ILLINOIS ENVIRONMENTAL PROTECTION AGENCY DIVISION OF PUBLIC WATER SUPPLIES

Fac. No. 016 0720 PUBLIC WATER SUPPLY DATA SHEET

County and Supply EAST CHICAGO HEIGHTS Cook County

Date Inspected March 12, & 22, 1982 Plant phone ----

Certified Operator Amos White 3091 *C* Phone

Other officials (Title) Phone

US EPA RECORDS CENTER REGION 5
449979

Saul Beck, Mayor Phone 758-3131 Village Hall

Emergency Address Utility Company Phone 758-1700 Utility Company

Send mail to Village Hall, 1343 Ellis Avenue, East Chicago Heights, Illinois 60411

Interviewed Amos White, Water Supply Operator

Brief description of supply: Water obtained from seven drilled wells (2 wells #1 and #2 maintained as standby (cl_2 and fluoride treatment only) and 3 wells (#3, #6 and #7 pump to Chicago Heights exclusively), chlorinated #3, #4, #5, #6 and #7. Fluoridate all wells except #3. Phosphate added at #3, #6, and #7. One pressure storage tank (at #5 only). One elevated tank floats on the system. Wells #3, #6 and #7 are leased to a Utility Company which in turn sells water to Chicago Heights. Amos White maintains the entire system, both municipal and private.

No. of services: Direct ± 1700 - 3 ~~XX~~% metered

Satellite Chicago Heights is % metered

Adequacy of Supply

Annual Pumpage 1225 M* Gal. 1981
Av. Daily pumpage 3.36M Gal. Max. av. Daily Pumpage Gal.
Est. Population Av. Daily per Capita Consumption 172** Gal.
Time Required to Produce Av. Daily Consumption Hrs.
Time Required to Produce Mx. Av. Daily Consumption Hrs.
Large Consumers Av. Gal./Day

Emergency water and Power Sources:
Emergency inter-connection: Chicago Heights
*Including Chicago Heights (883.3M)
**Not including Chicago Heights

CRB:ted
PWS 59 7/79

REFERENCE 18
SITE NAME TRIEM STEEL
SITE ID ILD001744572

INVENTORY	Wells & Pumps	Standby Power	Feeder Mains	Add Chlorine	Add Fluoride	Add Phosphate	Exchange	Removal	Flushing hydrants	Backflow preventor	Dead Wells	High Ser. Pumps	Standby Power	Mains - 1000s ft.	Interconnections	Elevated Tanks	Pressure Storage	Ground Storage	Booster Pumps	Standby Power	Distribution Valve	Hydrant Valves	Service Connection
Detail in "CSOM"																							± 1700
Number of Units	7	--	--	7	6	3	--	--	145 +4 under construction		--	--	--		1	1	1	--	--	--	11		

Well Capacity:

#1	200*	gpm	#7	850	gpm
#2	100*	gpm	#8		gpm
#3	1000	gpm	#9		gpm
#4	500	gpm	#10		gpm
#5	550	gpm	#11		gpm
#6	730	gpm	#12		gpm

Total Well Capacity 5.6M gpd.
Total Storage Capacity 115K gal.
Iron Filter Capacity _____ gpd

High Service Pump Capacity _____ gpd
Elevated Storage 100K gal.
Pressure Storage 15K gal.
Ground Storage _____ gal.

*STANDBY

Emergency Power: None

In the course of the evaluation, the following conditions which appear to constitute violations of the Environmental Protection Act or related public water supply rules and regulations were noted:

EQUIPMENT

Well #1 No chlorine scale

Well #2 No chlorine scale. Chlorine not isolated. No exhaust fan.

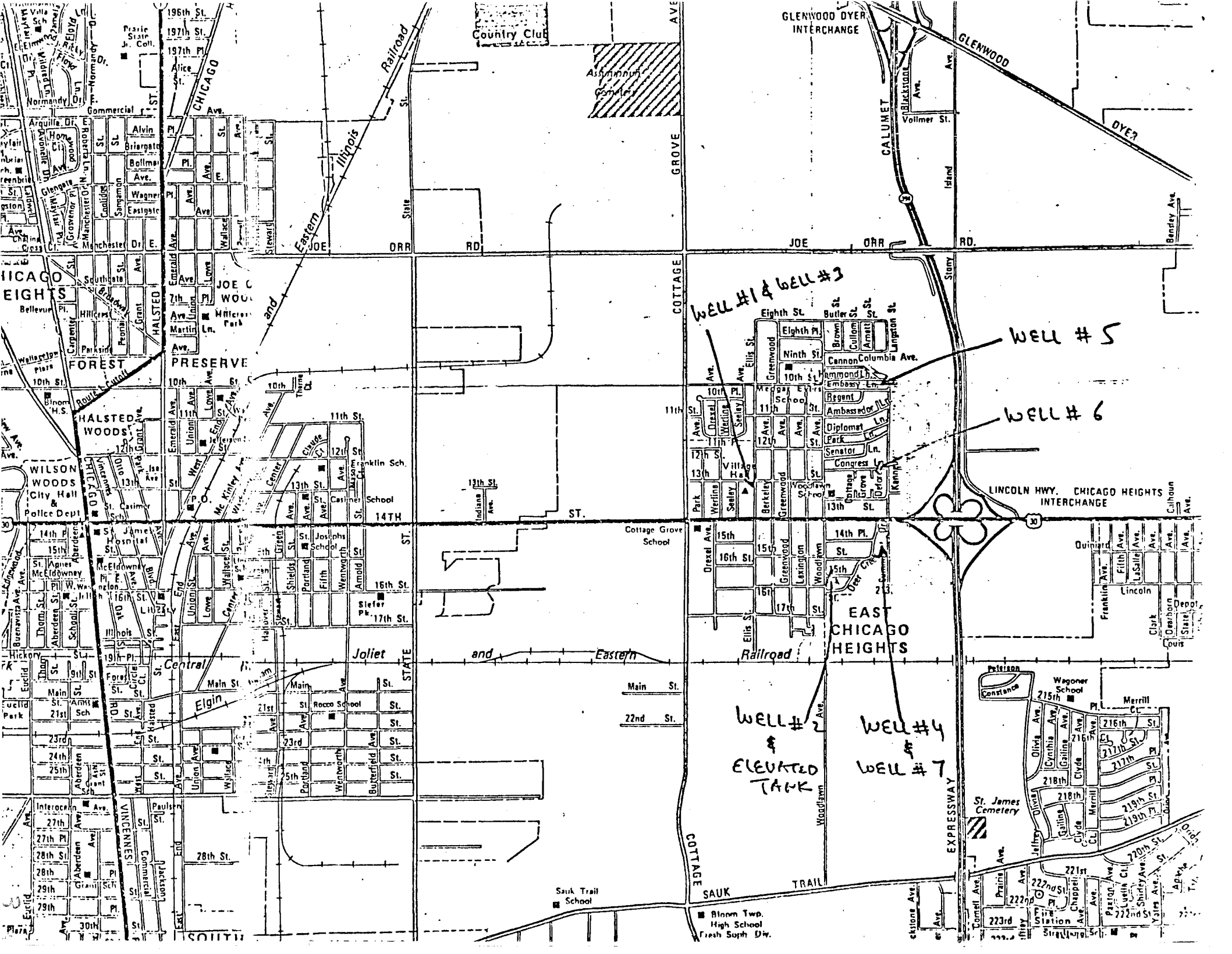
Well #3 Chlorine not totally isolated. No chlorine scale.

Well #4 No exhaust fan.

Well #5 Master meter broken.

MONITORING

1. Operating records are not submitted.
2. Inadequate number of bacteriological samples submitted. Required 6 from distribution, submitted 5.
3. Chlorine residual not tested at the time of bacteriological sample collection.
4. No recent mineral analysis for distribution system.
5. Inconsistent fluoride levels in distribution.
6. No chlorine residual present in distribution on March 22, 1982. Samples taken at Village Hall and Utility office.
7. No bacteriological samples received for sampling period of January 4 to January 31, 1982.



WELL #1 & WELL #3
WELL #5
WELL #6
WELL #2 & ELEVATED TANK
WELL #4 & WELL #7
GLENWOOD DYER INTERCHANGE
GLENWOOD DYER
LINCOLN HWY. CHICAGO HEIGHTS INTERCHANGE
EAST CHICAGO HEIGHTS
Country Club
Assumption Cemetery
Joliet and Eastern Railroad
Central Elgin
Eastern Illinois Railroad
CHICAGO HEIGHTS
FOREST PRESERVE
HALSTED WOODS
WILSON WOODS City Hall & Police Dept
JOE ORR RD.
COTTAGE GROVE AVE
CALUMET
EXPRESSWAY
SAUK TRAIL
14TH ST.
STATE ST.
Cottage Grove School
Sauk Trail School
Bloom Twp. High School Fresh Soph. Div.
St. James Cemetery
Wagoner School
Franklin Sch.
Casimer School
Rocco School
Slefer Pk.
Village Hall
Woodlawn School
Medgar Evers School
Fire Station

SUMMARY OF MONITORING East Chicago Heights PUBLIC WATER SUPPLY

PUMPING CAPACITY AND WATER LEVELS ---- SOURCES

Year	1979	1980				1981			
Quarter	4th	1st	2nd	3rd	4th	1st	2nd	3rd	4th
Measurements as feet above sea level									
Well or Intake # 6 Location 1900'S 1400'W/NEC-23-35N-14E Elevations 635'									
Gpm.				730					
Nonpumping Level									
Pumping Level									
Pump setting									
Casing seat & T.D.	20" set at +560'				T.D +175'				
Specific Capacity									
Well or Intake # 7 Location 2900'S. 1400'W/NEC-23-35N-14E Elevations 635'									
Gpm.				550					
Nonpumping Level									
Pumping Level									
Pump setting									
Casing seat & T.D.	20" set at +560'				T.D + 175'				
Specific Capacity									
Well or Intake # Location Elevations									
Gpm.									
Nonpumping Level									
Pumping Level									
Pump setting									
Casing seat & T.D.									
Specific Capacity									
Well or Intake # Location Elevations									
Gpm.									
Nonpumping Level									
Pumping Level									
Pump setting									
Casing seat & T.D.									
Specific Capacity									
Well or Intake # Location Elevations									
Gpm.									
Nonpumping Level									
Pumping Level									
Pump setting									
Casing seat & T.D.									
Specific Capacity									

SUMMARY OF MONITORING East Chicago Heights PUBLIC WATER SUPPLY

PUMPING CAPACITY AND WATER LEVELS ---- SOURCES

Year	1979	1980				1981			
Quarter	4th	1ST	2nd.	3rd.	4th.	1ST	2nd	3rd	4th
Measurements as feet above sea level									
Well or Intake # 1 Location 2675'S, 1375 E / NW Cor - 23 - 35N - 14E Elevations 667'									
Gpm. 1968 - 60 GPM				200					
Nonpumping Level 1953 - 13'									
Pumping Level 1953 - 80'									
Pump setting									
Casing seat & T.D. 12" Cemented set at + 609' T.D 157' +									
Specific Capacity									
Well or Intake # 2 Location 4150's - 2575'W NE Cor - 23 - 35N - 14E Elevations 638'									
Gpm.				100					
Nonpumping Level									
Pumping Level									
Pump setting									
Casing seat & T.D. 16" casing set W. + 558' Total Depth + 139'									
Specific Capacity									
Well or Intake # 3 Location 2025 S, 1383 E, NW Cor - 35N - 14E - 23 Elevations 667'									
Gpm.				1000					
Nonpumping Level									
Pumping Level									
Pump setting									
Casing seat & T.D. 16" set at - 83' Total Depth - 1191'									
Specific Capacity									
Well or Intake # 4 Location 2950' S, 1534' W / NE Cor 23 - 35N - 14 Elevations 635'									
Gpm.				500					
Nonpumping Level									
Pumping Level									
Pump setting									
Casing seat & T.D. 19" set at + 576'									
Specific Capacity									
Well or Intake # 5 Location 50'S, 1440' W of N.E Cor. - 23 - 35N - 14E Elevations 630'									
Gpm.				500					
Nonpumping Level									
Pumping Level									
Pump setting									
Casing seat & T.D. 12" set + 548' T. D + 164'									
Specific Capacity									

ILLINOIS ENVIRONMENTAL PROTECTION AGENCY DIVISION OF PUBLIC WATER SUPPLIES

PUBLIC WATER SUPPLY DATA SHEET

County and Supply STEGER Cook County

Date Inspected November 25, 1980 Plant phone 754-4044

Operator Joe Janusek *C* #2190 Phone 755-3888 (P.W. Garage)

Other officials (Title) Phone 754-3395 Village Hall

Louis Sherman, Village President Phone

Emergency Address ---- Phone

Send mail to Village Hall, Steger, Illinois 60475

Interviewed Gilkison, Superintendent of Public Works

Joe Janusek (COIRC)

Brief description of supply: Water obtained from three (3) drilled wells. All wells chlorinated, fluroide fed at #3. Wells discharge to system upon which two (2) elevated tanks float.

No. of services: Direct 2400 - 100 % metered

Satellite ---- - --- % metered

Adequacy of Supply

Annual Pumpage 1979 384.6 M Gal.
Av. Daily pumpage 1.05 M Gal. Max. av. Daily Pumpage ---- Gal.
Est. Population 9500 Av. Daily per Capita Consumption 110 Gal.
Time Required to Produce Av. Daily Consumption --- Hrs.
Time Required to Produce Mx. Av. Daily Consumption --- Hrs.
Large Consumers D'Amico Macaroni 75K Av. Gal./Day

Emergency water and Power Sources: South Chicago Heights - interconnection at 3 different locations.

CRB:ted
PWS 59 7/79

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INVENTORY	Wells & Pumps	Standby Power	Feeder Mains	Gas Chlorine	Gas Fluoride	Gas Phosphate	Ion Exchange	Iron Removal	Flushing hydrants	Backflow preventor	Dear Wells	High Ser. Pumps	Standby Power	Mains - 1000s ft.	Interconnections	Elevated Tanks	Pressure Storage	Ground Storage	Booster Pumps	Standby Power	Distribution Valve	Hydrants	Service Connection
Detail in "CSOM"																							
Number of Units	3	1	--	2	1	--	--	--	225	1	--	--	--	99	1	2	--	--	--	--	175	225	2.4

Well Capacity:

#1	325	gpm	#7		gpm
#2	625	gpm	#8		gpm
#3	375	gpm	#9		gpm
#4	---	gpm	#10		gpm
#5	---	gpm	#11		gpm
#6	---	gpm	#12		gpm

Total Well Capacity 1.91 M gpd.
Total Storage Capacity 0.5M gal.
Iron Filter Capacity ---- gpd

High Service Pump Capacity --- gpd
Elevated Storage 0.5M gal.
Pressure Storage --- gal.
Ground Storage --- gal.

Emergency Power: 1 gasoline engine

In the course of the evaluation, the following conditions which appear to constitute violations of the Environmental Protection Act or related public water supply rules and regulations were noted:

1. Fluoride levels out of standard January through September 1980.

2. Fluoride fed not reported on monthly reports of operation.

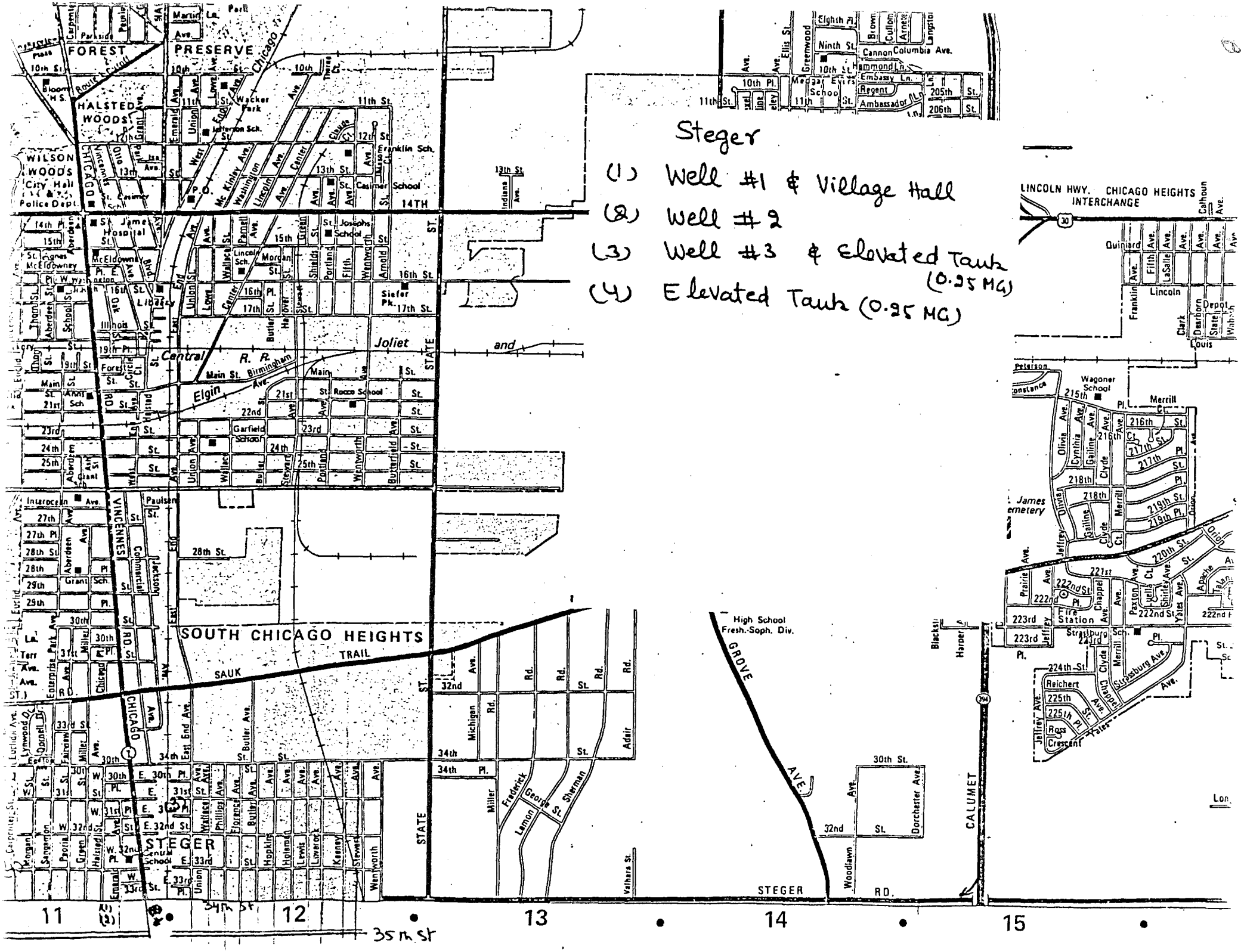
3. No recent mineral analysis of finished water.

4. Inaccurate reports Sept. & Oct.

Recommendation for improvement:

5. Summarize and report data on customer complaints, main breaks, well water levels, length of mains, etc.

Note: Field tested chlorine residual twice. It was greater than 1.1 mg/l. Village routine sampling reports indicate less than 0.5 mg/l.


Steger
(1) Well #1 & Village Hall
(2) Well #2
(3) Well #3 & Elevated Tank (0.25 MG)
(4) Elevated Tank (0.25 MG)
FOREST PRESERVE
HALSTED WOODS
WILSON WOODS
City Hall & Police Dept.
St. James Hospital
Wacker Park
Franklin Sch.
Casimer School
St. Josephs School
Lincoln Sch.
Siefer Pk.
Library
Central R. R.
Joliet and
Elgin
Main St.
Birmingham Ave.
Rocco School
Garfield School
Paulsen St.
Interocean Ave.
Grant Sch.
SOUTH CHICAGO HEIGHTS
SAUK TRAIL
STEGER
Central School
High School Fresh.-Soph. Div.
GROVE AVE.
STEGER RD.
CALUMET
LINCOLN HWY. CHICAGO HEIGHTS INTERCHANGE
Wagoner School
Merrill
James Cemetery
Fire Station
Strassburg Sch.
Reichert
Ross Crescent
Lincoln
Quinlard
Calhoun Ave.
Clark
Dearborn
Depot
Louis
Peterson
Constance
Olivia Ave.
Cynthia Ave.
Gailine Ave.
Clyde
Merrill
Jeffrey
Prairie Ave.
Chappel Ave.
Paxton Ave.
Shirley Ave.
Yates Ave.
Apache
Orion
Blackstone
Harper
Woodlawn Ave.
Dorchester Ave.
Michigan Rd.
Adair
Frederick
George St.
Lemon
Sherman
Miller
Butler Ave.
Wallace
Phillips
Florence
Hopkins
Holeman
Lewis
Liverock
Keeney
Stewart
Wentworth
Union
Emerald
Halsted
Green
Peoria
Sangamon
Morgan
Carpenter St.
Lynwood
Dorrell
Fairview
Miller
Chicago
Enterprise Park Ave.
Aberdeen
Grant Sch.
Commercial
Jackson
Vincennes
Chicago
Paulsen
Union
Wallace
Butler
Stewart
Portland
Wentworth
Butterfield
Ninth St.
Columbia Ave.
Cannon
Hammond Ln.
Embassy Ln.
Regent
Ambassador Ln.
Medgar Evers School
Ellis St.
Greenwood
Eighth Pl.
Brown
Cullom
Arnett
Langston
Ninth St.
Indiana Ave.
Franklin Sch.
Casimer School
Lincoln Sch.
Morgan St.
Shields
Portland
Fifth
Wentworth
Arnold
Union
Lowe
Center
Butler
Harover
Stewart
Wallace
Union
Emerald
Union
Lowe
Wentworth
Butterfield
Halsted
Aberdeen
Thorn
Aberdeen
School
Illinois
Fores
Circle
Main
Main St.
Grant Sch.
Interocean Ave.
Paulsen
Grant
Miller
Chicago
Enterprise Park Ave.
Miller
Chicago
Ave.
Butler Ave.
East End Ave.
Michigan Rd.
Adair
Frederick
George St.
Lemon
Sherman
Valhara St.
Woodlawn
Dorchester Ave.
Harper
Blackstone
Jeffrey Ave.
Yates
Apache
Orion
Lon.
11
12
13
14
15
34th St
35th St

SUMMARY OF MONITORING Steger PUBLIC WATER SUPPLY

PUMPING CAPACITY AND WATER LEVELS ---- SOURCES

Year									
Quarter									
Well or Intake # 1 Location 5.3 g1 34 N 14 E 200'S 1550'W Measurements as feet ~~above sea~~ level below 800' Elevations 712									
Gpm. 350									
Nonpumping Level 413'									
Pumping Level									
Pump setting									
Casing seat & T.D. 12" set at 147' 318'									
Specific Capacity									
Well or Intake # 2 Location 33.8 C 35 N 14 E 1900'N 430'E Elevations 708'									
Gpm. 618									
Nonpumping Level 65'									
Pumping Level									
Pump setting									
Casing seat & T.D. 16" set at 80' 378'									
Specific Capacity									
Well or Intake # 3 Location 5.3 g2 34N 14 E 230'S 1550'W N Elevations									
Gpm. 750									
Nonpumping Level 31'									
Pumping Level									
Pump setting									
Casing seat & T.D. 12" set at 110' 325'									
Specific Capacity									
Well or Intake # Location Elevations									
Gpm.									
Nonpumping Level									
Pumping Level									
Pump setting									
Casing seat & T.D.									
Specific Capacity									
Well or Intake # Location Elevations									
Gpm.									
Nonpumping Level									
Pumping Level									
Pump setting									
Casing seat & T.D.									
Specific Capacity									

FY 1981 3 1 0 8 0

ILLINOIS ENVIRONMENTAL PROTECTION AGENCY DIVISION OF PUBLIC WATER SUPPLIES

Facility No. 016 279 0 PUBLIC WATER SUPPLY DATA SHEET

County and Supply SAUK VILLAGE Cook County

Date Inspected April 17, 1981 Plant phone 758-1936

Operator Ed Nieft, #2560 *B* Phone 758-0430 (office)

Other officials (Title) Phone 758-3330 (village)

Edward Pasel Phone

Emergency Address 2217 - 220 Street Phone 758-5960 (police)

Send mail to Village Hall, 21701 Torrence Avenue, Sauk Village, Illinois 60411

Interviewed Ed Nieft and Dennis Keane

Brief description of supply: Water obtained from two drilled wells, treated with chlorine, fluoride, and polyphosphate, and discharged to one ground reservoir and one elevated tank. Four high service pumps take suction from the reservoir, supply the system and the elevated tank. Well #3 is not in service yet. Scheduled to be in service within the next 30 days.

No. of services: Direct 2800 - 100 % metered

Satellite - % metered

Adequacy of Supply

Annual Pumpage 323 M Gal. 1980
Av. Daily pumpage 0.89 M Gal. Max. av. Daily Pumpage 1.58M Gal.
Est. Population 10,906 Av. Daily per Capita Consumption 82 Gal.
Time Required to Produce Av. Daily Consumption Hrs.
Time Required to Produce Mx. Av. Daily Consumption Hrs.
Large Consumers None Av. Gal./Day

Emergency water and Power Sources: Well No. 2 - Amarillo right Angle Drive, V8 Natural Gas Engine
Well No. 3 - Amarillo right angle drive Diesel engine

CRB:ted
PWS 59 7/79

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INVENTORY	Wells & Pumps	Standby Power	Feeder Mains	Add Chlorine	Add Fluoride	Add Phosphate	Exchange	Removal	Flushing hydrants	Backflow preventor	Clear Wells	High Ser. Pumps	Standby Power	Mains - 1000s ft.	Interconnections	Elevated Tanks	Pressure Storage	Ground Storage	Booster Pumps	Standby Power	Distribution Valve	Hydrant Valves	Service Connection	Service Meters
Detail in "CSOM"																								
Number of Units	3	2	--	2	2	3	--	--	423		1	5	1		--	1	--	--	--	--		423	2.8K	2.8K

Well Capacity:

#1 660 gpm
#2 1000 gpm -gasoline engine
#3 1000 gpm -diesel engine
#4 gpm
#5 gpm
#6 gpm

HSP Capacity

#1 150 gpm
#2 250 gpm
#3 660 gpm
#4 1000 gpm gasoline engine
#5 750 gpm
gpm

Total Well Capacity 3.83 M gpd.
Total Storage Capacity 0.7 gal.
Iron Filter Capacity --- gpd

High Service Pump Capacity 4.05 M gpd
Elevated Storage 0.4 M gal.
Pressure Storage -- gal.
Ground Storage 0.3 M gal.

Emergency Power: Auxiliary Power for Well #2, Well #3 and HSP #4.

In the course of the evaluation, the following conditions which appear to constitute violations of the Environmental Protection Act or related public water supply rules and regulations were noted:

1. No screens on
   a. overflow for 0.3 MG reservoir
   b. Well #1 - air vent

2. Fluoride fed not reported on monthly operating reports.

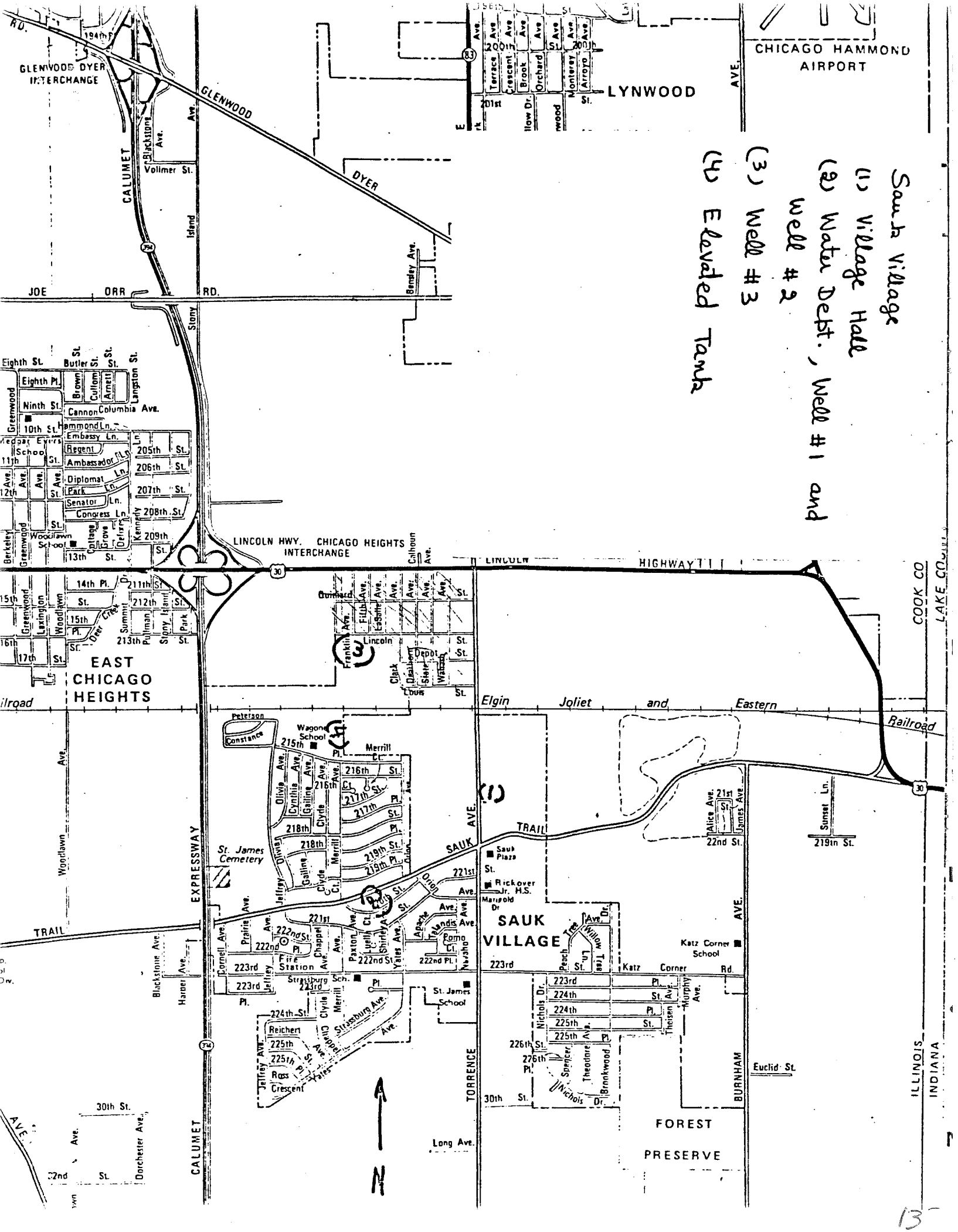
3. Fluoride and chlorine injected at wells #1 and #2 are not flow proportioned.

4. Inadequate number of raw samples submitted.

SUMMARY OF MONITORING South Village PUBLIC WATER SUPPLY

PUMPING CAPACITY AND WATER LEVELS ---- SOURCES

Year	1979				1980		1981		
Quarter	1st	2nd	3rd	4th	1st	2nd			
					Measurements as feet ~~above sea level~~				
Well or Intake # 1 Location					Elevations				
Gpm.					660		660		
Nonpumping Level					61'		55'		
Pumping Level					71'		48'		
Pump setting					116		116		
Casing seat & T.D.									
Specific Capacity									
Well or Intake # 2 Location					Elevations				
Gpm.					1000		1000		
Nonpumping Level					66'		73'		
Pumping Level					106'				
Pump setting					140'				
Casing seat & T.D.									
Specific Capacity									
Well or Intake # 3 Location					Elevations				
Gpm.	not in service		not in	service					
Nonpumping Level									
Pumping Level									
Pump setting									
Casing seat & T.D.									
Specific Capacity									
Well or Intake # Location					Elevations				
Gpm.									
Nonpumping Level									
Pumping Level									
Pump setting									
Casing seat & T.D.									
Specific Capacity									
Well or Intake # Location					Elevations				
Gpm.									
Nonpumping Level									
Pumping Level									
Pump setting									
Casing seat & T.D.									
Specific Capacity									


Sauk Village
(1) Village Hall
(2) Water Dept., Well #1 and Well #2
(3) Well #3
(4) Elevated Tank
GLENWOOD DYER INTERCHANGE
GLENWOOD
DYER
CHICAGO HAMMOND AIRPORT
LYNWOOD
JOE ORR RD.
LINCOLN HWY. CHICAGO HEIGHTS INTERCHANGE
LINCOLN HIGHWAY
EAST CHICAGO HEIGHTS
Elgin Joliet and Eastern Railroad
SAUK TRAIL
SAUK VILLAGE
EXPRESSWAY
CALUMET
TORRENCE
BURNHAM
COOK CO
LAKE CO
ILLINOIS
INDIANA
FOREST PRESERVE
St. James Cemetery
Wagon School
Sauk Plaza
Rickover Jr. H.S.
Katz Corner School
St. James School
Fire Station
Strasburg Sch.
Long Ave.
Euclid St.
N

ILLINOIS ENVIRONMENTAL PROTECTION AGENCY DIVISION OF PUBLIC WATER SUPPLIES

Fac. No. 016 4740 PUBLIC WATER SUPPLY DATA SHEET

County and Supply PARK FOREST Cook County

Date Inspected November 12 and 20, 1981 Plant phone 748-5346

COIRC *A* #5016 "T"

Operator Marvin Bartling, Chief Water Plant Opera. Phone 748-1112 (Village Hall)

Other officials (Title) J. Gericke, Dist. Supt. Phone

Mr. Blaine Osterling, Supt. of Public Works Phone

Mr. Robert Pierce, Village Manager

Emergency Address Treatment Plant Phone 748-5346

Send mail to Village Hall, 200 Forest Blvd., Park Forest, Illinois 60466

Interviewed Marvin Bartling, Chief Water Plant Operator

Brief description of supply: Water obtained from seven (7) drilled wells. Water from Wells #1 - #6 is aerated, lime-sodium aluminate softened, treated with phosphate, recarbonated, filtered, zeolite softened, chlorinated, fluoridated and discharged to a clear well or ground reservoir. Six (6) high service pumps take suction form the clearwell and discharge to the system upon which one elevated tanks floats. Well #7 is zeolite softened, treated with caustic soda, chlorine, fluoride and discharged to the system.

No. of services: Direct 8605 - 100 % metered

Satellite - % metered

Adequacy of Supply

Annual Pumpage 894 M Gal. 1980

Av. Daily pumpage 2.44 M Gal. Max. av. Daily Pumpage Gal.

Est. Population 26,222 Av. Daily per Capita Consumption Gal.

Time Required to Produce Av. Daily Consumption Hrs.

Time Required to Produce Mx. Av. Daily Consumption Hrs.

Large Consumers None Av. Gal./Day

Emergency water and Power Sources: Inter-connection Chicago Heights, Olympia Fields

CRB:ted

PWS 59 7/79

INVENTORY	Wells & Pumps	Standby Power	Feeder Mains	Add Chlorine	Add Fluoride	Add Phosphate	Exchange Zeolite softening	Removal (Filter rapid sand)	Flushing hydrants	Backflow preventor	Clear Wells	High Ser. Pumps	Standby Power	Mains - 1000s ft.	Interconnections	Elevated Tanks	Pressure Storage	Ground Storage	Booster Pumps	Standby Power	Distribution Valve	Hydrant Valves	Service Connection
tail in "CSOM"																							
mber of Units	7	2	--	2	2	2	6	4	742		2	6	2		2	1	--	--	--	--	497		8605

Well Capacity:

#1	1000	gpm
#2	1000	gpm
#3	1000	gpm
#4	1000	gpm
#5	2000	gpm
#6	1000	gpm
#7	800	gpm
#8	--	gpm
#9	--	gpm
#10	--	gpm
#11	--	gpm
#12	--	gpm

Total Well Capacity 11.232 gpd.
Total Storage Capacity 1.7 M gal.
Iron Filter Capacity _____ gpd

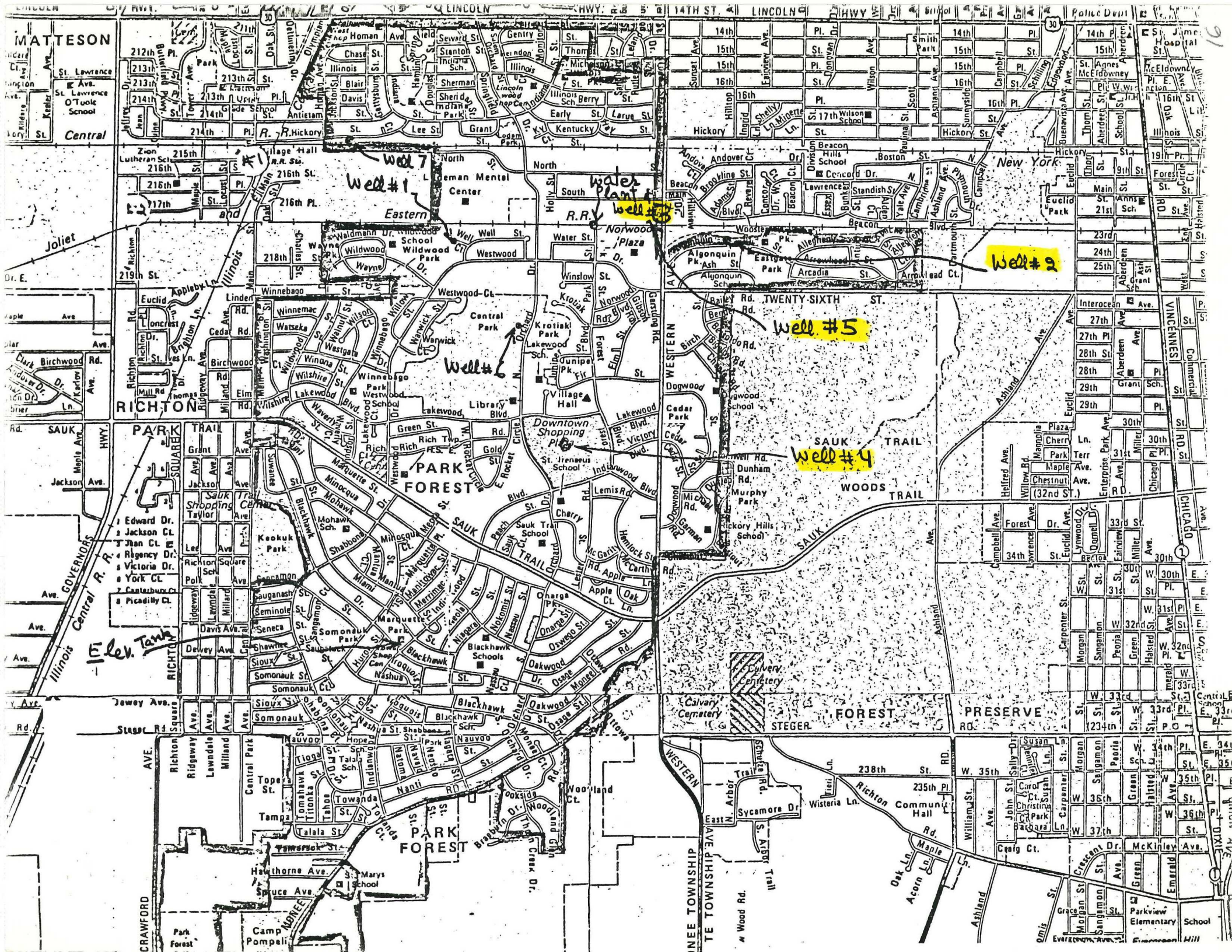
High Service Pump Capacity 12.4 gpd
Elevated Storage 0.5 M gal.
Pressure Storage -- gal.
Ground Storage 1.2 M gal.

Emergency Power: Natural gas engine for Wells #3 and #5, HSP #1 and #2, and for the plant.

Water system appeared to be generally satisfactory except:

a. Inadequate number of bacteriological samples submitted from distribution system.

b. Chlorine is not totally isolated at the water treatment plants.



Well 7
Well #1
Water Plant
Well #3
Well #2
Well #5
Well #6
Well #4
Elev. Tank
MATTESON
RICHTON PARK
PARK FOREST
FOREST PRESERVE
Lincoln Hwy
Sauk Trail
Western
Joliet
Illinois Central R.R.
Eastern R.R.
Norwood Plaza
Central Park
Downtown Shopping Plaza
Village Hall
Library
Blackhawk Schools
Calvary Cemetery
Wildwood Park
Somonauk Park
Keokuk Park
Sauk Trail Shopping Center
Richton Square
Beacon Hills School
Wilson School
Eastgate Park
Euclid Park
Murphy Park
Cedar Park
Lakewood Park
Winnebago Park
Marquette Park
Central Park Ave.
Richton Rd.
Dixie Hwy
Crawford Ave.
Monee Township
Park Forest
Camp Pompeii
St. Marys School
Parkview Elementary School
Community Hall
Calvary Cemetery

SUMMARY OF MONITORING Park forest PUBLIC WATER SUPPLY

PUMPING CAPACITY AND WATER LEVELS ---- SOURCES

Year	1981					1982				1983
Quarter		1st	2nd	3rd	4th	1st	2nd	3rd	4th	1st
Measurements as feet above sea level										
Well or Intake # 1 Location 35 N 13E Sec 25.6 F 1850'S, 1450'E NW Elevations										
Gpm.	600									
Nonpumping Level										
Pumping Level										
Pump setting										
Casing seat & T.D.		24" - 0 to 95'		16" - 0 to 116'			T.D 300'			
Specific Capacity										
Well or Intake # 2 Location 35 N 14E S30 1550'S 1875'E of NW Elevations										
Gpm.	1000									
Nonpumping Level										
Pumping Level										
Pump setting										
Casing seat & T.D.		24" - 0 to 88'		16" - 0 to 97'			T.D 300'			
Specific Capacity										
Well or Intake # 3 Location 35, 13E, 25, 1400'S 1400'W of NE, Elevations										
Gpm.	1000									
Nonpumping Level										
Pumping Level										
Pump setting										
Casing seat & T.D.		24" - 0 to 96'		18" - 0 to 117'			T.D. 350'			
Specific Capacity										
Well or Intake # 4 Location 35 N, 13E S36 540'S 1675' W, NW Elevations										
Gpm.	900									
Nonpumping Level										
Pumping Level										
Pump setting										
Casing seat & T.D.		12" - 0 to 160'					T.D 345'			
Specific Capacity										
Well or Intake # 5 Location 35 N 13E S25 1300'S 91'W NE Elevations										
Gpm.	1560									
Nonpumping Level										
Pumping Level										
Pump setting										
Casing seat & T.D.		24" - 0 to 90'		18" - 0 to 101'			T.D 345'			
Specific Capacity										

SUMMARY OF MONITORING Park Forest PUBLIC WATER SUPPLY

PUMPING CAPACITY AND WATER LEVELS ---- SOURCES

Year	1980	1981	1982						
Quarter									
Well or ~~Intake~~ # 6 Location 35N 13E 25Sec		1800'N	2700'W of SE	Measurements as feet ~~above sea level~~ below ground Elevations					
Gpm. 1000									
Nonpumping Level									
Pumping Level									
Pump setting									
Casing seat & T.D.	20" - 0 to 102'		16" - 0 to 111'				T.D 361'		
Specific Capacity									
Well or Intake # 7 Location 35N 13E S23		155'N 720'W of SW		Elevations					
Gpm. 1040									
Nonpumping Level 58'									
Pumping Level 183'									
Pump setting									
Casing seat & T.D.	26" - 0 to 96'		20" - 0 to 106'				T.D 402'		
Specific Capacity									
Well or Intake # Location				Elevations					
Gpm.									
Nonpumping Level									
Pumping Level									
Pump setting									
Casing seat & T.D.									
Specific Capacity									
Well or Intake # Location				Elevations					
Gpm.									
Nonpumping Level									
Pumping Level									
Pump setting									
Casing seat & T.D.									
Specific Capacity									
Well or Intake # Location				Elevations					
Gpm.									
Nonpumping Level									
Pumping Level									
Pump setting									
Casing seat & T.D.									
Specific Capacity									

FY 1981 21080

ILLINOIS ENVIRONMENTAL PROTECTION AGENCY DIVISION OF PUBLIC WATER SUPPLIES

FAC. NO. 099 0300 PUBLIC WATER SUPPLY DATA SHEET

County and Supply CRETE Will County

Date Inspected September 26, 1980 Plant phone

Operator Edwin Gawczyuski #1860 *C* Phone 672-7100 (Water Dept.)

Other officials (Title) Ron Christopher, Village President; Ron Bruner, Director of Public Works Phone 672-5431 (Village Hall)

Phone

Emergency Address Phone

Send mail to Village Hall, 524 Exchange Street, Crete, Illinois 60417

Interviewed Edwin Gawczyuski, Water Superintendent

Brief description of supply: Water obtained from three (3) drilled wells, chlorinated, fluoridated and pumped to the distribution system upon which two elevated tanks float.

Ronald Bremer PW

No. of services: Direct 1454 - 100 % metered

Satellite - % metered

Adequacy of Supply

Annual Pumpage 164.3M Gal.
Av. Daily pumpage 450,000 Gal. Max. av. Daily Pumpage Gal.
Est. Population 5,090 Av. Daily per Capita Consumption 88 Gal.
Time Required to Produce Av. Daily Consumption Hrs.
Time Required to Produce Mx. Av. Daily Consumption Hrs.
Large Consumers None Av. Gal./Day

Emergency water and Power Sources: None

CRB:ted
PWS 59 7/79

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INVENTORY	Wells & Pumps	Standby Power	Feeder Mains	Add Chlorine	Add Fluoride	Add Phosphate	Exchange	Removal	Flushing hydrants	Backflow preventor	Clear Wells	High Ser. Pumps	Standby Power	Mains - 1000s ft.	Interconnections	Elevated Tanks	Pressure Storage	Ground Storage	Booster Pumps	Standby Power	Distribution Valve	Hydrant Valves	Service Connection
tail in "CSOM"																							
mber of Units	3			3	3											2							1454

Well Capacity:

#1	capped	gpm	#7		gpm
#2	capped	gpm	#8		gpm
#3	200	gpm	#9		gpm
#4	600	gpm	#10		gpm
#5	290	gpm	#11		gpm
#6		gpm	#12		gpm

Total Well Capacity 1.57 M gpd.
Total Storage Capacity * 650,000 gal.
Iron Filter Capacity _____ gpd
*Two elevated tanks 150,000 & 500,000 gal.

High Service Pump Capacity _____ gpd
Elevated Storage 650,000 gal.
Pressure Storage _____ gal.
Ground Storage _____ gal.

Emergency Power: Well #3 turbine pump can be belt driven by a tractor.

In the course of the evaluation, the following conditions which appear to constitute violations of the Environmental Protection Act or related public water supply rules and regulations or standards were noted:

User Complaints

1. Problems of hydrogen sulfide odor were reported to be occurring at the dead end areas of your system. We ask that you monitor the distribution system by checking chlorine residuals weekly and by keeping a record of customer complaints. Hydrants at dead end areas should be periodically opened at a moderate flow rate so that a good chlorine residual can be maintained by bringing in fresh water.

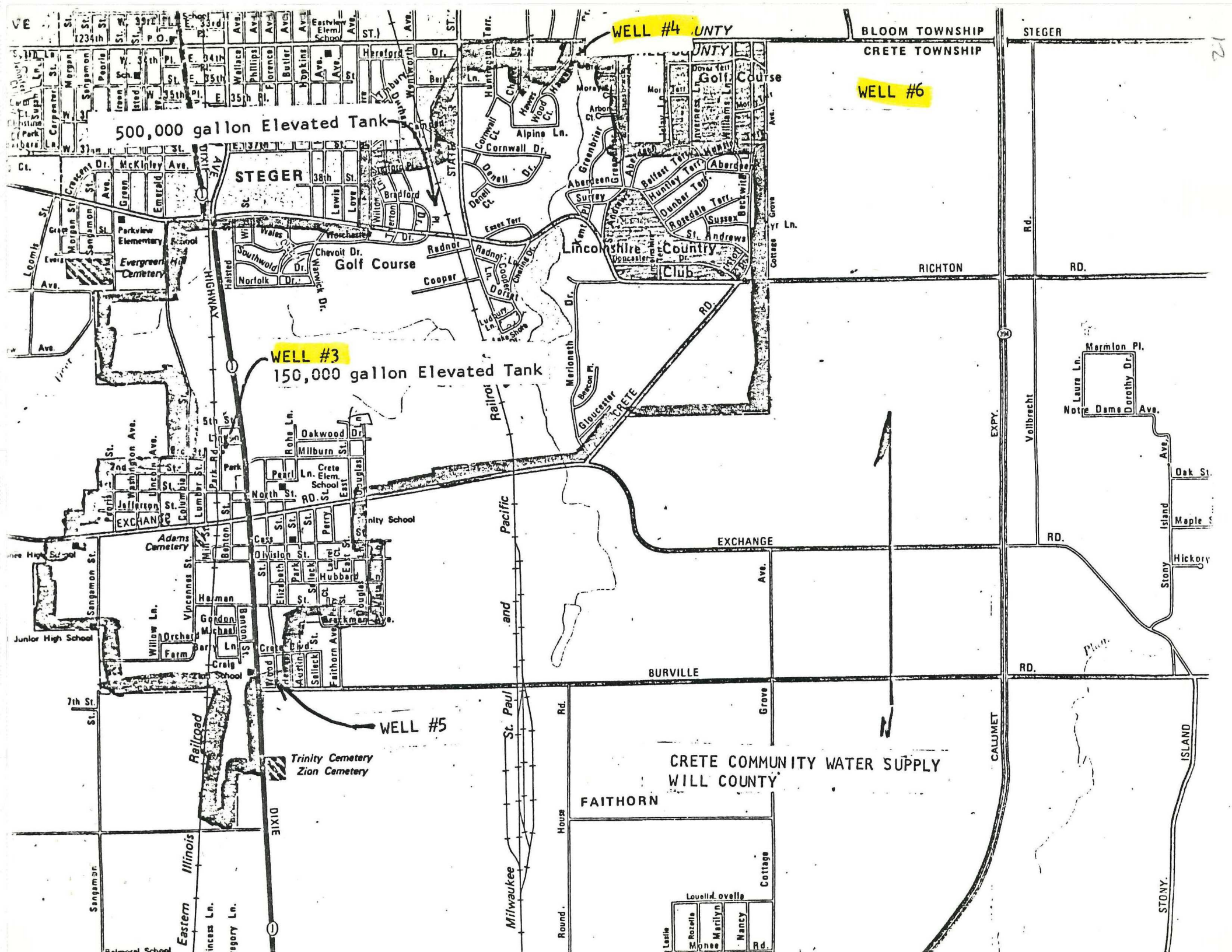
A well planned flushing program (performed at least twice a year) will also help eliminate the accumulation of mineral sediment in the system and reduce red water problems. You should also consider treating your water with polyphosphate to sequester the iron in the water. The iron concentration is approximately 1.0 mg/l.

MONITORING

2. Raw water samples are not regularly collected at Wells #3 and #4.
3. We have no recent mineral analysis data on file for Wells #4, #5 and the finished water.
4. With an increase in population to approximately 5,100 a minimun of 6 distribution samples should be collected.

RECOMMENDED IMPROVEMENTS

5. Summarize additional information (complaints,equipment failures,water levels) as part of your monthly operating reports. Also include the monthly hydrofluosilicic acid consumption for each well. Your records indicate that you seem to be feeding too little hydrofluosilicic acid into the system (see summary attached). On the other hand laboratory results of fluoride water samples indicate higher values compared to the computed values.
6. We understand Wells #1 and #2 will not be usedagain and plans are underway to abandon them. Information and instruction concerning the approved procedure may be obtained from the Department of Mines and Minerals, Mr. Raymond Hibner, Elwood, Illinois 60421, telephone 815-423-5336. Please inform us when the work is completed so we can correct our records accordingly.


WELL #4
WELL #6
500,000 gallon Elevated Tank
WELL #3
150,000 gallon Elevated Tank
WELL #5
BLOOM TOWNSHIP
CRETE TOWNSHIP
STEGER
Golf Course
Lincolnshire Country Club
RICHTON RD.
EXCHANGE RD.
BURVILLE RD.
FAITHORN
Trinity Cemetery
Zion Cemetery
Adams Cemetery
Evergreen Hill Cemetery
Parkview Elementary School
Crete Elem. School
Junior High School
Railroad
Milwaukee St. Paul and Pacific
Eastern Illinois
DIXIE HIGHWAY
CRETE RD.
CALUMET EXPY.
Vollbrecht Rd.
STONY ISLAND
CRETE COMMUNITY WATER SUPPLY
WILL COUNTY

SUMMARY OF MONITORING Crete PUBLIC WATER SUPPLY

PUMPING CAPACITY AND WATER LEVELS ---- SOURCES

Dolomite Dolomite

Year	1982	1983	1984	1985	1986	1987	1988	1989	1990
Quarter	–	–	–	–	–	–	–	–	–
				Measurements as feet above sea level					
Well or Intake # 1 Location 730'N x 180'W Sec 8-34-14 Elevation +719'									
1903 Gpm.									
Nonpumping Level									
Pumping Level									
Pump setting									
Casing seat & T.D.	10" csg. (150') set @ +569'					Total Depth +527			(192'
Specific Capacity									
Well or Intake # 2 Location 660'N x 180'W Sec 8-34-14 Elevation +719'									
1928 Gpm. 300									
Nonpumping Level +679									
Pumping Level +647									
Pump setting									
Casing seat & T.D.	12" csg (99') set @ +620 - 10" Liner					Total Depth +455			(264')
Specific Capacity 9.4									
Well or Intake # 3 Location				Elevation					
Gpm.									
Nonpumping Level									
Pumping Level									
Pump setting									
Casing seat & T.D.									
Specific Capacity									
Well or Intake # 4 Location				Elevation					
1967 Gpm.									
Nonpumping Level									
Pumping Level									
Pump setting									
Casing seat & T.D.									
Specific Capacity									
Well or Intake # 5 Location				Elevation					
Gpm.									
Nonpumping Level									
Pumping Level									
Pump setting									
Casing seat & T.D.									
Specific Capacity									

SUMMARY OF MONITORING Crete PUBLIC WATER SUPPLY

PUMPING CAPACITY AND WATER LEVELS ---- SOURCES

Dolomite

Year	1982	1983	1984	1985	1986	1987	1988	1989	1990
Quarter									
Measurements as feet above sea level									
Well or Intake # 6 Location 200'N x 2600'W Sec 2-34-14 Elevation +722.									
1979 Gpm. 530									
Nonpumping Level +666									
Pumping Level +489									
Pump setting									
Casing seat & T.D. 12" csg. (123') set @ +600 Total depth +200 (520'									
Specific Capacity 3									
Well or Intake # Location Elevation									
Gpm.									
Nonpumping Level									
Pumping Level									
Pump setting									
Casing seat & T.D.									
Specific Capacity									
Well or Intake # Location Elevation									
Gpm.									
Nonpumping Level									
Pumping Level									
Pump setting									
Casing seat & T.D.									
Specific Capacity									
Well or Intake # Location Elevation									
Gpm.									
Nonpumping Level									
Pumping Level									
Pump setting									
Casing seat & T.D.									
Specific Capacity									
Well or Intake # Location Elevation									
Gpm.									
Nonpumping Level									
Pumping Level									
Pump setting									
Casing seat & T.D.									
Specific Capacity									

IL-0244-07

R5-8303-1F

ANALYSIS OF INTERNAL WATER SYSTEM IN THE CITY OF CHICAGO HEIGHTS

81-110

Prepared by:

ROBINSON ENGINEERING COMPANY, LTD.
357 East 170th Street
South Holland, Illinois 60473

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Population - Water Use

Chicago Heights has grown in the past 30 years from a population of 22,461 in 1940 to 41,675 in 1979, an 86 percent increase. Vacant property has been continually developed into higher or more intensive uses. A summary of historic population statistics is shown in Table 1.

TABLE 1

CHICAGO HEIGHTS POPULATION

YEAR	POPULATION	YEAR	POPULATION
1940	22,461	1967	39,200
1950	24,551	1968	39,100
1956	29,000	1969	40,000
1957	30,000	1970	40,900
1958	31,500	1971	40,900
1959	32,300	1972	40,900
1960	34,300	1973	40,902
1961	35,200	1974	40,970
1962	35,800	1975	41,038
1963	37,000	1976	41,253
1964	37,500	1977	41,468
1965	38,000	1978	41,683
1966	38,500	1979	41,675

Historic Water use for the City of Chicago Heights is shown in Table 2.

TABLE 2

HISTORIC ANNUAL AVERAGE DAY WATER USE - MGD

YEAR	PUMPAGE(MGD)	YEAR	PUMPAGE(MGD)
1940	4.20	1967	6.01
1950	NA	1968	5.90
1956	4.33	1969	5.84
1957	4.23	1970	5.73
1958	4.53	1971	5.91
1959	5.43	1972	6.10
1960	6.06	1973	6.57
1961	5.51	1974	6.50
1962	6.01	1975	7.05
1963	6.87	1976	7.07
1964	7.37	1977	7.10
1965	6.60	1978	6.90
1966	5.97	1979	6.76

PRESENT WATER SYSTEM

The Chicago Heights water distribution system consists of watermain sizes ranging from 6" in diameter to 24" in diameter. The older watermains were constructed of cast iron with leaded joints. The newer mains are presently constructed of ductile iron and are provided with rubber gasket type push-on joints.

The City presently receives its water supply from 15 wells ranging in depth from 200 feet below ground to 1897 feet below ground. The well numbers associated with the operational wells range from 15 thru 33. Wells 1 thru 14 are no longer in use. A summary of capacity, depth, type of treatment and location of each operational well is shown in Table 4. The location of each operating well is shown in Exhibit I.

TABLE 4
EXISTING WELLS

WELL #15

Capacity - 1275 GPM
Depth - 428 feet
Type of treatment - Chlorine, Tri-Lux, Acid
Location - 137 East 14th Street

WELL #16

Capacity - 1300 GPM
Depth - 428 feet
Type of treatment - Chlorine, Tri-Lux
Location - 137 East 14th Street

WELL #18

Capacity - 1150 GPM
Depth - 250 feet
Type of treatment - Chlorine, Tri-Lux, Acid
Location - 10th Street and Shilling, East of Ashland Avenue

WELL #21

Capacity - 1000 GPM
Depth - 203 feet
Type of treatment - Chlorine, Tri-Lux, Acid
Location - 10th Street and Shilling on 10th Street

WELL #22

Capacity - 1400 GPM
Depth - 1800 feet
Type of treatment - chlorine, Tri-Lux, Acid
Northeast corner Sixteen Street and Division

WELL #23

Capacity - 1000 GPM
Depth - 260 feet
Type of treatment - Chlorine, Tri-Lux, Acid
Location - 13th Street and Wilson Avenue - on Wilson

WELL #24

Capacity - 500 GPM
Depth - 451 feet
Type of treatment - Chlorine, Tri-Lux, Acid
Location - 22nd and State - on State Street

Note: Wells 1 thru 14 are no longer in use

WELL #25

Capacity - 1500 GPM
Depth - 450 feet
Type of treatment - Chlorine, Tri-Lux, Acid
Location - Northeast corner - 17th and Division

WELL #26

Capacity - 1400 GPM
Depth - 439 feet
Raw water quality analysis - see Table 1-8
Type of treatment - Chlorine, Tri-Lux, Acid
East of Park District Office, on Main Street

WELL #27

Capacity - 500 GPM
Depth - 425 feet
Type of Treatment - Chlorine, Tri-Lux
Location - 14th Street East of Edgewood at creek

WELL #28

Capacity - 500 GPM
Depth - 200 feet
Type of treatment - Chlorine, Tri-Lux, Acid
Location - Northwest corner, Boston and Ashland

WELL #29

Capacity - 1500 GPM
Depth - 436 feet
Type of treatment - Chlorine, Tri-Lux, Acid
Location - EJ&E RR and Southwest corner Euclid Park

WELL #30

Capacity - 900 GPM
Depth - 406 feet
Type of treatment - Chlorine, Tri-Lux
Location - Crescent, East of Ashland

WELL #32

Capacity - 800 GPM
Depth - 1897 feet
Type of Treatment - Chlorine, Tri-Lux
Location - Commissioner's Park, Chicago Road and Vollmer Road

WELL #33

Capacity - 98 GPM
Depth - 450 feet
Type of treatment - Chlorine, Tri-Lux, Acid
Location - Beacon Hill Park, Western Avenue and Michigan Central RR

The City presently has four ground storage reservoirs. Capacity and location of each reservoir is shown in Table 5.

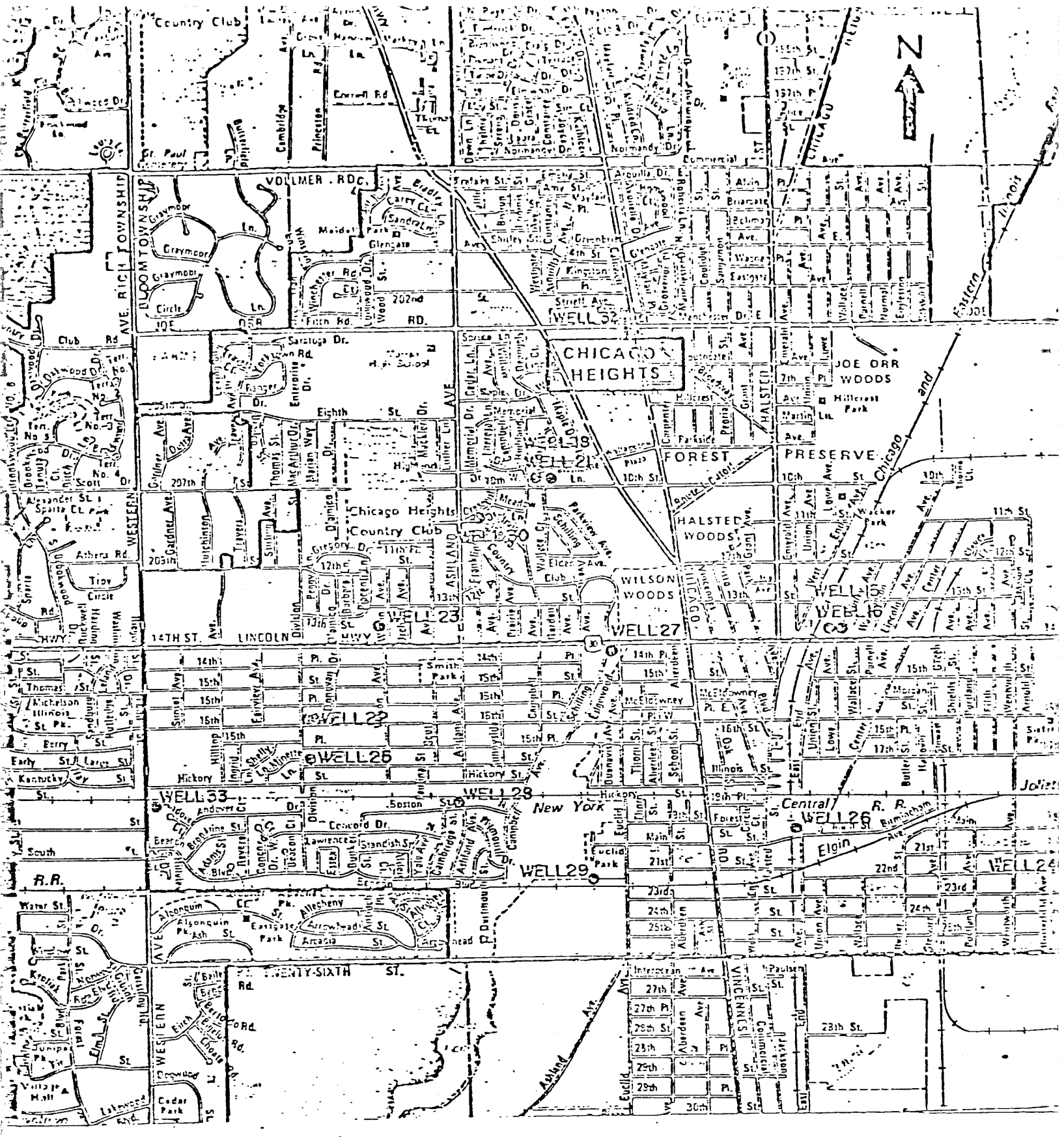
TABLE 5
GROUND STORAGE RESERVOIRS

Capacity	Location
2,000,000 gallons	137 E. 14th St.
180,000 gallons	137 E. 14th St.
2,000,000 gallons	14th & State
2,000,000 gallons	17th & Division

The total ground storage capacity is presently 6,180,000 gallons.

Located at each of the above mentioned sites is an associated pumping station. Water is pumped via wells to the ground storage reservoirs. As demand for water increases during periods of the day, water is drawn from the storage reservoirs to the pumping stations and into the system as needed. A schematic drawing of each pumping station/reservoir(s) combination is shown in Exhibits 2, 3 & 4. The 137 E. 14th St. pumping station is presently the Main Control Station. Also located at this pumping station are various shops, garages and offices.

A 1,000,000 gallon elevated tank is located adjacent to the pump station and ground reservoir at 14th St. & State St. This tank "floats" on the water system, receiving water when the demand (use) is low and discharging water when the demand is high. This is the only municipal elevated tank located in the water system.



WELL LOCATIONS

EXHIBIT 1

SUMMARY

The study of the existing well system in Chicago Heights concluded that expenses on homeowner treatment (water softeners, iron removal equipment, etc.) were a large contributor to the overall costs per 1000 gallons of water. Further, to bring well water up to standards equivalent to that of Lake Michigan water is an expensive proposition.

To bring Lake Michigan water into Chicago Heights requires the installation of a 6-million gallon reservoir and pump station, modifications to the existing pump station's controls, internal watermain reinforcements and extensions, and abandoning of the existing wells. The total cost for the improvements is $4,135,200.

The cost per 1000 gallons of water utilizing wells vs. Lake Michigan water is as follows:

copied from atex file 15-8303-0113

1-25-84

Chicago Heights Well Locations from E. Ch. Heights Municipal Building

--	Embassy & Kennedy Ln.	#5
·	Congress Kennedy	#6
-	1327 Ellis	#1
3 - 32	" "	#3
1 -	1409 Deer Creek.	#4
:	" "	#7
2 -	16th & Woodlawn,	#2

1-25-84

Info from East Chicago Heights Municipal Building

→ 7 wells

USAGE - 1983

TOTAL 862,490,000 GAL

~ 850 MILLION GAL/YR. FOR 3 LEA. WEL

E. CHGO. HTS WELL →

E CHGO HTS UTILITY CORP.

#4 (450) 500 GPM - 400' DEPTH

#3 950 " 1800' "

#1 (STANDBY) 200 GPM } STANDBY (SHALLOW)

#2 "

#5 - 500 GPM →

3, 6, 7 are leased

1, 2, 4, 5 E CHGO HTS Wells.

WELL	DEPTH
1	510'
2	499'
3	1858'
4	491'
5	466'
6	460'
7	460'

ILLINOIS ENVIRONMENTAL PROTECTION AGENCY DIVISION OF PUBLIC WATER SUPPLIES

Fac. No. 016 0450

PUBLIC WATER SUPPLY DATA SHEET

County and Supply CHICAGO HEIGHTS Cook County

Date Inspected Dec. 18, 1981 & Jan 15,1982 Plant phone 754-0026

Operator Douglas Foster #4253 *A* Phone

Other officials (Title) Charles Panici, Mayor Phone

Raymond E. Rossi, Supt. of Water Works Phone

Emergency Address 137 East 14th St. Phone 754-0026 (operation room)

Send mail to 1601 Chicago Road, City Hall, Chicago Heights, ILL 60441

Interviewed Douglas Foster, Certified Operator and Mike Monteleone, Analyst.

Brief description of supply: Water obtained from fifteen drilled wells, treated with polyphosphate, chlorinated, fluroidated (no fluoride at 15, 21, 22, 23, 29 and 32) and discharged to the system (except #15 and #25). One elevated tank floats on the system. Water is also obtained from East Chicago Heights and discharged to the System.

Well #15 discharges to the reservoirs at P.S. #1

Well #25 discharges to P.S. #2.

P.S. #3 is fed by the distribution pressure. (Have 4 ground reservoirs all together)

No. of services: Direct 9429 - 100 % metered

Satellite - % metered

Adequacy of Supply

Annual Pumpage 2446M Gal. 1981*

*Av. Daily pumpage 6.7 M Gal. 1981 Max. av. Daily Pumpage 11.1 M Gal.

Est. Population 37,000 Av. Daily per Capita Consumption 181 Gal.

Time Required to Produce Av. Daily Consumption Hrs.

Time Required to Produce Mx. Av. Daily Consumption Hrs.

Large Consumers Heavy industry Av. Gal./Day

Emergency water and Power Sources: Glenwood, Park Forest, East Chicago Heights, South Chicago Heights, Flossmoor and Olympia Fields.
869.2 M purchased from East Chicago Heights

CRB:ted
PWS 59 7/79

INVENTORY	ells & Pumps	tandby Power	eeder Mains	dd Chlorine	dd Fluoride	dd Phosphate	xchange	Removal	lushing hydrants	ackflow preventor	~~Reservoirs~~ Reservoirs	igh Ser. Pumps	andby Power	ins - 1000s ft.	nterconnections	evated Tanks	essure Storage	ound Storage	oster Pumps	andby Power	istribution Valve	drant Valves	rvice Connection	rvice Meters
il in "CSOM"																								
er of Units	15	4	1	16	9	15	--	--	1238		4	6	2	843	6	1	--	4	4	2	1558	±817	9429	9429

Well Capacity:

#15	703	gpm
#16	1201	gpm
#18	1085	gpm
#21	Down	gpm
#22	1081	gpm
#23	742	gpm
#24	down	gpm
#25	780	gpm
#26	1247	gpm
#27	389	gpm
#28	830	gpm
#29	down	gpm
#30	955	gpm
#32	850	gpm
#33	594	gpm

Total Well Capacity 11.5M* gpd.
Total Storage Capacity 7.187M gal.
Iron Filter Capacity --- gpd

High Service Pump Capacity 16.1 M gpd
Elevated Storage 1.0M gal.
Pressure Storage --- gal.
Ground Storage 6.187 gal.

*Plus East Chicago Heights 2.5 MGD

Emergency Power: 2nd elec. feed from Indiana for wells 15, 16 and pumping station #1

Liquid Propane Generator for PS #2, Natural Gas engine for Wells #23 & 29.

We recognize that attempts are being made to obtain Lake Michigan water. This will eliminate many of the aesthetic complaints caused by high hardness, iron, sulphates and total dissolved solids.

In your present system, the following conditions which appear to constitute violations of the Illinois Pollution Control Board rules and regulations were noted:

1. Chlorine is not totally isolated at the pumping stations or well houses except at Well #22.

RECOMMENDATIONS FOR IMPROVEMENT:

2. Initiate a valve maintenance program.

3. Obtain chlorine facilities for pumping station #3.

4. Install chlorine feed equipment to feed into the #2 reservoir to prevent build up of possible contamiantion in the reservoir.

NOTE: Facility maintains good records.

SUMMARY OF MONITORING East Chicago Heights PUBLIC WATER SUPPLY

PUMPING CAPACITY AND WATER LEVELS ---- SOURCES

Year	1977	1978	1979	1980	1981	1982	1983	1984	1985
Quarter									
Measurements as feet above sea level									
Well or Intake # 3 Location 2025'S x 1383'E NWc 23-35-14 Elevation +667 (1321 Ellis Ave)									
Deep Sandstone 1964 Gpm.					1000				
Nonpumping Level									
Pumping Level									
Pump setting									
Casing seat & T.D.	16" Csg. (750') set @ -83'				Total depth -1191'				(1858')
Specific Capacity									
Well or Intake # 6 Location 1900'S x 1600'W NEc 23-35-14 Elevation +635 (Congress and Kennedy lane)									
Dolomite 1972 Gpm.					730				
Nonpumping Level									
Pumping Level									
Pump setting									
Casing seat & T.D.	20" csg. (75') set @ +560'				Total depth +175'				(460')
Specific Capacity									
Well or Intake # 7 Location 2900'S x 1900'W NEc 23-35-14 Elevation +635' (1409 Deer Creek Lane)									
Dolomite 1972 Gpm.					850				
Nonpumping Level									
Pumping Level									
Pump setting									
Casing seat & T.D.	20" csg. (75' set @ +560				Total depth +175'				(460')
Specific Capacity									
Well or Intake # Location Elevation									
Gpm.									
Nonpumping Level									
Pumping Level									
Pump setting									
Casing seat & T.D.									
Specific Capacity									
Well or Intake # Location Elevation									
Gpm.									
Nonpumping Level									
Pumping Level									
Pump setting									
Casing seat & T.D.									
Specific Capacity									

SUMMARY OF MONITORING Chicago Heights PUBLIC WATER SUPPLY

PUMPING CAPACITY AND WATER LEVELS ---- SOURCES

Year	1978	1979	1980	1981	1982	1983	1984	1985	1986
Quarter									
Measurements as feet above sea level									
Well or Intake # 33 Location				Elevation +761 (Beacon Hill Park)					
Gpm.	555	555	503	590					
Nonpumping Level	+658	+654	+656						
Pumping Level	+598	+610	+594						
Pump setting	+536	+536	+536	+536					
Casing seat & T.D.	24" csg. (95') set @.								(458')
Specific Capacity									
Well or Intake # Location				Elevation					
Gpm.									
Nonpumping Level									
Pumping Level									
Pump setting									
Casing seat & T.D.									
Specific Capacity									
Well or Intake # Location				Elevation					
Gpm.									
Nonpumping Level									
Pumping Level									
Pump setting									
Casing seat & T.D.									
Specific Capacity									
Well or Intake # Location				Elevation					
Gpm.									
Nonpumping Level									
Pumping Level									
Pump setting									
Casing seat & T.D.									
Specific Capacity									
Well or Intake # Location				Elevation					
Gpm.									
Nonpumping Level									
Pumping Level									
Pump setting									
Casing seat & T.D.									
Specific Capacity									

SUMMARY OF MONITORING Chicago Heights PUBLIC WATER SUPPLY

PUMPING CAPACITY AND WATER LEVELS ---- SOURCES

Year	1978	1979	1980	1981	1982	1983	1984	1985	1986
Quarter									
				Measurements as feet above sea level					
Well or Intake # 28 Location				Elevation +673			Ashland & ICRR.		
Gpm.	700	800	822	821					
Nonpumping Level	+599	591	599	601					
Pumping Level	+497	522	593	569					
Pump setting	+453	+453	+453	+453					
Casing seat & T.D.	24" csg (71') set @								(413')
Specific Capacity									
Well or Intake # 29 Location				Elevation +693			(BIRR and Euclid)		
Gpm.	600	down	down	down					
Nonpumping Level	678								
Pumping Level	561								
Pump setting	503								
Casing seat & T.D.	24" csg. (63') set @								(430)
Specific Capacity									
Well or Intake # 30 Location				Elevation +658			(Crescent East of Ash		
Gpm.	850	825	963	961					
Nonpumping Level	+600	+594	+606	+608					
Pumping Level	+552	+551	+580	+580					
Pump setting	+438	+438	+438	+438					
Casing seat & T.D.	24" csg. (57') set @								(406')
Specific Capacity									
Well or Intake # 31 Location				Elevation					
Gpm.	Well	not in	use						
Nonpumping Level									
Pumping Level									
Pump setting									
Casing seat & T.D.									
Specific Capacity									
Well or Intake # 32 Location				Elevation +652			(Commonwealth Park		
Gpm.	800	1330	910	850					
Nonpumping Level	+75	+75	+117						
Pumping Level	+59	+57	+92						
Pump setting	-53	-53	-53	-53					
Casing seat & T.D.	20" csg (664') set @				Total depth -1245				(1897')
Specific Capacity									

SUMMARY OF MONITORING Chicago Heights PUBLIC WATER SUPPLY

PUMPING CAPACITY AND WATER LEVELS ---- SOURCES

Year		1978	1979	1980	1981	1982	1983	1984	1985	1986
Quarter										
Measurements as feet above sea level										
Well or Intake # 23 Location					Elevation +669 (SWc. Wilson Ave - 13th St.)					
Dolomite 1946										
Gpm.	1270	675	800	758	740					
Nonpumping Level	+635	+571	+599	+605	+599					
Pumping Level	+607	+533	+560	+574	+569					
Pump setting		+479	+479	+479	+479					
Casing seat & T.D.	24" csg. (78') set @ +591				Total depth +409					(260')
Specific Capacity	45.4	17.8	20.5	24.4	24.7					
Well or Intake # 24 Location 1160'S x 100'W NEc 28-35-14					Elevation +670					
Dolomite 1958										
Gpm.	435	290	260	240	230					
Nonpumping Level	+657	+591	+507	—	—					
Pumping Level	+509	+379	+341	+345	+331					
Pump setting		+321	+321	+321	+321					
Casing seat & T.D.	20" csg (67') set @ +603				Total depth +220					(450')
Specific Capacity	2.9		1.4							
Well or Intake #25 Location 4750'S x 2775'E NWc 19-35-14					Elevation +680				(14th St & Division)	
Dolomite 1958										
Gpm.	1800	750	950	688	706					
Nonpumping Level	+628	+615		+629	+631					
Pumping Level	+602	+535		+620	+608					
Pump setting		+490	+490	+490	+490					
Casing seat & T.D.	24" csg (81') set @ +599				Total depth +230'					(450')
Specific Capacity	69.2									
Well or Intake #26 Location					Elevation +687				(East Park Dist office)	
Gpm.		1300	1300	1290	1290					
Nonpumping Level		+617	+614	+613	—					
Pumping Level		+555	+550'	+563	567					
Pump setting		+507	+507	+507	+507					
Casing seat & T.D.	24" csg. (67') set @									(439)
Specific Capacity										
Well or Intake #27 Location					Elevation +650				(14th St and Edgewood)	
Gpm.		450	425	440	390					
Nonpumping Level		+615	+621	+606	+605					
Pumping Level		+566	+580	+570	+565					
Pump setting		+450	+450	+450	+450					
Casing seat & T.D.	24" csg (61') set @									(425')
Specific Capacity										

SUMMARY OF MONITORING *Chicago Heights* PUBLIC WATER SUPPLY

PUMPING CAPACITY AND WATER LEVELS ---- SOURCES

Year		1978	1979	1980	1981	1982	1983	1984	1985	1986
Quarter										

Measurements as feet above sea level

Well or Intake # 18 Location 100'N x 1600'E Swc 17-35-14 Elevation +653 (100'N of 10th ST. 330'E Campbell

Dolomite 1941

Gpm.	Artesian-200	900		1110	1010					
Nonpumping Level	+654	+606		+610	+607					
Pumping Level		+539		+581	+575					
Pump setting		+471	+471	+471	+471					
Casing seat & T.D.	26" csg. (55') set @ +598					Total depth +402				(251')
Specific Capacity		13.4		38.3	31.6					

Well or Intake # 19 Location 1300'S x 1200'E Nwc 29-35-14 Elevation +675 (North of RR. & 100' E. Thorn

Dolomite ?

Gpm.		Leased from the Elgin, Joliet & Eastern railroad								
Nonpumping Level		(may not be properly abandoned)								
Pumping Level										
Pump setting										
Casing seat & T.D.										
Specific Capacity										

Well or Intake # 20 Location 2420'S x 1025'E Nwc 21-35-14 Elevation +660' (14th ST. main station)

Dolomite 1982

Gpm.		Well was plugged back 1946								
Nonpumping Level		Retained as observation well.								
Pumping Level										
Pump setting										
Casing seat & T.D.	22" csg. (258') set @ +402					Total depth - 1134 - pb - +391				(1794')
Specific Capacity										

Well or Intake # 21 Location 100'N x 1515'E Swc 17-35-14 Elevation +652 (100'N 10th ST. 245'E Campbell Ar

Dolomite 1945

Gpm.	870	825			Down					
Nonpumping Level	+630	+590								
Pumping Level	+606	+558								
Pump setting		+502	+502	+502	+502					
Casing seat & T.D.	24" csg (58') set @ +594					Total depth +449				(203')
Specific Capacity	36.3	27.5								

Well or Intake # 22 Location 1400'N x 2600'W SEc 19-35-14 Elevation +675 (Inters - Division @ 16th st.

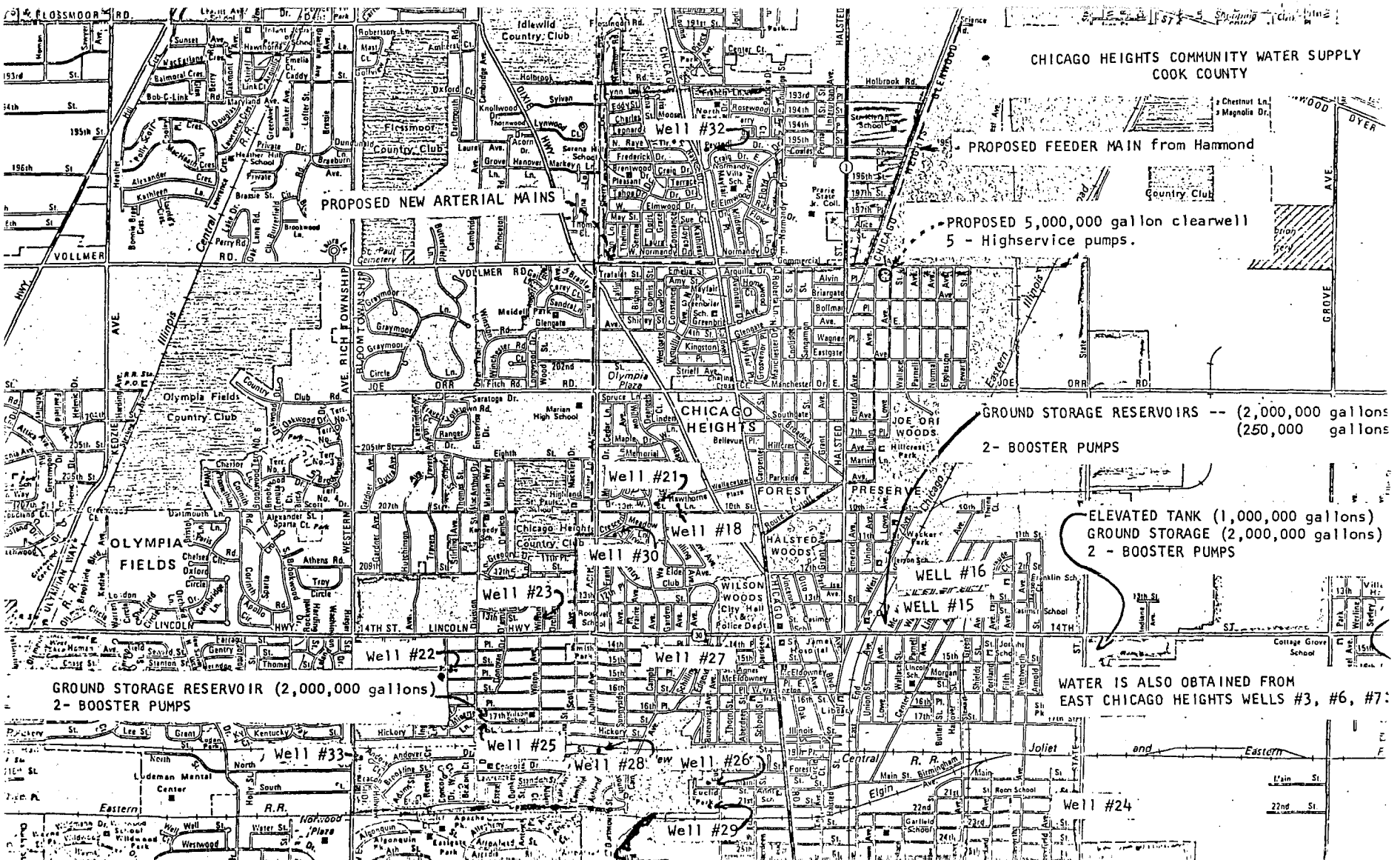
Sandstone 1946 D.O.

Gpm.	960				1080					
Nonpumping Level	+649									
Pumping Level	+628									
Pump setting										
Casing seat & T.D.	20" csg (700') set @					Total depth - 1125'				(1800')
Specific Capacity	45.7									

SUMMARY OF MONITORING Chicago Heights PUBLIC WATER SUPPLY

PUMPING CAPACITY AND WATER LEVELS ---- SOURCES

Year	1978	1979	1980	1981	1982	1983	1984	1985	1986
Quarter									
Well or Intake #1-10 Location 2500'S x 860'E NWC 21-35-14 / 66'S x 850'E NWC 21-35-14 — Measurements as feet above sea level — Elevation +657									
1894 Dolomite — Gpm.									
Nonpumping Level In 1894 Two (2) 34' deep pits were dug near the									
Pumping Level present main pumping station (14th and East End Ave)									
Pump setting Ten (10) wells were drilled in these pits.									
Casing seat & T.D. All except one well sealed in 1917 Total depth ?									
Specific Capacity									
Well or Intake #11-14 Location Main Pumping Station — Elevation +657									
1910 Dolomite — Gpm.									
Nonpumping Level +597 In 1910 4 additional wells (#11-#12-#13-#14) were									
Pumping Level drilled near the main pumping station									
Pump setting									
Casing seat & T.D. Total depth. +357 (300')									
Specific Capacity									
Well or Intake #15 Location 14th St. main Station — Elevation +657									
1915 Dolomite — Gpm.	1150	—	850	Down					
Nonpumping Level	+563	—	573	+573					
Pumping Level	+540	—	550	—					
Pump setting	+458	+458	+458	+458	+458				
Casing seat & T.D. 20" csg (104) Total depth (428')									
Specific Capacity	50		36.9						
Well or Intake #16 Location 14 ST main station — Elevation +657									
1921 Dolomite — Gpm.	1200		1163	1164					
Nonpumping Level +560	+608		548	528					
Pumping Level	+593		528	506					
Pump setting	+408	+408	+408	+408					
Casing seat & T.D. 20" csg (104 Total depth + (428)									
Specific Capacity	180		58.1	52.9					
Well or Intake #17 Location 600'S x 450'E NWC 28-35-14 — Elevation +677 (Cor. East End & main)									
1924 Sandstone — Gpm.	Well no longer in use								
Nonpumping Level									
Pumping Level									
Pump setting									
Casing seat & T.D. 22" csg (205') set @ +472 Total depth - 1155' (1884')									


CHICAGO HEIGHTS COMMUNITY WATER SUPPLY
COOK COUNTY
PROPOSED FEEDER MAIN from Hammond
PROPOSED NEW ARTERIAL MAINS
PROPOSED 5,000,000 gallon clearwell
5 - Highservice pumps.
GROUND STORAGE RESERVOIRS -- (2,000,000 gallons
(250,000 gallons
2- BOOSTER PUMPS
ELEVATED TANK (1,000,000 gallons)
GROUND STORAGE (2,000,000 gallons)
2 - BOOSTER PUMPS
WATER IS ALSO OBTAINED FROM
EAST CHICAGO HEIGHTS WELLS #3, #6, #7
GROUND STORAGE RESERVOIR (2,000,000 gallons)
2- BOOSTER PUMPS
Well #32
Well #21
Well #18
Well #30
Well #23
Well #22
Well #27
Well #16
WELL #15
Well #33
Well #25
Well #28
Well #26
Well #29
Well #24
CHICAGO HEIGHTS
OLYMPIA FIELDS
FOREST PRESERVE
HALSTED WOODS
WILSON WOODS
Olympia Fields Country Club
Flossmoor Country Club
Idlewild Country Club
Chicago Heights Country Club
Eastern R.R.
Joliet and Eastern
Central R.R.
Illinois
Chicago
Eastern Illinois
VOLLMER RD.
JOE ORR RD.
LINCOLN HWY
14TH ST.
HALSTED
GROVE AVE.
WESTERN AVE.
RICH TOWNSHIP
BLOOMTOWNSHIP
Marian High School
Prairie State Jr. Coll.
Cottage Grove School
Ludeman Mental Center

De Watered Latex Sludge.

DeSoto, Inc.

Des Plaines, Illinois 60018

Administrative and Research Center
INTER-OFFICE CORRESPONDENCE

TO: D. E. Wells

DATE: 11/22/76

DEPT.: Chicago Heights Plant

SUBJECT: SLUDGE ANALYSES BY INDEPENDENT LABORATORY

Enclosed are the results of the physical/chemical analyses performed on your treatment pond sludge samples by an independent testing laboratory. The mercury analyses were performed at the ARC and are as follows:

North Latex	0.00013 % Mercury
~~North Resin~~	~~0.00114 % Mercury~~
~~West Resin~~	~~0.00029 % Mercury~~
~~South Resin~~	~~0.00034 % Mercury~~

K.A Walanski

K. A. Walanski

plh
Enclosure
cc: J. J. Morrissey

CHICAGO - 3 2-693-6
PARK RIDGE - 312-696-2
TRACE ELEMENTS INC. 460 S. NORTHWEST HWY. – PARK RIDGE, ILLINOIS 600

November 22, 1976

LABORATORY REPORT #2455

Mr. Jerry Cooper
DeSoto, Inc.
1700 South Mt. Prospect
Des Plaines, Illinois 60018

PO # 001-44529

Samples received
November 16, 1976

	TEI-6279 NL	TEI-6172.02 NR	TEI-7172.03 WR	TEI-6172.04 SR
Total Solids A @100°C, %	73	72.9	67.2	34.4
Axh @500° C, %	49	27.4	52.7	16.9
Cadmium, %	< 0.000001	0.00011	0.00008	0.00004
Chromium, %	0.00039	0.0028	0.0024	0.0022
Lead, %	0.0011	0.0037	0.0037	0.0001
Nickel, %	0.00034	0.0009	0.0020	0.0007
Zinc, %	0.0020	0.0200	0.0120	0.0058
Titanium as TiO_2 %	27.9	3.40	0.68	0.69
Copper %	0.0014	0.0038	0.0019	0.0008

WELL #25

Capacity - 1500 GPM
Depth - 450 feet
Type of treatment - Chlorine, Tri-Lux, Acid
Location - Northeast corner - 17th and Division

WELL #26

Capacity - 1400 GPM
Depth - 439 feet
Raw water quality analysis - see Table 1-8
Type of treatment - Chlorine, Tri-Lux, Acid
East of Park District Office, on Main Street

WELL #27

Capacity - 500 GPM
Depth - 425 feet
Type of Treatment - Chlorine, Tri-Lux
Location - 14th Street East of Edgewood at creek

WELL #28

Capacity - 500 GPM
Depth - 200 feet
Type of treatment - Chlorine, Tri-Lux, Acid
Location - Northwest corner, Boston and Ashland

WELL #29

Capacity - 1500 GPM
Depth - 436 feet
Type of treatment - Chlorine, Tri-Lux, Acid
Location - EJ&E RR and Southwest corner Euclid Park

WELL #30

Capacity - 900 GPM
Depth - 406 feet
Type of treatment - Chlorine, Tri-Lux
Location - Crescent, East of Ashland

WELL #32

Capacity - 800 GPM
Depth - 1897 feet
Type of Treatment - Chlorine, Tri-Lux
Location - Commissioner's Park, Chicago Road and Vollmer Road

WELL #33

Capacity - 98 GPM
Depth - 450 feet
Type of treatment - Chlorine, Tri-Lux, Acid
Location - Beacon Hill Park, Western Avenue and Michigan Central RR

The City presently has four ground storage reservoirs. Capacity and location of each reservoir is shown in Table 5.

TABLE 5
GROUND STORAGE RESERVOIRS

Capacity	Location
2,000,000 gallons	137 E. 14th St.
180,000 gallons	137 E. 14th St.
2,000,000 gallons	14th & State
2,000,000 gallons	17th & Division

The total ground storage capacity is presently 6,180,000 gallons.

Located at each of the above mentioned sites is an associated pumping station. Water is pumped via wells to the ground storage reservoirs. As demand for water increases during periods of the day, water is drawn from the storage reservoirs to the pumping stations and into the system as needed. A schematic drawing of each pumping station/reservoir(s) combination is shown in Exhibits 2, 3 & 4. The 137 E. 14th St. pumping station is presently the Main Control Station. Also located at this pumping station are various shops, garages and offices.

A 1,000,000 gallon elevated tank is located adjacent to the pump station and ground reservoir at 14th St. & State St. This tank "floats" on the water system, receiving water when the demand (use) is low and discharging water when the demand is high. This is the only municipal elevated tank located in the water system.