10:30 a.m.....
Dewpoint.....
Humidity.....80 pe
Barometer.....

Brookings, Deuel, Hamlin, K
bury and Moody counties
Tonight...Mostly cloudy with
tered flurries. Lows around 10. N
west wind 5 to 15 mph. Thursday...N
cloudy with scattered flurries.
around 20. Northwest wind 5 to 15

Lake County
Tonight...Mostly cloudy with
tered flurries. Lows in the teens. N
west wind 5 to 15 mph. Thursday...N
cloudy with scattered flurries.
around 25. Southwest wind 5 to 15
becoming northwest



AMERICAN TECHNICAL

330 N. MAIN SUITE 104
SIOUX FALLS, S.D. 57102-0342
PHONE: 605-339-3722 FAX: 332-5443

Post-It™ brand fax transmittal memo 7671

of pages 17

To <i>Jim Goodman</i>	From <i>MCP</i>
Co.	Co.
Dept.	Phone #
Fax # <i>605-773-4068</i>	Fax #

REPORT OF WELL FIELD EVALUATION

MINNESOTA CORN PROCESSORS
400 West Main Street
Marshall, Minnesota 56258

May 20, 1994

Attn: Mr. Paul Imm
Commodities Manager

Ref. No. 94-1773

Subj: Production and Monitor Well Observation and Evaluation
Proposed Feedlot
5 Miles North of Elkton, South Dakota

INTRODUCTION

We have completed the engineering study for the well field. This evaluation was authorized by Mr. Paul Emm in accordance with our proposal. Our project study results are attached.

SCOPE OF WORK

The scope of our work was limited to the following:

- o preparing and monitoring an equilibrium confined aquifer performance test consisting of the following:
 - (1) withdrawal and monitoring at 200 gpm,
 - (2) withdrawal and monitoring at 275 gpm,
 - (3) withdrawal and monitoring at 350 gpm,
 - (4) well regeneration monitoring.
- o providing a judgment on the maximum allowable well pump rate.
- o summarizing the results of the above in a written report.

DESIGN INFORMATION

Project information supplied to us shows the proposed feedlot located five miles north of Elkton, South Dakota (Township 110N, Range 47W) is to be supplied with

MINNESOTA CORN PROCESSORS

Well Observation and Evaluation

Proposed Feedlot

May 20, 1994

Ref. No. 94-1773

Elkton, South Dakota

two aquifer wells which are capable of producing 200 g.p.m. to 250 g.p.m. during peak usage during the summer.

WELL EVALUATIONS

The production well was evaluated using the equilibrium aquifer performance method. The northern well, designated the North Monitor Well, and the well on adjoining property, 1/2 mile south of production well, designated the South Monitor Well, were monitored in conjunction with this test.

Other wells observed and measured was an irrigation well located 0.45 miles south and .6 miles west of the production well and an artesian well located 1.45 miles south, 1 mile west and .4 miles south of the production well. Note: the 3 day pump test had no influence on the artesian well and the irrigation well.

Water levels in the production well and the North Monitor Well were measured at twenty minute intervals using pressure transducers and a data logging device (the Hermit 1000C). The South Monitor Well water levels were measured using a water level meter when necessary; ie. before and after Production Well flow stepping. In addition, an Artesian well, located one mile west and one-and-one-quarter mile south of the Production Well was monitored for change in flow rate.

The test was conducted at three separate flow rates. The measured rates of 200 gpm, 275 gpm, and 350 gpm were obtained from Schramm Well Drilling and by independent field testing by ATS personnel. Each stage of the test was monitored until the production well reached equilibrium, at which time the next stage of the test commenced. The third stage, pumping at 350 gpm, was ended at 72 hours from the initiation of the test. At this time the fourth and final stage, regeneration, was initiated and was monitored for six continuous hours.

Well evaluation should be considered accurate for weather conditions at the time of testing. Well production rate may increase or decrease based on the rainfall in the area and the usage by other wells in the area. The known results are based on a three day pump test. Unknown variables may change the results; ie. a change of drawdown conditions with other wells pumping, rainfall, regeneration, change in infiltration into the aquifer.

OBSERVATIONS

None of the wells in question were observed to drawdown beyond capacity. The monitored Artesian well was observed to have no change in flow rate. The equilibrium drawdown levels compared to flow rates were observed to follow a logarithmic curve; ie. logarithmical decreasing for each incremental step-up of flow

MINNESOTA CORN PROCESSORS
Well Observation and Evaluation
Proposed Feedlot

May 20, 1994
Ref. No. 94-1773
Elkton, South Dakota

rate. The South Monitor Well was observed to have a minute level change (six feet total) and, therefore, may be considered hydrostatic. The production well regenerated to 80% of its original level after one hour of regeneration.

CONCLUSIONS

Based on the logarithmic analysis of equilibrium well drawdown levels compared with incremental flow step-ups, the production well was determined to have a 600 gpm flow capacity. The cone-of-influence of the production well is approximately 1000 feet, producing negligible effect on the South Monitor Well (approximately 2400 feet from the production well) and no effect on the Artesian well (approximately 2 miles from the production well). The extremely high rate of recharge gives evidence to the capacity of the production well field and that the recharge came from a short distance from the well.

RECOMMENDATIONS

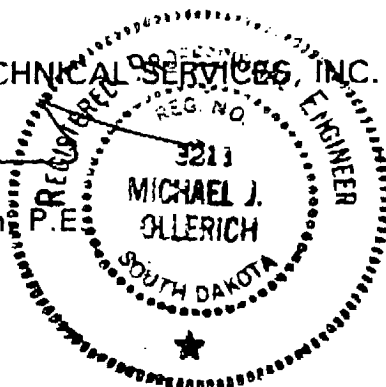
NOTE: WE HAVE TOLD ALL PARTIES INVOLVED TO FILL IN THE 50 FOOT HAND DUG WELL. THIS WELL IS PROBABLY CONTAMINATED AND WOULD HAVE NO REAL USE. THIS WELL IS CAVING IN AND IS EXTREMELY DANGEROUS. THE AREA OF THAT HAND DUG WELL SHOULD BE ROPED AND FENCED OFF A DISTANCE OF 25 FEET FROM THE WELL UNTIL IT HAS BEEN FILLED. IF YOU WANT ATS TO ABANDON THIS WELL ACCORDING TO STATE SPECS, PLEASE CONTACT US.

CLOSURE

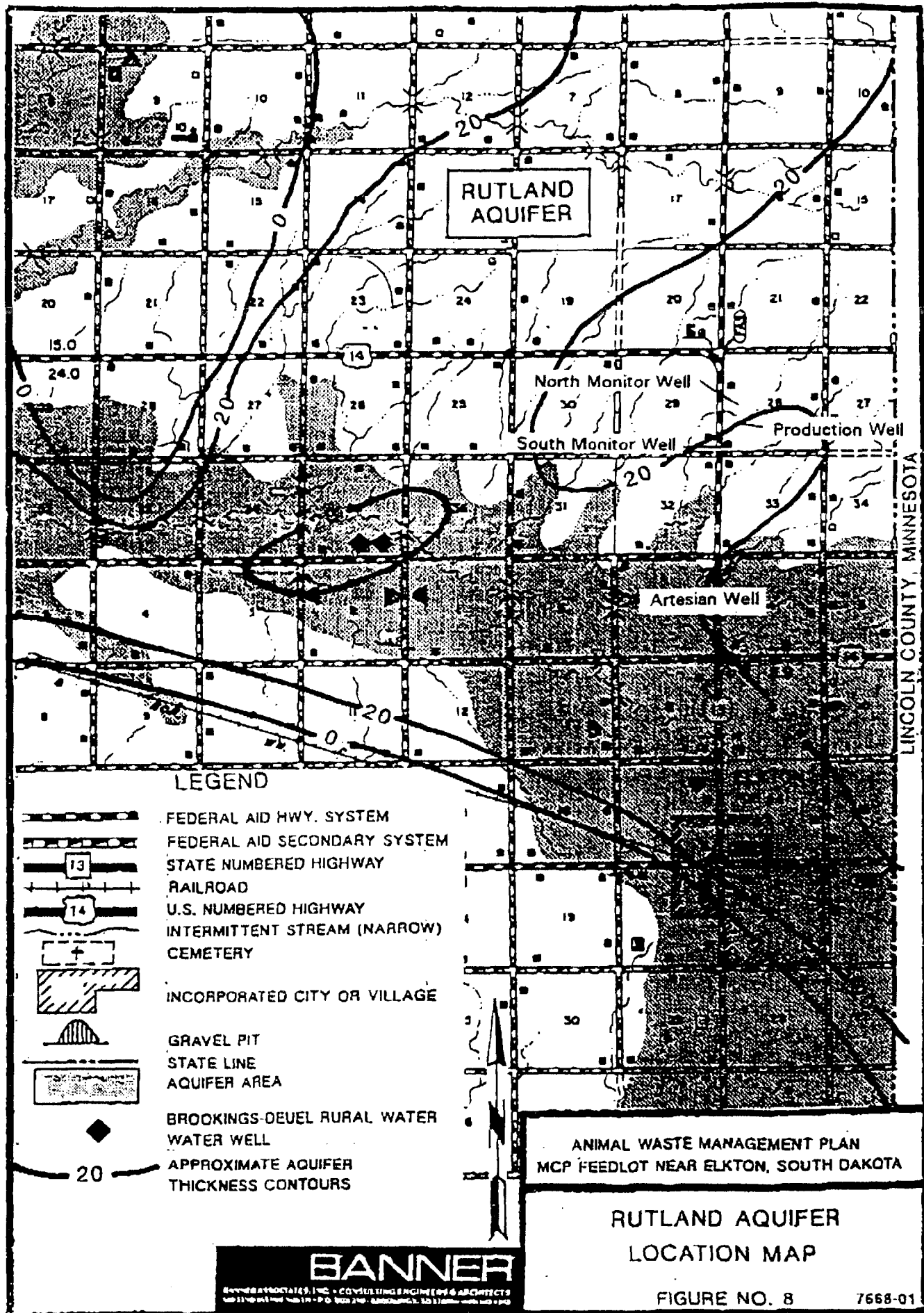
We are available for consultation during future stages. If you have any questions about this report or require additional consultation please contact us. We look forward to working with you on future projects.

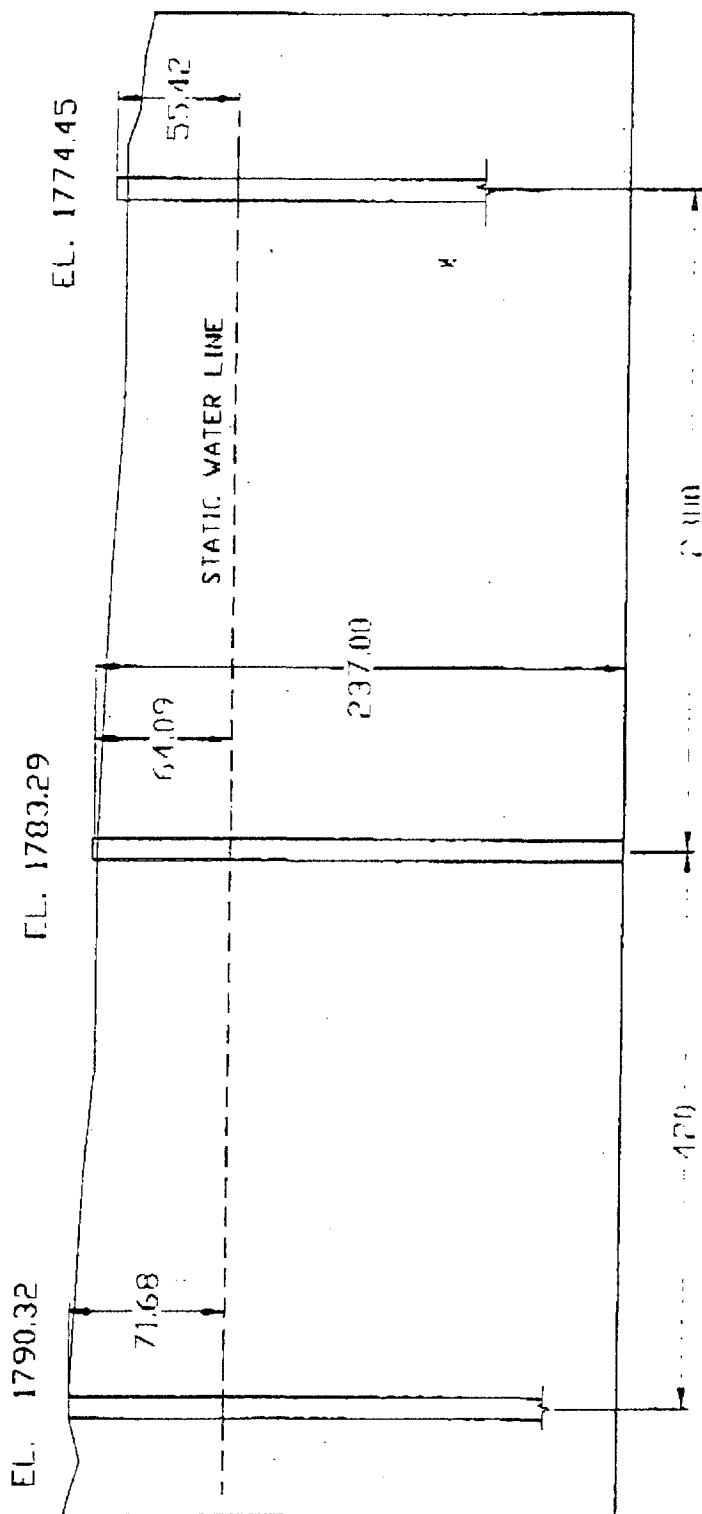
Sincerely,
AMERICAN TECHNICAL SERVICES, INC.


Michael Ollerich
Consultant




Paul R. Payne
Project Manager





PUMP TEST

Initial Water Levels

All dimensions in feet.

AMERICAN TECHNICAL SERVICES, INC.

300 N. PARK SQUARE INC.
SIOUX FALLS, S.D. 57102-0343
PHONE: 605-339-3772 FAX: 605-339-8443

CORPORATE OFFICE
AMERICAN TECHNICAL SERVICES
SIOUX FALLS, SOUTH DAKOTA

WELL PUMP TEST
LEVELS

SHEET:

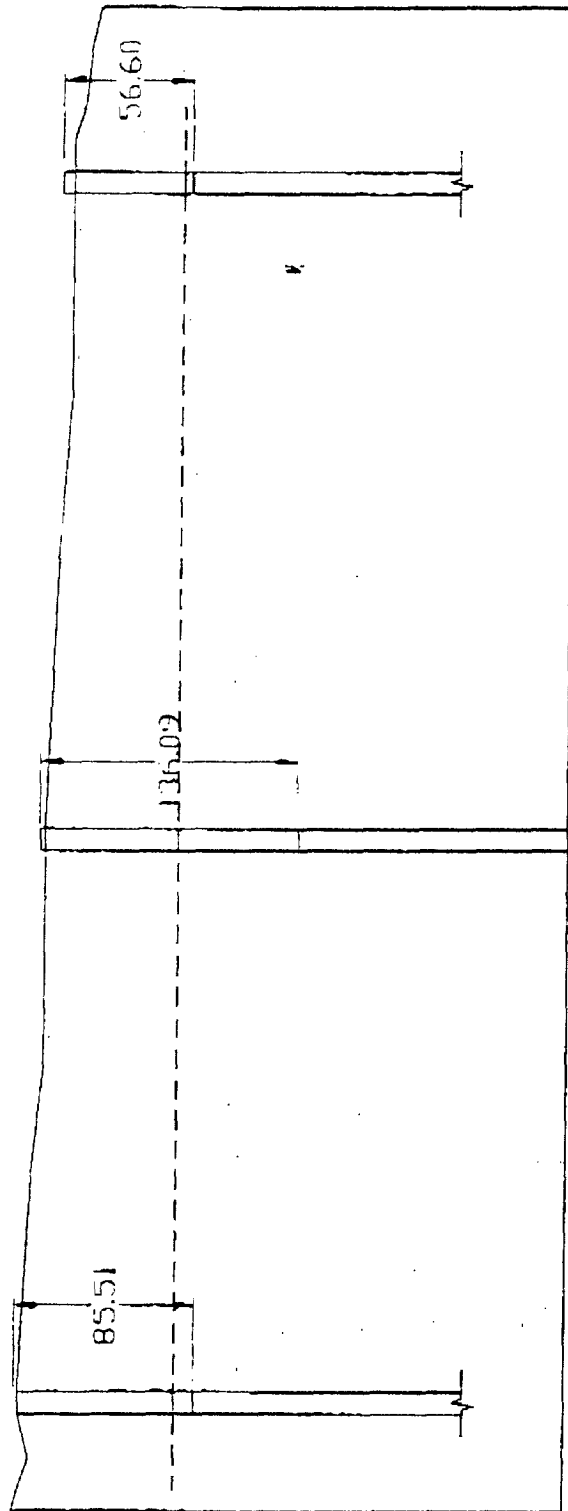
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CHECKED BY:
HJD

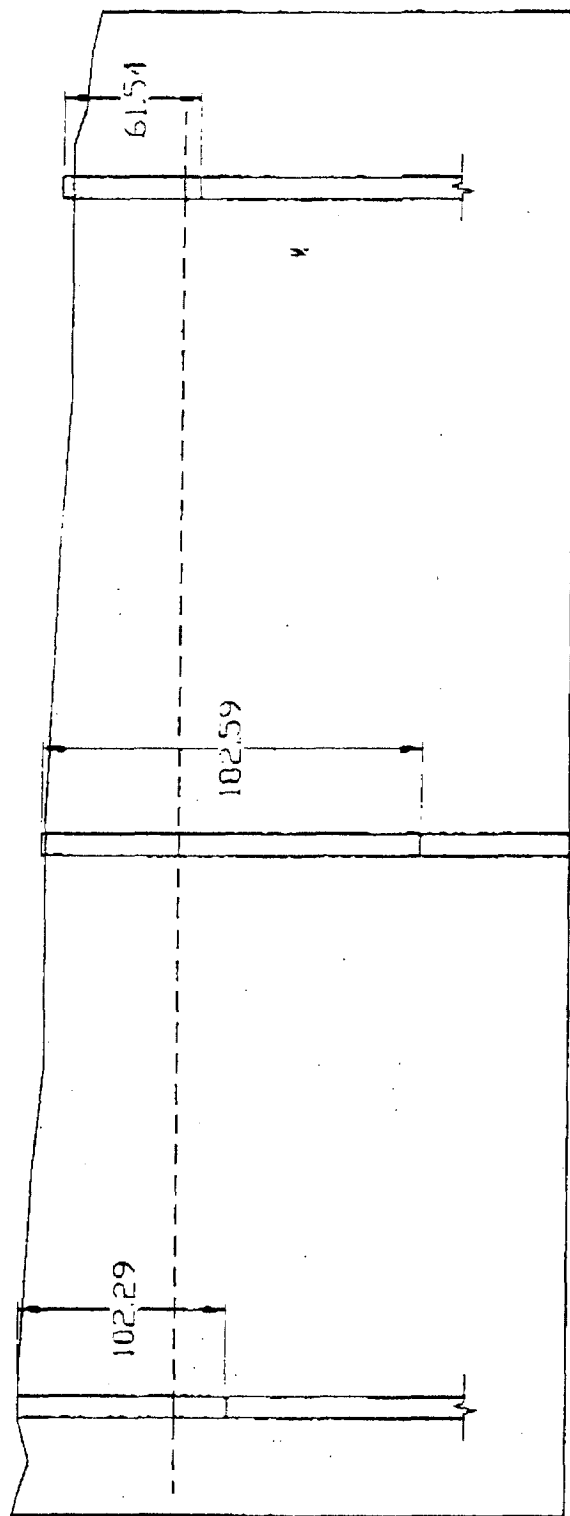
DRAWN BY:
PRP

DATE:
Aug 13, 1994



PUMP TEST
Water Levels at 200 gpm
All dimensions in feet.

AMERICAN TECHNICAL SERVICES, INC. 330 N. MAIN, SUITE 101 SIOUX FALLS, S.D. 57104-0417 PHONE: 605-339-3711 FAX: 605-331-8443	
CORPORATE OFFICE AMERICAN TECHNICAL SERVICES SIOUX FALLS, SOUTH DAKOTA	
WELL PUMP TEST LEVELS	SHEET: 2 / 4 DATE: May 13, 1994 DRAWN BY: PJP CHECKED BY: LMO



PUMP TEST

Water Levels at 350 gpm

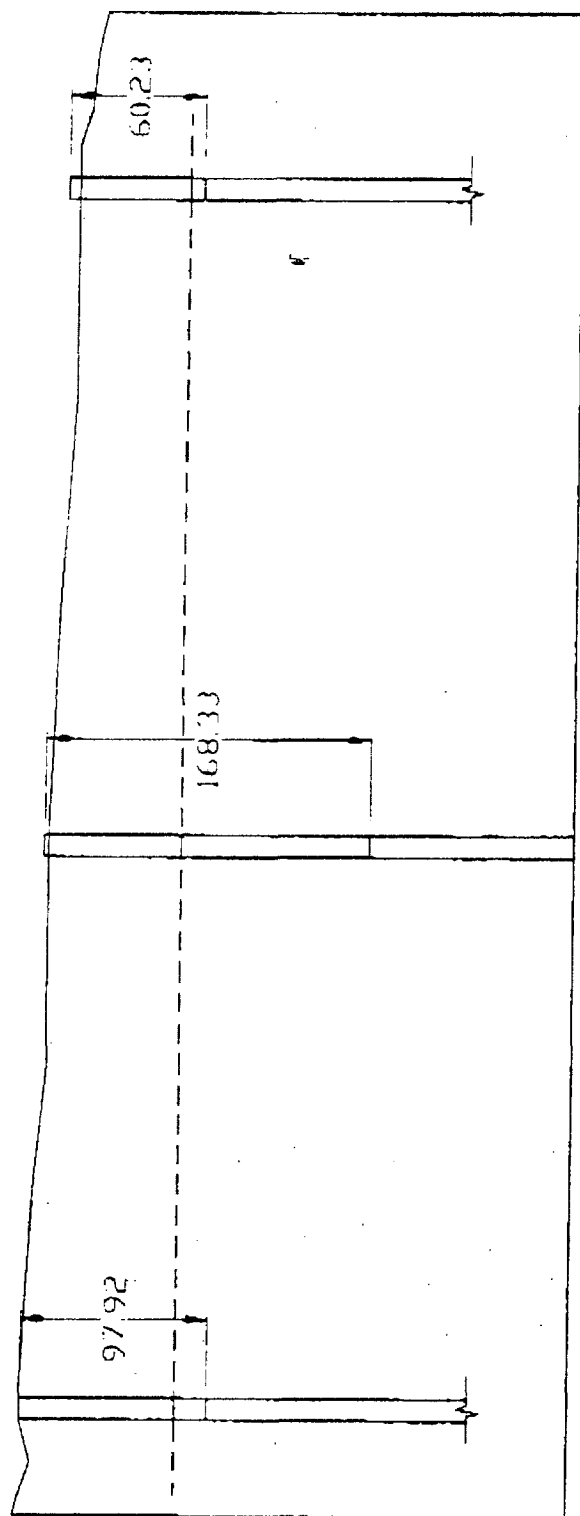
All dimensions in feet.

AMERICAN TECHNICAL SERVICES, INC.

330 N. MAIN SUITE 104
SIOUX FALLS, S.D. 57101-0442
PHONE: 605-339-3712 FAX: 605-339-3443

CORPORATE OFFICE
AMERICAN TECHNICAL SERVICES
SIOUX FALLS, SOUTH DAKOTA

WELL PUMP TEST LEVELS	SHEET:		CHECKED BY: WJO
	3	4	
DATE: May 13, 1994	DRAWN BY: PJP		



PUMP TEST

Water Levels at 275 gpm

All dimensions in feet.

AMERICAN TECHNICAL SERVICES, INC.

330 N. MAIN STREET, S.W.

SIOUX FALLS, S.D. 57104-0001

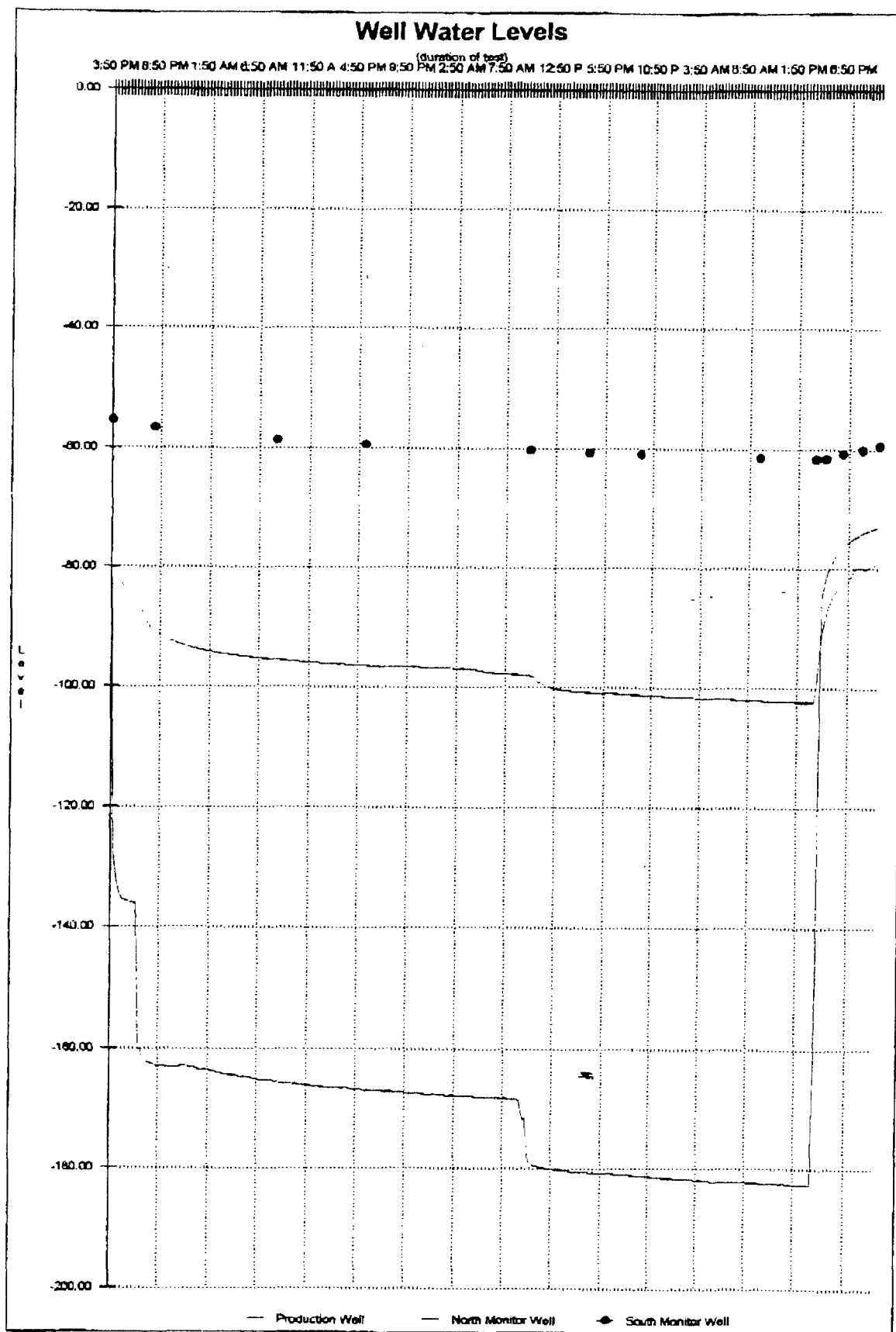
PHONE: 605-339-3711 FAX: 605-339-3712

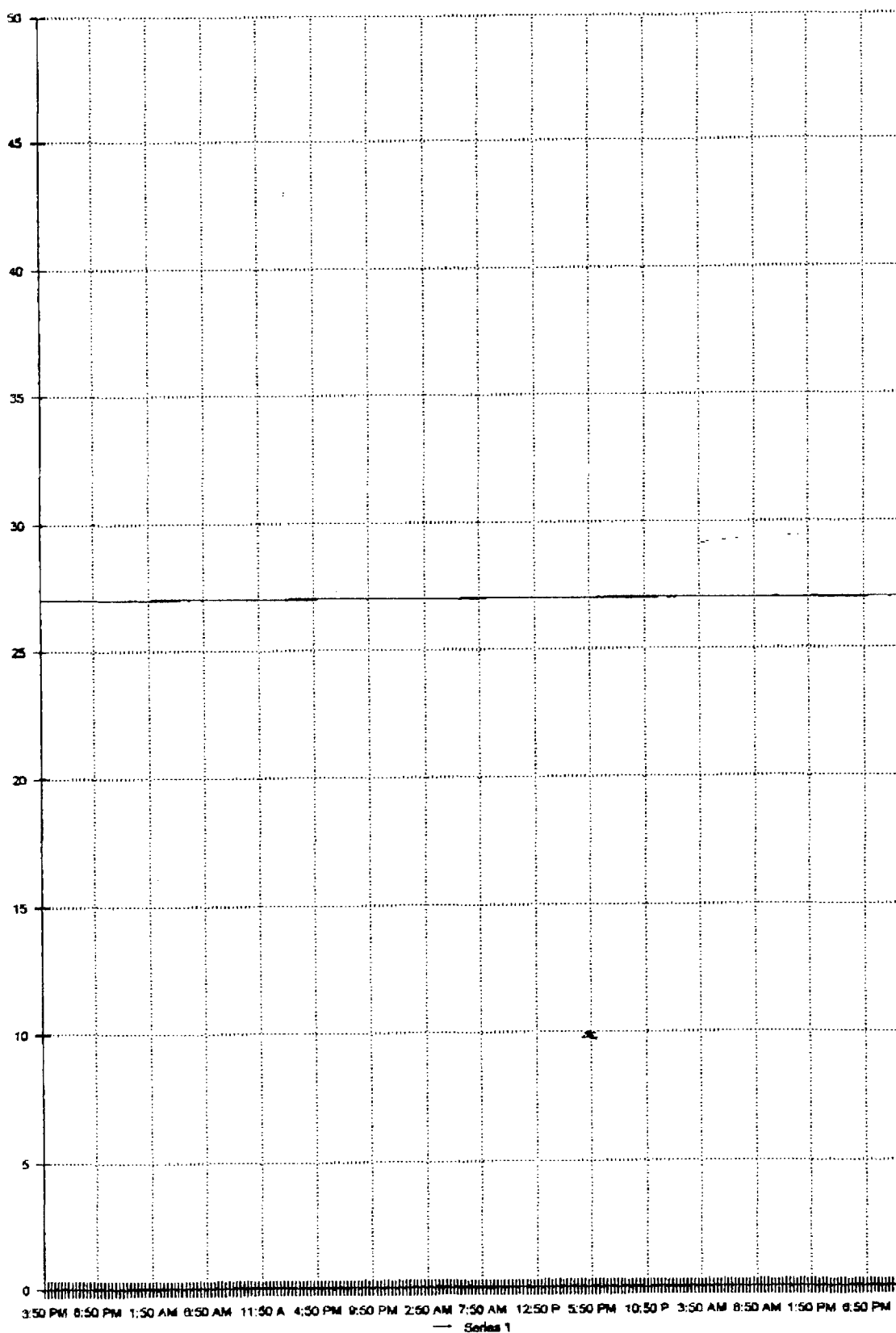
CORPORATE OFFICE

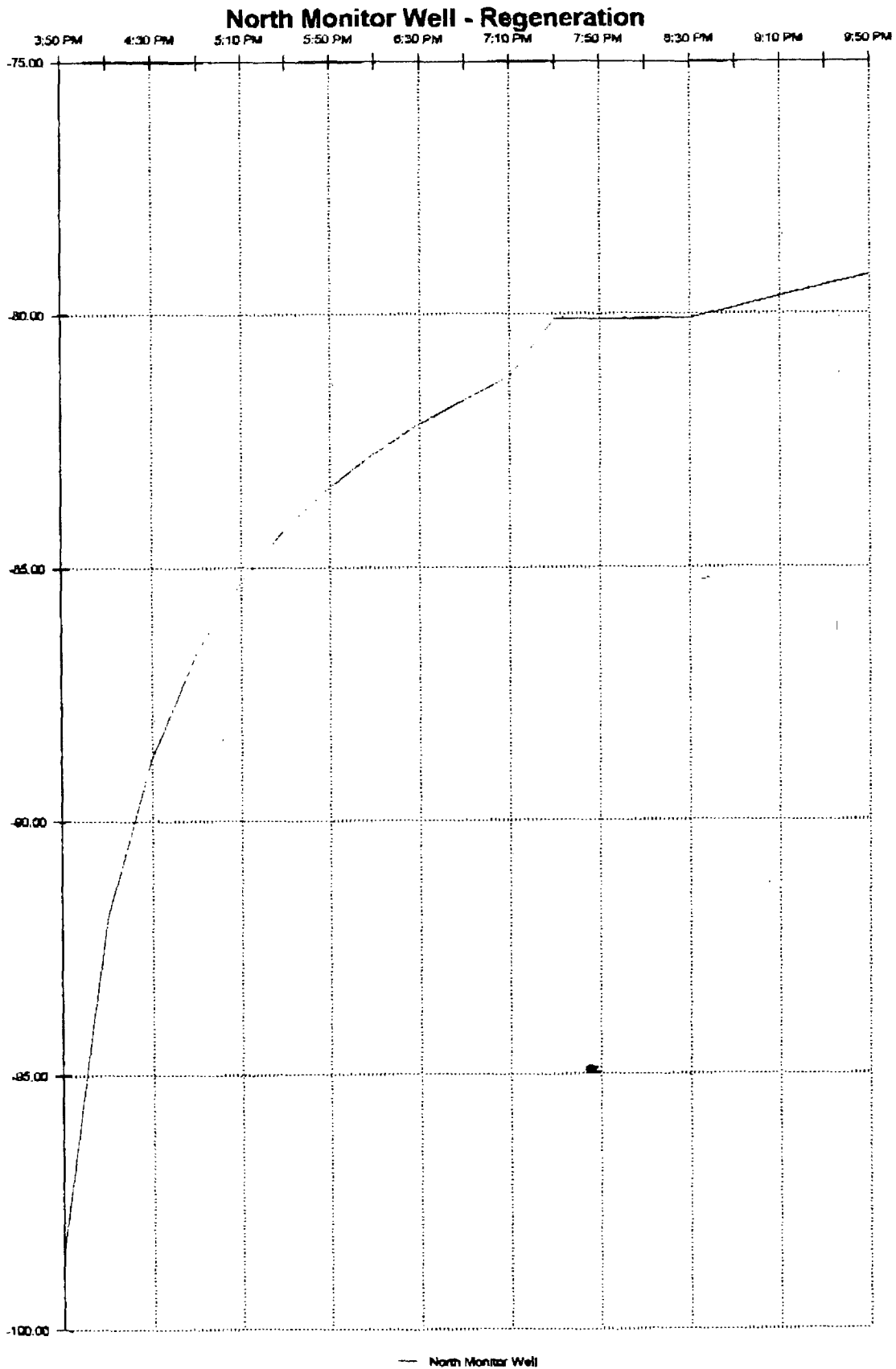
AMERICAN TECHNICAL SERVICES

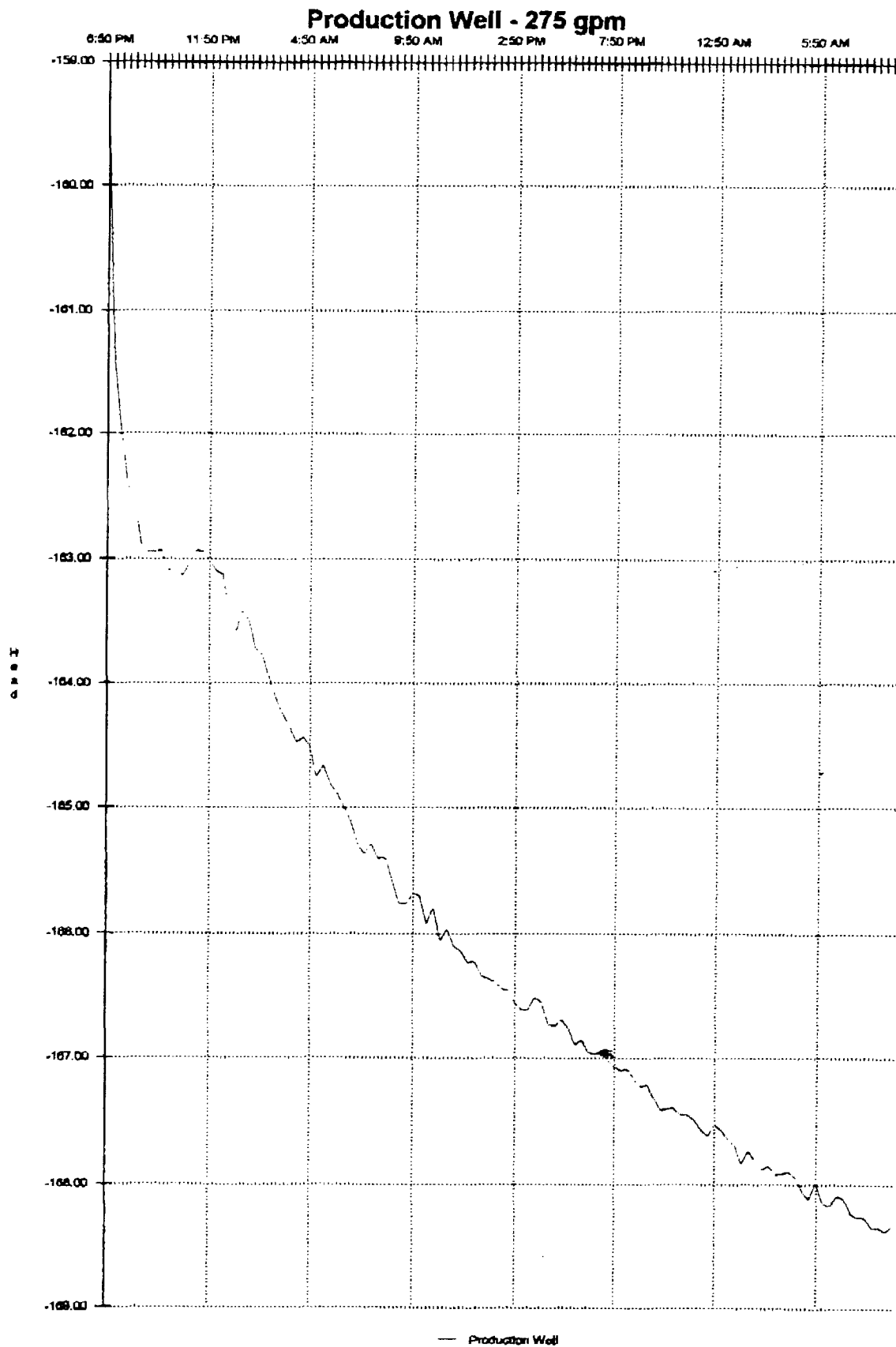
SIOUX FALLS, SOUTH DAKOTA

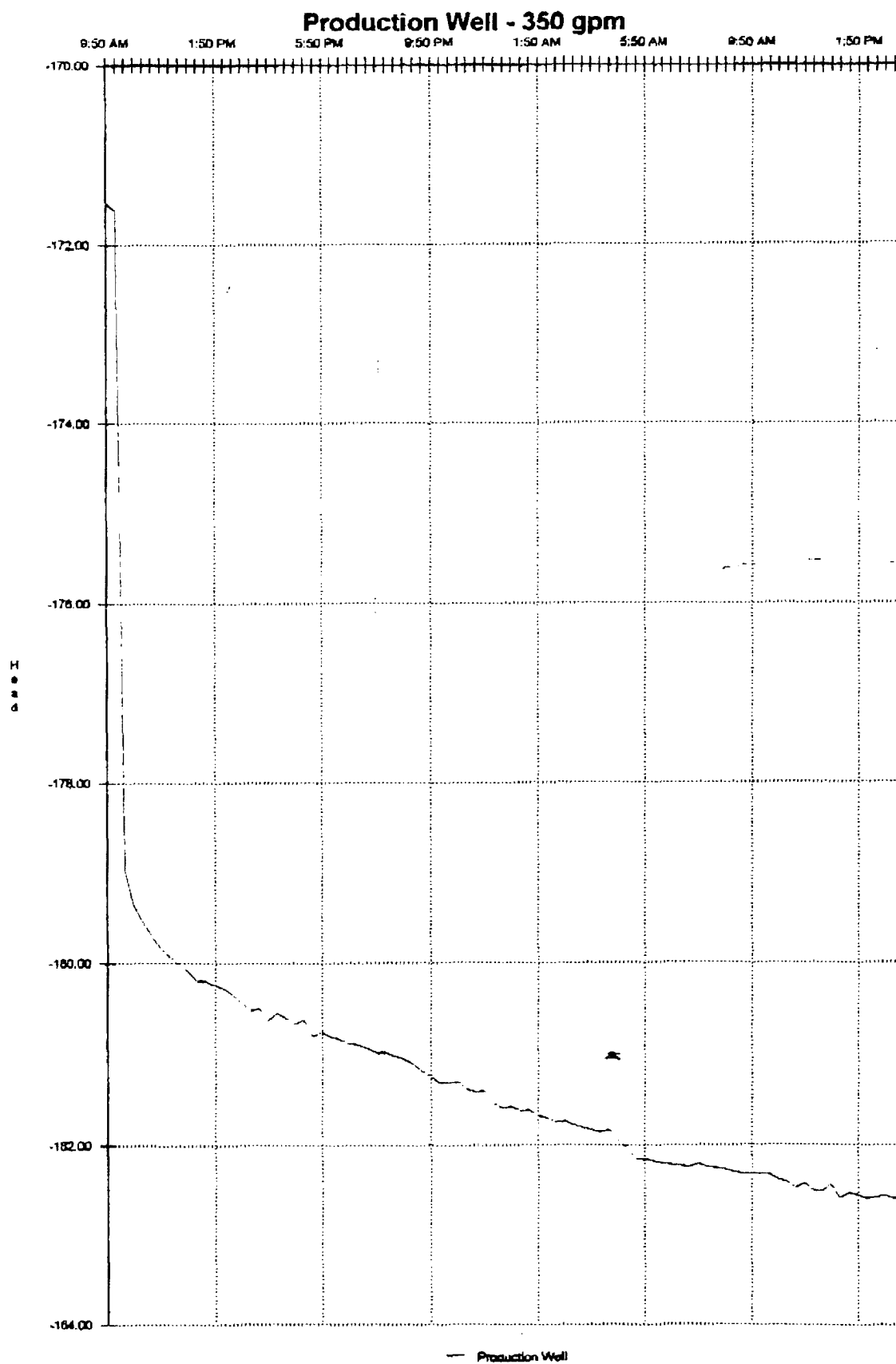
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DATE: May 13, 1994	DRAWN BY: PRP	

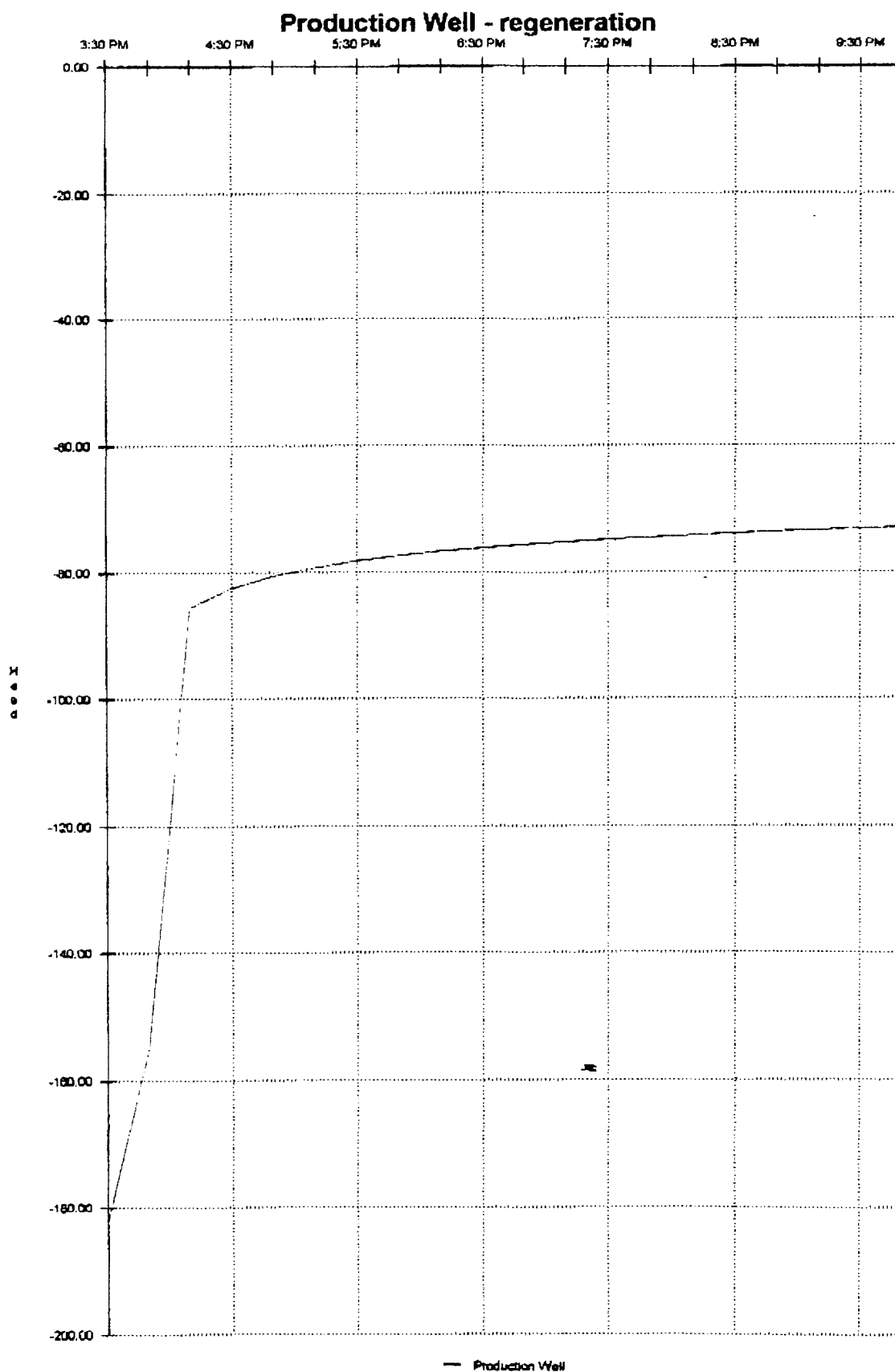


Artesian Well - Flow (gpm) vs. Time

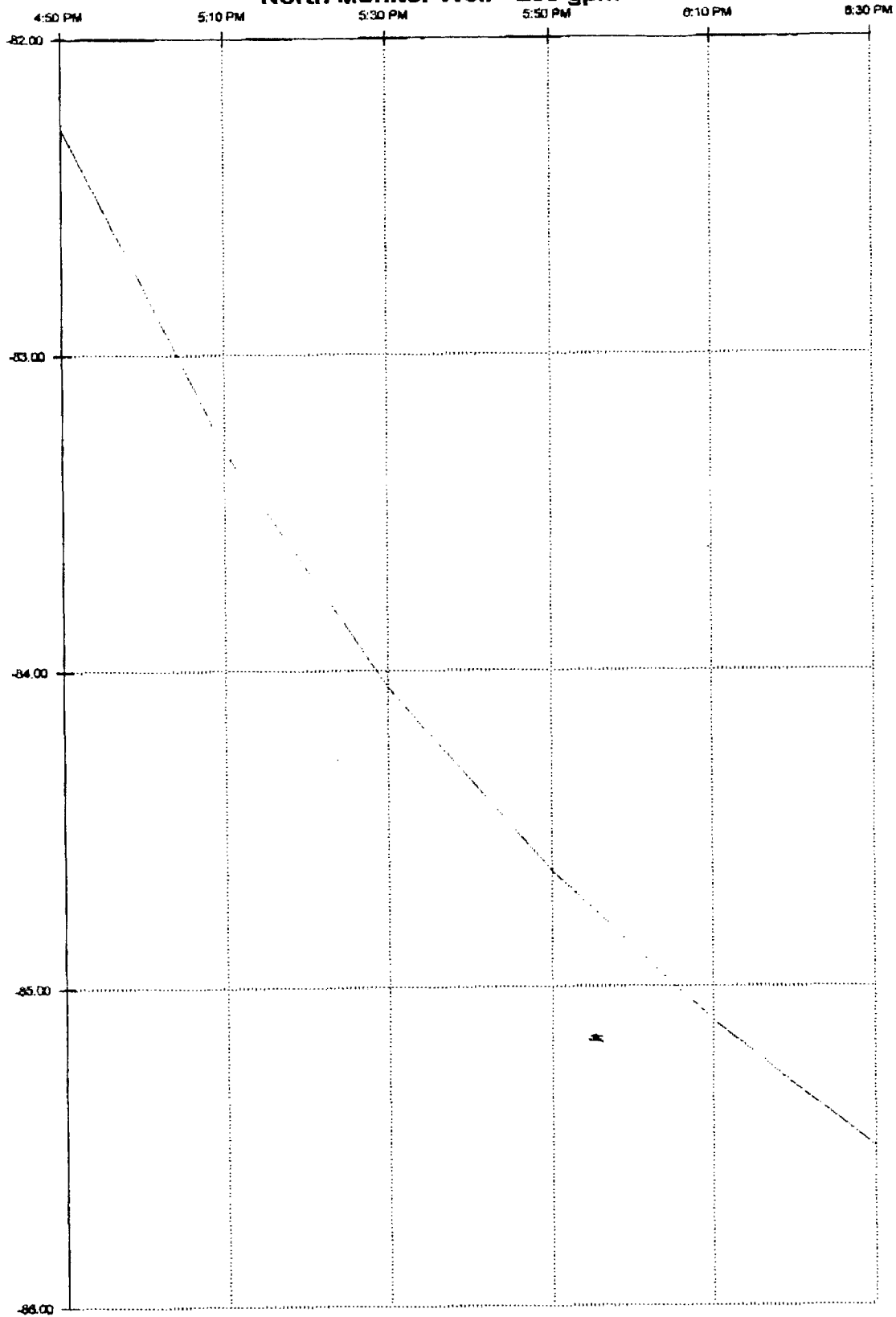




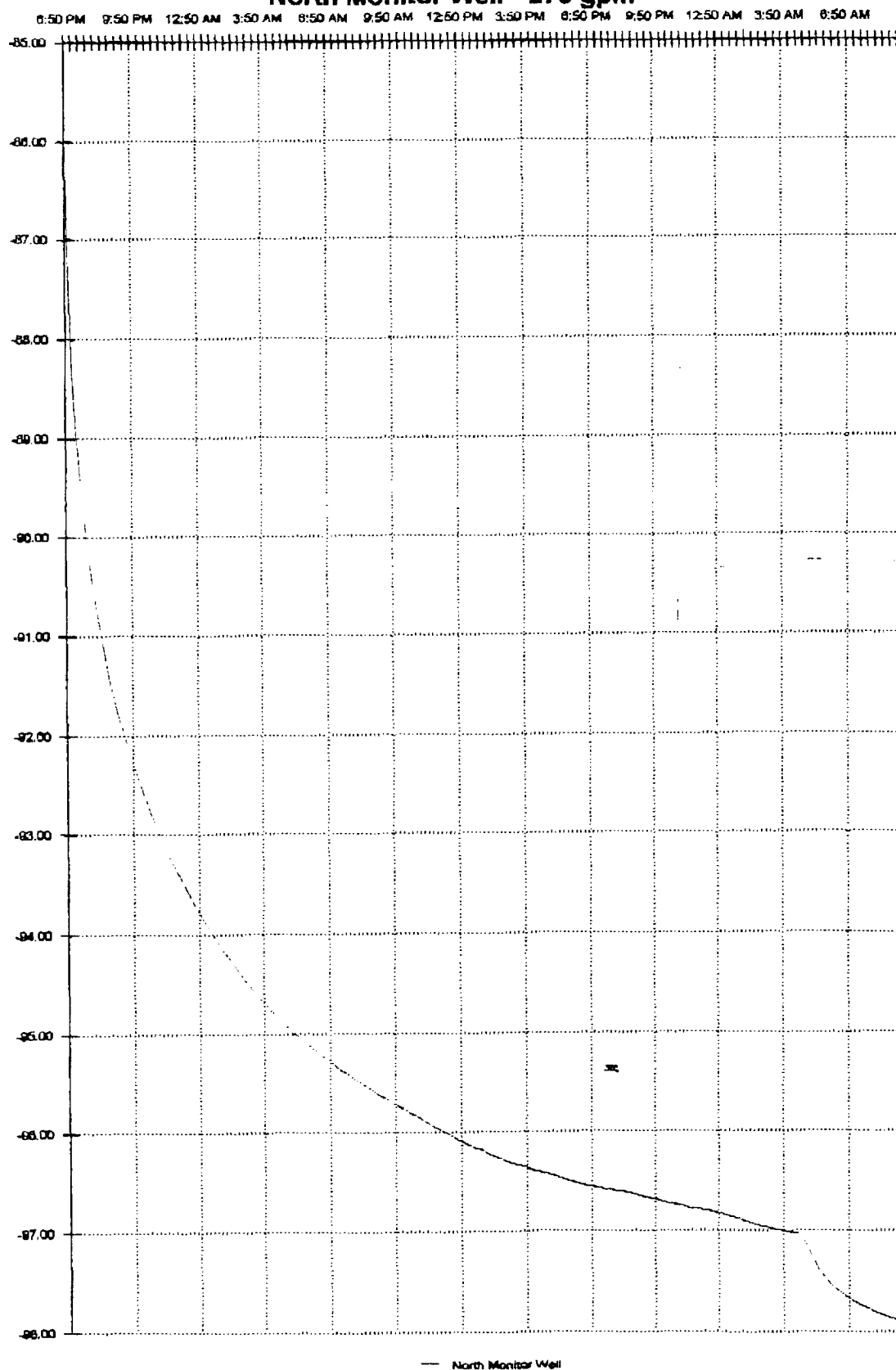


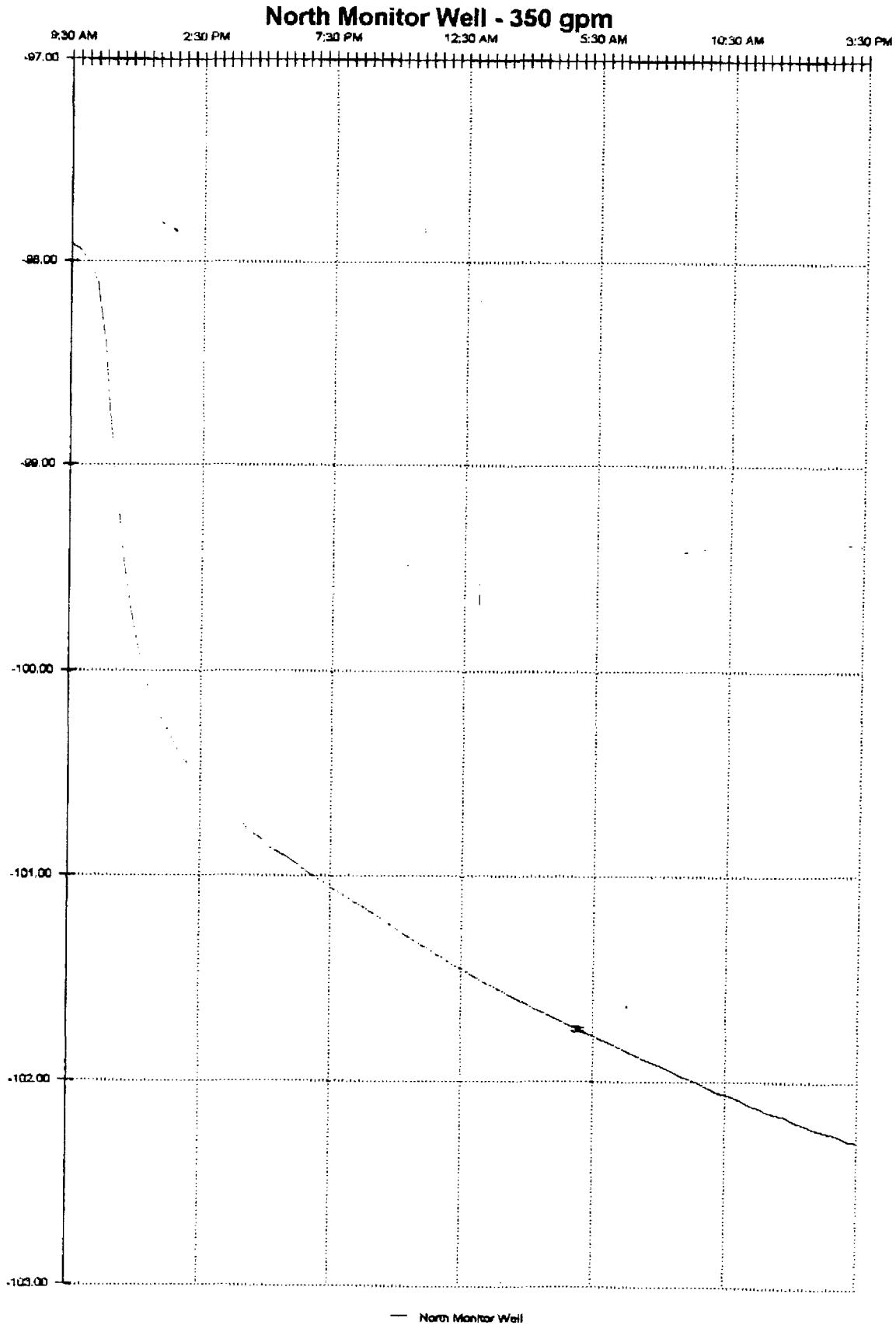


North Monitor Well - 200 gpm



— North Monitor Well

North Monitor Well - 275 gpm





**DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES**

JOE FOSS BUILDING
523 EAST CAPITOL
PIERRE SOUTH DAKOTA 57501-3181

May 16, 1994

Jerry Jacoby, Chairman
Minnesota Corn Processors
RR 1, Box 89
Springfield MN 56087

Dear Mr. Jacoby:

Thank you for the information and cooperation we have received from Paul Imm and Tex Phipps concerning your proposed feedlot operation in Brookings County. As per your contacts with Tim Tollefsrud and Jeanne Goodman from the Division of Environmental Regulation, properly using the characteristics of your site in the design of your proposed feedlot may minimize or even eliminate your environmental permitting requirements.

Because your site is not over a shallow aquifer, a Ground Water Discharge Plan will not be required at this time. However as per earlier conversations with Jeanne Goodman, the Department of Environment and Natural Resources will be requiring ground water monitoring to ensure that the animal waste treatment ponds are not leaking and ground water is not impacted. Your people have agreed to include plans for ground water monitoring with the final plans and specifications for the facility that are to be submitted for review and approval. Your staff has also agreed to provide a waste utilization plan with the plans and specifications that can be used to review any adverse impacts to the ground water from the areas used for waste storage and disposal. The plan must include the amount of waste, the nutrient value of the waste, and the number of acres of land to which the waste will be applied.

A site-specific National Pollutant Discharge Elimination System (NPDES) discharge permit will not be required if the storage ponds for your feedlot are designed and constructed in accordance with Soil Conservation Service design criteria to hold the 25 year, 24 hour storm event. However, the state has just recently been delegated the authority to administer this program. Soon, we intend to public notice a general NPDES permit for all feedlots in South Dakota that, when issued, will be applicable to your facility. However, the basic requirement in that permit will be to have capacity to hold the 25 year, 24 hour storm event, which is the federal Environmental Protection Agency requirement. Of course, any extra storage capacity will add flexibility to your operation and will also help to address concerns that we have heard from local residents about impacts from potential discharges from the wastewater ponds.

Finally, it is my understanding that both the U.S. Fish & Wildlife Service and the Corps of Engineers have visited your site for making wetland determinations. In an effort to minimize the federal 404 permitting process, I fully endorse the idea of avoiding wetlands if possible.

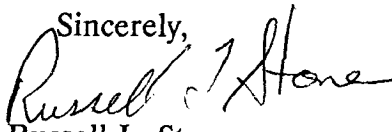
Your application for a water permit has been received by the Division of Water Rights. The following is a brief outline of the application procedure and time frames to obtain a water permit. A more detailed description of the South Dakota water permitting procedure is enclosed.

Upon receipt of a complete water permit application, the following steps take place in accordance with the cited laws and rules:

1. A report is prepared and the chief engineer prepares a recommendation concerning what action should be taken on the application (South Dakota Codified Law (SDCL) 46-2A-2 and 46-2A-3),
2. A notice of hearing, including the chief engineer's recommendation, must be published in a local paper once a week for two successive weeks. The last publication must be at least 20 days before the meeting at which the application will be considered (SDCL 46-2A-4),
3. In response to publication of the notice of hearing, interested persons may file petitions and become a party to the hearing on the application and may also request an automatic delay of the hearing (SDCL 46-2A-4 and 46-2A-5), and
4. The Water Management Board will conduct a hearing on the application and make a decision to approve, deny, or defer the application (SDCL 46-2-9, 46-2-11, and 46-2A-4). If there is opposition, and the application is approved or denied, the Board will need to adopt Findings of Fact, Conclusions of Law, and a Final Decision. The findings create a legal record and identify the reasons for the Board's decision in the event the decision is appealed. Decisions of the Board may be appealed to the Circuit Court and the State Supreme Court. There is a 30 day period in which a Board decision may be appealed to the Circuit Court.

We are planning to publish a notice of hearing to consider your water permit application at the next meeting of the Water Management Board, which is scheduled for June 28 and 29, 1994. If an automatic continuance of the hearing is requested, the hearing cannot be rescheduled until at least 20 days after the published date of the hearing. If a special Board meeting is not held, the next scheduled Board meeting is August 31 and September 1, 1994.

Thank you again for keeping us informed of your project. I hope this letter assists you with project planning. If you have any questions, please feel free to contact me or my staff at (605) 773-3352.

Sincerely,

Russell L. Stone
Acting Secretary

enclosure

cy: Jay Swisher, Secretary, Department of Agriculture



To - Ken Boehler

I have grouted the four test holes with cement as you requested. The holes are grouted with cement from 3 to 8 feet and the top 3 feet is filled in with dirt. The four test holes I'm referring to, are in section 28 of Township 110-111 N and 47 W of Brooking County.

Sincerely,

Joel Minett
Minett Well Drilling
Ruthton, MN 56170

REPORT ON WATER PERMIT APPLICATION NO. 5822-3
for Minnesota Corn Processors
May 19, 1994

Application No. 5822-3 proposes to appropriate 0.89 cfs (400 gpm) from 2 wells, 224 feet and 237 feet deep, located in the NW 1/4 SW 1/4 and SW 1/4 NW 1/4 of section 28, T110N R47W in Brookings County. Both wells will have a capacity of producing 0.89 cfs, however, only one of the wells will be operated while the other well will be used for standby purposes. Water will be used for commercial purposes in a livestock confinement facility with a peak capacity of 35,000 head of livestock.

AQUIFER - RUTLAND

The Rutland is a buried glacial outwash (sand and gravel) under confined or artesian conditions at this site. The aquifer underlies 240 square miles in central and eastern Brookings County and contains an estimated 400,000 acre feet of water in storage (Hamilton, 1989). The aquifer appears to extend into Minnesota to the east, Deuel County to the north and into Moody County to the south. An aquifer map showing extent and thickness and another map showing direction of water movement are included with this report (taken from Hamilton report). Ground water appears to move from north to south and east to west in the area of this application.

Test borings have been completed at this site. The well logs indicate sand and gravel from 209 to 223 feet in one hole and from 215 to 236 feet (clay from 219 to 225 feet) in another hole. Other test boring in the area to the north indicate little if any aquifer at those sites.

The Division of Water Rights monitors three observation wells (BG-78E, BG-78F and BG-80I) which are completed into the Rutland aquifer. Hydrographs of these wells are included with this report. In general, the water levels show response to pumping by irrigation wells in the area. Fluctuations near the irrigation diversions have approached 60 feet in a season. This is from observation well BG-78E which is located about 1/2 mile from two exiting irrigation wells. Over the long term record, the water levels indicate that recharge occurs and that the aquifer does respond to climatic conditions. In addition to the fluctuations caused by pumping there are trends which can only be attributed to recharge or lack of recharge caused by wet and dry years. These trends are shown by the upward or downward slope of the hydrograph as indicated by the highest levels attained in a given year. This usually occurs in late spring or early summer. In general, the hydrographs indicate that the aquifer is capable of sustaining additional withdrawals (Water Rights, 1994).

REVIEW OF EXISTING WATER PERMITS/RIGHTS

(FIVE)

There are four existing water permits/rights which obtain water from the Rutland aquifer. These are water right Nos. 3876-3, 4213-3, 4416-3 and water permit No. 5302-3. Of these, water right No. 3876-3 is located just west of this proposed application. The wells for this application will be about 1/2 mile and 1 mile east of the two irrigation wells for water right No. 3876-3. Interference will occur. There will be overlapping cones of depression. This effect is illustrated by the drawdown shown on

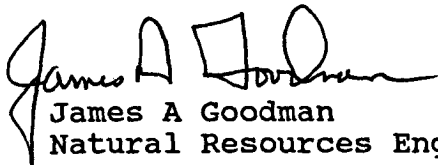
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3047-3 AP
WMB HEARNS -

the hydrographs. More drawdown will be created. It is not anticipated that the interference will be adverse but actual operation of the wells and testing will be necessary to demonstrate the effect.

In all likelihood there are domestic wells in this area obtaining water from the Rutland aquifer. Because of the potential for additional drawdown complaints could be expected. However, there is drawdown occurring now and the Division of Water Rights has never investigated any complaints in this area concerning the effects of drawdown.

CONCLUSIONS

1. Water is available from the Rutland aquifer.
2. The Rutland aquifer is confined and under artesian conditions at this site. Drawdown will result from pumping. The historical record shows this. Interference will result but is not expected to be adverse. Controlled aquifer testing or close monitoring of pumping after development will be necessary to document potential effects. Test borings by the applicant indicate boundary conditions in the immediate area which would cause additional drawdown.
3. The record indicates that the aquifer has historically supplied water in excess of the amount requested by this application for irrigation purposes.
4. The wells authorized by this application must be constructed in accordance with SD Well Construction Standards.
5. An animal waste Management Plan prepared by Banner Associated, Inc. has been submitted to DENR. The plan will have to be approved by DENR Division of Environmental Regulation Point Source Control Program.



James A Goodman
Natural Resources Engineer

BIBLIOGRAPHY

Hamilton, L.J., 1989, Water Resources of Brookings and Kingsbury Counties, South Dakota, WRI 88-145, USGS, Huron, SD, 57350.

Water Rights, 1994, Unpublished Observation Well Records for Brookings County, SD DENR, Division of Water Rights, Pierre, SD, 57501.

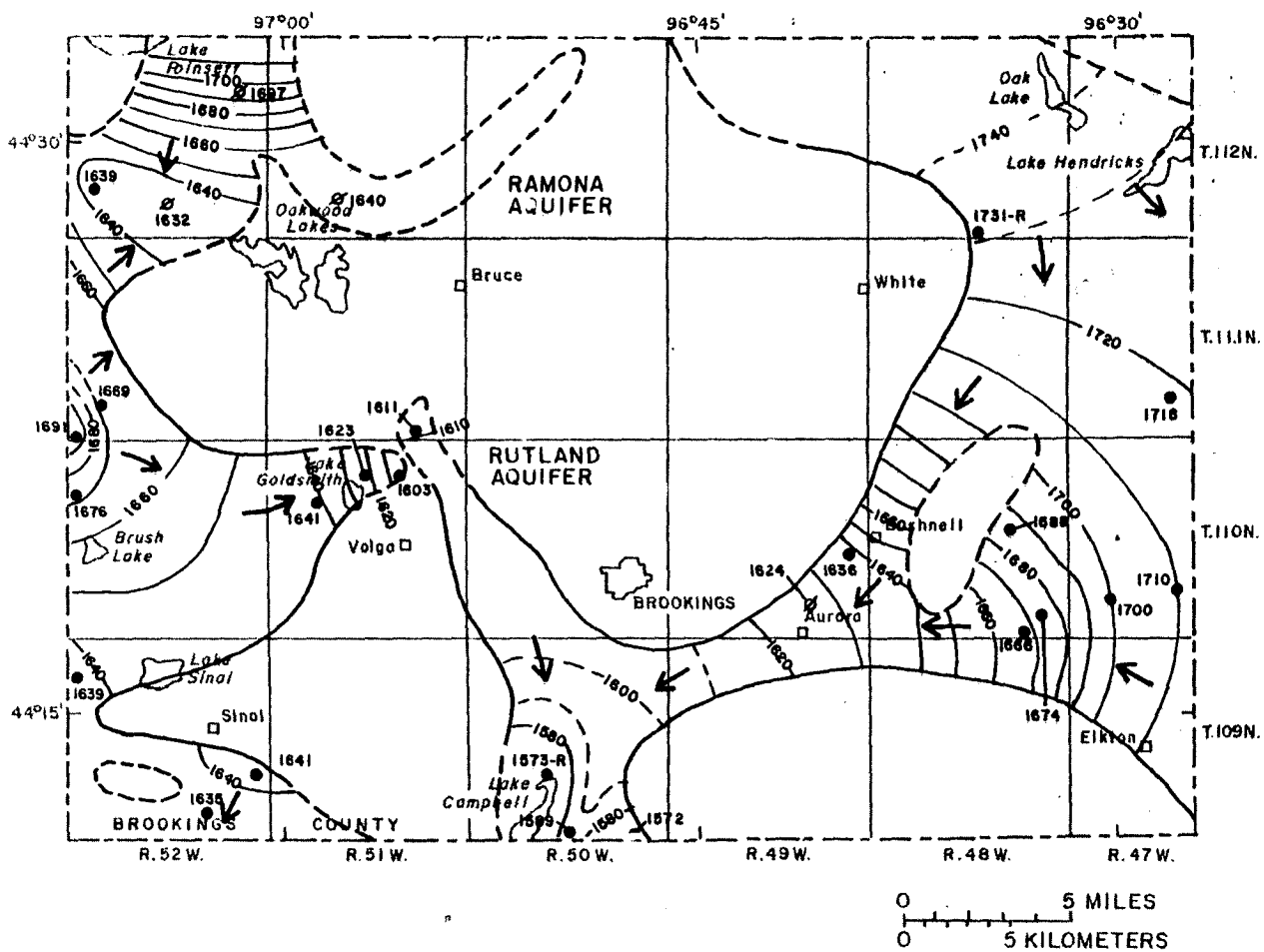
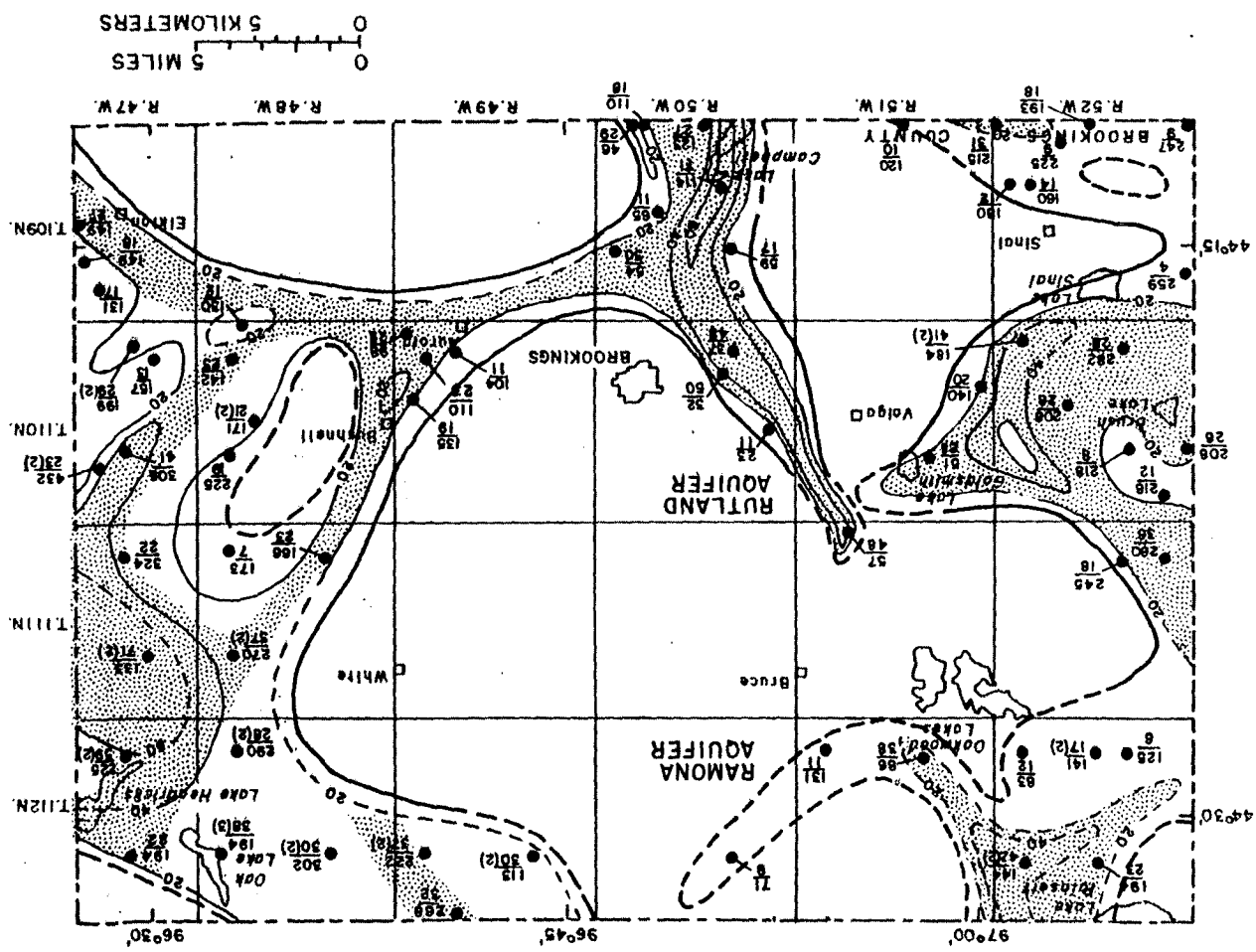


Figure 15.--Potentiometric contours of the Ramona and Rutland aquifers, 1982-85.--Continued

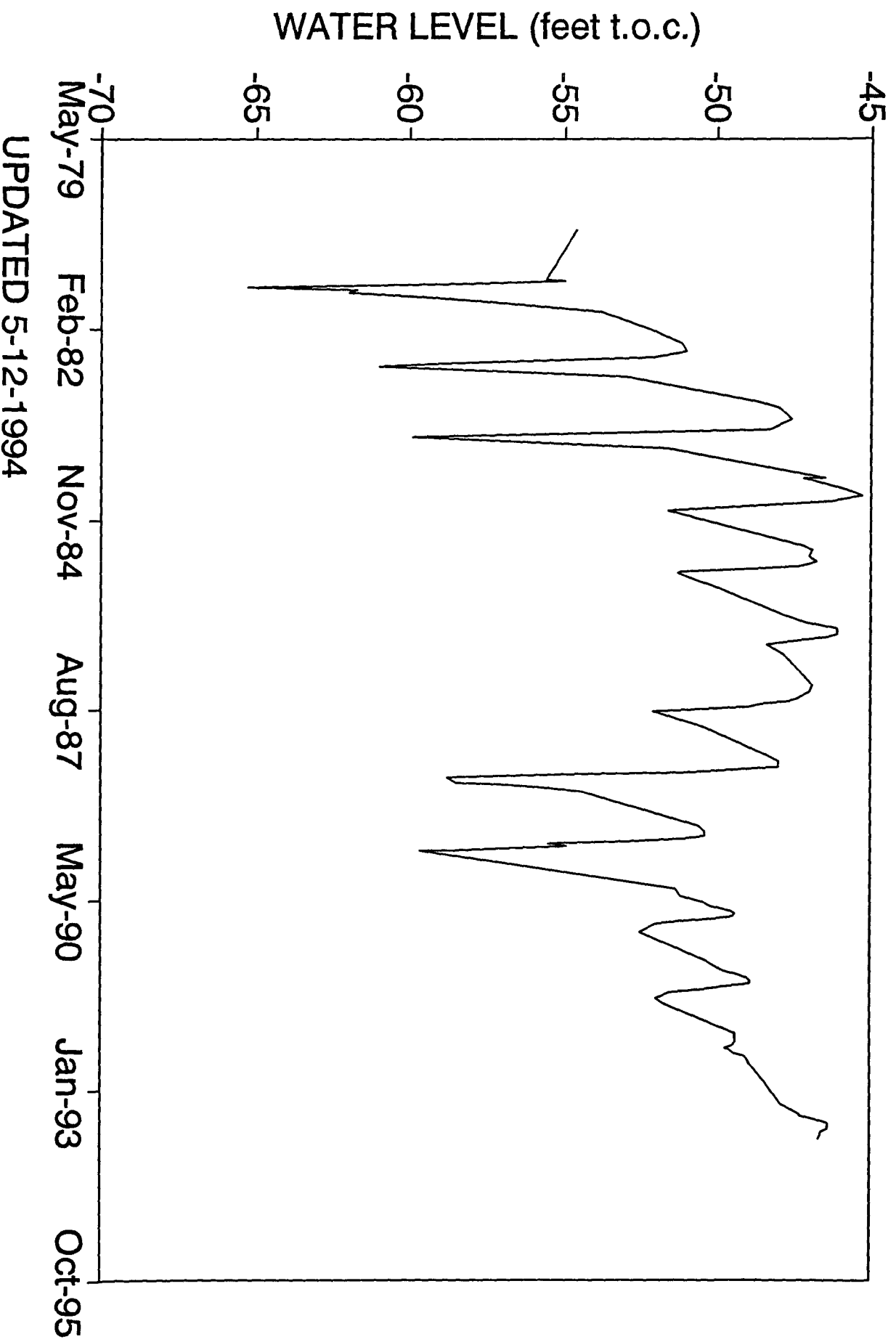
Figure 14.--Extent, depth, and thickness of the
 Ramona and Rutland aquifers.--Continued

From Hamilton, 1939
 Uses WEI 88-4185
 WATER RESOURCES OF BROOKINGS AND KINGSBURY COUNTIES



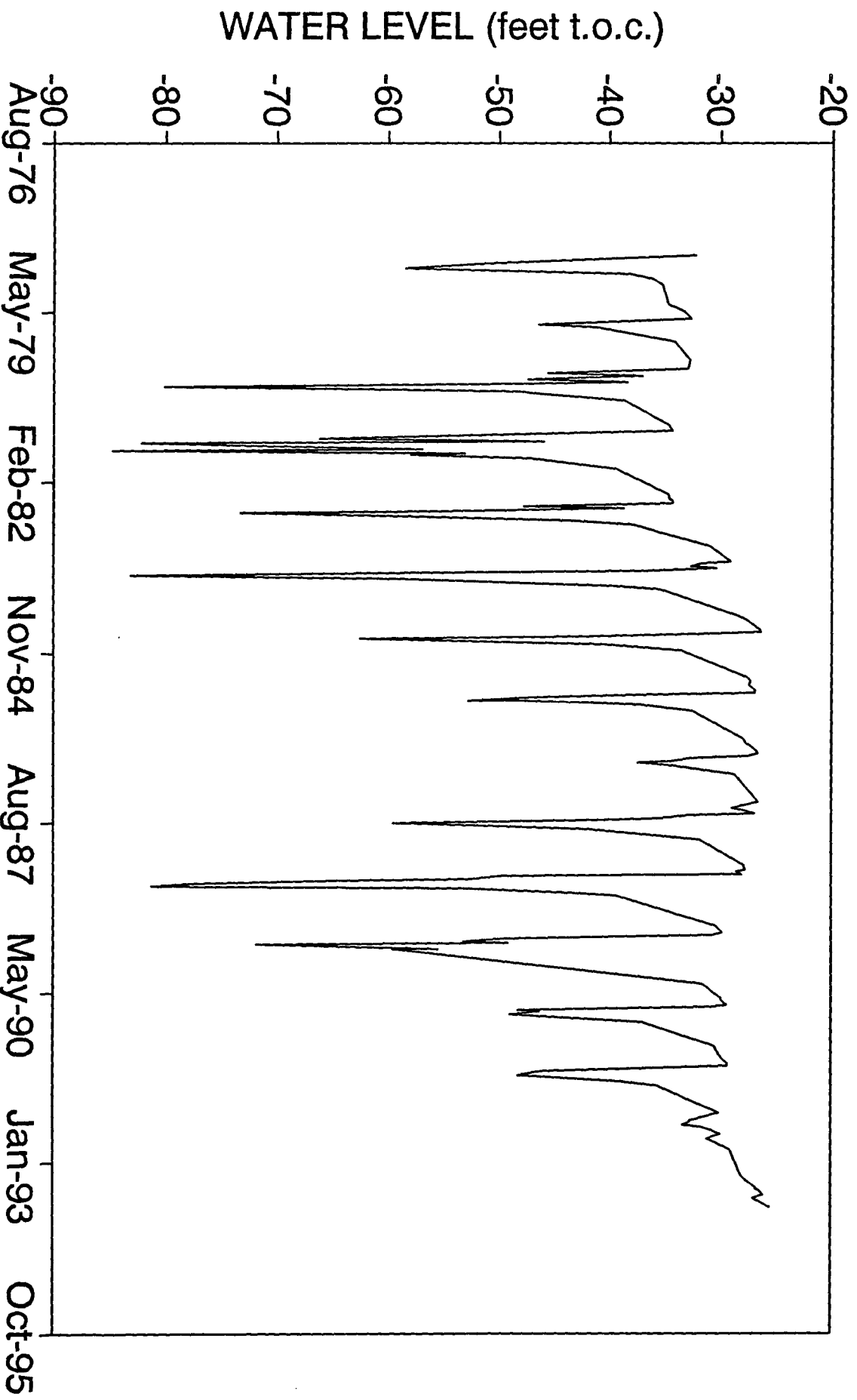
WATER RIGHTS OBSERVATION WELL

BC-801



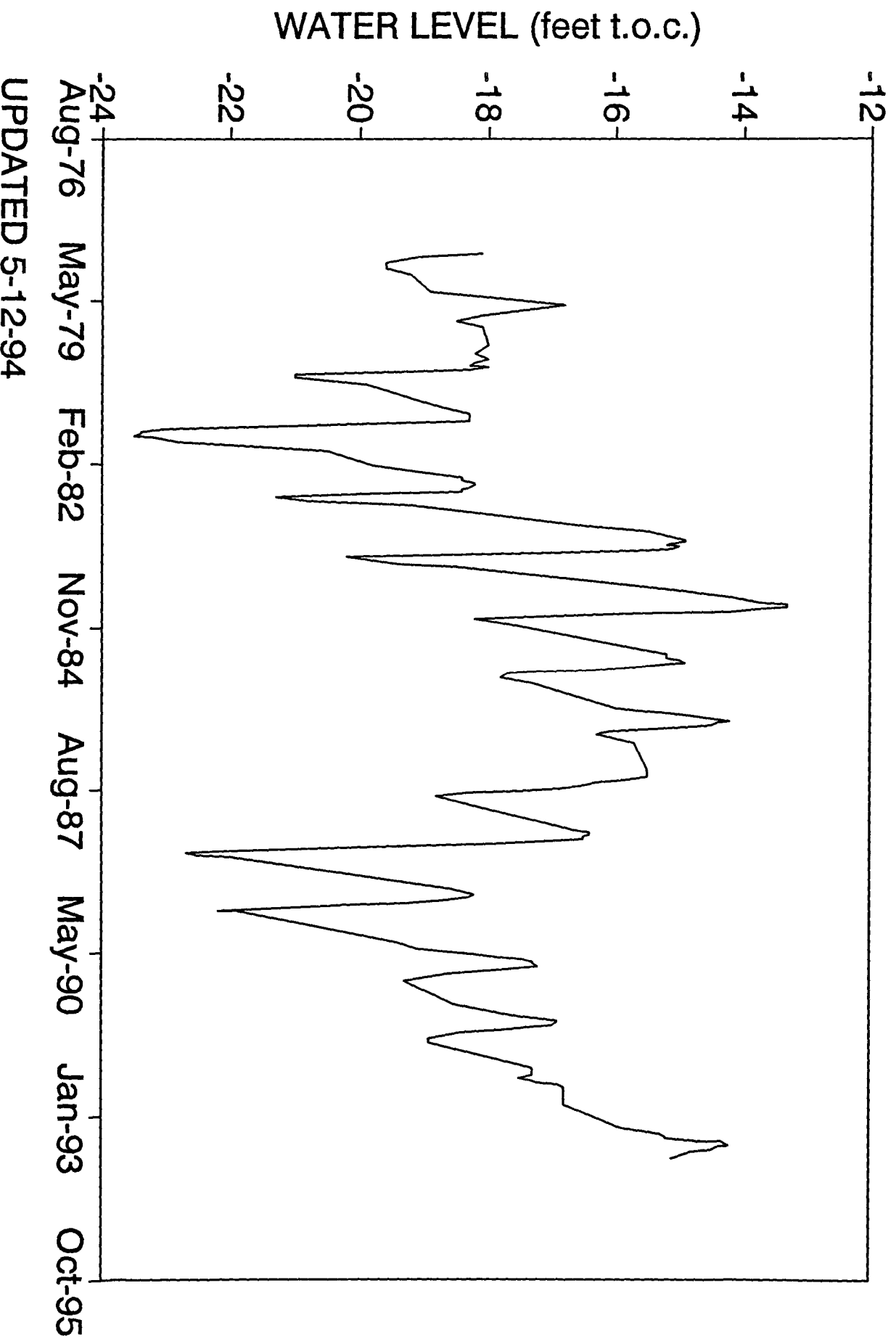
WATER RIGHTS OBSERVATION WELL

BG--78E



WATER RIGHTS OBSERVATION WELL

BC-78F



RECOMMENDATION OF CHIEF ENGINEER FOR WATER PERMIT
APPLICATION NO. 5822-3, Minnesota Corn Processors

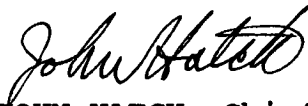
Pursuant to SDCL 46-2A-2, the following is the recommendation of the Chief Engineer, Water Rights Division, Department of Environment and Natural Resources concerning Water Permit Application No. 5822-3, Minnesota Corn Processors, c/o Paul Imm, 400 West Main Street, Suite 201, Marshall, MN 56258.

The Chief Engineer is recommending APPROVAL of Application No. 5822-3 because 1) there is reasonable probability that there is unappropriated water available for the applicant's proposed use, 2) the proposed diversion can be developed without unlawful impairment of existing rights, 3) the proposed use is a beneficial use and 4) in the public interest with the following qualifications:

1. The well approved under this Permit will be located near domestic wells and other wells which may obtain water from the same aquifer. The well owner under this Permit shall control his withdrawals so there is not a reduction of needed water supplies in adequate domestic wells or in adequate wells having prior water rights.
2. Approval of this Permit is subject to review and approval of plans and specifications for the animal waste management system by the Division of Environmental Regulation prior to construction. The plans and specifications shall be prepared by a person who is registered as a professional engineer pursuant to SDCL 36-18.
3. The confinement area shall be designed so that it does not receive surface runoff from the surrounding area.
4. Operation of the disposal systems to dispose of waste and wastewater shall be in a manner that prevents runoff from the disposal sites and from entering the waters of the State. The diffused drainage of natural precipitation on agricultural land resulting from a "non-point source" is not subject to these conditions.
5. No wastewater may be released from the wastewater lagoon except through the disposal system, unless an extended period of above normal precipitation results in excess stored water and prevents operation of equipment to lower water levels due to field and weather conditions.
6. Design, construction and management of the lagoons shall be sufficient to maintain a seepage rate of less than 10^{-7} centimeters per second. Compaction of the soils within the wastewater lagoon must be at least ninety percent of the Standard Procter Density (ASTM D6980-70).

7. Approval of Permit No. 5822-3 is subject to compliance with the following then existing and applicable Water Management Board rules:
- a. Chapter 74:03:15 Ground Water Quality Standards,
 - b. Chapter 74:03:16 Ground Water Discharge Permit,
 - c. Chapter 74:03:02 Surface Water Quality Standards,
 - d. Chapter 74:03:04 Uses Assigned to Streams, and
 - e. Chapters 74:03:17 through 74:03:26 Surface Water Discharge Provisions

See report on application for additional information.


JOHN HATCH, Chief Engineer
May 23, 1994

**REVISED RECOMMENDATION OF CHIEF ENGINEER FOR WATER PERMIT
APPLICATION NO. 5822-3, Minnesota Corn Processors**

Pursuant to SDCL 46-2A-2, the following is the revised recommendation of the Chief Engineer, Water Rights Division, Department of Environment and Natural Resources concerning Water Permit Application No. 5822-3, Minnesota Corn Processors, c/o Paul Imm, 400 West Main Street, Suite 201, Marshall, MN 56258.

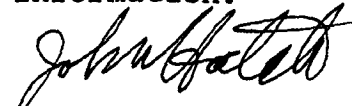
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1. The wells approved under this Permit will be located near domestic wells and other wells which may obtain water from the same aquifer. The well owner under this Permit shall control his withdrawals so there is not a reduction of needed water supplies in adequate domestic wells or in adequate wells having prior water rights.
2. Approval of this Permit is subject to review and approval of plans and specifications for the animal waste management system by the Division of Environmental Regulation prior to construction. The plans and specifications shall be prepared by a person who is registered as a professional engineer pursuant to SDCL 36-18.
3. The confinement area shall be designed so that it does not receive surface runoff from the surrounding area.
4. Operation of the disposal systems to dispose of waste and wastewater shall be in a manner that 1) prevents discharge of runoff from the disposal sites and 2) prevents disposal site runoff water from entering the waters of the State.
5. The storage lagoons shall be designed with a minimum of 30 inches from the crest of the dike to the maximum operating pool elevation for each lagoon. This requirement is to ensure that a Probable Maximum Precipitation (PMP) event does not cause overtopping of the dikes.
6. Design, construction and management of the lagoons shall be sufficient to maintain seepage rate of less than 10^{-7} centimeters per second. Compaction of the soils within the wastewater lagoon must be at least ninety percent of the Standard Procter Density (ASTM D6980-70).

7. Approval of Permit No. 5822-3 is subject to compliance with the following then existing and applicable Water Management Board rules:

- a. Chapter 74:03:15 Ground Water Quality Standards,
- b. Chapter 74:03:16 Ground Water Discharge Permit,
- c. Chapter 74:03:02 Surface Water Quality Standards,
- d. Chapter 74:03:04 Uses Assigned to Streams, and
- e. Chapters 74:03:17 through 74:03:26 Surface Water Discharge Provisions

See report on application for additional information.



JOHN HATCH, Chief Engineer
June 24, 1994



**DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES**

JOE FOSS BUILDING
523 EAST CAPITOL
PIERRE SOUTH DAKOTA 57501-3181

May 25, 1994

Tim Berry
Dakota Rural Action
P.O. Box 549
Brookings, SD 57006

Dear Mr. Berry:

Please find enclosed a copy of the report, recommendation and notice of hearing for Water Permit Application No. 5822-3, Minnesota Corn Processors. The notice of hearing is scheduled to be published on May 31 and June 7, 1994, in the Brookings Daily Register. Petitions to intervene in the June 29, 1994 hearing before the Water Management Board must be submitted by June 17, 1994.

If I may be of further assistance, please contact me.

Sincerely,

Eric Gronlund
Eric Gronlund
Water Rights Division
605 773-3352

enclosures



**DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES**

JOE FOSS BUILDING
523 EAST CAPITOL
PIERRE SOUTH DAKOTA 57501-3181

May 25, 1994

Danny Bessler
RR 2, Box 171
Elkton, SD 57026

Dear Mr. Bessler:

Please find enclosed a copy of the report, recommendation and notice of hearing for Water Permit Application No. 5822-3, Minnesota Corn Processors. The notice of hearing is scheduled to be published on May 31 and June 7, 1994, in the Brookings Daily Register. Petitions to intervene in the June 29, 1994 hearing before the Water Management Board must be submitted by June 17, 1994.

If I may be of further assistance, please contact me.

Sincerely,

Eric Gronlund
Eric Gronlund
Water Rights Division
605 773-3352

enclosures



**DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES**

JOE FOSS BUILDING
523 EAST CAPITOL
PIERRE SOUTH DAKOTA 57501-3181

May 25, 1994

Pat Gilligan
Brookings-Deuel RWS
RR2, Box84
Toronto, SD 57268

Dear Mr. Gilligan:

Please find enclosed a copy of the report, recommendation and notice of hearing for Water Permit Application No. 5822-3, Minnesota Corn Processors. The notice of hearing is scheduled to be published on May 31 and June 7, 1994, in the Brookings Daily Register. Petitions to intervene in the June 29, 1994 hearing before the Water Management Board must be submitted by June 17, 1994.

If I may be of further assistance, please contact me.

Sincerely,

Eric Gronlund
Water Rights Division
605 773-3352

enclosures



**DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES**

JOE FOSS BUILDING
523 EAST CAPITOL
PIERRE SOUTH DAKOTA 57501-3181

May 25, 1994

Gary Van Dyke
RR 2, Box 169
Elkton, SD 57026

Dear Mr. Van Dyke:

Please find enclosed a copy of the report, recommendation and notice of hearing for Water Permit Application No. 5822-3, Minnesota Corn Processors. The notice of hearing is scheduled to be published on May 31 and June 7, 1994, in the Brookings Daily Register. Petitions to intervene in the June 29, 1994 hearing before the Water Management Board must be submitted by June 17, 1994.

If I may be of further assistance, please contact me.

Sincerely,

Eric Gronlund
Water Rights Division
605 773-3352

enclosures



**DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES**

JOE FOSS BUILDING
523 EAST CAPITOL
PIERRE SOUTH DAKOTA 57501-3181

May 25, 1994

Rufus Dezeeuw
Rt 2, Box 8
Elkton, SD 57026

Dear Mr. Dezeeuw:

Please find enclosed a copy of the report, recommendation and notice of hearing for Water Permit Application No. 5822-3, Minnesota Corn Processors. The notice of hearing is scheduled to be published on May 31 and June 7, 1994, in the Brookings Daily Register. Petitions to intervene in the June 29, 1994 hearing before the Water Management Board must be submitted by June 17, 1994.

If I may be of further assistance, please contact me.

Sincerely,

Eric Gronlund
Water Rights Division
605 773-3352

enclosures



**DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES**

JOE FOSS BUILDING
523 EAST CAPITOL
PIERRE SOUTH DAKOTA 57501-3181

May 25, 1994

Darrell Wells
Rt 4, Box 233
Brookings, SD 57006

Dear Mr. Wells:

Please find enclosed a copy of the report, recommendation and notice of hearing for Water Permit Application No. 5822-3, Minnesota Corn Processors. The notice of hearing is scheduled to be published on May 31 and June 7, 1994, in the Brookings Daily Register. Petitions to intervene in the June 29, 1994 hearing before the Water Management Board must be submitted by June 17, 1994.

If I may be of further assistance, please contact me.

Sincerely,

Eric Gronlund
Water Rights Division
605 773-3352

enclosures



**DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES**

JOE FOSS BUILDING
523 EAST CAPITOL
PIERRE SOUTH DAKOTA 57501-3181

May 25, 1994

Don Pay
414 E. Philadelphia
Rapid City, SD 57701-1586

Dear Mr. Pay:

Please find enclosed a copy of the report, recommendation and notice of hearing for Water Permit Application No. 5822-3, Minnesota Corn Processors. The notice of hearing is scheduled to be published on May 31 and June 7, 1994, in the Brookings Daily Register. Petitions to intervene in the June 29, 1994 hearing before the Water Management Board must be submitted by June 17, 1994.

If I may be of further assistance, please contact me.

Sincerely,


Eric Gronlund
Water Rights Division
605 773-3352

enclosures



**DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES**

JOE FOSS BUILDING
523 EAST CAPITOL
PIERRE SOUTH DAKOTA 57501-3181

May 25, 1994

Sara Kneip, County Auditor
Brookings County
314 6th Avenue
Brookings, SD 57006

Dear Ms. Kneip:

Enclosed is a copy of the report, recommendation and notice of hearing for Water Permit Application No. 5822-3, Minnesota Corn Processors. Please bring this application to the attention of the Brookings County Commission.

The notice of hearing is scheduled to be published on May 31 and June 7, 1994, in the Brookings Daily Register. Petitions to intervene in the June 29, 1994 hearing before the Water Management Board must be submitted by June 17, 1994.

If I may be of further assistance, please contact me.

Sincerely,

Eric Gronlund
Water Rights Division
605 773-3352

enclosures



**DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES**

JOE FOSS BUILDING
523 EAST CAPITOL
PIERRE SOUTH DAKOTA 57501-3181

**NOTE: TO BE SURE OF PUBLICATION ON
THE CORRECT DATES, CONTACT
THE NEWSPAPER RIGHT AWAY.**

May 24, 1994

Paul Imm
Minnesota Corn Processors
400 W Main St Ste 201
Marshall, MN 56258

Dear Mr. Imm:

Water Permit Application No. 5822-3 for commercial use has been examined and found to comply with the South Dakota Water Laws and applicable rules. A notice of hearing has been sent to the Publisher of the Brookings Daily Register printed at Brookings, SD (Ph # 692-6271). For your information, a copy of the notice, the recommendation of the Chief Engineer and a report on the application are enclosed. Please review the notice prior to publication and notify this office, if you have any corrections or questions.

Be sure to contact the above newspaper to authorize publication of your Notice of Hearing and to arrange for payment. Early contact with the paper can eliminate delays. The publisher has been instructed to publish your notice once each week for two consecutive weeks with the last publication to occur twenty days before the board meeting. The newspaper has been instructed to send us the Proof of Publication. We must receive Proof of Publication before action can be taken on the application.

Sincerely,

Eric Gronlund
Natural Resources Engineer
605 773-3352

enclosures

NOTE: If you plan to contest any part of the Chief Engineer's recommendation, you must file a petition pursuant to the procedures outlined in the attached notice of hearing. The Water Management Board will then consider your concerns during a hearing on the application.

c: Robert Brotsky, Banner Associates, PO Box 298, Brookings, SD 57006-0298



**DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES**

JOE FOSS BUILDING
523 EAST CAPITOL
PIERRE SOUTH DAKOTA 57501-3181

May 24, 1994

Brookings Daily Register
Box 177
Brookings, SD 57006

ATTENTION: Legal Department

Enclosed is a Notice of Hearing on Application No. 5822-3 to be published twice. Please publish the first notice on May 31, 1994, with the second publication 7 days later.

The APPLICANT MUST VERIFY TO YOU THAT THE NOTICE IS TO BE PUBLISHED, before you make the first publication. Please BILL the APPLICANT for the cost of publication. The APPLICANT is Minnesota Corn Processors, c/o Paul Imm, 400 West Main Street, Suite 201, Marshall, MN 56258 (Ph # 507-537-0577).

A copy of BOTH publications must be SENT to the WATER RIGHTS DIVISION. IMMEDIATELY return the FIRST publication with the FIRST Transmittal form on the bottom of this page. The first copy is needed to check the publication for errors so any corrections can be made in the second publication. Publication errors can invalidate the public notice and cause the applicant costly delays.

Please be sure the SECOND publication is returned IMMEDIATELY with the enclosed Proof of Publication form. DO NOT WAIT until the end of the month or the billing cycle. No action may be taken on the permit application until proof of publication has been received.

Sincerely,

Eric Gronlund
Eric Gronlund
Natural Resources Engineer
605 773-3352

enclosures

-----CUT HERE-----

FIRST TRANSMITTAL NOTICE

TO: Eric Gronlund
Water Rights Division
Joe Foss Building
Pierre SD 57501-3181

No. _____

Date _____

We are in receipt of your letter of _____ enclosing Notice of Hearing to Appropriate Water by Application No. _____ which was first published in our issue of _____. ENCLOSED IS A COPY OF THIS FIRST PUBLICATION.

Name

Newspaper

Instruction to Newspaper - Publish first Notice on May 31, 1994, with the second publication 7 days later. The applicant is responsible for payment.

NOTICE OF HEARING on Application No. 5822-3 to Appropriate Water

Notice is given that Minnesota Corn Processors, c/o Paul Imm, 400 West Main Street, Suite 201, Marshall, MN 56258 has filed an application for a water permit to appropriate 0.89 cubic feet of water per second (cfs) [400 gallons per minute] from 2 wells (Rutland Aquifer) located in the NW 1/4 SW 1/4 and SW 1/4 NW 1/4 Section 28-T110N-R47W. Both wells will have a capacity of producing 0.89 cfs, however, only one of the wells will be operated while the other well will be used for standby purposes. Water will be used for commercial purposes in a livestock confinement facility with a peak capacity of 35,000 head of livestock.

Pursuant to SDCL 46-2A-2, the Chief Engineer recommends APPROVAL of Application No. 5822-3 because 1) unappropriated water is available, 2) existing rights will not be unlawfully impaired, 3) it is a beneficial use of water, and 4) it is in the public interest.

Any person interested in opposing or supporting this application must file a written petition with BOTH the applicant and Chief Engineer. The applicant must also file a petition if opposed to the Chief Engineer's recommendation. The Chief Engineer's address is "Water Rights Division, Foss Building, 523 E Capitol, Pierre SD 57501 (605 773-3352)" and the applicant's mailing address is given above. A petition filed by either an interested person or the applicant must be filed by June 17, 1994. The petition may be informal, but must include a statement describing the petitioner's interest in the application, the petitioner's reasons for opposing or supporting the application, and the signature and mailing address of the petitioner or the petitioner's legal counsel, if legal counsel is obtained.

The Water Management Board will consider this application at 1:00 p.m., June 29, 1994, Lake Francis Room, Ramkota Inn Best Western, 920 West Sioux, Pierre, SD. The agenda time is an estimate and may be delayed due to prior agenda items. Parties should also be aware that the hearing may continue to June 30, 1994.

The Chief Engineer's recommendation is not final or binding upon the Board. The Board is authorized to 1) approve, 2) approve with qualifications, 3) defer, or 4) deny this application based on the facts presented at the public hearing. The June 29, 1994, hearing date will be automatically delayed for at least 20 days upon written request to the Chief Engineer from the applicant or any interested person opposing the application. The request for an automatic delay must be filed by June 17, 1994.

Any hearing will be an adversary proceeding. Any person filing a petition and/or the applicant have the right to be represented by a lawyer and may present evidence or cross-examine witnesses according to SDCL 1-26. These and other due process rights will be forfeited if not exercised. Decisions of the Board may be appealed to the Circuit Court and State Supreme Court as provided by law. Contact Eric Gronlund by June 17, 1994, at the above Water Rights Division address to request copies of information pertaining to this application, to assure access to the hearing by the handicapped or to obtain an interpreter for the hearing impaired.

This application is made pursuant to SDCL 46-1-1 thru 46-1-9, 46-1-12 thru 46-1-16; 46-2-3.1, 46-2-9, 46-2-11, 46-2-13, 46-2-17; 46-2A-1 thru 46-2A-10, 46-2A-12, 46-2A-14, 46-2A-15, 46-2A-20, 46-2A-21; 46-5-1 thru 46-5-11, 46-5-13 thru 46-5-15, 46-5-24, 46-5-25, 46-5-30.2, 46-5-30.4, 46-5-31; 46-6-3, 46-6-3.1, 46-6-6.1, 46-6-10, 46-6-13, 46-6-14, 46-6-26; and Board Rules ARSD 74:02:01:01 thru 74:02:01:15. Russell L. Stone, Acting Secretary, Department of Environment and Natural Resources.

PROOF OF PUBLICATION OK

STATE OF SOUTH DAKOTA)
) ss
 County of Brookings)

I, Nancy Skyberg

certify that the attached printed Notice was

taken from the Brookings Register

printed and published in Brookings

County of Brookings and State of

South Dakota. The notice was published in
 the newspaper on the following two dates:

May 31, 1994

June 7, 1994

Cost of Printing: \$56.91 (fifty-six dollars
and ninety-one cents)

Nancy Skyberg
 (Signature)

Legal Ad Coordinator
 (Title)

6-10-94
 (Date Signed)

Legal 384, June 7

**NOTICE OF HEARING on Application
 No. 5822-3 to Appropriate Water**

Notice is given that Minnesota Corn Processors, c/o Paul Imm, 400 West Main Street, Suite 201, Marshall, MN 56258 has filed an application for a water permit to appropriate 0.89 cubic feet of water per second (cfs) [400 gallons per minute] from 2 wells (Rutland Aquifer) located in the NW 1/4 SW 1/4 and SW 1/4 NW 1/4 Section 28-T10N-R47W. Both wells will have a capacity of producing 0.89 cfs, however, only one of the wells will be operated while the other well will be used for standby purposes. Water will be used for commercial purposes in a livestock confinement facility with a peak capacity of 35,000 head of livestock.

Pursuant to SDCL 46-2A-2, the Chief Engineer recommends APPROVAL of Application No. 5822-3 because 1) unappropriated water is available, 2) existing rights will not be unlawfully impaired, 3) it is a beneficial use of water, and 4) it is in the public interest. Any person interested in opposing or supporting this application must file a written petition with BOTH the applicant and chief Engineer. The applicant must also file a petition if opposed to the Chief Engineer's recommendation. The Chief Engineer's address is "Water Rights Division, Foss Building, 523 E Capitol, Pierre SD 57501 (605 773-3352)" and the applicant's mailing address is given above. A petition filed by either an interested person or the applicant must be filed by June 17, 1994. The petition may be informal, but must include a statement describing the petitioner's interest in the application, the petitioner's reasons for opposing or supporting the application, and the signature and mailing address of the petitioner or the petitioner's legal counsel, if legal counsel is obtained.

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Elkton, So. Dakota
June 6, 1994

Dear Sirs:

In regards to the application for a water permit by the Minnesota Corn Processors. Care of Paul Imm - Marshall, Minn.

I live approximately 2 miles from said wells. I moved here in 1947. When I come here, there was 18 foot of pipe and a wind-mill. I bought the farm in 1961, at which time we put in running water, the plumber that done the work suggested that we put on 45 foot of pipe, he said a submersible pump pumps a lot of water but I never had any problem until the irrigators came. They started pulling my well down below the 45 foot line, so we added 50 more feet of pipe, we measured it at that time and figured that it was around 104 feet deep, but that winter around Christmas time we were getting cloudy water so we pulled it up and took 15 foot off. So now have 80 foot of pipe left. If the few irrigators have an effect on my well, what more then will a system that pumps an additional 300,000 gallons and up a day add to this effect. This will be pumping 365 days a year.

The irrigators also have an effect on the artesian wells $\frac{1}{4}$ mile southwest of our place.

It has not been proven that there is enough water for them and the irrigators and the domestic wells. (continued)

They only tested it for 72 hours or so, that don't prove anything. It did show a small effect on my well, so there is a connection.

They call that the Rutland aquifer, it ends somewhere there, who really knows how much water there is there. Shouldn't there be an extensive study done on it before any more permits are let out.

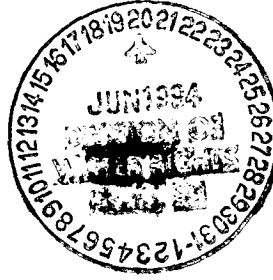
If we fail to do anything about this maybe nobody will have any water.

I would ask that you would give this your thoughtful consideration.

If you wish to contact me, I live 3 miles north and 1 mile west of Elkton, South Dakota, My Phone no is 1-605-~~5~~42-8271
My address is R.R. 2 Box 51

Elkton, So. Dak 57026-9436

Sincerely
Rufus A. (Rudy) De Zeeuw



June 15, 1994

DENR
Joe Foss Building
Pierre, S. D.

Gentlemen:

With this letter I request a time slot to give testimony

re:

the MCP cattle feedlot proposal for eastern
Brookings county water use permit /

I understand this hearing is to be held June 29th.

Thank you.

Sincerely ,


Maxine McKeown
Route 2, Box 321
Elkton, S. D. 57026
605-693-4457
S. D. Resource Coalition

Chief Engineer, Water Rights Division
Foss Building 523 Capitol
Pierre SD 57501

June 17, 1994
Minn. Corn Processors
c/o Paul Linn
400 West Main, Suite 201
Marshall, Minn., 56258

I am opposed to the proposal, Application 5822-3, by Minn. Corn Processors for ^{feedlot on a} site north of Elkton centred on Section 21 of Richland Township.

Specifically I wish to testify in objection to the Chief Engineers recommendation that the use is in the public interest. I have criticisms of items 1 and 5. Under item 1 there needs to be a specific penalty / means of enforcement cited in case draw down of adequate wells occurs.

Under item 5 are you saying it is alright if the sewage lagoons overflow in a big rain? If so you should write that, not just imply it. What about a penalty to MCP? Or is only the public to be penalized by a polluted acquifer? You call that the public interest? Aren't you supposed to represent the public interest?

I have other reasons for opposition that don't involve water rights so I'll not list them here.

My interest in this matter resides in sympathy with the 80% of farmers in the area who oppose the feedlot, in the negative economic effect of corporate agriculture on family farms and on small towns, and on the tax payers of Brookings County who would pay the increased cost of maintaining and rebuilding roads used by MCP.

I will represent myself in testimony.

Darrell D. Wells, RFB#233, Brookings
693-4357 57006



Dear Sir:

I am writing in regard to the feedlot being put in eastern So. Dak. by the Minn. Corn Processors.

So. Dak. loses over a million head of cattle each year to other states, for this reason I think it would benefit greatly the economy of So. Dak. to have this feedlot located in eastern S. Dak. Would also be helpful to the cow-calf producers and backgrounders creating more competition for their calves & yearlings and creating a better market for hay, silage and other grains to be fed with the corn glutten.

For these reasons I think all of So. Dak. would benefit from the feedlot, as long as they comply with the Waste Management, Environmental and Water Quality guide lines and rules.

The So. Dak. Cattlemen's hope that you will support their request.

Thank you,
John Magel
S.D.C.A. Pres.



**DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES**

JOE FOSS BUILDING
523 EAST CAPITOL
PIERRE SOUTH DAKOTA 57501-3181

June 20, 1994

TEX PHIPPS
MINNESOTA CORN PROCESSORS
400 WEST MAIN STREET
MARSHALL MN 56258

Re: MCP Feedlot Animal Waste Management System
Plans and Specifications

Dear Mr. Phipps:

The Department of Environment and Natural Resources (DENR) is in receipt of three (3) copies of the plans and specifications (P&S) for your Animal Waste Management System (AWMS). The Phase I portion of the AWMS consists of diversion dikes/channels, 5 sediment basins, 3 South ponds S-1 through S-3, and 2 West ponds W-1 and W-2. The South ponds will be located in the South 1/2 of Section 21, and the West ponds will be located in the West 1/2 of Section 21, Township 110 North, Range 47 West in Brookings County, South Dakota. The Phase I portion of the system is for 20,000-head/20,000-animal units (AU's) with 210.4 acres of drainage area.

The Phase II portion of the AWMS consists of diversion dikes/channels, 5 additional sediment basins, and 2 additional holding ponds. The West pond, W-3, will be located in the Southwest 1/4 of Section 21 and the Southwest pond, SW-1, will be located in the Southwest 1/4 of Section 21, Township 110 North, Range 47 West in Brookings County, South Dakota. The Phase II portion is for an additional 15,000-head/15,000-AU's with 103.6 acres of drainage area. The complete system is for a total of 35,000-head/35,000-AU cattle feeding operation with a total of 314 acres of drainage area. The sediment basins have each been designed for 122 days of solids storage. The holding ponds have each been designed for 365 days of liquid storage.

The DENR has reviewed the project for storage and seepage requirements and hereby approves the P&S for the above mentioned project, contingent upon the following conditions:

Tex Phipps
Page 2
June 20, 1994

1. This review is to determine whether seepage and storage requirements are being met, all other design considerations should be in accordance with the latest adopted SCS design criteria. This review did not include any safety of dams issues.
2. The DENR believes that the water quality monitoring plan as proposed by MCP, provides the framework for monitoring the facility's operation. However, the Brookings-Deuel Rural Water System and the East Dakota Water Development District, have expressed concern about the design of the monitoring plan. Therefore, contingent upon additional consultation, to include the meeting scheduled for June 21, 1994, the DENR is withholding approval on the monitoring plan at this time.
3. The DENR agrees with the concept proposed in the Nutrient Management Plan (NMP), in which the waste disposal is determined using the actual nitrogen needs of the specific crop lands. However, several questions remain, as raised in a separate letter to Banner and Associates dated June 17, 1994. Therefore, the DENR is withholding approval of the NMP at this time.
4. Because the disturbed acreage for this facility is more than 5 acres, a general storm water construction permit will be required. A copy of the general storm water construction permit and Notice of Intent for coverage are enclosed. If you have any questions, please contact Norma Job at 1-800-SDSTORM.
5. Prior to the construction of the AWMS, the Department would like to be notified to permit our personnel the opportunity for construction inspections. To notify us, please phone (605) 773-3351 and ask for Rodger Seefeldt.
6. The elevation at which the ponds will contain the 25-year, 24-hour storm event must be indicated to the DENR.

This approval expires on June 20, 1996, unless construction has been started by that date. One copy of the approved P&S is being retained for our files.

If any deviations are required from the approved plans, then those changes and all change orders must be submitted for approval prior to construction. A complete set of as-built P&S will be required if several major deviations result.

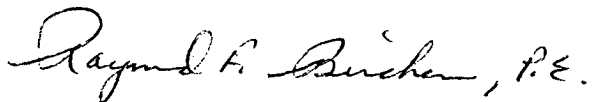
Upon receipt of the enclosed Notice of Completion, a Certificate of Compliance is available for an AWMS when constructed as approved as long as this operation does not significantly change. Continued compliance is dependent upon proper operation and maintenance activities being performed by the owner/operator. This certificate

Tex Phipps
Page 3
June 20, 1994

does not relieve the owner/operator from any liabilities for noncompliance. Enclosed is an example of how a Certificate for your facility will look.

If you have any questions regarding the content of this letter, please feel free to contact me. Thank you for your cooperation.

Sincerely,



Raymond F. Bircham, P.E.
Staff Engineer
Department of Environment and Natural Resources
Phone: (605) 773-3296

cc: Russell L. Stone, Acting Secretary DENR
Jay Swisher, Secretary DOA
Paul Imm, MCP, Marshall, MN
Dave Odens, PE, Banner Associates, Inc., Brookings, SD
Dave Rusten, Brookings County Planning & Zoning, Brookings, SD
Jon Bargmann, PSCP, DENR, Watertown, SD

FROM: Gronlund, Eric

TO: Jim Goodman
John Hatch
Ron Duvall

DATE: 06-21-94
TIME: 16:44

CC: Eric Gronlund

SUBJECT: Call from Bruce Jennings on MCP

PRIORITY:

ATTACHMENTS:

Bruce Jennings from DGR call on behalf of Brookings/Deuel RWS regarding MCP's WP application. He had been at the meeting over in Brookings in which DER staff discussed the AWMS. Bruce wondered why the recommendation on the application did not include the monitoring plan similar to the qualification used back when Nation Farms application came before the Board. I stated that our recommendation was consistent with past years recommendations for confinement facilities and that no one no one had brought a monitoring plan up as an issue in this matter.

I stated that if the RWS wanted to bring this up before before the Board, they could petition for late filing and the Board would have to rule on this prior to the hearing or they could be called as a witness by one of the intervening parties.

I faxed him a copy of the revised recommendation.

=====



**DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES**

JOE FOSS BUILDING
523 EAST CAPITOL
PIERRE SOUTH DAKOTA 57501-3181

June 21, 1994

John Nagel
South Dakota Cattlemen's Association
RR 1, Box 108
Avon, SD 57315

Dear Mr. Nagel:

The Water Rights Division has received your petition of support to Water Permit Application No. 5822-3, Minnesota Corn Processors. Please find enclosed a copy of the report and recommendation that has been prepared on this application.

If you have any questions regarding the upcoming hearing before the Water Management Board, please feel free to contact me.

Sincerely,

Eric Gronlund
Eric Gronlund
Water Rights Division
605 773-3352

enclosure



**DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES**

JOE FOSS BUILDING
523 EAST CAPITOL
PIERRE SOUTH DAKOTA 57501-3181

June 21, 1994

Maxine McKeown
Route 2, Box 321
Elkton, SD 57026

Dear Mrs. McKeown:

The Water Rights Division has received your petition to Water Permit Application No. 5822-3, Minnesota Corn Processors. Please find enclosed a copy of the report and recommendation that has been prepared on this application.

If you have any questions regarding the upcoming hearing before the Water Management Board, please feel free to contact me.

Sincerely,

Eric Gronlund
Eric Gronlund
Water Rights Division
605 773-3352

enclosure



**DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES**

JOE FOSS BUILDING
523 EAST CAPITOL
PIERRE SOUTH DAKOTA 57501-3181

June 21, 1994

Paul Imm and Tex Phipps
Minnesota Corn Processors
400 West Main Street, Suite 201
Marshall, MN 56258

Dear Mr. Imm and Mr. Phipps:

Please find enclosed the revised recommendation for Water Permit Application No. 5822-3, Minnesota Corn Processors. The most notable revision is the addition of a qualification requiring the storage lagoons to have a reserve storage capacity to impound the Probable Maximum Precipitation event to prevent overtopping of the lagoons.

I have also enclosed a copy of the petitions that have been submitted to the water permit application.

The hearing on Water Permit Application No. 5822-3 is scheduled to be considered by the Water Management Board at 1:00 pm, June 29, 1994, Lake Francis Room, Ramkota Inn - Best Western, Pierre, SD 57501.

Very truly yours,

John Hatch, Chief Engineer
Water Rights Division
605 773-3352

enclosure

c: Dave Odens, Banner Associates, PO Box 298, Brookings, SD 57006-0298



BROOKINGS-DEUEL

Rural Water System, Inc.

R.R. 2 Box 84

Toronto, South Dakota 57268

(605) 794-4201

June 28, 1994

John Hatch, Chief Engineer
Water Rights Division
Dept of Environment & Natural Resources
Joe Foss Building
523 East Capitol
Pierre, SD 57501-3181



RE: Permit Application 5822-3

Dear John:

In reviewing your recommendation concerning 5822-3 item 2 addresses plans and specification approval by the Environmental Regulation Division.

In discussion with Jeanne Goodman concerning approval of the M.C.P. water rights permit and the permits and conditions the Environmental Regulation Division require, it is my understanding that these permitting requirements become part of the water permit requirements and will be enforceable under the water permit, and are also on-going permit requirements.

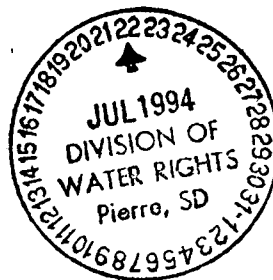
Paragraph 4 states that disposal systems prevent run-off from entering public waters, however; paragraph 5 seems to allow run-off during periods of "extended above normal precipitation". It would seem some definition be given to the term and include notification by MCP and response by an appropriate State Agency, with limitations and controls being imposed.

It appears logical, in this situation, where a large waste disposal facility is involved, and a nearby public water supply wellhead protection may be compromised that all State permitting agencies cooperate and coordinate their respective permitting activities to aid in protecting that wellhead, as well as providing pertinent information to the public water supplier for planning purposes.

I appreciate any consideration you can give us.

For the Brookings-Deuel Rural Water System,

Patrick Gilligan, Manager
PG/pw



File Copy

**DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES**

JOE FOSS BUILDING
523 EAST CAPITOL
PIERRE SOUTH DAKOTA 57501-3181

June 28, 1994

Tex Phipps and Paul Imm
Minnesota Corn Processors
400 West Main Street
Marshall, MN 56258

Dear Mr. Phipps and Mr. Imm:

This is to confirm your conversations with my staff regarding the monitoring plan for the Minnesota Corn Processors proposed feedlot and related operations in Brookings County. Thank you for your willingness to work with our agency and the local organizations to develop a proactive monitoring plan that will protect the water resources of Brookings County and support a local watershed assessment effort. Therefore, as part of the plans and specifications review process, DENR is approving your monitoring plan with the changes discussed below.

As we discussed at the meeting at the East Dakota Water Development District Office on June 21, 1994, monitoring stations including both a surface water monitoring "grab" sampling site and a monitoring well will be installed at the following sites (all sites are shown on the attached map):

1. The drainage from the SE4 of Section 25, T.110N., R.48W. If the aquifer does not extend into this drainage area, the site will be moved to the SW4 of Section 36, T.110N., R.48W.
2. The drainage as it exits the SW4 of Section 31, T.110N., R.47W.
3. The drainage as it exits the NW4 of Section 32, T.110N., R.47W. If the aquifer does not extend into this drainage area, the site will be moved to the SE4 of Section 31, T.110N., R.47W.
4. The drainage in the SW4 of Section 32, T.110N., R.47W.
5. The monitoring site proposed for the SW4 of Section 11, T.110N., R.48W., will be moved as far up or down the drainage as the aquifer can be found.

These are approximate legal locations. If access is not available or possible for the installation of each monitoring well, it is expected that MCP will locate the monitoring well as close as possible to each corresponding surface water monitoring site.

At the June 21st meeting, it was also agreed that MCP will monitor the surface water in the drainages in the following areas:

6. SE4 of Section 30, T.110N., R.47W.
7. SE4 of Section 29, T.110N., R.47W.
8. The outlets of the drain tiles draining the land application areas for the liquid waste. MCP's consultant, Banner Associates are to determine the locations of these outlets.

As we discussed, these sites and/or additional sites may be required as MCP begins operation and the Nutrient Management Plan is initiated. Our staff agrees that this monitoring plan must be flexible and adjusted in relation to your annual assessment and evaluation of the Nutrient Management Plan.

The above monitoring sites or site changes are in addition to the monitoring that is required as MCP proposed in the May 1994 "Animal Waste Management Plan" as follows:

9. Ground water monitoring at animal waste holding ponds in Section 21, T.110N., R.47W. DENR will work with your consultant to determine the best locations and depths for these wells.
10. Surface water monitoring in the drainages in the NW4, SW4, and the SE4 of Section 21, T.110N., R.47W.
11. Surface water monitoring sites in the drainages from the land application areas for the liquid waste in the SW4 of Section 8 and the SW4 of Section 9, both in T.110N., R.47W.

Also, as you discussed with Tim Tollefsrud by telephone on June 22, you have agreed to install and monitor two monitoring wells near the Brookings-Deuel Rural Water System wellhead protection area. It is suggested these wells be sited in the following approximate locations with the final locations determined after you consult with Pat Gilligan of the Brookings-Deuel Rural Water System:

12. The NW4 of Section 6, T.109N., R.47W.
13. The SW4 of Section 36, T.110N., R.48W.

Installation of the monitoring wells and sampling of both the surface and ground water must begin as soon as possible to collect the maximum level of background data before construction and operation of the proposed facility. The frequency of the sampling is acceptable as proposed in the "Animal Waste Management Plan, with the following exceptions:

□ Where a site includes both a surface water and ground water monitoring site, the ground water will be sampled at the same time as the surface water in addition to the regular quarterly sampling.

□ For the first year, the drain tiles near the liquid waste application sites must be sampled weekly and the samples analyzed for the surface water parameters. This frequency may change depending on further research into the matter by Assad Barari of the South Dakota Geological Survey and/or the monitoring results from the first year.

The monitoring wells all must be constructed to sample the first water encountered in the borehole. In other words, the well screens must intercept the water table and be of sufficient length to account for fluctuations in the water table. The annulus of the wells must be sealed properly to eliminate surface runoff entering the well bore. The wells must also be protected and locked to avoid destruction or tampering.

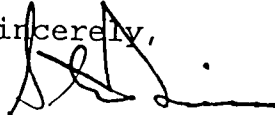
When you hire a contractor to collect the samples and a laboratory to analyze the samples, you must include in your contracts, a sampling and analysis plan. This plan will include the quality assurance/quality control measures that will be practiced during the sampling and analysis to ensure the samples are representative and legally defensible for compliance monitoring.

All monitoring results must be submitted to DENR and Pat Gilligan of the Brookings-Deuel Rural Water System quarterly. Also, an annual evaluation report of the water quality data must be submitted with the annual Nutrient Management Plan assessment as referenced in the June 17, 1994, letter to Dave Odens, Banner Associates.

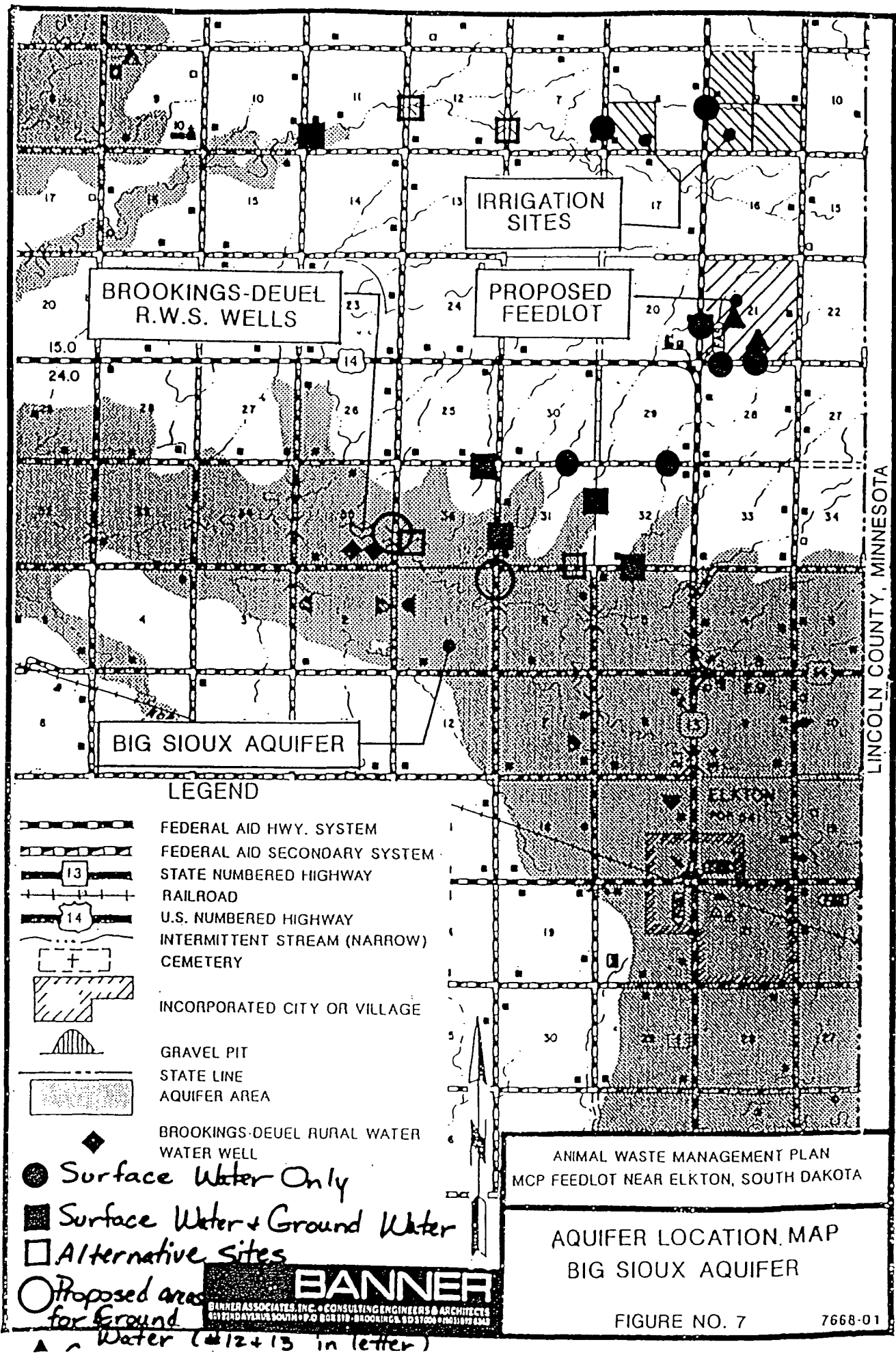
A plan must be developed and implemented by MCP, upon approval by DENR, if, through follow-up monitoring, data evaluation, review of the Nutrient Management Plan, and other evaluations, the monitoring indicates MCP is responsible for increased nitrate in the monitoring wells discussed above. The plan may range from discontinuance of manure application in certain areas or other revisions to the Nutrient Management Plan to remediation of the ground water or other alternatives. Also, if Brookings-Deuel Rural Water System Elkton wellfield is impacted by MCP's wastes, the plan, in addition to the above actions, must include securing an alternative water source for the rural water system or other alternative acceptable to DENR, the Brookings-Deuel Rural Water System, and Brookings County. DENR will work closely with MCP, Brookings County, Brookings-Deuel Rural Water System, and East Dakota Water Development District to ensure an acceptable resolution to such occurrences.

Thank you again for your cooperation in developing a monitoring plan to protect the water resources, to support local efforts in watershed management, and to provide MCP with the assurances that your operation is successful and proactive. Please call Jeanne Goodman or Tim Tollefsrud if you have any specific questions on the monitoring issues.

Sincerely,


Steven M. Pirner, Director
Division of Environmental Regulation

cc: Robert E. Roberts, Secretary, DENR
Ray Birchem, DENR
Assad Barari, DENR
Jerry Siegel, East Dakota Water Development
Pat Gilligan, Brookings-Deuel Rural Water System
David Ruston, Brookings County Planning and Zoning
Tim Bjork, DENR
Dave Odens, Banner Associates





**DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES**

JOE FOSS BUILDING
523 EAST CAPITOL
PIERRE SOUTH DAKOTA 57501-3181

July 1, 1994

NOTICE

TO: Paul Imm
Minnesota Corn Processors
400 West Main Street, Suite 201
Marshall, MN 56258
(and Parties of Record)

FROM: John Hatch, Chief Engineer
Water Rights Division
(605) 773-3352

SUBJECT: Preparation of Findings of Fact, Conclusions of Law and
Final Decision

The Water Management Board has directed John Guhin, the Board's attorney, to prepare proposed Findings of Fact, Conclusions of Law and a Final Decision to approve Water Permit Application No. 5822-3, Minnesota Corn Processors. The Board will consider the proposed Findings, Conclusions and Final Decision at 1:00 p.m., August 31, 1994, Floyd Matthew Training Center, 523 East Capitol, Pierre, SD. The agenda time is an estimate. The actual time of consideration may be delayed due to prior agenda items.

The Board has requested that a copy of the proposed Findings, Conclusions and Final Decision be mailed to each Board member and all Parties of Record and their attorneys (names and addresses enclosed) by August 9, 1994. Written objections or comments in support of the proposed Findings, Conclusions and Final Decision, or alternative Findings, Conclusions and Final Decision, are to be mailed to each Board member, the Board attorney and all Parties of Record by August 19, 1994.

Oral arguments by parties filing written comments in opposition or support of the proposed Findings, Conclusions and Final Decision, or alternative Findings, Conclusions and Final Decision, may be made on August 31, 1994. The public hearing was completed June 29, 1994. No additional testimony will be received on August 31, 1994.

Enclosure

c: John Guhin, Deputy Attorney General
Diane Best, Assistant Attorney General

CERTIFICATION

I hereby certify that on July 1, 1994, I have personally deposited with the United States Mail at Pierre, South Dakota, First Class postage, prepaid envelopes containing a Notice dated July 1, 1994, regarding Preparation of Findings of Fact, Conclusions of Law and Final Decision (Water Permit Application No. 5822-3, Minnesota Corn Processors) addressed to:

Paul Imm
Minnesota Corn Processors
400 West Main Street, Ste 201
Marshall, MN 56258
and Parties of Record (as shown on the attached list)

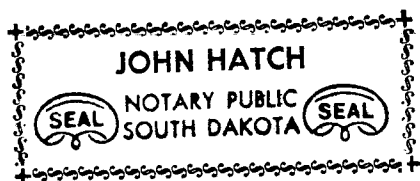
A copy of the Notice was sent by Inter-Office mail to:

John Guhin, Deputy Attorney General
Diane Best, Assistant Attorney General

Jaci R Konop
JACI R. KONOP
Senior Secretary

STATE OF SOUTH DAKOTA)
) SS
COUNTY OF HUGHES)

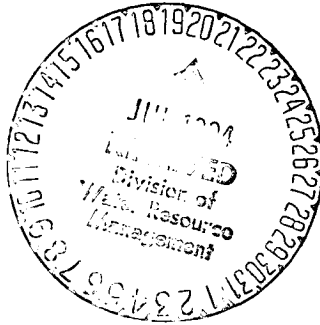
Sworn to, before me, this 5th day of July, 1994.



John H. [Signature]
Notary Public

JOHN HATCH, Notary Public
My Commission Expires
April 1, 2001

July 15, 1994



Dear Mr. Rayson,

I was advised by Senator Tom Daschle to request a copy of the DENR review of the environmental study done in regards to the MCP cattle feedlot near Elkhart, S.D. I would like a copy of permits, stipulations, if any, your department requested and any other information pertinent to the environmental impact this would have on air quality, ~~sewer~~ water wells, the aquifer (in case of runoff), etc. ~~that~~ I would appreciate hearing from you as soon as possible as I am to keep him informed of this issue.

Thank you

Sincerely,
Raya Hansen
Elkhart, S.D. 57026



**DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES**

JOE FOSS BUILDING
523 EAST CAPITOL
PIERRE SOUTH DAKOTA 57501-3181

July 27, 1994

Raya Hansen
RR 2, Box 156
Elkton, SD 57026

Dear Mrs. Hansen:

I am writing in response to your July 15, 1994, letter to Jim Raysor requesting information on the Department of Environment and Natural Resource's (DENR) permitting and review of Minnesota Corn Processor's facility.

The Water Management Board approved the water permit application to appropriate water for Minnesota Corn Processors at a hearing conducted June 29, 1994. The Board's approval is subject to adoption of findings of fact, conclusions of law and a final decision. Enclosed is a copy of the report prepared on the water permit application and the revised recommendation. The Board's approval is subject to the qualifications listed on the revised recommendation.

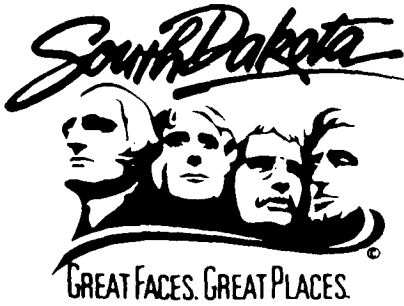
DENR has also approved the plans and specifications for the Animal Waste Management System and the water quality monitoring plan which provides the framework for monitoring the facility's operation. A copy of these two approval letters are enclosed.

Please feel free to contact us if we may be of further assistance.

Very truly yours,

John Hatch, Chief Engineer
Water Rights Division
605 773-3352

enclosures



**DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES**

JOE FOSS BUILDING
523 EAST CAPITOL
PIERRE SOUTH DAKOTA 57501-3181

August 15, 1994

Darrell Wells
Dakota Rural Action
Box 549
Brookings, SD 57006

Dear Mr. Wells:

Enclosed, as you requested, is a list of the Parties of Record, the Water Management Board members and the Board attorney. As stated in a Notice dated July 1, 1994, written objections or comments in support of the proposed Findings of Fact, Conclusions of Law and Final Decision are to be mailed to each Board member, the Board attorney and all Parties of Record by August 19, 1994.

The Board will consider the proposed Findings, Conclusions and Final Decision at 1:00 p.m., August 31, 1994, Floyd Matthew Training Center, 523 East Capitol, Pierre, SD. The agenda time is an estimate. The actual time of consideration may be delayed due to prior agenda items.

Oral arguments by parties filing written comments in opposition or support of the proposed Findings, Conclusions and Final Decision, or alternative Findings, Conclusions and Final Decision, may be made on August 31, 1994. The public hearing was completed June 29, 1994. No additional testimony will be received on August 31, 1994.

If you have any questions, please feel free to contact Eric Gronlund at (605)773-3352.

Sincerely,

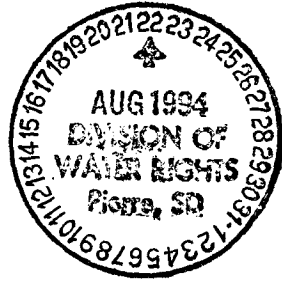
Jaci R. Konop
Senior Secretary
Water Rights Division

Encl.

To: John Hatch, Chief Engineer
Water rights Division
DENR

From: Darrell Wells, Chair
Brookings County Chapter, Dakota Rural Action

Subject: Objections and comments about the Findings of Fact,
Conclusions of Law, and Final Decision regarding
Minnesota Corn Processors request to pump water for
a feedlot in eastern Brookings County.



Is there a lack of substance in the arguments presented by MCP
and summarized by John Guhin, Deputy Attorney General?

Findings of Fact

p4 XIII "-drawdown by seasonal irregular irrigation with recharge afterwards" is used as evidence that MCP could therefore pump every day of the year a sustainable 10 gallons of water for each of 35,000 cattle. One center pivot delivering 6" of water to 130 acres over 2-3 weeks time in a crop year would deliver 21 million gallons a year. For 35,000 cattle, 350,000 gallons water a day or 128 million gallons a year would be needed at the least. I wonder how

valid MCPs comparison is with center pivots?

p5 XV, XVI "-will be a substantial economic effect" based on \$5 to 6million spent on construction, on hay and grain bought a year, and on a vague gross economic effect for a feedlot in Nebraska of 20,000 animals." Aren't the best prices on construction materials in the Twin Cities, not Brookings County? Benefits vs costs should be presented and required by SD agencies. Their absence suggests that such an analysis would be marginal or negative. In fact, if MCP had 20,000 fat cattle to sell this spring or early summer it would have lost about \$2,500,000 or \$125 a head reports the Western Organization of Resource Councils. Denying MCP a permit to pump water may very well be doing MCP a favor.

Negative and economic and social effects of corporate agriculture on family farms and small towns have been documented in a dozen studies covering all parts of the United States over four decades. The Board has that evidence.

p6 XIX "clean water is protected"

"MCP is required to have sufficient land for disposal of animal waste"

Officials of the Brookings/Deuel Rural Water System are reported to be furious at the threat to its wells presented by the feedlot.

Even Mr. Oden of Banner Associates has said in testimony that the lagoons in the highest rainfall events will overflow. Dr. Robert Kohl, Soil Physicist, SDSU, has testified that the aquifer used by Brookings/Deuel will be contaminated.

MCP has shown no ability to find enough land (125 quarter sections of crop land a year by law) for the waste from 20,000 cattle. If double the lawful application was allowed, 62½ quarters would be needed. MCP can find only 25. Testimony has shown that DENR is understaffed now to police feed yards. Is it not pure fancy to contend that MCP and farmers getting the manure will be watched closely?

p7 XXI "if nitrates increase in monitoring wells, there are sufficient remedies available." Like shutting down the yard? The sources of contaminating nitrates the past 10 years are not known and we have not heard of plans to study that. So MCP will escape blame when nitrates rise in study-wells or in the aquifer.

p7 XXII "the systems are required to be operated in such a way as to prevent discharge of runoff from entering the waters of the state"

Comments by Banner associates and Dr. Robert Kohl address that.

Do you know what MCPs environmental record is in Minnesota and in Nebraska?

p8 XXIII "Board is unable to make a factual finding about the ultimate effect on family farms."

But the Board was given evidence from the University of Missouri (John Allen), Central Valley of California (Walter Goldschmidt), Iowa State University (Lasley, Holberg and Bultena), and New York (Linda Labao) that corporate and non-family owned agriculture is economically and socially destructive of family farms and small towns. What else could you need?

Conclusions of Law

p9 V "the public is adequately protected from contamination of aquifers and increased nitrates" Testimony says NO it is not.

p9 VIII "a beneficial use" No analysis of benefits vs costs has been presented or even asked for by DENR to sustain such a claim. If MCP or other proponents had such an analysis would it not have *been* used in testimony? It seems apparent that neither MCP nor the SD Ag Department nor DENR have or can support substantive claims of economic and social advantage to Brookings County by the proposed feedlot, or you would have heard of it.

p11 #5 "30" minimum from crest of the dike to maximum operating pool elevation for each lagoon...to ensure a Probable Maximum Precipitation Event does not cause overtopping of the dikes."

This has been refuted earlier.

With Thomas Jefferson, I will, at this point say

I "Always expect the best; you are no oftener wrong than when you expect the worst."



Maxine McKeown, citizen intervenor
Comments on: MCP permit # 5822-3
Facts & Findings, State of S. D.

III. I would submit initially State legislative facts and findings
&
IV 34A-2-11 states: the duties of the Water Management Board

shall formulate and issue standards of water quality and classification of water according to its beneficial uses. THE BOARD SHALL CONSIDER ENVIRONMENTAL, TECHNICAL, SOCIAL, ECONOMIC, PRESENT USES, PERSONS ADVERSELY AFFECTED, NATURAL BACKGROUND WATERS IN RELATIONSHIPS TO THE CONTAMINANTS AND POLLUTANTS CONTAINED THEREIN AND EXISTING DEGRADATION AND THE IRRETRIVABLE MAN-IN-CONDITIONS HERETOFORE PLACED ON THOSE WATERS. Such standards of quality shall be such as to PROTECT THE PUBLIC HEALTH AND WELFARE and the use of such waters for public water supplies.
(caps and underlining mine)

According to the above state legislative intent, isn't it logical to assume that that somewhere in the State Attorney's Facts and Findings that citizens who testified before the Water Board June 29th should have had their concerns addressed AS LISTED IN 34A-2-11? NOWHERE ARE THEY TO BE FOUND.

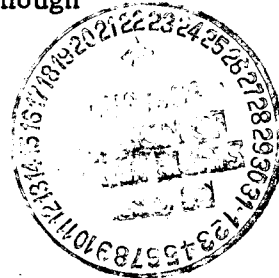
According the State Attorney's office, the only issues are enough water, and a narrow concept of beneficial use.

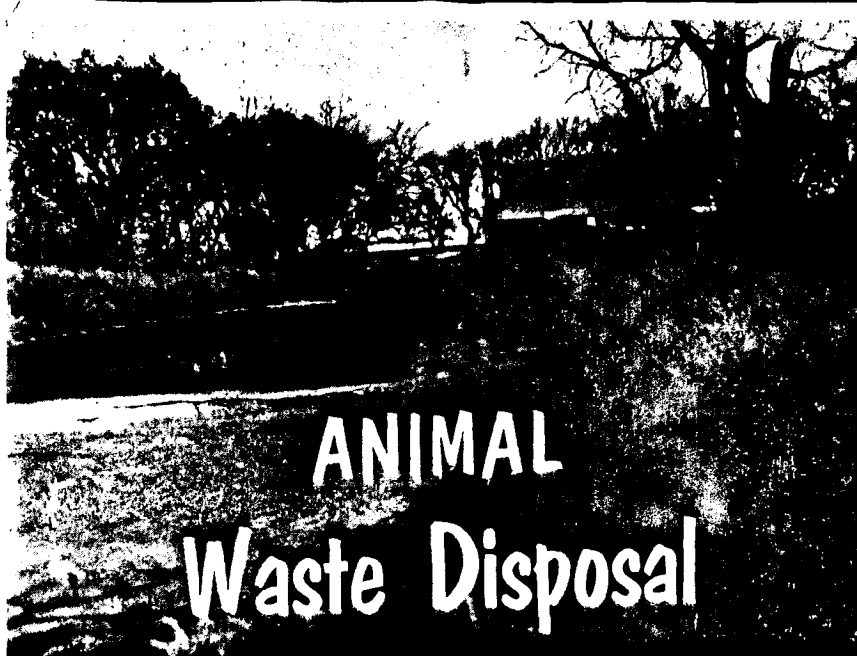
III - X

Until the courts decide = the permit should be held in abeyance.

XI - XIV

The Rutland Aquifer to date does not have a large quantity of irrigation drawdown. use. Future irrigation development could be severely limited





ANIMAL Waste Disposal

BEFORE the end of this decade, states in the north central United States with huge livestock feeding industries will be hit by an animal waste disposal problem which could seriously limit production and consequently hamper economic development.

And, within about the same time, South Dakota—situated near the upper end of a vast watershed—can expect out-of-state pressures to bring additional troubles for the state's biggest industry—livestock production.

These predictions by a South Dakota State University bacteriologist are not made to condemn his state's livestock industry—far from it. Edward C. Berry, who has devoted years to research at the South Dakota Agricultural Experiment Station to problems of animal waste disposal and water pollution, says it's largely a matter of man's inability to properly care for the waste products of his activities. Lack of knowledge and management of industry are other reasons he cites.

"Until those of us in research can come up with a solution, animal waste disposal in concentrated feeding areas like the eastern half of South Dakota is going to increase in importance," he says. "Until we find a better, more economical solution, the best we can do is put animal wastes back on the soil and plow 'em under."

You might think that South Dakota's wide open spaces, comparatively sparse human population and pre-

dominantly agricultural rather than industrial economy would tend to minimize waste disposal and water pollution problems. "Not so," says Dr. Berry. "We are not faced with human and industrial waste disposal problems as much as some other states. Our problem is animal wastes."

Huge Waste Disposal Problems

"What we have to contend with," the bacteriologist explains, "if calculated on the equivalent of a people-problem is a sewage disposal job for a population of 64,000,000 persons in the state of South Dakota from the livestock alone!"

"The problem of the individual livestock feeder is immediate disposal of animal wastes—and the job may range from an operation consisting of a few animals to feedlots with hundreds or even thousands of head of livestock. The livestock producer is faced with a daily supply of a product—manure—which he can't sell, he can't give away, and he can't burn."

To dispose of these animal wastes some South Dakota farmers have tried lagoons, a common term given to a pond-like water impoundment in which organic wastes are stored and/or stabilized. Dr. Berry says a lagoon theoretically is supposed to provide a means in which some 30 to 60 groups of bacteria act to help reduce bulky organic wastes. Municipal lagoons designed for essentially the same process, generally are known as sanitary stabilization

A lagoon on a farm near Amhurst, South Dakota.

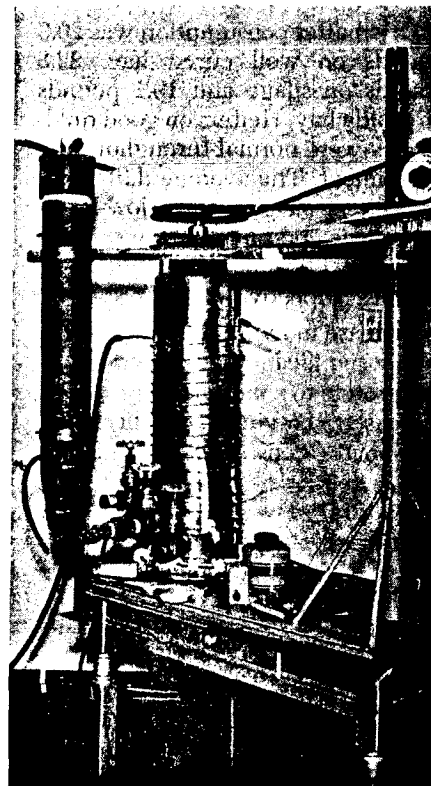
ponds but they use large aeration areas and large volumes of water for dilution, he adds.

Only "Storage Pits"

However, in South Dakota, Dr. Berry says his investigations have indicated the manure lagoons do not reduce organic matter sufficiently to permit calling them anything other than storage pits for manure. Stored manure—whether piled on or below the ground surface—is subject to erosion, runoff or seepage which lead to pollution of nearby streams, lakes or underground water sources. Backing up Dr. Berry's investigations is the fact some South Dakota farmers who tried "lagoons" have found they don't work and have covered them up.

"A manure lagoon is microbiologically untenable in South Dakota be-

S. D. Research. —
A "digestion tank" or miniature lagoon for use in the laboratory. Designed and made in the Bacteriology Department, this apparatus provides a controlled environment over such things as temperature, oxygen, pH, and evaporation.



cause it only carries out half of the process required to break down organic materials in animal wastes," Dr. Berry points out. All lagoons in the state he has investigated are anaerobic. That means bacteria in the lagoon are of the type that does not require presence of free oxygen. "But," he explains, "this is only about half the job. The other part of the job is done by aerobic bacteria, another type which does require presence of free oxygen and in their metabolic process actually 'burn up' the organic matter.

Manure Back on Land

"Putting manure back on the land is the only practical solution we have at the present time," according to Dr. Berry. It is not easy and is somewhat costly and troublesome, he points out, although it does add fertilizer. Some of the economics and size of the problem may be seen in these figures cited by the SDSU bacteriologist:

One hog produces daily as much waste as 2½ men, one beef animal the equivalent of 15 to 20 men, five laying hens the equivalent of one man. If 40,000 head of beef cattle are fed in a comparatively concentrated area it would create a waste problem equal to that of 800,000 persons or a city about the size of Milwaukee.

Proper disposal of animal wastes, as Dr. Berry sees it, will require a rather high order of (and somewhat changed) farm management because the material put on the soil must be plowed under almost immediately. If not plowed under, fertility (mainly nitrogen) is lost by oxidation or the material is washed down into natural waters.

Animal Waste Types

Farm animal wastes are of two types in South Dakota: solid wastes of dairy and beef animals which are not easily liquified, and liquid manures mostly from poultry and swine production. Dr. Berry says sometimes liquid wastes or solid wastes reduced by dilution with water can be disposed of more economically than the solid type (mainly by hauling in tanks loaded by

power pumping equipment). On the other hand, because of amount of water involved in hauling liquid manures, dry wastes are more economical to spread on land although more work is involved, he adds.

"Because of the press of work during other seasons, many farmers dispose of solid and liquid wastes during the winter," according to the Agricultural Experiment Station researcher. "But in winter the ground is frozen so there is little likelihood that the manure will be incorporated into the soil. With spring runoff the wastes are washed into streams and lakes to further pollute natural waters.

"Generally it is not going to be practical to completely process farm animal wastes in the same sense that we process domestic sewage. It will add too much cost per product unit. In South Dakota, as well as in some other states, we are pretty well limited to storing animal wastes temporarily and then adding them to the soil as fertilizer. It appears this is about the only solution although the cost of getting this material on the land exceeds that of putting on commercial fertilizer per unit of nitrogen, phosphorus and potassium. Another consideration in open storage of manure is the problem of flies and rodents—both of which carry serious disease threats to man and animals."

A suitable municipal stabilization pond functions partly because of the high dilution of domestic sewage, amounting to about 100 gallons of water per day per person, according to Dr. Berry. He adds that regulations provide that a stabilization pond must include an area of 1 acre for each 100 persons, it must be 4-5 feet deep, and placed where wind can move the surface of the liquid. A farmer's lagoon or manure pit cannot meet these standards in which a large area, vast amounts of water, and specific location are needed.

Cost Prohibitive

"It would be prohibitive in cost and resources to even attempt to reduce animal wastes by the conventional microbiological standards and methods," Dr. Berry points out. "First, it would mean bringing the dilution of the animal wastes

with oxygen-bearing water to approach that used by municipal installations for domestic sewage. To provide a dilution comparable to domestic sewage, a farmer raising swine would need about 250 gallons of water daily for each hog. Two thousand swine on a fairly concentrated drainage area would require a half million gallons of water per day—about the same as required for a city of 5,000 inhabitants.

"Secondly, there isn't enough oxygen present in South Dakota lagoons. The concentration of oxygen required to burn up organic matter in wastes varies considerably among types of sewage. In all farm lagoons checked in South Dakota the oxygen requirement is three times as high as that normally required in raw, untreated sewage in American cities. This concentration of oxygen required is termed BOD (biological oxygen demand). The BOD of sewage from cities runs about 200, from South Dakota farm lagoons over 600.

Low Temperatures

"Soil temperatures at the bottom of lagoons average about 54° F. in South Dakota. This is about the temperature maintained by a household refrigerator—where we keep milk to prevent spoilage by bacterial action. Manure is expected to 'spoil' at about this same temperature—but it doesn't and that is where difficulties arise in South Dakota although other places with prolonged periods of warm weather may not have this trouble.

"A third difficulty is that to meet requirements of aeration area for domestic sewage disposal, an acre of lagoon would be needed for each 40 swine or 5 beef animals."

The SDSU bacteriologist says the animal waste disposal problem is a rather new development, caused mainly by concentration of large numbers of livestock in small areas. In the past, runoff was less because of more grassland and consequently there was less pollution. "With more plowing and more livestock, the problem of wastes is so acute that it will be a limiting factor of livestock production within the next few years unless steps are taken to solve it," he says. □

THOMAS DASCHLE
SOUTH DAKOTA

COMMITTEES
AGRICULTURE
ETHICS
FINANCE
INDIAN AFFAIRS
VETERANS' AFFAIRS
(202) 224-2321
LL FREE 1-800-424-9084

United States Senate

WASHINGTON, DC 20510-4103

July 27, 1993

615 SOUTH MAIN STREET
P.O. BOX 1536
ABERDEEN, SD 57401
(605) 225-8823

816 6TH STREET
P.O. BOX 8188
RAPID CITY, SD 57701
(605) 348-7551

810 SOUTH MINNESOTA AVENUE
P.O. BOX 1274
SIOUX FALLS, SD 57101
(605) 334-9596
TDD (605) 334-4632

The Honorable Mike Espy
Secretary of Agriculture
14th Street and Independence Avenue
Washington, D.C. 20250

Dear Secretary Espy:

On June 14, 1993, I wrote to Ms. Sharon Longino, Acting Administrator of the Farmers Home Administration (FmHA), to express my concern about a new well field being developed, with FmHA funds, by the Lincoln-Pipestone Rural Water System in western Minnesota. My primary concerns were related to: (1) the potential impact of ground water pumping on the aquifer and ultimately on area lakes, wetlands, and wells, particularly in South Dakota; (2) questions raised to me about possible irregularities related to the issuance of permits by the Minnesota Department of Natural Resources (DNR); and (3) the FmHA analysis of potential impacts as reported in their environmental assessment. I requested that FmHA conduct a thorough inquiry into the matter.

On July 19, 1993, Mr. Bob J. Nash, Under Secretary for Small Community and Rural Development, sent a response reassuring me that FmHA had performed an environmental assessment (EA), stating that the permitting process is a state and local responsibility, and assuring me that FmHA staff in Minnesota are not aware of any improprieties relative to the permitting process. I find the response to be disappointingly superficial, for I had hoped that FmHA would take more affirmative steps to investigate the potential environmental impacts on South Dakota and whether there is any validity to the charges that political irregularities have occurred in the procurement of permits by Lincoln-Pipestone. I write now to ask that you ensure such an inquiry takes place.

With regard to the environmental assessment, my own review suggests that there may be some inconsistencies in the report that, if addressed, could substantially improve our understanding of the potential environmental impacts of the project. For example, the EA does not discuss the amount of water to be pumped or the rate at which it would be pumped, which, it seems, would make it very difficult to analyze potential impacts. The conditional permit issued by the Minnesota DNR on April 2, 1992, is for 750 gallons per minute, not to exceed 400 million gallons per year. I have been told by local residents that facilities (e.g., pipelines and treatment plant) are currently being constructed to accommodate a pumping rate of 1800 gallons per minute.

The EA states that this is one phase of a planned three-phase expansion, but that each phase is designed to be independent of the other. The EA appears to discuss only phase one, though that is not entirely clear. I would hope that as the lead Federal agency, FmHA would evaluate the cumulative impacts that might result from all three phases of expansion, if indeed that expansion is made possible by water development financed by FmHA.

The EA stated, "There are no known business or major residential or industrial developments that will expand or plan to locate in the area because of the project." I have been informed that a corn

The Honorable Mike Espy
July 27, 1993
Page Two

processing plant (Minnesota Corn Processors) is to be the major recipient of water from the system, and that this plant was the driving force behind the permitting process. This use of water was not mentioned in either the EA or the public meeting held on the proposed permit.

The EA states that there would be no significant impacts on wetlands. While this may ultimately be true, it is a curious statement considering the fact that one of the conditions on the permit issued by the DNR is a seven-day pumping test to monitor the potential impact of pumping on the Sioux Nation Wildlife Management Area Calcareous Fen. Obviously, the Minnesota DNR has some concerns about potential impacts on wetlands. The only potential impacts discussed in the EA are related to construction. The potential impact of system operation on the aquifer and area lakes and wetlands is not addressed.

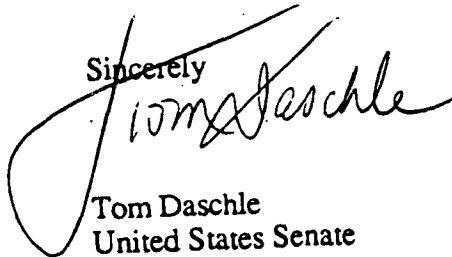
Initially it was thought that a significant clay barrier separating shallow and deep aquifers would prevent impacts on lakes and wetlands. However, professional staff in the South Dakota Department of Environment and Natural Resources have informed me that the clay barrier narrows from a width of over 100 feet near the wells, to less than 20 feet in the vicinity of Lake Cochran. I assume that this means there is a possible connection between the aquifers. I also understand the connection or lack thereof might be confirmed by the seven-day test. This verification is essential, and it is my hope that monitoring can continue on the South Dakota side even after the project has begun operating.

In summary, I ask that FmHA, as the federal agency responsible for funding this project, thoroughly investigate and respond to each of these concerns. I am convinced that public confidence in the process driving these decisions depends on such a review.

Thank you for your attention to this matter. If you have any questions, please do not hesitate to contact me directly.

With best wishes, I am

Sincerely

A handwritten signature in dark ink, appearing to read "Tom Daschle". The signature is fluid and cursive, with a large loop at the beginning and a long, sweeping tail that extends downwards and to the left.

Tom Daschle
United States Senate

A SUMMARY OF A PHONE CONSERVATION WITH RAY ESTES
FORMER OWNER OF THE A & R BAR, CAFE AND BAKERY
JUNE 28TH, 1994

HIS ESTABLISHMENT LOCATED ABOUT 1/2 MILE FROM THE FALL RIVER FEEDLOT.

THE OPERATORS INSTALLED A SETTLING POND 100 YARDS FROM HIS WELL.

IN SHORT ORDER HIS WELL COMPLETELY CONTAMINATED

HE TRIED TO MAKE THE COMPANY DO THE RIGHT THING

HE FINALLY HIRED A LAWYER, THE COMPANY FURNISHED 1,000 GALLON TANKS
OF WATER TO KEEP HIM SUPPLIED

ACTION FINALLY CAME FROM THE DENR AND THE COMPANY INSTALLED ANOTHER WELL
FOR THE BUSINESSMAN.

THEY WERE FORCED TO CLEAN UP AND COVER UP THE SETTLING POND.

MR. ESTES DID NOT KNOW IF THE COMPANY WAS FINED OR NOT. (INCIDENTALLY I
HAD REQUESTED SPECIFIC INSTANCES OF FINES OR SHUTDOWNS FROM THE DEPARTMENT,
NO INFORMATION WAS SENT TO ME)

AS FOR ASKING ABOUT INCREASED OPPORTUNITIES FOR LOCAL FARMERS AND RANCHERS,
THERE ARE NONE. SEVERAL PEOPLE COULD NOT TOLERATE THE SMELL AND FLIES. THE
COMPANY BOUGHT THEM OUT. THE IRONY HERE IS THAT THEY NOW HAVE 900 ACRES
OF THEIR OWN OF IRRIGATED CORN. LOCAL RANCHERS SAY VERY FEW SELL THEM
CATTLE TO FEED. THE COMPANY DOES ONLY CUSTOM FEED MOST FROM SPECULATORS
WHO SHIP IN THIN CATTLE FOR 120 DAYS FEED. VERY LITTLE HAY IS BOUGHT LOCALLY.
MR. ESTES SAYS "THE RANCHERS GOT ROOKED SO MANY TIMES THEY JUST QUIT"/ MOST
ALL FEED IS SHIPPED IN.

MR. ESTES SAYS THE SMELL IS INTOLERABLE UP TO THREE MILES AROUND IN THE SUMMER
DEPENDING ON WIND DIRECTION.

BUT HIS PUNCH LINE I FOUND FASCINATING. IT SEEMS THAT AN ENTREPRENEUR
HAS OPENED A RENDERING PLANT ADJACENT TO THE LOT TO GRIND ALL THE DEAD CATTLE
INTO DOG FOOD. AND THAT HE SAID HAS REALLY ADDED TO THE SWARMS OF FLIES
AND THE STENCH.

Madeline McKesson



**DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES**

JOE FOSS BUILDING
523 EAST CAPITOL
PIERRE SOUTH DAKOTA 57501-3181

September 12, 1994

NOTICE

TO: Paul Imm
Minnesota Corn Processors
400 West Main Street, Suite 201
Marshall, MN 56258
(and Parties of Record)

FROM: John Hatch, Chief Engineer
Water Rights Division
605 773-3352

SUBJECT: Adoption of Findings of Fact, Conclusions of Law and
Final Decision

This is to notify you that a Final Decision, including Findings of Fact and Conclusions of Law, was adopted by the Water Management Board for approval of Water Permit Application No. 5822-3, Minnesota Corn Processors at the August 31, 1994, meeting.

A copy of the signed final Decision, Findings and Conclusions is enclosed for the applicant. Copies will be furnished to anyone else upon request. South Dakota Statutes provide that decisions of the Board may be appealed to the Courts.

cc: John Guhin, Deputy Attorney General
Diane Best, Assistant Attorney General

CERTIFICATION

I hereby certify that on September 12, 1994, I have personally deposited with the United States Mail at Pierre, South Dakota, First Class postage, prepaid envelopes containing a Notice dated September 12, 1994, regarding Adoption of Findings of Fact, Conclusions of Law and Final Decision for approval of Water Permit Application No. 5822-3, Minnesota Corn Processors addressed to:

Paul Imm
Minnesota Corn Processors
400 W Main St Ste 201
Marshall, MN 56258

and Parties of Record (as shown on the attached list)

A copy of the Notice was sent by Inter-Office mail to:

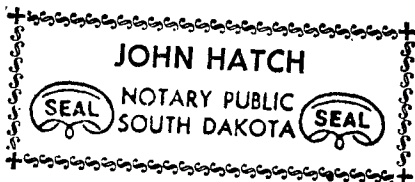
John Guhin, Deputy Attorney General
Diane Best, Assistant Attorney General

Jaci R Konop

JACI R. KONOP
Senior Secretary

STATE OF SOUTH DAKOTA)
) SS
COUNTY OF HUGHES)

Sworn to, before me, this 13th day of September, 1994.



John H. Atch
Notary Public

JOHN HATCH, Notary Public
My Commission Expires
April 1, 2001



Department of Agriculture
523 East Capitol Avenue
Pierre, SD 57501-3182

RP/SP
Office of the Secretary (605) 773-3375
Agricultural Development 773-5436
Conservation 773-3258
Forestry 773-3623
Regulatory Services 773-3724
FAX 773-5926
In-state Toll Free 1-800-228-5254

MEMORANDUM

TO: Governor Walter D. Miller *N*
Robbie Roberts, DENR
Dick Beringson, GFP
Dave O'Hara, GOED
FROM: Jay C. Swisher, SDDA *JS*
DATE: Sept. 20, 1994
SUBJECT: Proposed MCP Feedlot



I had a telephone conversation today with Minnesota Corn Processors (MCP) executives regarding the proposed 20,000 head cattle feedlot in the Brookings area. MCP has made the decision to not pursue the feedlot in the present location. However, South Dakota is still a possible site for a feedlot at some point in the future. Minnesota Corn Processors wants to do business in the state. I will keep you informed as the plans progress.



Safety of Dams Review

Needed items:

1. signed and stamped set of plans
2. Area-capacity curves for ponds
3. Spillway discharge curves
4. Preliminary risk assessment

Comments:

1. Water right needed for runoff from pens and roadways
for irrigation
2. IF category 3 dams; design will meet rules
3. IF recommendation #5 (PMP requirement) is intended to keep ponds from overtopping, the ponds are seriously under designed. The 30 inch PMP would apply to 349.7 acres of drainage into ponds plus 30 inches on ponds.

Gale N. Silken
6 July 94

Area Drained

West Ponds 166.3 acres

South Ponds 183.4 acres

S1 effective height = 17 max storage = 57.7 ac-ft

$$17 \times 57.7 = 980.9 < 3000 \therefore 25 \text{ yr. Freq. OK}$$

74102:08:07:01

S2 $17 \times 57.7 = 980.9$ 25 yr. Freq. OK

S3 $22 \times 51.4 = 1,131 < 3000$ 25 yr. Freq. OK

W1 $22 \times 50.96 = 1,121 < 3000$ 25 yr Freq. OK

W2 $22 \times 50.96 = 1,121 < 3000$ 25 yr. Freq. OK

W3 $14 \times 60.4 = 846 < 3000$ 25 yr. Freq. OK.

No 74102:08:05:01 Preliminary risk assessment
74102:08:09

Yes 1. topo

Yes 2. profile

Yes 3. max cross-section

No 4. area capacity curves

Yes 5. drawings

No 6. spillway discharge curve

7. detailed plans of spillway

8.

recommendations from Hatch

- # 5 The storage lagoons shall be designed with a minimum of 30 inches from crest of the dike to the maximum operating pool elevations for each lagoon. This requirement is to ensure that a PMP event does not cause overtopping of the ~~vents~~ ponds.

Pond

$$S1 \quad \text{surface area} = 502 \times 377 = 189,254 \text{ ft}^2 \times \frac{30''}{\text{ft} \cdot 12} = \frac{473,135 \text{ Acres} \cdot \text{ft}}{43560} = 10.9 \text{ ac} \cdot \text{ft}$$

S2 same

10.9 ac.ft

$$S3 \quad 551 \times 274 = \frac{150,974}{43560} \times \frac{30}{12} = 8.7 \text{ ac} \cdot \text{ft}$$

$$W1 \quad 402 \times 362 = \frac{145,524}{43,560} \times \frac{30}{12} = 8.4 \text{ ac} \cdot \text{ft}$$

$$= 8.4 \text{ ac} \cdot \text{ft}$$

W2 same

$$W3 \quad 737 \times 312 = \frac{229,944}{43560} \times \frac{30}{12} = 13.2 \text{ ac} \cdot \text{ft}$$

$$\text{west ponds drain } 166.3 \text{ acres} \times \frac{30}{12} = 416 \text{ ac} \cdot \text{ft}$$

$$\text{South ponds drain } 183.4 \text{ acres} \times \frac{30}{12} = 458.5 \text{ ac} \cdot \text{ft}$$

$\therefore$ 60.5 ac.ft storage necessary to store PMP on Ponds.

$\therefore$ 935 ac.ft storage necessary to contain PMP on ponds and drainage area.

$$\text{Max Volume of ponds} = 329 \text{ Ac} \cdot \text{ft}$$

$$\text{total effective volume of ponds} = 271.4$$

S1

$$V = \frac{1}{3} [A_1 + A_2 + \sqrt{A_1 A_2}]$$

$$\frac{\pi}{3} \left[\frac{189,254}{377 \times 502} + \frac{110,000}{275 \times 400} + \sqrt{\frac{144,284}{377 \times 502} \times \frac{110,000}{275 \times 400}} \right]$$

$$\frac{17}{3} \left(\frac{443,538}{365,562} \right) = \frac{2,513,383}{43,560} = \underline{\underline{57.7}} \text{ Ac. ft}$$

$$S1 = S2$$

$$V_{S2} = \underline{\underline{57.7}} \text{ Ac. ft}$$

S3

$$V = \frac{22}{3} \left[\frac{59,498}{142 \times 419} + \frac{150,979}{274 \times 551} + \sqrt{\frac{94,777}{(142 \times 419)(274 \times 551)}} \right]$$

$$\frac{22}{3} (305,249) = \frac{2,238,492}{43,560} = \underline{\underline{51.4}} \text{ Ac. ft}$$

W1

$$\frac{22}{3} \left[\frac{145,524}{362 \times 402} + \frac{62,100}{270 \times 230} + \sqrt{\frac{95,063}{(362 \times 402)(270 \times 230)}} \right]$$

$$\frac{22}{3} (302,687) = \frac{2,219,707}{43,560} = \underline{\underline{50.96}} \text{ Ac. ft}$$

$$W1 = W2$$

$$W2 = 50.96 \text{ Ac. ft}$$

W3

$$\frac{14}{3} \left[\frac{229,944}{737 \times 312} + \frac{148,884}{228 \times 653} + \sqrt{\frac{185,027}{(737 \times 312)(228 \times 653)}} \right]$$

$$\frac{14}{3} (563,855) = \frac{2,631,323}{43,560} = \underline{\underline{60.4}} \text{ Ac. ft}$$

P. 19 Runoff

25 yr. 24 hr precip = 4.6 inches

CN = 90

	Area	Ac. Ft	
		25 yr 24 hr	Annual Runoff
West Ponds	166.3	63.7	63.7
South Ponds	183.4	70.3	70.3

p. 23

"The volume of water available for irrigation will depend on precipitation and runoff."

p. 33 "Runoff from portions of the site which do not contain animals or animal waste will continue to flow to natural drainage ways."

roadways 20 acres undeveloped 400 acres

runoff from 25-yr. 24 hr phase 2.

South ponds 70.3 ac. ft. 183.4 acres of drainage
West ponds 63.74 ac. ft. 166.3 acres of drainage

pond volume required to retain ave. annual rainfall @ 25 yr. 24 hr.

South ponds 140.59 ac. ft.
West ponds 127.48 ac. ft.

Operation and Maintenance Guidelines

p 1 H. ponds designed to operate max depths 12 ft to 20 ft.

$\frac{1}{2}$ total pond volumes capable of holding the runoff volume from average annual runoff other $\frac{1}{2}$ retains 25-yr. 24-hr storm
2 feet of freeboard above the maximum liquid level.

P2 II B

total effective volume south three ponds = 139.4 ac. ft. $\frac{\text{ave. annual}}{25 \text{ yr.}} = 140.6 \text{ ac. ft.}$
total effective volume west ponds = 132.0 ac. ft. $\frac{\text{ave. annual}}{25 \text{ yr.}} = 111 \text{ ac. ft.}$

will pump from south ponds to west ponds when south ponds full.



**DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES**

JOE FOSS BUILDING
523 EAST CAPITOL
PIERRE SOUTH DAKOTA 57501-3181

August 30, 1994

Tex Phipps
Minnesota Corn Processors
400 W Main Street
Marshall MN 56258

Dear Mr. Phipps:

I am writing in regard to submission of plans and specifications to perform a safety of dams review of the waste water ponds. The June 20, 1994, approval of the animal waste management plans and specifications did not include a safety of dams review (page 2, item No. 1).

Bruce Labno was advised during May 1994 that depending on the size of the ponds, submission of plans and specifications may be needed. Mr. Labno indicated that he was aware of the Safety of Dams rules Chapter 74:02:08 (copy enclosed). All of the ponds, except the southwest pond, appear to meet the definition of a dam (see 74:02:08:01(7) by having a capacity of at least 50 acre-feet at the crest of the pond. This is based on the assumption that at least 50 acre-feet would drain from each pond if the downstream embankment breached. If this assumption is incorrect (i.e. portion of storage below land grade and will not drain), please let us know.

If the ponds do meet the definition of a dam, then plans and specifications need to be approved in accordance with Safety of Dams rule 74:02:08:09. Several of the requirements have already been met with the plans prepared for the animal waste management system. However, a signed and stamped copy of the following items are needed to complete the safety of dams review:

1. Area-capacity curve for each pond (74:02:08:09(4),
2. Spillway discharge curve (74:02:08:09(6),
3. Spillway design (74:02:08:09(7),
4. Engineering supervision (74:02:08:09(8), and
5. A preliminary risk assessment (74:02:08:05.01).

If you have any questions or need assistance, please contact Gale Selken, staff engineer, at (605) 773-3352.

Very truly yours,

John Hatch
Chief Engineer
Water Rights Division

enclosure

c: Dave Odens, PE, Banner Associates, Inc.
Steve Pirner, Division of Environmental Regulation

STATE OF SOUTH DAKOTA

BEFORE THE WATER MANAGEMENT BOARD

IN THE MATTER OF THE WATER)
PERMIT APPLICATION NO. 5822-3)
MINNESOTA CORN PROCESSORS)

FINDINGS OF FACT
CONCLUSIONS OF LAW
AND FINAL DECISION

FINDINGS OF FACT

I

This is an application to appropriate .89 cfs (400 gallons per minute) from two wells, one approximately 224 feet and one approximately 237 feet deep. Each well will have a capacity of producing the entire .89 cfs but only one of the wells will be operated at a time while the other will be used for standby purposes.

II

The use of water will be for commercial purposes in a livestock confinement facility with a peak capacity of 35,000 head of livestock.

III

The Petersons have raised the issue as to whether this matter ought to be dismissed or continued. The basis for the motion to that effect is that the legal right to possess the land on which the feedlot is to be placed is in dispute. In particular, it is alleged that the Petersons signed an agreement with Minnesota Corn Processors (MCP) to convey the property in question to MCP by a date certain. Petersons allege that only one of them signed the agreement. In any event, Petersons then either conveyed the property or agreed to convey the property to a third person. Petersons therefore argue that because MCP does not actually own

the property and because they, the Petersons, have not given permission to MCP to operate on their property, that the matter should not be allowed to proceed. Alternatively, the Petersons' argue on the same basis that because MCP does not have the right to use the property that the grant of the water permit would in any case not be in the public interest and would result in unlawful impairment of their rights. The parties have submitted that the matter of the legal title to the land is now in litigation.

IV

The first procedural motion for the Board is related to the more substantive issue set forth above; it is whether the Petersons should be allowed late intervention to make the motion described above and to further participate here. On the basis of the apparent change of circumstances of the Petersons, late intervention is appropriate here and it is allowed.

V

The Petersons also have moved the Board, as noted above, either to dismiss the matter or to continue the matter because of the land ownership dispute. The Board finds that, as presently contemplated, and as presently provided for in the plans and specifications submitted to the Department of Environment and Natural Resources, the Peterson property is, in fact, an integral part of the project.

VI

The Board further finds that it is unable to resolve the legal question as to the ownership of land. The Board finds that

it is at least possible that MCP will ultimately be adjudged the owner the owner of the land and thus would have the potential to use the property.

VII

Furthermore, the Board finds that if it is ultimately held in the courts that MCP does not have the right to utilized the Peterson's property for a feedlot, that it will be possible to redesign the project to avoid the Peterson property entirely.

VIII

The Board further finds that the possibility that a project will be delayed or even defeated by a subsequent legal development does not preclude the Board from hearing an application.

IX

The Board finds that it is appropriate in this case to hear the Application because it has been advertised, the proponents and opponents have assembled their cases, and because it does not perceive that any damage can occur to the Petersons in any case from hearing the application. The Board finds that if the courts ultimately resolve the issues such that the Peterson property may not be used, then its decision to grant the water permit will not in any case grant MCP any rights on the Peterson property.

X

The Board finds that, with regard to the Peterson motion seeking a continuance, that the Petersons have not outlined any attack on the application except those based upon its "ownership

rights." The Petersons have not, therefore, indicated any desire for a continuance based upon a need to research the availability of water, the potential contamination of water, and so on. The Board thus finds, in sum, that the Petersons have failed to show sufficient cause either to dismiss or to continue this matter.

XI

The first substantive issue to be determined is whether there is a reasonable probability that there is unappropriated water available for the Applicant's proposed use.

XII

The aquifer into which the wells will be drilled is the Rutland Aquifer. The Aquifer contains approximately four hundred thousand (400,000) acre feet of water in storage in central and eastern Brookings County. The Aquifer is under artesian pressure.

XIII

Study and scientific analysis of three relevant observation wells into the Aquifer indicates a substantial fluctuation in water levels which follows the precipitation trend. The wells also evidence a substantial drawdown during irrigation periods but also evidence a matching recharge after the irrigation season. In other words, the pumping from irrigation wells has not caused a long term decline in the wells. The fluctuation in the artesian head pressure of the wells appears to be due to the amount of precipitation.

XIV

The evidence, taken together, indicates that the Aquifer is capable of sustaining additional withdrawals and that there is a reasonable probability that the water is available.

XV

There will be a substantial positive economic impact from the construction and operation of the feedlot. The capital investment in the area will be between five and six million dollars. Approximately eight thousand tons of hay and a million bushels of corn will be used annually. While South Dakota farmers are not guaranteed these sales, it is likely that, because of their location, that South Dakota farmers will be able to make these sales or a substantial percentage of them.

XVI

Further, testimony with regard to a twenty thousand head stockyard in Nebraska indicated that the gross economic effect there was over one hundred and twenty million annually.

XVII

The Board also finds that the building of the feedlot will allow the addition of value to a South Dakota commodity which is a long run goal of the State.

XVIII

The project will pump water from its storage lagoons for disposal purposes. The storage lagoons will contain the livestock manure. The solid parts of the manure will be removed and not applied by the disposal process.

XIX

The rights of the public to continued clean water are protected notwithstanding the application of the waste water and manure on the land for the following reasons. First, despite the allegations of the opponents to the contrary, the company is required to have sufficient land on which to put the manure and effluent so as to prevent nitrate contamination. In particular, as part of the "plans and specifications" which are a part of the conditions of the permit, the Applicant is required to supply a Nutrient Management Plan. Under the Nutrient Management Plan, the individual farmers utilizing the animal waste will be required to account for all nitrogen applied to their fields and, in addition, will be required to account for residual nitrogen from the use of manure in prior years. The Department will have the ability annually to examine the compliance of the Applicant with this requirement. It thus appears to the Board that the management of nitrogen on the land by way of manure applications will be better controlled than the application of nitrogen by other farmers in chemical form. There is, with regard to such chemical applications, no departmental review.

XX

The Board finds further that, although the Applicant may not as yet have identified sufficient acreage on which to apply the manure and effluent, that it nonetheless may not, consistent with the conditions of the permit and the paragraph immediately above, over apply manure or effluent on any field in any event.

XXI

An additional control with regard to this matter and the management of the liquid and solid manure is that the Department has required numerous monitoring stations, including a requirement for monitoring at the field lot site, and, at the ponds. The Department also has required monitoring of the groundwater in the Big Sioux Aquifer that is downgradient from the fields on which the applications will take place and has required monitoring at the edge of the aquifer. In addition, surface water monitoring is required of major drainages from the land applications. In the event of increases of nitrates at any of these sites there are, in the view of the Board, sufficient remedies available because the permit is appropriate it qualified as set forth in the Final Decision.

XXII

The Board also rejects the contention that the permit allows the passage of water on a water course through the Peterson property (i.e. section 21, where the feedlot is proposed to be located). Permit condition 3 provides that surface runoff from the surrounding area may not enter the confinement area. This requirement, of course, significantly decreases any chance of any major precipitation event will have any effect upon this system. Furthermore, the storage lagoons are required to be designed with a minimum of thirty inches of free board. Finally, the systems are required by the Final Decision to be operated in such a way as to prevent discharge of runoff from entering the waters of the State.

Compliance with the conditions of the permit, in other words, will prevent the ill effects which are alleged to be likely to occur under this application.

XXIII

The Board also takes notice of the fact that it is asked to judge this permit in terms of whether it will promote or operate against the interest of family farm. The Board is asked to perform this task under the umbrella of the public interest requirement. The Board notes that there is a substantial controversy over whether, in the long run, a local feedlot will in fact promote the family farm. Some factors undoubtedly favor the family farm. These include the fact that there will be a market available, which was not available before locally, for hay, corn, and cattle. On the other hand it is undeniable that a large scale feedlot may tend to purchase property and may, in the long run, result in fewer family farms. The Board is unable to make a factual finding as to the ultimate impact on the family farm with regard to this operation.

CONCLUSIONS OF LAW

I

The Board has jurisdiction of the matter.

II

The Petersons are appropriately allowed to intervene in this case because of changed circumstances. In particular, they were, at one point, apparently willing to sell their property to MCP and therefore had little or no interest in this proceeding; at

some later time, very close to the time for intervention, their position apparently changed. Under the circumstances, permissive intervention is appropriate.

III

The Petersons' motion to dismiss or to continue is appropriately denied. No decision of the Board can allow or purports to allow the construction of the feedlot on the Petersons' property if the courts hold that the Petersons in fact legally own the property. Furthermore, the Petersons have not requested a continuance on any grounds related to factors such as the availability of water or contamination of the water source. The Board need not consider what its disposition of the matter would have been had a continuance been requested on such a basis. In any event, the Board finds that these matters have been extensively raised by other parties.

IV

There is a reasonable probability that there is unappropriated water available for the Applicant's proposed use.

V

As set forth above, the proposed diversion can be developed without unlawful impairment of existing rights and in the public interest when developed in accordance of the qualifications set forth in the Final Decision. The Board, in particular, concludes that, based upon its "Findings and Facts" set forth above, that the public is adequately protected from contamination of aquifers and increased nitrates through the qualifications set

forth in the final decision. The Board also concludes that the public interest is served by the creation of a feedlot which will provide a means for local farmers to sell certain of their products and which will stimulate the economy of the area.

VI

The Board, as found above, is unable to make a factual determination as to whether the creation of the feedlot will, in the long run, aid or hinder the survival of family farms in the area or in the State. The Board, in addition, concludes that the legislature has not vested this Board with the ability or right to make water allocation decisions on the basis of whether its decisions will, in general, promote the family farm.

VII

The Board finds that the proposed use for livestock feed lot is a beneficial use.

FINAL DECISION

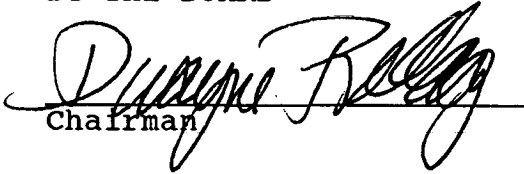
The application for water permit no. 5822-3 is granted with the following qualifications:

1. The wells approved under this Permit will be located near domestic wells and other wells which may obtain water from the same aquifer. The well owner under this Permit shall control his withdrawals so there is not a reduction of needed water supplies in adequate domestic wells or in adequate wells having prior water rights.
2. Approval of this Permit is subject to review and approval of plans and specifications for the animal waste management system by the Division of Environmental Regulation prior to construction. The plans and specifications shall be prepared by a person who is registered as a professional engineer pursuant to SDCL 36-18.
3. The confinement area shall be designed so that it does not receive surface runoff from the surrounding area.

4. Operation of the disposal systems to dispose of waste and wastewater shall be in a manner that 1) prevents discharge of runoff from the disposal sites and 2) prevents disposal site runoff water from entering the waters of the State.
5. The storage lagoons shall be designed with a minimum of 30 inches from the crest of the dike to the maximum operating pool elevation for each lagoon. This requirement is to ensure that a Probable Maximum Precipitation (PMP) event does not cause overtopping of the dikes.
6. Design, construction and management of the lagoons shall be sufficient to maintain seepage rate of less than ten to the minus seven (10^{-7}) centimeters per second. Compaction of the soils within the wastewater lagoon must be at least ninety percent of the Standard Procter Density (ASTM D6980-70).
7. Approval of Permit No. 5822-3 is subject to compliance with the following then existing and applicable Water Management Board rules:
 - a. Chapter 74:03:15 Ground Water Quality Standards,
 - b. Chapter 74:03:16 Ground Water Discharge Permit,
 - c. Chapter 74:03:02 Surface Water Quality Standards,
 - d. Chapter 74:03:04 Uses Assigned to Streams, and
 - e. Chapter 74:03:17 through 74:03:26 Surface Water Discharge Provisions

Dated this 26th day of September, 1994

BY THE BOARD


Chairman



**DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES**

JOE FOSS BUILDING
523 EAST CAPITOL
PIERRE, SOUTH DAKOTA 57501-3181

NOV 14 1994

Paul Imm
Minnesota Corn Processors
400 West Main Street, Suite 201
Marshall, MN 56258

Dear Mr. Imm:

Enclosed is Water Permit No. 5822-3 authorizing construction of your water diversion system and beneficial use of the water, not exceeding the limits as specified in the Water Permit.

Also enclosed is Form 10, Notice of Completion of Works and Application of Water to Beneficial Use, which you are to complete and submit to the Chief Engineer when you have completed the system and/or have put the water to beneficial use. An inspection can then be scheduled so that the Water License may be issued, thus completing your acquisition of a Water Right.

Very truly yours,

JOHN HATCH, Chief Engineer
Water Rights Division
605 773-3352

enclosures

PLEASE NOTE: Certain changes can be made in your permit within the five year construction period, usually without affecting the priority date provided an application to amend your permit is made within the five year period - i.e. changes in location or number of diversion points (wells) or location of land to be irrigated. Well locations for wells into the same aquifer can be moved up to 660 feet without application.

Applications to amend a permit after the five year construction period will be assigned a new priority date. Applications to change water sources, to add lands or increase original diversion rates, if approved will usually receive the date of the new application as a priority date regardless of the five year construction period.



Jim Goodman
Dept. of Environment & Natural Resources
523 East Capitol
Pierre SD 57501-3181

March 10, 1995

Dear Jim:

We are sending you the attached "Notice of transfer of ownership form", as per your instructions, for the 2 water wells indicated on the attached condensed site map.

It is my understanding that this form will allow the water rights for those 2 wells identified to be transferred from Minnesota Corn Processors to Joe L. Pires.

Thank you for all of your help in this matter, if you have any additional questions or comments, please contact Joe Gribble at 5Gs or myself, anytime.

Sincerely:

Larry Pires
Larry Pires

encl.

NOTICE OF TRANSFER OF OWNERSHIP

To: Chief Engineer
Water Rights Division, DENR
523 E. Capitol
Pierre, SD 57501-3181



No. _____

Date: 3-10-95

I\We request that Water Permit No. 5822-3

formerly owned by: Minnesota Corn Processors

be transferred to: (name & address) Joe L. Pires

132 E. Kern, Tulare, CA 93274

(Telephone No) (209) 686-4730

Title to the following described land(s)/property has been transferred as described above:

2 wells (Rutland Aquifer) located in the NW 1/4 SW 1/4 and SW 1/4 NW 1/4 Section 28-T110N-R47W

I\We understand that the validity of Water Permit No. 5822-3 has not been determined by this transfer action. If I\We have any questions on validity, I\We understand that only the Water Management Board has the authority to determine if a water permit/right is valid (see note).

You are requested to file this "Notice of Transfer" in the appropriate file at the Division of Water Rights, as evidence of the change of ownership.

A fee of Two Dollars and Fifty Cents (\$2.50) is attached to cover the filing fees as required under SDCL 46-2-13.

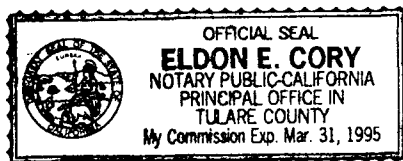
STATE OF SOUTH DAKOTA)

County of Brookings)

I\We Joe L. Pires being first duly sworn on my oath depose and say that my relation to the above described undertaking is that of Owner, that I have read the above foregoing statement, and that I know of my own personal knowledge that the information herein stated is true.

Joe L. Pires
(Signed)

Subscribed and sworn to before me this 10 day of MARCH, 1995.



Eldon E. Cory
(Notary Public)

NOTE: Water permits may be cancelled for nonconstruction within the five year construction period. Once a water permit is developed and the water used, the permit becomes a right. A water right may be lost for three reasons:

1. Abandonment - no intent to use water and use is abandoned.
2. Forfeiture - no use of water for three year period without legal excuse.
3. For a third violation of a condition of a water permit/right.

RECEIPT

414432

Division of Water Rights

South Dakota Department of Environment and Natural Resources

Pierre, _____ March 13 _____, 19 95

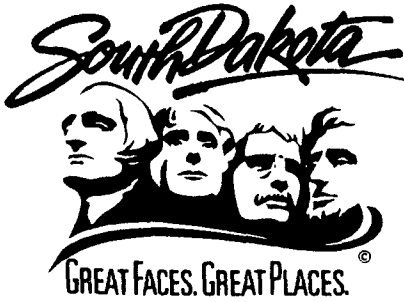
RECEIVED OF Dusty Anderson, 111 Lindsay Trail, Ft. Pierre, SD 57532

the following amount in fees for services rendered as provided for by law:

Fee for Application for Permit No. _____ to Appropriate Water, to construct and to put water to beneficial use _____		
Fee for Application for Permit No. _____ to Appropriate Water, for Future Use _____		
Fee to retain Future Use Permit No. _____ after period of seven years.		
Fee for Inspecting Constructed Works, confirming beneficial use and issuing Water License No. _____		
Fee for Filing Transfer Form <u>Water Permit No. 5822-5</u>	2	50
Fee for Filing Extension Request _____		
Fee for _____		

(Any Other Work Provided by Law)	Total	2 50

By John Hatch
Chief Engineer



**DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES**

JOE FOSS BUILDING
523 EAST CAPITOL
PIERRE, SOUTH DAKOTA 57501-3181

March 21, 1995

5822-3

John Bixler
Dakota Rural Action
Box 549
Brookings, SD 57006

Dear Mr. Bixler:

Enclosed, as you requested, is a copy of Water Permit No. 5822-3, currently listed in the name of Joe L. Pires. The permit was issued in the name of Minnesota Corn Processors and transferred March 14, 1995 to Mr. Pires.

I have also included a copy of the Water Management Board's Findings of Fact, Conclusions of Law and Final Decision.

If you have any questions, or need further information, please contact me.

Sincerely,

Genny McMath
Environmental Scientist
Water Rights Division
(605) 773-3352

enclosures



Five-G Consulting, Inc.
32854 South Dryland Road
Molalla, Oregon 97038
503/829-4844

March 21, 1995

Governor's Office of Economic Development: Kent Mackey
SD Dept of Agriculture, Ag Development: Dusty Anderson, Cheri Rath
SD Dept of Environment & Natural Resources, Water Rights: Eric Gronlund, Jim Goodman
SD Dept of Environment & Natural Resources, Groundwater: Jean Goodman, Tom Bradner, Chris Skonard
SD Dept of Environment & Natural Resources, Wastewater: Rodger Seefeldt, Dent Woodmansy, Kelli Buscher, Ray Birchem
Joe L. Pires & Co., Joe Pires, Larry Pires, Anthony DeCampos

Ladies and Gentlemen,

Refer to our meeting in Pierre, South Dakota 7-Mar-95.
Related to the 3 new Pires Family Dairy Projects to be located near
Brookings, South Dakota.

First let me thank each of you for the time allotted me to
describe my clients program and discuss some of the problems that
have developed. Time is very important on these projects and we
appreciate your prompt scheduling.

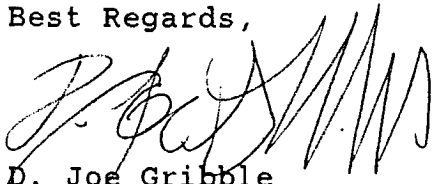
I can already report a positive outcome on the water right
issue. Following the procedures and guidance you set forth my
clients have negotiated satisfactory conditions for purchase of the
second well and transfer of the water rights for both wells from
Minnesota Corn Processors (MCP). We will be developing the new
water system for the three new dairy projects as outlined in our
original proposal.

The Joe L. Pires & Co. management group are certainly pleased
with this quick resolution of a potentially serious problem. They
have authorized me to proceed with work on plan revisions and
development of the waste management program, for the three dairy
projects. We are following the plan outlined in our meetings and
the material you supplied 7-Mar-95. The basic waste management
program for each of the three dairy projects will be similar to the
plans, schematics and report I left with you at the end of our 7-
Mar-95 meeting. This report is titled "Joe L. Pires and Co.,
Elkton, SD"

We expect to get the rest of this material back to you in
conceptual form for all 3 dairies by 27-Mar-95. I would like to
schedule meetings with your groups again on 30 and 31-Mar-95 to
review the 3 revised dairy projects. If we can meet this tight
schedule and obtain conceptual approval from your groups, we will
be prepared to make our presentation to the county planning
commission in Brookings at their regularly scheduled 4-April-95
meeting.

Ms. Cheri Rath kept excellent notes from the various meetings we had on 7-Mar-95. I am enclosing copies for your review and records. By copy of this letter I will ask Dusty and Cheri to schedule the next group of meetings 30 and 31-Mar-95 to coincide with your schedules. Thanks again for your time and guidance on these matters. Time is very important if my clients are to get their permitting in place for the 1995 construction season. You have helped us move this process forward. Please circulate this letter to other in your department that should see it.

Best Regards,



D. Joe Gribble
Five-G Consulting

Enclosure: Notes from meetings

Distribute to: Kent Mackey
Dusty Anderson
Cheri Rath
Erick Gronlund
Jim Goodman
Jean Goodman
Tom Bradner

Chris Skonard
Rodger Seefeldt
Dent Woodmansey
Kelli Buscher
Ray Birchem
Joe L. Pires & Co.
P & M Dairy
Tierra Madre Dairy

Joel L. Pires Company

Tuesday, March 7, 1995
Pierre, SD

Attendees

Five G Consulting: Joe Gribble

Governor's Office of Economic Development: Kent Mackey

SD Dept of Agriculture, Ag Development: Dusty Anderson, Cheri Rath

SD Dept of Environment & Natural Resources, Water Rights: Eric Grunlund, Jim Goodman

SD Dept of Environment & Natural Resources, Groundwater: Jean Goodman, Tom Bradner, Chris Skonard

SD Dept of Environment & Natural Resources, Wastewater: Rodger Seefeldt, Dent Woodmansey, Kelli Buscher, Ray Bircherm

Comments from Joe Gribble Gribble gave a brief background on the Pires, then moved on to explain the proposed dairy operation. At the maximum operating level, there will be a total of 1500 milking cows plus approximately 1500 "other" females (dry, calves, heifers, etc). The operation, which consists of three families (P&M, Terra Modrey, Joel Pires), currently has option on 5 quarters of land. This amount of land is adequate for "housing" the cattle; yet, not large enough to provide feed. Contracts will be made with neighboring farmers to provide feed and seed for the operation. A portion of the contract will demand acceptance of manure from the operation. It is anticipated that the operation will provide 40-50 jobs for the Elkton area. The operation is expected to boost the area economy by 8-10 million dollars.

Wells Two wells, each capable of pumping 400 gpm, are located on land near the operation site. MCP possesses the original water rights permit for both wells. Grunlund indicated the permit allows for pumping a total of 400 gpm for both wells; therefore, one is intended to be a backup well. He said permits generally transfer with land ownership changes. Grunlund stated North Fork farms has submitted a permit to Water Rights for irrigation rights on one of the wells. It is his opinion the well is not capable of performing for irrigation purposes. Pires has not completed negotiations for the land that well is on.

Groundwater Jean Goodman questioned if the operation had been working with the local planning & zoning people as that is where much of the opposition stemmed from when MCP was formulating their plans.

Goodman indicated holding pond location, a ground & surface water monitoring plan and a nutrient management plan need to be submitted to SDDENR. The waste must be contained in a manner which would be capable of surviving a 25 year, 24 hour storm without causing contamination. The nutrient management plan needs to ensure enough area is available to spread solid waste while balancing amounts with crop need. An added concern is present as the rural water system in that area already has high nitrates in the water. There was a comment about a feedlot in western SD where they did not get the anticipated number of people wanting the manure once they actually had it on hand.

Gribble indicated the facility will have a manure solid separator to handle the waste. A slurry collection ditch allows movement of the liquid to the retention ponds while the solid portion is augured into a pile next to the separator. The liquid portion will be piped to close proximities for undiluted application or blending with center pivot irrigation water (10% waste to 90% clean water) and solid portions will be hauled to more remote areas.

Wastewater Gribble said federal and state guidelines have been followed in initial planning of the facility. Gribble will develop a working team consisting of his client, SCS/ASCS, Extension, service agencies and regulatory agencies.

Plans need to indicate long range goals and pond location. According to Gribble, ponds will also contain a small amount of milk waste and cleaners (chlorine, detergent).

Plan Drawings The location of the operation allows drainage to move to the south. It will have five 300 head barns which will be positioned N/S for drainage from flushing. The area will be terraced to handle natural precipitation runoff; therefore, only feedlot waste will be collected. The cattle will be in an enclosed except when they are allowed in the exercise area.

A recommendation that ponds should be capable of storing 180 days of waste was brought by Seefeldt. Discussion also focused on the fact that because of runoff potential, it is not a good practice to spread manure during the winter. Gribble said when there is a warm spell during the winter, manure may be spread in an attempt to decrease stored quantities. Gribble indicated solid waste is collected at a rate of 1 ton/day/100 head. Water from the waste retention ponds can be recycled for flushing however this practice is generally used only in the winter because of odor. Only potable water can be utilized in the milking barn. When temperatures dip fairly low, either tractors are used to scrape the barns or cleaning is done when temperatures allow the use of water for flushing. Barns are cleaned as cows are being moved & during the milking process.

Water Rights During an afternoon meeting with Gribble, Jim Goodman, Greenland, Mackey and Rath discussion centered around well and water permit issues. It is very important that Pires contact MCP and attempt to have them transfer the water permit to him. Pires does not need the land where the well in question is located, he simply wants the well. If difficulties arise, litigation/hearings may be necessary to determine water use allowance from each well. An option would be to drill a new well at the other end of the quarter. Submitting an application and holding public hearings would take approximately 2 months. If the application is contested, the case would be heard at the Water Management Board Meeting in July.

The question was raised "if the land is not acquired, will the one well still have 200 gpm rights"? A permit transfer does not entail a hearing. Goodman felt an adequate irrigation pump could not be placed in the 8" well. He added test wells in the area did not appear indicate ample water.

Transfer of water permits are defined in statute ARSD 45:5:30.3. Evans would continue to have the right to utilize the well in question for domestic use. Domestic use is intended for homes and livestock and is limited to 18 gpm, not to exceed 16,000 g/day. Water Rights personnel stated irrigation requires a minimum of 650 gpm.

Goodman and Greenland advised Gribble to have his client continue negotiations on the well. At this point Pires is guaranteed at least 200 gpm with the potential of 400 gpm being contingent on possession of the second well. Pires would be allowed 400gpm with the permit from MCP and would have the "point of diversion" (pump) even if Evans takes possession of the well. If the issue cannot be resolved, pursue the option of drilling a well at the west farm. Goodman stated Water Rights was going to recommend deferral of Evan's permit until this gets worked out. Water Rights will send a letter of intent to Pires.

Waste Water Gribble reviewed facility maps during an afternoon meeting with Woodmansey, Seefeldt, Buscher, Mackey and Rath. Woodmansey indicated seepage and storage requirements need to be addressed during construction. This entails a construction storm water permit and pollution prevention plan. The storm water permit must be submitted prior to dirt movement and is necessary if more than 5 A are disturbed during construction. The pollution prevention plan defines possible contamination of surface waters through erosion sedimentation, etc. This plan does not need to be submitted, but has to be kept on site.

It will be necessary to provide Waste Management with pond dimensions. Gribble is intentionally not providing figures until he can obtain SCS input.

A "Comprehensive Ag Waste Planning Process" flowchart which lays out procedures and permits necessary for development of animal waste management systems was presented. SCS cost-share opportunities were discussed and it is thought the program is basically offered to bring existing operations into compliance. However, Roy Boschee or Ken Reed, SCS engineers in Brookings, may be able to provide definite answers.

The topic of wetlands was considered next. SCS makes determinations on wetlands. According to Section 404 a wetland is greater than 3 A. It was thought some wetlands work was done by the Corp/USFWS/SDGFP for MCP. Woodmansey provided Steve Naylor, Corp (605)224-8531, after the meeting as a contact to provide information on who to talk to about the wetlands that have been delineated and the process MCP when through. He suggested there may have been some disagreement between the three agencies.

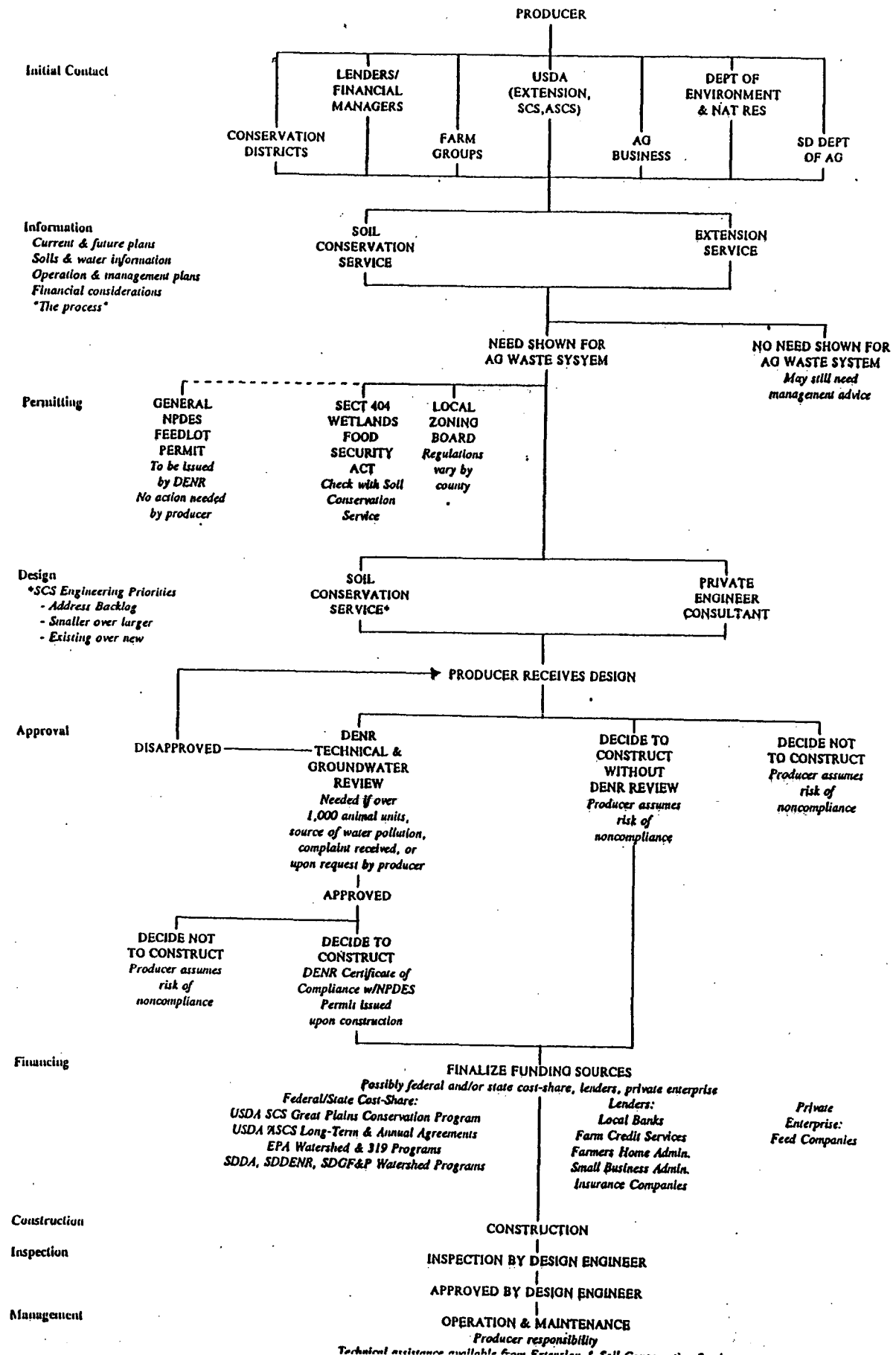
In regard to waste management, water applied to land needs to be similar to crop fertility need. Gribble stated he and his clients conceptually understand flushing, recycling, ponds and irrigation as explained during the morning session.

MCP ran into some problems as part of their proposed irrigation area put water on linear wetlands. Gribble explained the intent to use adjacent grass buffers so only cropland would receive irrigation water. Wyoming conducted tests related to spreading liquid manure over snow during the winter and found it resulted in residues in creeks. Waste Management recommended not applying liquid manure to snow and ice. Gribble indicated waste may be spread judiciously during warm periods of the winter in order to keep pond levels at a minimum.

It was mentioned that lighting was a concern with the MCP facility. Gribble indicated it would look like a small town as lights were necessary for 24 hour milking; however, a majority of the lighting would be inside the buildings.

Comprehensive Ag Waste Planning Process

The voluntary process described below assists producers in developing an animal waste management system that is efficient, economical, and environmentally sound.

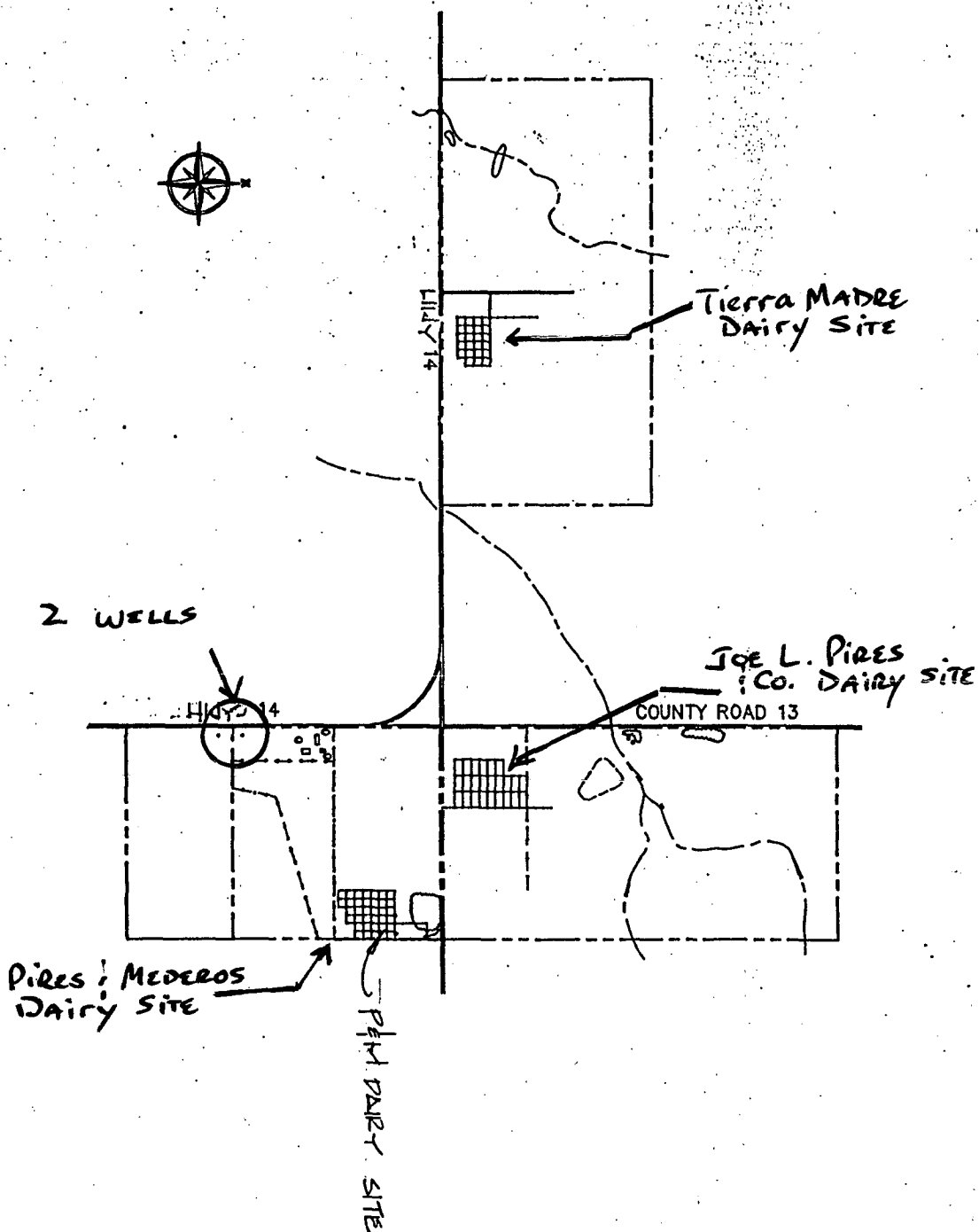




SOUTH DAKOTA DAIRY SITES

DATE: 24-FEB-95
SCALE: 1"=2000'

Five-G Consulting, Inc.
32854 South Dryland Road
Molalla, Oregon 97038
503/829-4844





**DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES**

JOE FOSS BUILDING
523 EAST CAPITOL
PIERRE, SOUTH DAKOTA 57501-3181

March 24, 1995

No. 5822-3

Joe L. Pires
132 E. Kern
Tulare, CA 93274

Dear Mr. Pires:

The transfer of Water Permit No. 5822-3 has been completed. The receipt for the filing fee was given to Dusty Anderson at the time he paid for the transfer of ownership.

Our records now show you as the owner of Water Permit No. 5822-3.

Sincerely,

Cheryl F. Frost
Secretary
Water Rights Division
(605) 773-3352

PIRES & MEDEROS DAIRY

MARCH 27, 1995

Governor's office of economic development: Kent Mackey
SD dept of Agriculture, Ag development: Dusty Anderson, Cheri Rath
SD dept of Environment & Natural Resources, Water Rights:
Eric Gronlund and Jim Goodman
SD dept of Environment & Natural Resources, Groundwater:
Jean Goodman, Tom Bradner, and Chris Skonard
SD dept of Environment & Natural Resources, Wastewater:
Rodger Seefeldt, Dent Woodmansy, Kelli Buscher, Ray Birchem
Brookings County: Planning Commission

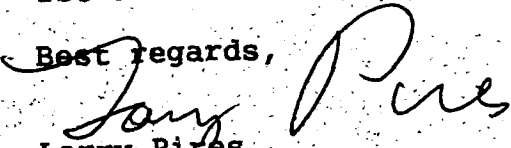
Ladies and Gentleman,

First let us thank you for the time and consideration you are giving our proposed new Pires & Mederos Dairy Dairy project to be built near Elkton, South Dakota. The plans, descriptive material, and forms submitted to you March 24, 1995 represent our application for permits to grade the site, build the facilities, operate the dairy, use state water and utilize the waste byproducts.

Mr. D. Joe Gribble of the Five-G Design engineering firm Molalla, Oregon is our project engineer. He will be attending the meetings in Pierre, Elkton and Brookings South Dakota scheduled for March 30, 1995 through April 4, 1995. He is familiar with matters related to construction, stocking and operation of the new facilities. He is authorized to represent Pires & Mederos Dairy and discuss these issues with you. If our project meets your requirements it is our intent to build and operate a showcase commercial "Grade A Dairy" that will be an asset to your agriculture community. We will be hiring local personnel for construction, stocking and operation of these facilities. We will be buying land, feed, commodities and cattle from local sources. We have met the neighboring land owners and others from the Brookings, Elkton community. Everyone we have met has been cordial and receptive to the idea of having these large commercial dairy operations built near Elkton.

Time is very important to us as it relates to the financial feasibility of this project. We need to get earthwork started early this Spring, mobilize construction contractors and equipment suppliers to have buildings, equipment and feed storage structures ready for stocking this fall. We appreciate everything you are doing to help move the Pires & Mederos Dairy project along toward these tight scheduling objectives. If you need further data or information please let us know.

Best regards,


Larry Pires

Owner of the Pires & Mederos Dairy Dairy

CC: Five-g Consulting

DAKOTA ROADWAY
CONSULTANTS INCORPORATED
308 South Coteau • Pierre, South Dakota 57501
(605) 224-1220 FAX (605) 224-2421



March 30, 1995

Donald L. Gribble, P.E.
Five-G Consulting Services
32845 S. Dryland Rd.
Molalla, OR 97038

Dear Mr. Gribble:

We have received copies of the preliminary, or design concept, plans for the three dairy operations proposed for the:

NW 1/4 of Sec. 28, T110N, R47W
(P&M Dairy, 1500 Cow)

NW 1/4 & SW 1/4 of Sec. 21, T110N, R47W
(Joe L. Pires & Co. Dairy, 1500 Cow)

SE 1/4 & SW 1/4 of Sec. 20, T110N, R47W
(Tierra Madre Dairy, 1500 Cow)

located east of Brookings and north of Elkton, South Dakota, adjacent to U.S. Highway 14.

We have performed a preliminary review of the plans which are conceptual and do not detail the complete system proposed at this time. That may be reflected in our comments. We have also reviewed current criteria for similar installations.

COMMENTS:

The plans generally describe the physical operations planned and the major facilities and equipment. Preliminary statements indicate the intent of the developers to observe the prevailing environmental regulations and local ordinances. Additionally, they are seeking S.D. Dept. of Environment and Natural Resources approval, which may be required.

The three dairy operations, which are located on adjacent properties, are also adjacent to U.S. Highway 14 which is due for reconstruction in late 1995 and 1996 and will be constructed and maintained as a priority truck route into the future.

We note that a state Water Use Permit has already been obtained.

Plan details are incomplete, however details shown are considered consistent with further development that will result in an approved facility and operation. It should be noted that:

- No Hydro-geologic data or investigation is included. Monitoring well numbers, location, or a monitoring plan have not yet been provided.

- Other than pictures of planned facilities, only plan view details of facility location and waste water collection ditches and retention ponds are included. Details on design or location of the main waste ponds for each dairy are not yet available.
- The stated 120 day waste retention pond storage capacity for waste water may not be acceptable to DENR and should be reviewed for the location. The criteria prohibiting soil application of waste during frozen conditions may require that a longer retention period be provided.
- It was noted that the site map contours are to an assumed elevation at each location. As the project design is developed these should be converted to sea level elevations.
- It is noted that the dairy facility at each location is near the top of its' respective drainage basin, which will make diverting storm drainage around the site practical and inexpensive.
- It is further noted from other information that the sites are within the Big Sioux River drainage area and upstream 2-3 miles from the Big Sioux (shallow) aquifer and the Rutland (deeper) aquifer as determined by the South Dakota Geological Survey.
- It is anticipated that local authorities will regulate and monitor development and operation of the proposed facilities to safeguard these water resources.

In my opinion, based on information available at this time, these three projects have potential as environmentally acceptable, economic assets to the community for which they are proposed.

Sincerely:

DAKOTA ROADWAY CONSULTANTS, INCORPORATED

James R. Kastner

James R. Kastner, P.E.
President

cc: Raymond Birchem, SD DENR
file



**DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES**

JOE FOSS BUILDING
523 EAST CAPITOL
PIERRE, SOUTH DAKOTA 57501-3181

March 31, 1995

Joe L Pires & Co Dairy
Joe L Pires
132 East Kern Ave
Tulare, CA 93274

Dear Mr. Pires:

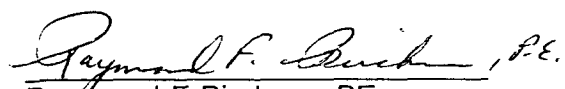
We have received the material Five-G Consulting submitted 24 March 1995 related to construction of your new 1500 cow dairy to be built near Elkton, SD.

We have reviewed the material and understand it conceptually. We believe the proposed wastewater management system will meet SD requirements when constructed, as described, and operated within federal, state and local guidelines.

This letter represents conceptual approval for this project. The final approval will be issued when we receive the remaining construction data as outlined in Natural Resources Conservation Service Guideline.

It is acceptable for the owners to begin work with site development, ponds and related structures at any time; however, the new facility cannot be operated prior to issuance of final approval of completed plans and specifications by the Department of Environment and Natural Resources.

If the submittal includes the design for ponds, related waste management equipment and waste management programs for the full expansion to 1500 cows (3000 animal units) the approval will be given for those numbers.


Raymond F Birch, PE

Staff Engineer
Department of Environment & Natural Resources (DENR)
Phone: (605) 773-3754

cc: Joe Gribble, Five-G Consulting
J Dusty Anderson, Department of Agriculture, Agriculture Development
Kent Mackey, Governor's Off of Economic Dev, Business Recruitment &
Expansion
Tom Brandner, DENR, Groundwater Quality
Kent Woodmansey, DENR, Point Source Control
✓ Eric Gronlund, DENR, Water Rights



**DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES**

JOE FOSS BUILDING
523 EAST CAPITOL
PIERRE, SOUTH DAKOTA 57501-3181

March 31, 1995

P & M Dairy
Larry Pires
132 East Kern Ave
Tulare, CA 93274

Dear Mr. Pires:

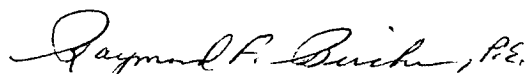
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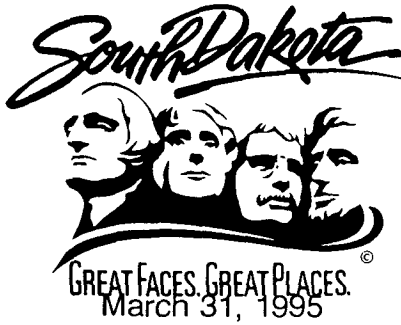

Raymond F Birch, PE

Staff Engineer

Department of Environment & Natural Resources (DENR)

Phone: (605) 773-3754

cc: Joe Gribble, Five-G Consulting
J Dusty Anderson, Department of Agriculture, Agriculture Development
Kent Mackey, Governor's Off of Economic Dev, Business Recruitment &
Expansion
Tom Brandner, DENR, Groundwater Quality
Kent Woodmansey, DENR, Point Source Control
Eric Gronlund, DENR, Water Rights



**DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES**

JOE FOSS BUILDING
523 EAST CAPITOL
PIERRE, SOUTH DAKOTA 57501-3181

Tierra Madre Dairy
Farhad Vahdat
132 East Kern Ave
Tulare, CA 93274

Dear Mr. Vahdat:

We have received the material Five-G Consulting submitted 24 March 1995 related to construction of your new 1500 cow dairy to be built near Elkton, SD.

We have reviewed the material and understand it conceptually. We believe the proposed wastewater management system will meet SD requirements when constructed, as described, and operated within federal, state and local guidelines.

This letter represents conceptual approval for this project. The final approval will be issued when we receive the remaining construction data as outlined in Natural Resources Conservation Service Guideline.

It is acceptable for the owners to begin work with site development, ponds and related structures at any time; however, the new facility cannot be operated prior to issuance of final approval of completed plans and specifications by the Department of Environment and Natural Resources.

If the submittal includes the design for ponds, related waste management equipment and waste management programs for the full expansion to 1500 cows (3000 animal units) the approval will be given for those numbers.

Raymond F Bircham, PE

Staff Engineer

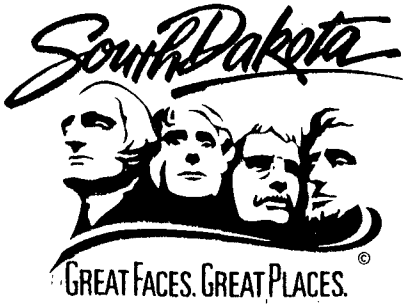
Department of Environment & Natural Resources (DENR)

Phone: (605) 773-3754

cc: Joe Gribble, Five-G Consulting

J Dusty Anderson, Department of Agriculture, Agriculture Development
Kent Mackey, Governor's Off of Economic Dev, Business Recruitment &
Expansion

Tom Brandner, DENR, Groundwater Quality
Kent Woodmansey, DENR, Point Source Control
Eric Gronlund, DENR, Water Rights



June 27, 1995

**DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES**

JOE FOSS BUILDING
523 EAST CAPITOL
PIERRE, SOUTH DAKOTA 57501-3181

D Joe Gribble
Five G Consulting, Inc.
32854 S Dryland Road
Molalla OR 97038

Dear Mr. Gribble:

I am writing in response to our meeting on June 26, 1995, concerning development of both the Pires and Hammerink dairy operations. As you requested, this letter addresses disposal of waste water as it relates to irrigation in South Dakota.

The disposal of waste water is not considered to be irrigation unless other water is used along with the waste water. If any other water (ground or surface water) is applied to the same acreage used for waste water disposal, then a water permit for irrigation is needed. Application of other water means:

- 1) Direct diversion from either a fresh ground or surface water source to the same land used for disposal,
- 2) Fresh ground or surface water diverted directly into the waste water pond for purposes of diluting the waste water to make it suitable for irrigation, or
- 3) Blending waste water and fresh water together and then delivering to the land.

I enjoyed our meeting and I believe this information will address your questions. If you need any further assistance or information, please let me know. For your use, I am also enclosing a copy of the SD Water Rights laws and rules.

Sincerely,

Ron Duvall
Natural Resources Engineer
Water Rights Division

c: Rodger Seefeldt, Natural Resource Engineer
Point Source Control Program



Five-G Consulting, Inc.
32854 South Dryland Road
Molalla, Oregon 97038
503/829-4844

March 18, 1996

Delvin D. Brosz
Water Rights Program
Dept. of Environment & Natural Res.
Joe Foss Building
523 E. Capital
Pierre, SD 57501
(605) 773-3352



Mr. Brosz:

Regarding your correspondence of January 22, 1996, to Joe L. Pires & Co. and the form titled "Water Use For 1995".

There was no sustained water use under this permit during 1995. The new dairy project is under construction and is expected to go into operation in mid March 1996.

The pumps were set in place at the two wells and tested for proper operation during 1995. There has been a small amount of water used for washing construction tools and testing the water systems. The South Dakota address for Joe L. Pires & Co. is listed below.

Best Regards,

D. Joe Gribble, Project Engineer
Five-G Consulting

cc: Joe L. Pires
320 19Th Ave. S.
Brookings, SD 57006



September 3, 2004

5822-3

**DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES**

PMB 2020
JOE FOSS BUILDING
523 EAST CAPITOL
PIERRE, SOUTH DAKOTA 57501-3182
www.state.sd.us/denr

Edward Kavanagh and Michael Crinion
KC Dairy LLP
319 5th Avenue
Brookings, SD 57006

Joe L. Pires
Joe L. Pires Dairy
48628 212th Street
Elkton, SD 57026-6716

RE: Review of Permit Transfer from Joe L. Pires/ Joe L. Pires Dairy to Edward Kavanagh and Michael Crinion/KC Dairy, LLP

Dear Edward Kavanagh, Michael Crinion, and Joe L. Pires:

The department received information to transfer coverage under the *General Water Pollution Control Permit for Concentrated Animal Feeding Operations* (CAFOs) from Joe L. Pires/ Joe L. Pires Dairy to Edward Kavanagh and Michael Crinion/KC Dairy, LLP. The permit number is SDG-0100031. It was stated the permit transfer date is anticipated to be September 15 or 20, 2004. The department understands some of the property transaction details are not final. Therefore, please keep the department informed regarding the exact property transfer date. We will send the transfer letter to both parties on the transfer date, provided all transfer requirements are complete.

The following items were submitted to transfer coverage under the general CAFO permit and meet those permit requirements:

- A Certification of Applicant form signed by the new owners of the facility,
- A Change of Ownership Form to transfer coverage under the general permit,
- A Notice of Intent form signed by the new owners, and
- Operation and Maintenance Guidelines signed by the new owners.

The following items are still required to transfer permit coverage under the general CAFO permit:

1. Update nutrient management plan lease agreements for the approved plan or submit a new nutrient management plan.

The department issued a revised permit for concentrated animal feeding operations including standards for phosphorus land application which became effective on October 20, 2003. Operations existing prior to February 12, 2003, with previously approved nitrogen-based nutrient management plans, may continue to implement the approved plan using the buffer zone requirements in Section 1.4.4. of the permit. A revised nutrient management plan, in accordance with Section 1.4.4., must be submitted to the department for review and approval by July 1, 2006. This plan shall be implemented by December 31, 2006.

To transfer the CAFO permit, the buyers have two options:

Option 1 - Continue to operate under Pires Dairy's approved nutrient management plan. To do this you may submit updated manure land application agreements between KC Dairy and the landowners of the fields in the current nutrient management plan. The existing plan has had lease agreements with eight landowners and land owned by Pires Dairy. I am enclosing a list of the fields in the plan, copies of the lease agreements and field maps indicating the field boundaries. Lease agreements must be submitted for all fields not owned by KC Dairy. I have enclosed an example lease agreement form.

If changes other than updated lease agreements and field additions are made to the existing nutrient management plan, the plan must be revised to meet the current requirements of the general permit.

Option 2 - Submit an updated nutrient management plan for review and approval. Since all plans will need to be revised and submitted by July 1, 2006, the buyers may consider going through this process now to determine if additional land will be needed.

2. The manure level in both ponds must be below the permanent markers.
3. The permit transfer will be contingent upon the new permit holder attending the next environmental training program for South Dakota livestock producers coordinated by the South Dakota State University Extension Service. The next training will be in Pierre, SD, on October 19, 2004. Pre-register by calling Jim Gerwing at (605) 688-4772.

Compliance Issues

The permit holder is responsible for ensuring the facility is in compliance with the terms and conditions of the general water pollution control permit.

During department site visits on April 7, 2004, and July 20, 2004, erosion damage to the large pond liner was noted near the pipe inlet. This damage and the piping and splash pad must be repaired as soon as possible. Plans and specifications detailing the repair must be prepared and submitted by a South Dakota licensed professional engineer for review and approval prior to starting the repair work. The engineer must also notify the department when the repair is done.

The manure level in both ponds was near the permanent marker during the department's site visit on July 20, 2004. Please be aware the permit holder is responsible for making sure the manure in the ponds is below the permanent markers and is properly land applied. Records required by the permit must be kept to ensure the manure containment system is operated according to the approved plans and specifications. The manure in the containment system will need to be land applied soon to make sure there is enough storage volume to make it through the winter, which can start as early as October and last through May.

Joe L. Pires Dairy Permit Transfer
September 3, 2004
Page 3

It was noted in the October 23, 2003, annual inspection that the lease agreements were expiring in 2004, and at this time all of the lease agreements have expired. Please be aware it is a violation of the permit to apply manure to fields with expired lease agreements. **Prior to the permit transfer** manure may be applied, according to the permit requirements, on land owned by Joe L. Pires Dairy. Prior to the permit transfer, manure may be applied to fields in the nutrient management plan not owned by Joe L. Pires Dairy if updated lease agreements between Joe L. Pires Dairy and the landowner are submitted to the department.

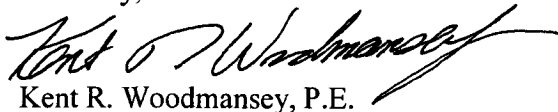
Other Permits

Joe L. Pires Dairy is the permit holder of a Surface Water Discharge permit for non contact cooling water. The permit number is SD-0027936. Non contact cooling water from the dairy may not be discharged unless this permit is also transferred. If you wish to initiate this permit transfer, a letter may be submitted requesting permit number SD-0027936 be added to the submitted Change of Ownership form. Please contact Kelli Buscher at (605) 773-3351 for more information on the requirements of this permit.

Joe L. Pires Dairy is also the permit holder of Water Permit 5822-3, for use of water from water supply wells. I have enclosed a copy of the water permit that was originally in MCP's name and then transferred to Joe L. Pires Dairy. I have also enclosed a partially completed Notice of Transfer of Ownership form for filing an ownership change. Edward Kavanagh and Michael Cririon should review the form and make any necessary corrections. Upon completion, the form should be signed and returned to the department with a required filing fee of \$2.50. Please make the check or money order payable to the Water Rights Program. Please contact Genny McMath at (605) 773-3352 for more information on the requirements of this permit.

Thank you for your cooperation in ensuring protection of our natural resources. If you have any questions or comments, please feel free to contact me at the number below.

Sincerely,



Kent R. Woodmansey, P.E.
Natural Resources Engineering Director
Surface Water Quality Program
Phone: (605) 773-3351

Cc: Todd Van Maanen, PE, EA, Yankton, SD
Genny McMath, DENR
Kelli Buscher, DENR

Enclosures

WATER RIGHTS PROGRAM -- FILE DOCUMENTATION

NAME & ADDRESS: Jerry Gross w/Pires Dairy

DATE: September 20, 2004

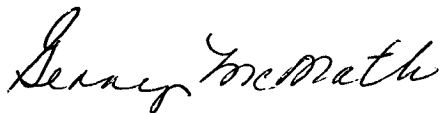
RE: Transfer of Water Permit No. 5822-3

COMMENTS:

Jeanie Votava transferred a call to me from Mr. Gross who had questions on who should have the water right for the Dairy. He explained that the dairy itself was being sold but the land where the wells are located is not being sold.

I told him that the permit could go either way. If they reached an agreement and wanted the entire permit to be transferred, they could do that OR if they wished to retain it in their names since they owned the land with the wells, they could do that too.

Since a question has been asked regarding the transfer, Pires Dairy may not wish to have the permit in the new dairy's name. If a transfer of ownership form is submitted by the new owners of the dairy, a call should be placed to Jerry Gross with Pires Dairy to ask if they agree with transferring the water right.



Genny McMath
Environmental Scientist

To: Chief Engineer
Water Rights Program, DENR
523 E. Capitol
Pierre, SD 57501-3181

Water Right/Permit No. 5822-3Date: 6/30/2007I/We request that Water Right/Permit No. 5822-3 formerly owned by:Joe L. Pires

be transferred to:

New Owner Name: KC Dairies LLPAddress: 48612 212th StCity, State, Zip Elkton SD 57026 Telephone No. (605) 542-4051

Title to the following described land(s)/property has been transferred as described above:

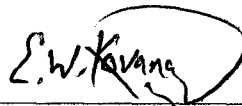
NW 1/4 SW 1/4 Sec 28 Twp 110/111N Range 47W Brookings County

☒ I understand that the validity of Water Right/Permit No. 5822-3 has not been determined by this transfer action. If I have any questions on validity, I understand that only the Water Management Board has the authority to determine if a water right/permit is valid (see note below.)

You are requested to file this "Notice of Transfer" in the appropriate file with the Water Rights Program, as evidence of the change of ownership.

A fee of Two Dollars and Fifty Cents (\$2.50) is included to cover the filing fee as required by SDCL 46-2-13.

I, KC Dairies LLP, E.W. Kavanagh, managing part, the new owner, certify that the above information is true and correct.



(Signed by new owner)

NOTE: Water permits may be cancelled for nonconstruction after the five year construction period has expired. Once a water permit is developed and the water used, the permit becomes a right. A water right may be lost for three reasons:

1. Abandonment - no intent to use water and use is abandoned.
2. Forfeiture - no use of water for three year period without legal excuse.
3. For a third violation of a condition of a water permit/right.

RECEIPT

WATER RIGHTS PROGRAM

South Dakota Department of Environment and Natural Resources

Date 7/5, 2007

RECEIVED OF KC Dairy LLP 48612 212th St Elkton SD 57026

The following amount in fees for services rendered as provided for by law:

Fee for Application for Permit No. _____ to Appropriate Water, to construct and to put water to beneficial use	2	50
Fee for Application for Permit No. _____ to Appropriate Water for Future use		
Fee to retain Future Use Permit No. _____ after period of seven years.		
Fee for Inspecting Constructed Works, confirming beneficial use and issuing Water License No. _____		
Fee for Filing Transfer Form <u>5822-3</u>		
Fee for _____		
Fee for Issuing New Well Driller's License No. _____ for C.Y. _____		
Fee for Renewal of Well Driller's License No. _____ for C.Y. _____		
Fee for Issuing Well Pump Installer's License No. _____ for C.Y. _____	2	50
Fee for Renewal of Well Pump Installer's License No. _____ for C.Y. _____		
(Any Other Work Provided by Law)	TOTAL	

No.

03087

By

Salat Erbe

Chief Engineer



**DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES**

PMB 2020
JOE FOSS BUILDING
523 EAST CAPITOL
PIERRE, SOUTH DAKOTA 57501-3182
www.state.sd.us/denr

July 5, 2007

5822-3

E W Kavanagh
KC Dairies LLP
48612 212th St
Elkton SD 57026

Dear Mr. Kavanagh:

I am writing to acknowledge receipt of the ownership change you filed for transferring Water Permit No. 5822-3. The transfer has been completed. The water permit formerly listed in the name of Joe L Pires is now listed in the name of KC Dairies LLP.

Enclosed is your Receipt No. 03087 in the amount of \$2.50. If I can answer any questions for you, please contact me.

Sincerely,

Genny McMath
Environmental Scientist
Water Rights Program
(605) 773-3352
email: genny.mcmath@state.sd.us

enclosure

Permit No. 5822-3
Big Sioux River - Water District

Report of Examination of Works and/or Application of Water to Beneficial Use

TO: Chief Engineer, Water Rights Program, DENR, Foss Bldg., Pierre, SD 57501

I have this day, **September 7, 2006**, made a thorough examination of the water use system constructed by **KC Dairy LLP** of **48612 212th St., Elkton, Sd 57026** holder of Permit No. **5822-3**, bearing the priority of **May 10, 1994** authorizing the diversion of **0.89** cu. ft. per second of the waters of the **Rutland Aquifer** for **Commercial use** purposes, in **Brookings** County.

Inspection contact & relationship **Ed Kavanagh (542-4051)**
to permit holder, if applicable:

A. Works used to divert the water:

Well Information:

- 1) Well Drilling Firm: **Minett Well Drilling**
- 2) No. of Wells **2**
- 3) Depth(s) **232 and 225** feet
- 4) Well log is available **Y**

North Well:

Casing:

- 1) Diameter **8** inches
- 2) Length **220** feet
- 3) Type **Steel**

Screen:

- 1) Type **Stainless Steel**
- 2) Length **12** feet
- 3) Static water level **68** feet

Pump:

- 1) Make **Grundfos**
- 2) Size **30 hp**
- 3) Capacity **370** GPM

South Well:

Casing:

1) Diameter 8 inches

2) Length 210 feet

3) Type Steel

Screen:

1) Type Stainless Steel

2) Length 15 feet

3) Static water level 67 feet

Pump:

1) Make Grundfos

3) Size 15 hp

4) Capacity 250 GPM

B. Compliance with Permit Requirements:

1) Permit qualifications being abided by Y

2) Irrigation Questionnaires checked to determine if permit owner started irrigation by the end of construction period NA

3) Exceptions to compliance are: None

The system is in Good condition with the point(s) of diversion located as follows:

North Well: Approximately 110 feet east and 2500 feet south of the NW corner of section 28-T110N-R47W (N 44.30442, W -96.48602)

South Well: Approximately 125 feet east and 2290 feet north of the SW corner of Section 28-T110N-R47W (N 44.30326, W -96.48602)

The works are capable of diverting and conveying to the place of use 1.38 cu. ft. per second of water which is to be used for Commercial use.

Water has been put to beneficial use to the maximum extent as follows:

Water from the two wells is used to supply water to the livestock confinement facility. Combined, both wells have the capacity of producing 1.38 cfs of water; however, only one of the wells is operated while the other is used for standby purposes.

The license should be issued for 0.82 cfs to reflect the maximum pumping rate of the North Well as only one well is operated at any given time.

All structures, wells and lands on map Y



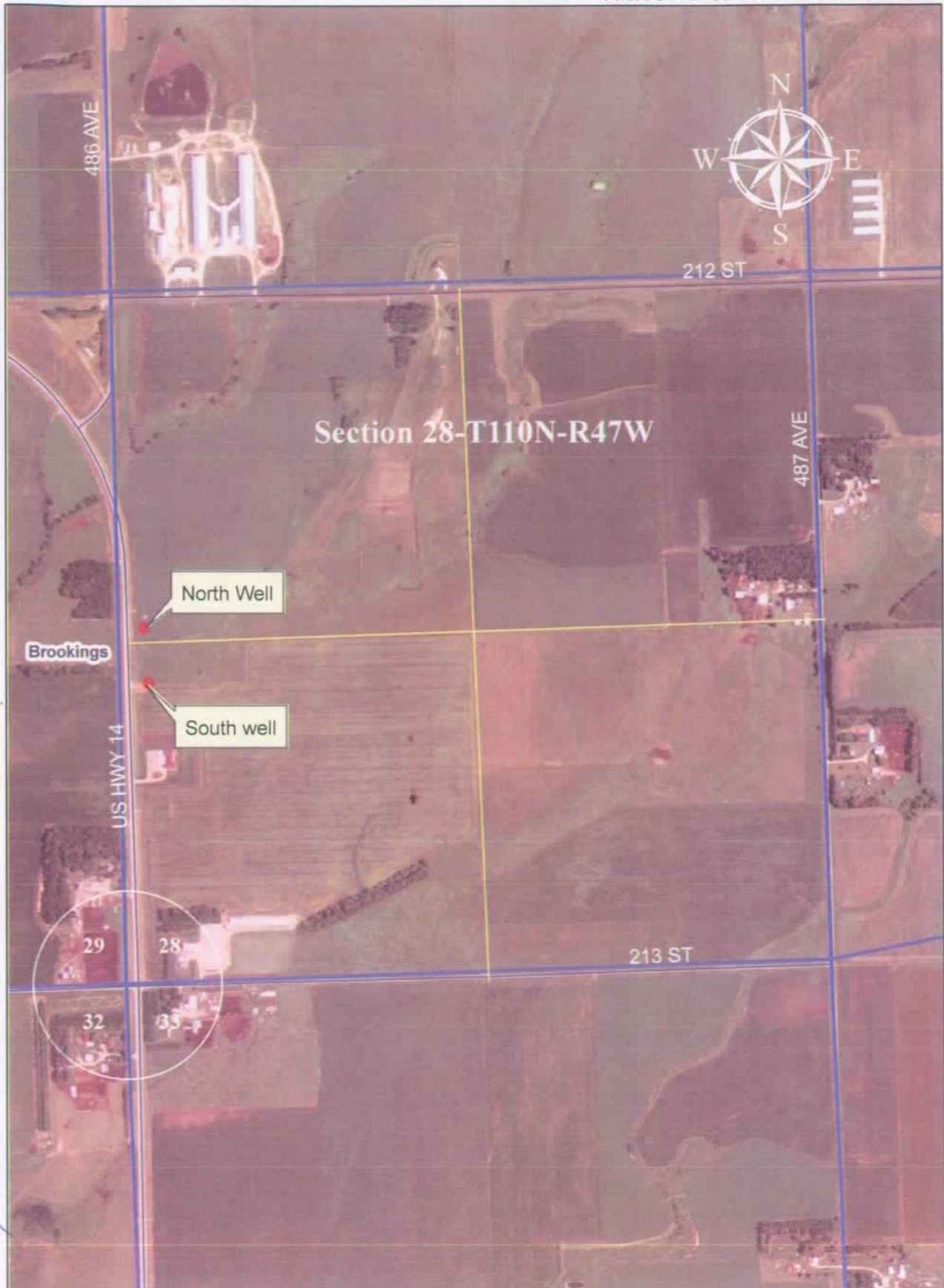
Mike DeFea

Natural Resources Project Engineer
DENR, Water Rights Program

Date report completed: July 2, 2007

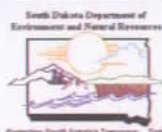
KC Dairy LLP
48612 212th St
Elkton, SD 57026

Water Permit No. 5822-3



Mike DeFea

Mike DeFea
Natural Resources Engineer
DENR, Water Rights Program
July 2, 2007



0 800 1,600 3,200 Feet



DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES

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523 EAST CAPITOL
PIERRE, SOUTH DAKOTA 57501-3182
www.state.sd.us/denr

July 26, 2007

5822-3

KC Dairies LLP
E. W. Kavanagh
48312 212th St
Elkton SD 57026

Dear Mr.Kavanagh:

On September 7, 2006 the investigation of your water use system, including the extent of application of water to beneficial use, as developed under Water Permit No. 5822-3, was completed by Mike De Fea, a staff engineer with our program. Your final water right document, the water license, can now be issued.

State law requires that we charge a \$50.00 fee for the investigation and issuance of the water license. Upon receipt of the \$50.00 fee from you, we will complete processing your water license. The check or money order for the fee should be made payable to the "Water Rights Program".

Your licensed water right will be similar to a property right that can not be lost as long as the water use continues and you abide by the permit requirements.

If you have any questions regarding the water permit, investigation of your water use system or payment of the fee, please contact Genny McMath with our program at (605) 773-3352.

Sincerely,

Karen Schlaak

Karen Schlaak
Water Rights Program
(605) 773-3352

RECEIPT

WATER RIGHTS PROGRAM

South Dakota Department of Environment and Natural Resources

Date 8/13, 20 07

RECEIVED OF RC Dairy LLP 48612 212th St Elnora SD 57026

The following amount in fees for services rendered as provided for by law:

Fee for Application for Permit No. _____ to Appropriate Water, to construct and to put water to beneficial use	50	00
Fee for Application for Permit No. _____ to Appropriate Water for Future use		
Fee to retain Future Use Permit No. _____ after period of seven years.		
Fee for Inspecting Constructed Works, confirming beneficial use and issuing Water License No. <u>5822-3</u>		
Fee for Filing Transfer Form _____		
Fee for _____		
Fee for Issuing New Well Driller's License No. _____ for C.Y. _____		
Fee for Renewal of Well Driller's License No. _____ for C.Y. _____		
Fee for Issuing Well Pump Installer's License No. _____ for C.Y. _____		
Fee for Renewal of Well Pump Installer's License No. _____ for C.Y. _____		
(Any Other Work Provided by Law)	TOTAL	50 00

No.

03118

By [Signature]
Chief Engineer

[Signature]

STATE OF SOUTH DAKOTA
WATER LICENSE NO. 5822-3

(1) Minnesota Corn Processors, Marshall MN made Application No. 5822-3, May 10, 1994 for a water permit to divert 0.89 cubic feet of water per second (cfs) from groundwater (two wells), Brookings County, South Dakota for commercial purposes. Permit No. 5822-3, with a priority date of May 10, 1994 was approved August 31, 1994 and issued to the applicant for diversion of water with construction of the described water supply system to be completed on or before August 31, 1999 and for the application to beneficial use of water on or before August 31, 2003.

On July 5, 2007, Water Permit No. 5822-3 was transferred to KC Dairies LLP, 48312 212th St, Elkton SD 57026.

(2) The water supply system has been completed and water applied to beneficial use in accordance with South Dakota State Law. Pursuant to South Dakota Codified Law 46-5-30.1, the holder and/or owner of Water Right No. 5822-3 is issued a license, bearing a priority date of May 10, 1994 to appropriate 0.82 cfs from groundwater (two wells) for commercial use in a livestock confinement facility. Combined, both wells have a capacity of producing 1.38 cfs; however, only one of the wells is operated while the other is used for standby purposes.

The diversion points are located: North well – 110 feet east and 2,500 feet south of the northwest corner (SW ¼ NW ¼) and South Well – 125 feet east and 2,290 feet north of the southwest corner (NW ¼ SW ¼); both in Section 28-T110N-R47W.

(3) This license is subject to South Dakota Water Law, any limitations or conditions listed in Water Permit No. 5822-3 including the following qualifications:

- The wells approved under this Permit will be located near domestic wells and other wells which may obtain water from the same aquifer. The well owner under this Permit shall control his withdrawals so there is not a reduction of needed water supplies in adequate domestic wells or in adequate wells having prior water rights.
- This permit is subject to submission of plans and specifications for the animal waste management system to the Chief Engineer and Division of Environmental Regulation prior to construction, for review and approval. The plans and specifications shall be prepared by a person who is registered as a professional engineer pursuant to SDCL 36-18.
- The confinement area shall be designed so that it does not receive surface runoff from the surrounding area.
- Operation of the disposal systems to dispose of waste and wastewater shall be in a manner that 1) prevents discharge of runoff from the disposal sites and 2) prevents disposal site runoff water from entering the waters of the State.
- The storage lagoons shall be designed with a minimum of 30 inches from the crest of the dike to the maximum operating pool elevation for each lagoon. This requirement is to ensure that the Probable Maximum Precipitation (PMP) event does not cause overtopping of the dikes.

(continued)

- Design, construction and management of the lagoons shall be sufficient to maintain seepage rate of less and ten to the minus seven centimeters per second. Compaction of the soils within the wastewater lagoon must be at least ninety percent of the Standard Procter Density (ASTM D6980-70).
- Permit No. 5822-3 is subject to compliance with all existing and applicable Water Management Board Rules including but not limited to:
 - a) Chapter 74:54:01 Ground Water Quality Standards,
 - b) Chapter 74:54:02 Ground Water Discharge Permit,
 - c) Chapter 74:51:01 Surface Water Quality Standards,
 - d) Chapter 74:51:02 Uses Assigned to Lakes,
 - e) Chapter 74:51:03 Uses Assigned to Streams, and
 - f) Chapter 74:52:01 through 74:52:11 Surface Water Discharge Provisions



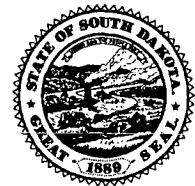
Garland Erbele, Chief Engineer

Water Rights Program

Department of Environment and Natural Resources

OCT 09 2007

date





OCT 09 2007

**DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES**

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PIERRE, SOUTH DAKOTA 57501-3182
www.state.sd.us/denr

5822-3

KC Dairies LLP
E. W. Kavanagh
48312 212th St
Elkton SD 57026

Dear Mr.Kavanagh:

Enclosed is Water License No. 5822-3. This is the final water right document completing your process of obtaining a Water Right. Enclosed is the receipt in the amount of \$50.00 which you paid for the investigation and issuance of the Water License. Also, included with the license is a map prepared by the staff engineer who conducted the investigation.

For your information SDCL 46-6-27 requires that if the owner of an existing well, such as the well authorized by Water Right No. 5822-3, constructs a replacement well and does not plan to use the old well, the old well is considered abandoned and must be plugged. Also, any well that is being used or is not considered abandoned must be valved and controlled, if flowing, or sealed and capped so that no leaking occurs either underground or at the surface.

As long as you use the water beneficially, as stated in the Water License, the State Water Laws provide that you have a continuing right to use the water. If you have any questions, please contact our office.

Sincerely,

Garland Erbele, Chief Engineer
Water Rights Program
(605) 773-3352

enclosures



**DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES**

PMB 2020
JOE FOSS BUILDING
523 EAST CAPITOL
PIERRE, SOUTH DAKOTA 57501-3182
www.state.sd.us/denr

January 8, 2008

KC Dairy
E. W. Kavanagh
48612 212th St
Elkton SD 57026

Dear Mr. Kavanagh:

I am writing in regard to a well driller's report filed by Steffl Drilling & Pump. The report shows a new well was completed for you on September 26, 2007 located in the NW ¼ NW ¼ Section 28-T110N-R47W.

A review of our files indicates that KC Dairy holds Water Right No. 5822-3 for 370 gallons per minute (gpm) from two wells, approximately 232 and 225 feet deep located in the SW ¼ NW ¼ and the NW ¼ SW ¼ Section 28-T110N-R47W.

Mr. Kavanagh, is this well a replacement well or an additional well which does not increase the total appropriation of 370 gpm? If the authorized diversion rate is to be increased, a new water permit will need to be obtained. Once we know this information we can determine what additional action, if any, needs to be taken to ensure your water rights accurately reflect the feedlot's water supply system.

Please contact Eric Gronlund or me regarding the status of this well or if you have any questions.

Sincerely,

Karen Schlaak

Karen Schlaak
Water Rights Program
605 773-3352
karen.schlaak@state.sd.us

SOUTH DAKOTA WATER WELL COMPLETION REPORT

07-92

Location NW $\frac{1}{4}$ NW $\frac{1}{4}$ Sec. 28 Twp 110 Rg 47County
Brookings

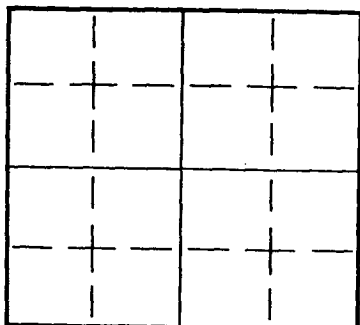
North

Please mark well location with an "X"

W

E

Well-Completion Date

9/26/07

LOCATION:

Distance from nearest potential pollution source (septic tank, abandoned well, feed lot, etc.)? 500 ft. from south to church septic (identify source).

PROPOSED USE:

☒ Domestic/Stock ☐ Municipal ☐ Business ☐ Test Holes
☐ Irrigation ☐ Industrial ☐ Institutional ☐ Monitoring well

METHOD OF DRILLING:

rotaryCASING DATA: ☒ Steel ☐ Plastic ☐ Other

If other, describe _____

PIPEWEIGHT	DIAMETER	FROM	TO	HOLE DIAMETER
<u>LB/FT</u> <u>12</u> <u>IN</u>	<u>12</u> <u>IN</u>	<u>+2</u> <u>FT</u>	<u>212</u> <u>FT</u>	<u>18</u> <u>IN</u>
<u>LB/FT</u> _____ <u>IN</u>	_____ <u>IN</u>	_____ <u>FT</u>	_____ <u>FT</u>	_____ <u>IN</u>
<u>LB/FT</u> _____ <u>IN</u>	_____ <u>IN</u>	_____ <u>FT</u>	_____ <u>FT</u>	_____ <u>IN</u>

GROUTING DATA

Grout Type	No. of Sacks	Grout Weight	From	To
<u>quick grout</u>	_____	_____ lb./gal	<u>0</u> <u>ft</u>	<u>205</u> <u>ft</u>
_____	_____	_____ lb./gal	_____ <u>ft</u>	_____ <u>ft</u>

Describe grouting procedure psi tremmie lineSCREEN: ☐ Perforated pipe ☒ ManufacturedDiameter 12"IPS IN Length 10 FEETMaterial stainless steelSlot Size 30 Set From 212 Feet to 222 FeetOther information #30 Red Flint 205-222WAS A PACKER OR SEAL USED? ☐ YES ☐ NO

If so, what material? _____

Describe packer(s) and location? _____

DISINFECTION: Was well disinfected upon completion?

☒ YES, How: granular

Laboratory sent to for water analysis _____

_____ NO, Why Not? _____

Well Owner: KC DAIRY

Business Name: _____

Address: 48612 212th STElkston SD 57026

WELL LOG:

FORMATION			DEPTH	
			FROM	TO
topsoil	blk	M	0	2
clay	yell	gummy	2	18
clay	gray	gummy	18	60
clay	tan	gummy	60	112
clay	gry	gummy	112	171
clay	gry/yel	gummy	171	180
clay/rocks	gry	gummy	180	212
sand	blu	12-40slt	212	223
clay	gry		223	225

STATIC WATER LEVEL 110 on 9/26/07

Feet

If flowing: closed in pressure 98.6 on 9/27/07

PSI

GPM flow _____ through _____ inch pipe

Controlled by ☐ Valve ☐ Reducers ☐ Other _____

Reduced Flowrate _____ GPM

Can well be completely shut in? _____

WELL TEST DATA:

☒ Pumped

Describe: _____

☐ Bailed☒ Otherairlifted 16 hrs

Pumping Level Below Land Surface

_____ ft. After _____ Hrs. pumped _____ GPM

_____ ft. After _____ Hrs. pumped _____ GPM

If pump installed, pump rate _____ GPM

REMARKS

Air developed:
 9/15 6pm - 12sm 6 hrs
 9/26 12am - 3am 3
 6am - 1pm 7

This well was drilled under license # 463

And this report is true and accurate.

Steffl Drilling & Pump

Drilling firm _____

Signature of License Representative:

Signature of Well Owner or Equitable Property Holder:

Date: 9/26/07

RECEIVED
 DEC 13 2007
 WATER RIGHTS
 PROGRAM