

BEFORE THE POLLUTION CONTROL BOARD
OF THE STATE OF ILLINOIS

RECEIVED
CLERK'S OFFICE
APR 14 2010
STATE OF ILLINOIS
Pollution Control Board

VILLAGE OF MORTON)
)
Petitioner,)
)
v.)
)
ILLINOIS ENVIRONMENTAL)
PROTECTION AGENCY)
)
Respondent.)
)

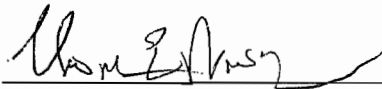
PCB No. 10-83

NOTICE OF FILING

To: Illinois Environmental Protection Agency
Division of Legal Counsel
1021 North Grand Ave., East
P.O. Box 19276
Springfield, IL 62794-9276

PLEASE TAKE NOTICE that I have today filed with the Office of the Clerk of the Pollution Control Board the **Petition For Community Well Setback Exception** of the Village of Morton, a copy of which is herewith served upon you.

Respectfully submitted,



THOMAS E. DAVIES, P.C.

April 12, 2010

Thomas E. Davies
THOMAS E. DAVIES, P.C.
1600 S. 4th Ave., Suite 137
Morton, IL 61550
(309) 266-6211

CERTIFICATE OF SERVICE

I, Thomas E. Davies, certify that I have served the attached **Petition For Community Well Setback Exception**, by first-class mail, upon the following persons:

Illinois Environmental Protection Agency
Division of Legal Counsel
1021 North Grand Ave., East
P.O. Box 19276
Springfield, IL 62794-9276

Illinois Pollution Control Board
Clerks Office
Attn: John Therriault, Asst Clerk
James R. Thompson Center
100 W. Randolph Street
Suite 11 – 500
Chicago, Illinois 60601

Village of Morton
Attn: Robert Wraight, Director of Public Works
120 N. Main Street
Morton, Illinois 61550



THOMAS E. DAVIES, P.C.

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PCB No. 10-83

PETITION FOR COMMUNITY WELL SETBACK EXCEPTION

NOW COMES the Petitioner, the Village of Morton, by and through its attorney, Thomas E. Davies, and pursuant to Section 14.2(c) of the Illinois Environmental Protection Act ("Act") and Part 106 of the Board's Procedural Rules (35 Ill. Adm. Code § 106.300, *et seq.*), hereby petitions the Illinois Pollution Control Board ("Board"), to grant the Village of Morton an exception from the community water supply well setback requirements in Section 14.2 of the Act. In support of its Petition, the Village of Morton states as follows:

I. BACKGROUND

The Village of Morton uses rock salt (sodium chloride) and liquid calcium chloride as de-icing agents for road snow removal operations during snow storm events. The Village of Morton is seeking this exception from the setback requirements in Section 14.2 of the Act to enable the Village to construct de-icing agent storage facility contiguous to the Public Works Garage that houses and stores the trucks that deliver and spread the salt on roads during hazardous conditions. The Village water treatment plant and associated water wells are also near the proposed de-icing agent storage facility location. There is not enough room to expand the existing 150 ton remote de-icing agent storage facility and the Village owns no other property where a new de-icing agent storage facility could be constructed. Because the Village has no other feasible options they are proposing to construct a new de-icing agent storage facility on the

parcel of land that they own between the Public Works Garage at 450 Detroit Avenue and the Water Treatment Plant at 500 Detroit Avenue as shown in Exhibit A of this petition.

The Village is located at the intersection of I-74 and I-155 and has a population of approximately 17,000. The Village removes snow from more than 250 lane miles of pavement, 89 dead-ends and cul-de-sacs and 13 parking lots and needs to store a sufficient quantity of rock salt to be used as a de-icing agent during snow removal operations. Currently the Village stores approximately 150 tons of salt at their remote fuel storage depot, which is at a separate location from the Public Works Garage where the snow removal equipment is stored. Under some conditions, 150 tons of rock salt is not enough to conduct snow removal operations during a single storm event and the Village relies upon deliveries of additional salt during storm events to complete the snow removal operations during that single storm event. The Village has considered constructing a new salt storage facility at the existing 150 ton remote de-icing agent storage facility, but there is not enough land available at the existing facility, which will remain as the fuel depot. The existing salt storage facility is surrounded by commercial properties and businesses. There are no plans to move the fuel depot to the proposed salt storage location. The fuel depot is a centrally located, community fuel depot, managed by the village and used by the Village Public Works, Fire, Police and Paramedics. The fuel depot is also used by the Park District, the school district and a county senior busing service. If the fuel depot were relocated it would take away the central location for all the users and still not provide enough room for expansion of the salt storage facility. The fuel depot will function separately from the proposed salt storage facility.

II. COMPLIANCE WITH THE SETBACK REQUIREMENTS WOULD IMPOSE AN ARBITRARY AND UNREASONABLE HARDSHIP (35 IAC 106.310(A))

As previously discussed, the Village does not have any other land available that is of sufficient size and functionality to construct a new de-icing agent storage facility. The proposed location for the new de-icing agent storage facility has enough land available to construct the de-icing agent storage facility and it is also located next to the Public Works Garage where the trucks and equipment that spread

the de-icing agent are stored. The proposed location is on a main arterial road for delivery of the de-icing agent for storage and for implementing snow removal operations during a snow storm.

The existing de-icing agent storage facility can only store approximately 150 tons and prevents the Village from purchasing a sufficient quantity of de-icing agent in the off season. As a result, the Village has to rely on deliveries during the winter. There is a premium that is paid when purchases are made in smaller quantities during the winter. It is estimated that the annual cost premium is approximately \$43,000 as shown in Exhibit B. This is nearly a 40% increase in the annual costs paid for salt.

Some snow storm events require use of more than the 150 tons currently stored. Without sufficient storage to handle the quantity of salt required for some of the snow storms, the Village relies upon semi tractor deliveries of de-icing agent to complete snow removal operations during snow storm events. The Village cannot rely upon a third party when the responsibility for clearing the roads and maintaining public safety is the responsibility of the Village.

III. UTILIZE THE BEST AVAILABLE CONTROL TECHNOLOGY ECONOMICALLY ACHIEVABLE TO MINIMIZE THE LIKELIHOOD OF CONTAMINATION OF THE POTABLE WATER SUPPLY WELL (35 IAC 106.310(B))

Construction of the de-icing agent storage facility will utilize the best available control technologies economically achievable to minimize the likelihood of contamination of the potable water supply wells. The de-icing agent storage facility shall be a totally enclosed building with a roof and walls for protection from wind and precipitation. The salt storage building shall be constructed inside a concrete curbed containment area as shown in Exhibit A. The floor of the facility shall be constructed on an 8" thick concrete pad with 6" high concrete curbs to prevent dry or dissolved rock salt and/or liquid calcium chloride from migrating from the storage area into adjacent soils, surface water or groundwater. Run-off from the roof shall be diverted away from the facility loading pad. A 5000 gallon liquid calcium chloride double wall storage tank shall be located adjacent to the storage facility near the loading area.

The loading area shall be constructed of 8" concrete with 6" high curbs on the perimeter of the pavement. The pavement in the loading area shall be constructed to slope to a dedicated catch basin that will capture the collected loading pad runoff. Instead of draining to a waterway, this collected runoff shall be conveyed to the wastewater treatment plant that is owned and operated by the Village. The 5000 gallon liquid calcium chloride double wall storage tank shall also be located inside the curbed area, such that if there is a leak in the double wall tank it will drain to the dedicated catch basin and will be conveyed to the wastewater treatment plant.

The proposed location for the salt storage facility is at a location where the likelihood of contamination will be minimized because the location is contiguous to the Public Works Garage, which is occupied 5 days a week and the water treatment plant, which is occupied 7 days a week. Because there will always be Village personnel at this location, all areas surrounding the storage facility shall be inspected daily to determine whether any release of de-icing agents has occurred and the spilled de-icing agents can then be placed back into the storage facility. In addition to daily inspection, the Village will annually inspect the facility in the summer for floor or wall cracks, roof corrosion any other item that may jeopardize the integrity of the containment system and shall make repairs to the containment system as needed.

IV. THE MAXIMUM FEASIBLE ALTERNATIVE SETBACK WILL BE UTILIZED (35 IAC 106.310(C))

The maximum feasible alternative setback shall be utilized by constructing the de-icing agent storage facility as shown in Exhibit A. The proposed location for the storage facility is between Wells No. 7, 9 & 10. While it is not in the exact middle of these three wells the proposed location of the storage facility is such that it functionally allows for the safe loading and unloading of de-icing agent while maintaining an almost equal distance from each of the three wells. Moving the location may make the de-icing agent storage facility further from one well, but it will move it closer to another well.

V. THE LOCATION OF THE POTENTIAL ROUTE WILL NOT CONSTITUTE A SIGNIFICANT HAZARD TO THE POTABLE WATER SUPPLY WELL (35 IAC 106.310(D))

Construction of a new de-icing agent storage facility will not create a potential source that is a significant hazard to the existing potable water supply wells. The de-icing agent shall be contained in a storage facility with a concrete floor and curbs and shall be covered with a roof and walls for protection against wind and precipitation. The loading area shall be curbed and the pavements shall slope to a dedicated catch basin that will collect the loading area runoff and drain into the sanitary sewer system.

The aquifer for existing potable water supply wells No. 7, 9 and 10 begins approximately 200 feet below the surface. The soils from the surface to the aquifer consist mainly of clay type soils. Copies of the boring logs for wells 7, 9 and 10 are included as Exhibit C.

Because of the controls listed above and the depth of the wells, the construction of a new de-icing storage facility will not create a potential source that will constitute a significant hazard to the potable water supply wells.

The Illinois Environmental Protection Agency has conducted a Source Water Assessment of Morton's wells including Susceptibility to Contamination. The Illinois Environmental Protection Agency has determined that Morton Wells #3, #4, #5, #6, #7, #8, #9, and #10 are not susceptible to inorganic chemical compounds or synthetic organic compound contamination. This determination is based on a number of criteria including: monitoring conducted at the wells; monitoring conducted at the entry point to the distribution system; and the available hydrogeologic data for the wells.

The Village realizes that compliance with 35 IAC 616 and 620 will be required. The Village shall construct three (3) monitoring wells in compliance with Section 620.505 at the approximate locations shown in Exhibit D. Construction and operation of the de-icing storage facility shall meet the requirements of 35 IAC 616 Subpart L. The Village shall annually collect samples for analysis and submit the results to the IEPA. Monitoring and analytical requirements shall be in accordance with Section 620.510 and shall include analysis for TDS and chlorides.

VI. PROOF OF NOTICE TO AFFECTED POTABLE WELL SUPPLY OWNERS

The only affected potable water well supply owner within 1000 feet of the proposed de-icing agent storage facility is the Village of Morton. Notice shall be delivered to:

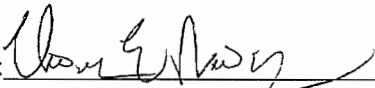
Village of Morton
Attn: Robert Wraight, Director of Public Works
120 N. Main Street
Morton, Illinois 61550

VII. REQUEST FOR EXPEDITED HEARING

The Village of Morton needs to construct a new de-icing agent storage facility as soon as possible to be ready for snow removal operations in the winter of 2010-2011. The parties request a hearing on this petition as soon as the Board can reasonably schedule it.

WHEREFORE, for the foregoing reasons, the Village of Morton respectfully requests the Board to grant an exception from the setback requirements contained in Section 14.2 of the Act.

VILLAGE OF MORTON

By:  _____
Its Attorney

Thomas E. Davies
THOMAS E. DAVIES, P.C.
1600 S. 4th Ave., Suite 137
Morton, IL 61550
(309) 266-6211

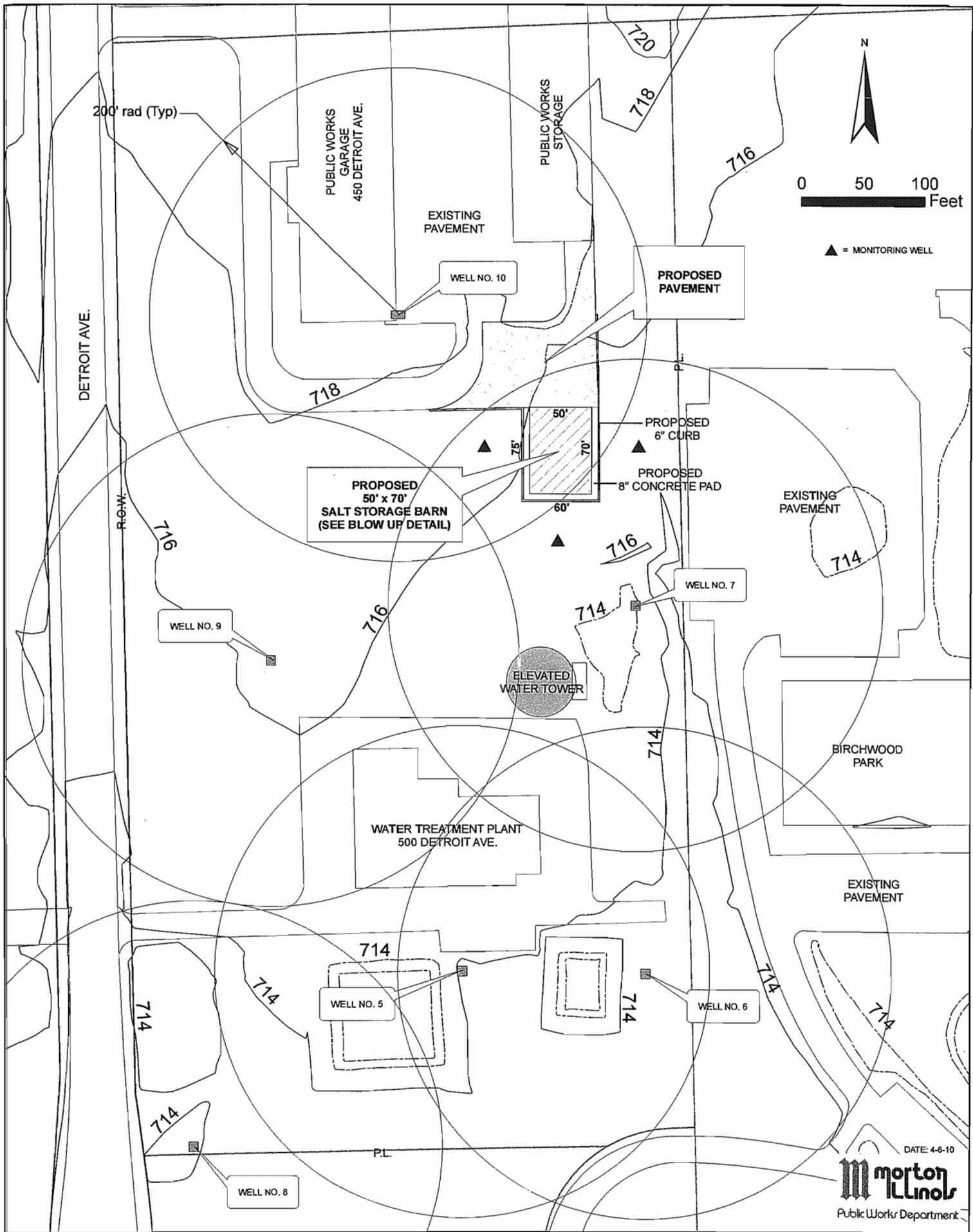


EXHIBIT A - LOCATION MAP

DATE: 4-6-10



Estimated Annual De-Icing Agent Costs

The Village of Morton uses approximately 1800 tons of rock salt per year on average.

The cost to purchase rock salt on an as needed basis due to a lack of storage capacity is approximately \$86/ton from the Illinois River Terminal.

The cost to purchase rock salt in the off season is approximately \$62/ton (per Tazwell County Highway Department)

$$\text{\$86/ton} - \text{\$62/ton} = \text{\$24/ton.}$$

$$\text{\$24/ton} \times 1800 \text{ ton/year} = \text{\$43,200}$$

The annual savings is approximately \$43, 200 per year to purchase rock salt in advance and not on an as needed basis.

EXHIBIT C
WELL/BORING LOGS

DRILLER'S LOG
WELL NO. 7

| <u>Formation</u> | <u>From</u> | <u>To</u> |
|--|-------------|-----------|
| Black topsoil | 0 | 2 |
| Brown sandy clay | 2 | 12 |
| Sand and gravel | 12 | 14 |
| Gray sandy clay w/gravel | 14 | 35 |
| Dark gray silty clay w/silt seams | 35 | 112 |
| Hard brown sandy clay w/gravel | 112 | 120 |
| Gray sandy clay w/gravel seams | 120 | 180 |
| Hard gray sandy clay w/gravel | 180 | 218 |
| Fine to coarse sand | 218 | 225 |
| Fine to coarse sand, some small gravel | 225 | 245 |
| Fine sand to Med. gravel | 245 | 250 |
| Fine sand to coarse gravel | 250 | 280 |

TD 280'

TEST WELL REPORT



Layne-Western Company, Inc.

#9

| |
|-----------------------|
| TEST HOLE NO. 2-76 |
|-----------------------|

721 West Illinois Avenue • Aurora, Illinois 60507 • Phone: 312/897-6941

1. Owner Village of Morton Contract No. C-2389M Date Nov. 4, 1976
2. City Morton State Illinois
3. Driller's Name M. Kauzlarich Helpers K. Lester
4. Static Water Level _____ How Obtained – Washed () Pumped ()
5. Size Mud Pit – Length 11' Width 4'

DRILLERS LOG

| TOP FT. | BOTTOM FT. | MUD LOSS INCHES | MUD WEIGHT | DESCRIPTION OF FORMATION | REMARKS |
|---------|------------|-----------------|------------|---|---------|
| 0 | 5 | | | Top soil & brown clay | |
| 5 | 8 | | | Brown clayey silt | |
| 8 | 14 | | | Brown clay | |
| 14 | 80 | | | Grey sandy clay | |
| 80 | 97 | | | Grey sandy silty clay, some gravel | |
| 97 | 102 | | | Brown silt | |
| 102 | 105 | | | Grey silt | |
| 105 | 114 | | | Blue grey sandy clay, some gravel | |
| 114 | 122 | | | Brown sandy silty clay, some gravel | |
| 122 | 171 | | | Hard grey very sandy silty clay, some gravel intermixed | |
| 171 | 181 | | | Fine sand to coarse gravel with clay layers | |
| 181 | 214 | | | Hard grey sandy silty clay, some gravel | |
| 214 | 233 | | | Fine sand to coarse gravel | |
| 233 | 243 | 1" | 9.1 | Fine sand to small gravel some coarser intermixed | |
| 243 | 260 | 4" | 9.8 | Fine sand to coarse gravel, occasional small boulders | |
| 260 | 271 | 1/4" | 10.0 | Fine sand to small gravel, some coarser intermixed | |
| 271 | 280 | 1" | 10.2 | Fine sand to coarse gravel | |
| 280 | 320 | 4" | 9.0 | Fine sand to small gravel, some coarser intermixed | |
| 320 | 330 | | | Blue grey clay | |
| 330 | | T.D. | | | |

TEST WELL REPORT



Layne-Western Company, Inc.

TEST HOLE
NO. 3-76
#10 Well St.

721 West Illinois Avenue • Aurora, Illinois 60507 • Phone: 312-697-6941

1. Owner Village of Morton Contract No. (C-2389M) Date 11/9/76
2. City Morton State Illinois
3. Driller's Name Wayne Rogers Helpers Larry Exline
4. Static Water Level _____ How Obtained - Washed () Pumped ()
5. Size Mud Pit - Length 9' Width 6'

DRILLERS LOG

| TOP FT. | BOTTOM FT. | MUD LOSS INCHES | MUD WEIGHT | DESCRIPTION OF FORMATION | REMARKS |
|---------|------------|-----------------|------------|--|---------|
| 0 | 10" | | | Black top soil | |
| 10" | 8' | | | Brown clayey silt | |
| 8' | 12½' | | | Reddish brown sandy clay gravel intermixed | |
| 12½' | 13½' | | | Brown sand and gravel | |
| 13½' | 19' | | | Gray sandy clay with gravel intermixed | |
| | 20½' | | | Gray sand and gravel | |
| 20½' | 79' | | | Gray sandy clay with small sand seams | |
| 79' | 89' | | | Gray sandy clay with small sand seams and layers of silt (boulder at 87') | |
| 89' | 90½' | | | Gray sand and gravel (loose) | |
| 90½' | 93½' | | | Brown silt | |
| 93½' | 97' | | | Gray silt | |
| 97' | 98' | | | Gray sandy clay | |
| 98' | 102' | | | Dark gray silt | |
| 102' | 107' | | | Greenish gray silty clay | |
| 107' | 114' | | | Bluish gray very sandy clay | |
| 114' | 115½' | | | Greenish brown sandy clay | |
| 115½' | 121' | | | Hard Brown sandy clay, some gravel intermixed | |
| 121' | 126' | | | Gray silt | |
| 126' | 131' | | | Hard gray sandy clay with gravel intermixed | |
| 131' | 134' | | | Brown sandy clay | |
| 134' | 154' | | | Hard gray very sandy clay with gravel intermixed | |
| | 158' | | | Tight gray fine sand to medium gravel | |
| 158' | 159' | | | Gray sandy clay | |
| 159' | 163' | | | Tight gray fine sand to medium gravel | |
| 163' | 164' | | | Gray clay | |

TEST WELL REPORT



Layne-Western Company, Inc.

721 West Illinois Avenue • Aurora, Illinois 60507 • Phone: 312 897 0911

TEST HOLE
NO. 3-76
#10 Well Site

1. Owner Village of Morton Contract No. C-2389M Date Nov. 8, 1976
2. City Morton State Illinois
3. Driller's Name Wayne Rogers Helpers Larry Exline
4. Static Water Level _____ How Obtained - Washed () Pumped ()
5. Size Mud Pit - Length 9' Width 6'

DRILLERS LOG

| TOP FT. | BOTTOM FT. | MUD LOSS INCHES | MUD WEIGHT | DESCRIPTION OF FORMATION | REMARKS |
|---------|------------|-----------------|------------|--|---------|
| 166 | 169 | | | Gray very sandy clay | |
| 169 | 174 | | | Fine sand, gray | |
| 174 | 175½ | | | Gray medium sand to coarse gravel | |
| 175½ | 177½ | | | Gray clay | |
| 177½ | 181 | | | Gray fine sand to medium gravel | |
| 181 | 217 | | | Hard gray very sandy clay with gravel intermixed | |
| 217 | 235 | 1 | 10.1 | Multi-colored fine sand, some coarse gravel | |
| 235 | 246 | 1/2 | | Fine sand and gravel | |
| 246 | 282 | 16+ | 12+ | Med. sand to coarse gravel, trace of fine sand (Losing circulation between 265 and 278) | |
| 282 | 296 | 1/2 | 9.0 | Fine to medium sand, some medium gravel | |
| 296 | 298 | 1/4 | 9.0 | Fine sand to coarse gravel | |
| 298 | 322½ | 1-1/2 | 9.0 | Fine to medium sand some medium gravel | |
| 322½ | 325 | | | Blueish gray clayey silt hard | |
| | | | | Bottom of hole 325' | |
| | | | | Spoon Samples Taken At: 250' - 251' | |
| | | | | 260' - 261' | |
| | | | | 270' - 271' | |
| | | | | 280' - 281' | |
| | | | | 290' - 291' | |
| | | | | 300' - 301' | |
| | | | | 310' - No Recovery | |
| | | | | 320' - No Recovery | |

EXHIBIT D - MONITORING WELL LOCATIONS

