



17-30N-03E  
AVERY TWP. (MONTMORENCY CO.)

TRENDWELL OIL CORP

MCMURPHY #1-17

GAS WELL  
TD 1046 FT. IN TRAVERSE LIMESTONE  
PERMIT NO. 47315

<u>SURFACE LOCATION:</u>	<u>QT</u>	<u>QT</u>	<u>QT</u>	<u>SEC</u>	<u>T</u>	<u>R</u>	<u>FT FROM</u>	<u>QT</u>	<u>SEC</u>	<u>LINES</u>
	SW	SE	NE	17	30N	03E	548	S	677	E

THIS WELL RECORD ASSEMBLY IS A COMPILATION OF WELL DATA FILED BY OR ON BEHALF OF THE OPERATOR, AS REQUIRED BY ACT 61, P.A. 1939, AS AMENDED; FORMATION TOPS AND STRATIGRAPHIC INTERVALS DETERMINED OR CONFIRMED WHERE POSSIBLE BY GEOLOGICAL SURVEY DIVISION PERSONNEL FROM MECHANICAL LOGS AND PRELIMINARY INFORMATION COLLECTED WHILE DRILLING WAS IN PROGRESS. RECORDS COMPILED BY R C ELOWSKI, GEOLOGIST.

ELEVATIONS: 898 KELLY BUSHING (DATUM), 897 RIG FLOOR, 893 GROUND

FORMATION TOPS AND STRATIGRAPHIC INTERVALS DETERMINED OR CONFIRMED BY GEOLOGICAL SURVEY PERSONNEL FROM SCHLUMBERGER DUAL INDUCTION-SFL/GAMMA RAY LOGS AND RECORDS FILED BY OPERATOR.

	MD		MD
PLEISTOCENE:		ANTRIM	461
GLACIAL DRIFT	355	ANTRIM DARK	694
MISSISSIPPIAN:		DEVONIAN:	
COLDWATER RED ROCK	355	TRAVERSE FORMATION	843
SUNBURY	363	TRAVERSE LIMESTONE	892
BEREA-BEDFORD	386		

THE FOLLOWING DOCUMENTS ARE REPRODUCTIONS OF OFFICIAL RECORDS SUBMITTED BY:  
ROBERT T BUTKA, ON BEHALF OF TRENDWELL OIL CORP

12/08/93

17-30N-03E  
AVERY TWP. (MONTMORENCY CO.)

TRENDWELL OIL CORP

JOONDEPH #1-17

GAS WELL  
TD 1103 FT. IN TRAVERSE LIMESTONE

PERMIT NO. 48196

SURFACE LOCATION:	QT	QT	QT	SEC	T	R	FT FROM QT	SEC	LINES
	SW	SE	SW	17	30N	03E	640 S	995	E

THIS WELL RECORD ASSEMBLY IS A COMPILATION OF WELL DATA FILED BY OR ON BEHALF OF THE OPERATOR, AS REQUIRED BY ACT 61, P.A. 1939, AS AMENDED; FORMATION TOPS AND STRATIGRAPHIC INTERVALS DETERMINED OR CONFIRMED WHERE POSSIBLE BY GEOLOGICAL SURVEY DIVISION PERSONNEL FROM MECHANICAL LOGS AND PRELIMINARY INFORMATION COLLECTED WHILE DRILLING WAS IN PROGRESS. RECORDS COMPILED BY R C ELOWSKI, GEOLOGIST.

ELEVATIONS: 900 KELLY BUSHING (DATUM), 899 RIG FLOOR, 894 GROUND

FORMATION TOPS AND STRATIGRAPHIC INTERVALS DETERMINED OR CONFIRMED BY GEOLOGICAL SURVEY PERSONNEL FROM SCHLUMBERGER DUAL INDUCTION-SFL/GAMMA RAY LOGS AND RECORDS FILED BY OPERATOR.

	MD		MD
PLEISTOCENE:		ANTRIM DARK	743
GLACIAL DRIFT	405	DEVONIAN:	
MISSISSIPPIAN:		TRAVERSE FORMATION	891
SUNBURY	405	TRAVERSE LIMESTONE	942
BEREA-BEDFORD	431		
ANTRIM	507		

THE FOLLOWING DOCUMENTS ARE REPRODUCTIONS OF OFFICIAL RECORDS SUBMITTED BY:  
DANIEL R MCGUIRE, ON BEHALF OF TRENDWELL OIL CORP

10/20/94

17-30N-03E  
AVERY TWP. (MONTMORENCY CO.)

TRENDWELL OIL CORP

HERSCHELMAN #1-17

GAS WELL  
TD 1108 FT. IN TRAVERSE LIMESTONE

PERMIT NO. 48198

SURFACE LOCATION:	QT	QT	QT	SEC	T	R	FT FROM QT	SEC	LINES
	SE	SE	SE	17	30N	03E	530 S	330	E

THIS WELL RECORD ASSEMBLY IS A COMPILATION OF WELL DATA FILED BY OR ON BEHALF OF THE OPERATOR, AS REQUIRED BY ACT 61, P.A. 1939, AS AMENDED; FORMATION TOPS AND STRATIGRAPHIC INTERVALS DETERMINED OR CONFIRMED WHERE POSSIBLE BY GEOLOGICAL SURVEY DIVISION PERSONNEL FROM MECHANICAL LOGS AND PRELIMINARY INFORMATION COLLECTED WHILE DRILLING WAS IN PROGRESS. RECORDS COMPILED BY R C ELOWSKI, GEOLOGIST.

ELEVATIONS: 926 KELLY BUSHING (DATUM), 925 RIG FLOOR, 920 GROUND

FORMATION TOPS AND STRATIGRAPHIC INTERVALS DETERMINED OR CONFIRMED BY GEOLOGICAL SURVEY PERSONNEL FROM SCHLUMBERGER DUAL INDUCTION-SFL/GAMMA RAY LOGS AND RECORDS FILED BY OPERATOR.

	MD	TVD		MD	TVD
PLEISTOCENE:			ANTRIM	524	
GLACIAL DRIFT	390		ANTRIM DARK	756	
MISSISSIPPIAN:			DEVONIAN:		
COLDWATER	390		TRAVERSE FORMATION	904	
COLDWATER RED ROCK	403		TRAVERSE LIMESTONE	954	
SUNBURY	427				
BEREA-BEDFORD	450				

THE FOLLOWING DOCUMENTS ARE REPRODUCTIONS OF OFFICIAL RECORDS SUBMITTED BY:  
DANIEL R MCGUIRE, ON BEHALF OF TRENDWELL OIL CORP

10/20/94







WATER WELL AND PUMP RECORD

PERMIT NUMBER

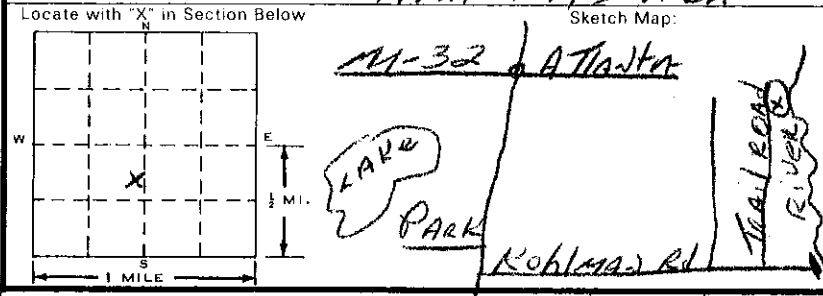
1 LOCATION OF WELL

County <i>Montmorency</i>	Township Name <i>Avery</i>	Fraction <i>SW 1/4 E 1/4 SE 1/4</i>	Section Number <i>17</i>	Town Number <i>30 (N/S)</i>	Range Number <i>3 (E/W)</i>
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Distance And Direction From Road Intersection  
*off Kohlman Rd - north side - TAKE TRAIL RD NORTH - ON West side of River*

Street Address & City of Well Location  
*Atlanta, Mich.*

3 OWNER OF WELL:  
*MR Andy Dieringer*  
Address *2815 E. SULLIVAN DRIVE Toledo, Ohio, 43613*  
Address Same As Well Location?  Yes  No



4 WELL DEPTH: *212 FT.* Date Completed *6/17/91*  
 New Well  Replacement Well

2 FORMATION DESCRIPTION

FORMATION DESCRIPTION	THICKNESS OF STRATUM	DEPTH TO BOTTOM OF STRATUM
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5  Cable tool  Rotary  Driven  Dug  
 Hollow rod  Auger  Jetted

*SAND & GRAVEL* 18 18

6 USE:  Domestic  Type I Public  Type III Public  
 Irrigation  Type IIa Public  Heat pump  
 Test Well  Type IIb Public

*CLAY, GRAVEL & STONES* 15 33

7 CASING:  Steel  Threaded  Height: *Above/Below*  
 Plastic  Welded Surface *1 1/2 ft.*  
*4* in. to *207* ft. depth Weight *11.00* lbs./ft.  
Ground/Drill Hole Diameter *6 1/2* in. to *25* ft. depth Drive Shoe  Yes  No

*SAND & GRAVEL* 25 58

8 SCREEN:  Not Installed  
Type *STAINLESS* Diameter *3*  
Slot/Gauge *7* Length *5 Feet*  
Set between *207* ft. and *212* ft.  
FITTINGS:  K-Packer  *Staple* Packer  Bremer Check *Johnson*  
 Blank above screen *3* ft. *3 1/2* Other *3 1/2 WASHDOWN*

*CLAY & GRAVEL / SAND* 14 8 206

9 STATIC WATER LEVEL: *76 GPM*  
ft. below land surface  Flow

*SAND & GRAVEL - BEARING* 6 0 212

10 PUMPING LEVEL: below land surface  
*75* ft. after *1 1/2* hrs. pumping at *15* G.P.M.  
ft. after \_\_\_\_\_ hrs. pumping at \_\_\_\_\_ G.P.M.

*RECEIVED*

11 WELL HEAD COMPLETION:  Pitless adapter  12" above grade  
 Basement offset  Approved pit

*RECEIVED*

12 WELL GROUTED?  No  Yes From *0* to *65* ft.  
 Neat cement  Bentonite  Other \_\_\_\_\_

*RECEIVED*

No. of bags of cement \_\_\_\_\_ Additives \_\_\_\_\_

*RECEIVED*

13 Nearest source of possible contamination  
Type *Septic* Distance *50* ft. Direction *NW*

*RECEIVED*

Well disinfected upon completion?  Yes  No  
Was old well plugged?  Yes  No

*RECEIVED*

14 PUMP:  Not Installed  Pump Installation Only  
Manufacturer's name *Red Jack + - Water bear*  
Model number *CN9BC* HP *1/2* Volts *230-2* Wires

*RECEIVED*

Length of Drop Pipe *100* ft. capacity *15* G.P.M.  
TYPE:  Submersible  Jet \_\_\_\_\_

*RECEIVED*

PRESSURE TANK:  
Manufacturer's name *WELLMATE*  
Model number *WM9* Capacity *30* Gallons

*RECEIVED*

16. WATER WELL CONTRACTOR'S CERTIFICATION:  
This well was drilled under my jurisdiction and this report is true to the best of my knowledge and belief.

15. Remarks, elevation, source of data, etc.

*MEL WELLS INC* 1619  
REGISTERED BUSINESS NAME REGISTRATION NO.  
Address *RT 1 Box 246-H Lewistown, MI*  
Signed *Russell Hehr* Date *8/7/91*  
AUTHORIZED REPRESENTATIVE

17. Rig Operator's Name:  
*Russell Hehr*

Authority: Act 368 PA 1978  
Completion: Required  
Penalty: Conviction of a violation of any provision is a misdemeanor.

**RECEIVED**  
AUG 12 1991  
DISTRICT HEALTH DEPT. NO. 4  
ATLANTA, MICHIGAN 49709

**RECEIVED**  
Mich. Dept. of Public Health  
AUG 21 1991

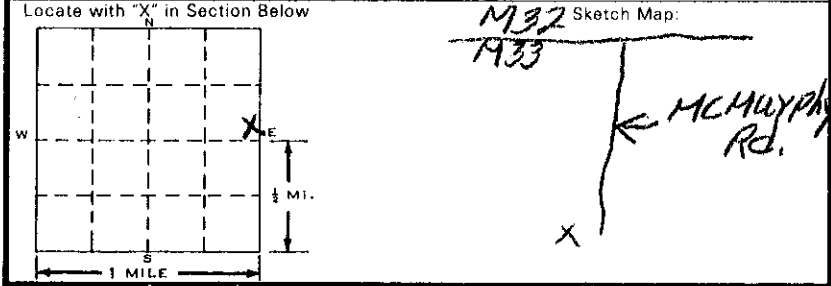
**WATER WELL AND PUMP RECORD**

PERMIT NUMBER

<b>1 LOCATION OF WELL</b>					
County <b>Montmorency</b>	Township Name <b>Avery</b>	Fraction <b>SE 1/4 SE 1/4 NE 1/4</b>	Section Number <b>17</b>	Town Number <b>30 N 1/2</b>	Range Number <b>3 E 1/2</b>

Distance And Direction From Road Intersection **M32-33 AND McMurphy Rd 1 mi. South Hole on west side of Rd.**

Street Address & City of Well Location



**3 OWNER OF WELL:** **Edwin E PARKER**

Address **R2 Box 102 ATLANTA Mich**

Address Same As Well Location?  Yes  No

**4 WELL DEPTH:** (completed) \_\_\_\_\_ ft. Date of Completion **June 12 - 1985**

**6 USE:**

<input type="checkbox"/> Cable tool	<input type="checkbox"/> Rotary	<input type="checkbox"/> Driven	<input type="checkbox"/> Dug
<input type="checkbox"/> Hollow rod	<input checked="" type="checkbox"/> Auger	<input type="checkbox"/> Jetted	<input type="checkbox"/>

Domestic  Type I Public  Type III Public  
 Irrigation  Type IIa Public  Heat pump  
 Test Well  Type IIb Public

**7 CASING:**

Diameter: <input type="checkbox"/> Steel <input type="checkbox"/> Threaded	Height: Above/Below
<input type="checkbox"/> Plastic <input type="checkbox"/> Welded	Surface _____ ft.
_____ in. to _____ ft. depth	Weight _____ lbs./ft.
_____ in. to _____ ft. depth	Drive Shoe <input type="checkbox"/> Yes <input type="checkbox"/> No
_____ in. to _____ ft. depth	
_____ in. to _____ ft. depth	

2 FORMATION DESCRIPTION	THICKNESS OF STRATUM	DEPTH TO BOTTOM OF STRATUM
Red clay & stones	30	30
SAND & CLAY MIX	10	40
SAND	2	42
CLAY GRAY HARD TO SOFT	78	120
ABANDON Hole		

**8 SCREEN:**  Not Installed

Type \_\_\_\_\_ Diameter \_\_\_\_\_

Slot/Gauze \_\_\_\_\_ Length \_\_\_\_\_

Set between \_\_\_\_\_ ft. and \_\_\_\_\_ ft.

**FITTINGS:**  K-Packer  Lead Packer  Bremer Check  
 Blank above screen \_\_\_\_\_ ft. Other \_\_\_\_\_

**9 STATIC WATER LEVEL:** \_\_\_\_\_ ft. below land surface  Flow

**10 PUMPING LEVEL:** below land surface

\_\_\_\_\_ ft. after \_\_\_\_\_ hrs. pumping at \_\_\_\_\_ G.P.M.  
 \_\_\_\_\_ ft. after \_\_\_\_\_ hrs. pumping at \_\_\_\_\_ G.P.M.

**11 WELL HEAD COMPLETION:**  Pitless adapter  12" above grade  
 Basement offset  Approved pit

**12 WELL GROUTED?**  No  Yes From \_\_\_\_\_ to \_\_\_\_\_ ft.

Next cement  Bentonite  Other

No. of bags of cement \_\_\_\_\_ Additives \_\_\_\_\_

BACK FILL  
NATURAL MATERIAL

**13 Nearest source of possible contamination**

Type \_\_\_\_\_ Distance \_\_\_\_\_ ft. Direction \_\_\_\_\_

Well disinfected upon completion?  Yes  No

**14 PUMP:**  Not Installed  Pump Installation Only

Manufacturer's name \_\_\_\_\_

Model number \_\_\_\_\_ HP \_\_\_\_\_ Volts \_\_\_\_\_

Length of Drop Pipe \_\_\_\_\_ ft. capacity \_\_\_\_\_ G.P.M.

TYPE:  Submersible  Jet

**PRESSURE TANK:**

Manufacturer's name \_\_\_\_\_

Model number \_\_\_\_\_ Capacity \_\_\_\_\_ Gallons

15. Remarks, elevation, source of data, etc.

RECEIVED  
Mich. Dept. of Public Health  
JUN 26 1985  
Bureau of Environmental and Occupational Health - GWS

**16. WATER WELL CONTRACTOR'S CERTIFICATION:**  
 This well was drilled under my jurisdiction and this report is true to the best of my knowledge and belief.

Kamen's Well Drilling 60-1845

REGISTERED BUSINESS NAME \_\_\_\_\_ REGISTRATION NO. \_\_\_\_\_

Address **R2 Box 1125 ATLANTA Mich**

Signed **Roy D. Kamen** Date **June 20 - 85**

AUTHORIZED REPRESENTATIVE



JUN 01 1979

WATER WELL RECORD  
ACT 294 PA 1965

MICHIGAN DEPARTMENT  
OF  
PUBLIC HEALTH

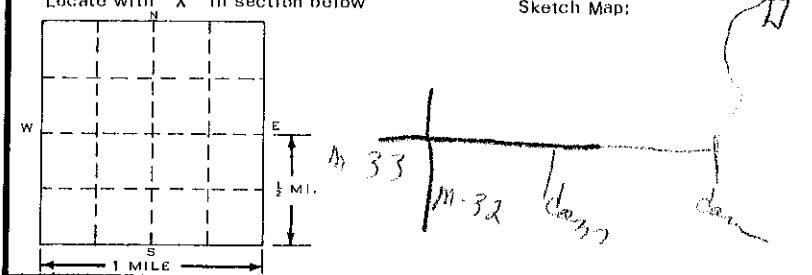


1 LOCATION OF WELL

County <i>Macomb</i>	Township Name <i>Albion</i>	Fraction $\frac{1}{4}$ $\frac{1}{4}$ $\frac{1}{4}$	Section Number <i>17</i>	Town Number <i>30 N</i>	Range Number <i>3 E</i>
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Distance And Direction from Road Intersections

Street address & City of Well Location



3 OWNER OF WELL:  
*M. Davis*  
Address  
*Attente*

4 WELL DEPTH: (completed) Date of Completion

ft.

5  Cable tool  Rotary  Driven  Dug  
 Hollow rod  Jetted  Bored

6 USE:  Domestic  Public Supply  Industry  
 Irrigation  Air Conditioning  Commercial  
 Test Well

7 CASING: Threaded  Welded   
 Diam. \_\_\_\_\_ Height: Above/Below  
 Surface \_\_\_\_\_ ft.  
 Weight \_\_\_\_\_ lbs./ft.  
 Drive Shoe? Yes  No

2 FORMATION

FORMATION	THICKNESS OF STRATUM	DEPTH TO BOTTOM OF STRATUM
<i>sand</i>	<i>6</i>	<i>6</i>
<i>clay &amp; sand</i>	<i>8</i>	<i>14</i>
<i>water</i>	<i>6</i>	<i>20</i>
<i>clay &amp; sand</i>	<i>15</i>	<i>35</i>
<i>sand fine</i>	<i>10</i>	<i>45</i>
<i>sand med</i>	<i>5</i>	<i>50</i>
<i>sand &amp; gravel</i>	<i>5</i>	<i>55</i>

8 SCREEN:  
 Type: *Johnson* Dia.: *1 1/4*  
 Slot/Gauge *10* Length *4*  
 Set between *54* ft. and *55* ft.  
 Fittings: *Standard*

9 STATIC WATER LEVEL  
 \_\_\_\_\_ ft. below land surface

10 PUMPING LEVEL below land surface  
 \_\_\_\_\_ ft. after \_\_\_\_\_ hrs. pumping \_\_\_\_\_ g.p.m.  
 \_\_\_\_\_ ft. after \_\_\_\_\_ hrs. pumping \_\_\_\_\_ g.p.m.

11 WATER QUALITY in Parts Per Million:  
 Iron (Fe) \_\_\_\_\_ Chlorides (Cl) \_\_\_\_\_  
 Hardness \_\_\_\_\_ Other \_\_\_\_\_

12 WELL HEAD COMPLETION:  In Approved Pit  
 Pitless Adapter  12" Above Grade

13 Well Grouted?  Yes  No  
 Neat Cement  Bentonite   
 Depth: From \_\_\_\_\_ ft. to \_\_\_\_\_ ft.

14 Nearest Source of possible contamination  
 \_\_\_\_\_ feet \_\_\_\_\_ Direction \_\_\_\_\_ Type  
 Well disinfected upon completion  Yes  No

15 PUMP:  
 Not installed  
 Manufacturer's Name *Barks*  
 Model Number *50VA* HP *1/2* Volts *115*  
 Length of Drop Pipe *36* ft. capacity *6* G.P.M.  
 Type:  Submersible  
 Jet  Reciprocating

16 Remarks, elevation, source of data, etc.

ADDED INFO BY DRILLER, ITEM NO.  
 \*CORRECTED BY *CB*  
 \*\*ADDITION BY  
 ELEVATION  
 DEPTH TO ROCK

17 WATER WELL CONTRACTOR'S CERTIFICATION:  
 This well was drilled under my jurisdiction and this report is true to the best of my knowledge and belief.  
*Bazem*  
 REGISTERED BUSINESS NAME REGISTRATION NO. *0825*  
 Address *Attente MI*  
 Signed *Bazem* Date \_\_\_\_\_  
 AUTHORIZED REPRESENTATIVE

JUL 24 1979

WATER WELL RECORD  
ACT 294 PA 1965

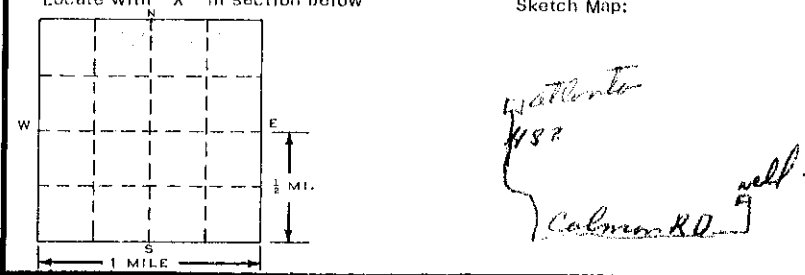
MICHIGAN DEPARTMENT  
OF  
PUBLIC HEALTH

1 LOCATION OF WELL

County <i>Macomb</i>	Township Name <i>Quincy</i>	Fraction <i>1/4</i>	Section Number <i>17</i>	Town Number <i>300</i>	Range Number <i>30</i>
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Distance And Direction from Road Intersections  
*1/2 miles off 487 on Calmon RD*

Street address & City of Well Location



3 OWNER OF WELL  
*John Mathias*

Address  
*5848 Barnes RD Brown City*

4 WELL DEPTH: (completed) Date of Completion  
*147' ft. June 15-1979*

5  Cable tool  Rotary  Driven  Dug  
 Hollow rod  Jetted  Bored  Log

6 USE:  Domestic  Public Supply  Industry  
 Irrigation  Air Conditioning  Commercial  
 Test Well

7 CASING: Threaded  Welded  Height:  Above  Below Surface *12'* ft.

*2"* in. to *143'* ft. Depth Weight *315* lbs./ft. Drive Shoe? Yes  No

2 FORMATION

FORMATION	THICKNESS OF STRATUM	DEPTH TO BOTTOM OF STRATUM
<i>0' Sand &amp; Cobble.</i>	<i>0'</i>	<i>60'</i>
<i>Fine Sand &amp; Clay.</i>	<i>60'</i>	<i>100'</i>
<i>Hard pan &amp; Gravel.</i>	<i>100'</i>	<i>130'</i>
<i>Coarse Sand &amp; Gravel.</i>	<i>130'</i>	<i>147'</i>

8 SCREEN *and west*  
Type *Stainless Steel* Dia. *1 1/4"*  
Slot/Gauze *129-80* Length *4'*  
Set between *143* ft. and *147* ft.  
Fittings: *1 1/4" x 2' tail with 1 1/4" Coupling*

9 STATIC WATER LEVEL  
*76'* ft. below land surface

10 PUMPING LEVEL below land surface  
*76'* ft. after *1/2* hrs. pumping *800* g.p.m.

11 WATER QUALITY in Parts Per Million:  
Iron (Fe) \_\_\_\_\_ Chlorides (Cl) \_\_\_\_\_  
Hardness \_\_\_\_\_ Other \_\_\_\_\_

12 WELL HEAD COMPLETION:  In Approved Pit  
 Pitless Adapter  *12"* Above Grade

13 Well Grouted?  Yes  No  
 Neat Cement  Bentonite   
Depth: From \_\_\_\_\_ ft. to \_\_\_\_\_ ft.

14 Nearest Source of possible contamination  
\_\_\_\_\_ feet \_\_\_\_\_ Direction \_\_\_\_\_ Type  
Well disinfected upon completion  Yes  No

15 PUMP:  
 Not installed

Manufacturer's Name \_\_\_\_\_  
Model Number \_\_\_\_\_ HP \_\_\_\_\_ Volts \_\_\_\_\_  
Length of Drop Pipe \_\_\_\_\_ ft. capacity \_\_\_\_\_ G.P.M.

Type:  Submersible  Jet  Reciprocating

16 Remarks, elevation, source of data, etc.

ADDED INFO BY DRILLER, ITEM NO.  
 \*CORRECTED BY  
 \*\*ADDITION BY  
 ELEVATION  
 DEPTH TO ROCK

17 WATER WELL CONTRACTOR'S CERTIFICATION:

This well was drilled under my jurisdiction and this report is true to the best of my knowledge and belief.

*C & G Well Drilling 1262*  
REGISTERED BUSINESS NAME REGISTRATION NO.

Address *Box 35 Comins Mich*  
Signed *Robert Green* Date *6-15-79*  
AUTHORIZED REPRESENTATIVE

OCT 12 1983

**WATER WELL RECORD**  
ACT 294 PA 1965

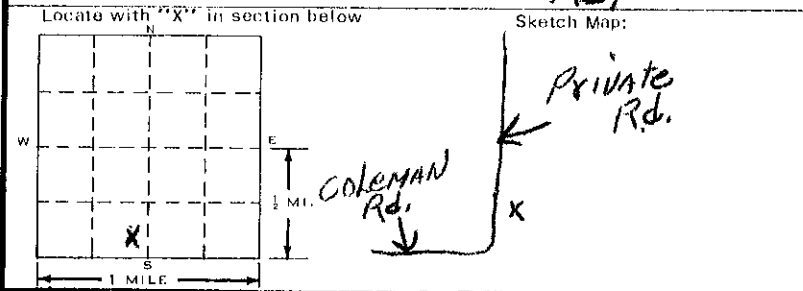
MICHIGAN DEPARTMENT OF PUBLIC HEALTH

**1 LOCATION OF WELL**

County <b>MONTMORENCY</b>	Township Name <b>AVERY</b>	Fraction <b>SE 1/4 SW 1/4</b>	Section Number <b>17</b>	Town Number <b>30 No.</b>	Range Number <b>3 E.M.</b>
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Distance And Direction from Road Intersections  
**Rd. EAST 2 1/2 Mi. Turn North Second PLACE ON EAST side OF Rd.**

**3 OWNER OF WELL:**  
Address **Bob Koch**  
**46000 Geddles Rd.**  
**CANTON, MI. 48188**



**4 WELL DEPTH:** (completed) Date of Completion  
**60 ft. 7-28-83**

**5**  Cable tool  Rotary  Driven  Dug  
 Hollow rod  Jetted  Bored

**6 USE:**  Domestic  Public Supply  Industry  
 Irrigation  Air Conditioning  Commercial  
 Test Well

**7 CASING:** Threaded  Welded   
Diam. \_\_\_\_\_ Height: Above/below Surface **1** ft.  
**2** in. to **56** ft. Depth Weight **37.5** lbs./ft.  
\_\_\_\_\_ in. to \_\_\_\_\_ ft. Depth **COUPLING**  No

**2 FORMATION**

FORMATION	THICKNESS OF STRATUM	DEPTH TO BOTTOM OF STRATUM
<b>SAND FILL</b>	<b>2</b>	<b>2</b>
<b>SAND + CLAY MIX</b>	<b>4</b>	<b>6</b>
<b>CLAY GRAY HARD + SOFT</b>	<b>48</b>	<b>54</b>
<b>FINE SAND Mixed with GRAVEL</b>	<b>6</b>	<b>60</b>

**8 SCREEN:**  
Type: **STAINLESS** Dia.: **1 1/4"**  
Slot/Gauze **80** Length **4'**  
Set between **56** ft. and **60** ft.  
Fittings: **2 FT PIPE WITH K PACKER**

**9 STATIC WATER LEVEL:**  
**Artesian**  
\_\_\_\_\_ ft. below land surface

**10 PUMPING LEVEL** below land surface  
**0** ft. after **1** hrs. pumping **10** g.p.m.  
\_\_\_\_\_ ft. after \_\_\_\_\_ hrs. pumping \_\_\_\_\_ g.p.m.

**11 WATER QUALITY** in Parts Per Million:  
Iron (Fe) \_\_\_\_\_ Chlorides (Cl) \_\_\_\_\_  
Hardness \_\_\_\_\_ Other \_\_\_\_\_

**Well Flowing 1 1/2 Gal. Per Min.**

**12 WELL HEAD COMPLETION:**  In Approved Pit  
 Pitless Adapter  12" Above Grade

**13 Well Grouted?**  Yes  No  
 Neat Cement  Bentonite **BACK WASH NATURAL MATERIAL**  
Depth: From **0** ft. to **35** ft.

**14 Nearest Source** of possible contamination  
**65** feet **N** Direction **SEPTIC TANK** Type  
Well disinfected upon completion  Yes  No

**15 PUMP:**  Not installed  
Manufacturer's Name **F+W**  
Model Number **CPJ07** HP **3/4** Volts **220**  
Length of Drop Pipe **40** ft. capacity **6** G.P.M.  
Type:  Submersible  Jet  Reciprocating

**RECEIVED**  
Mich. Dept. of Public Health  
**AUG 24 1983**

**16 Remarks, elevation, source of data, etc.**  
Environmental and Health Services Administration  
ADDED INFO BY DRILLER, ITEM NO.  
\*CORRECTED BY  
\*\*ADDITION BY  
ELEVATION  
DEPTH TO ROCK

**17 WATER WELL CONTRACTOR'S CERTIFICATION:**  
This well was drilled under my jurisdiction and this report is true to the best of my knowledge and belief.  
**Kamen's Well Drilling 1845**  
REGISTERED BUSINESS NAME REGISTRATION NO.  
Address **P.O. Box 108 Atlanta, Mich.**  
Signed **Roy D. Kamen** Date **8-21-83**  
AUTHORIZED REPRESENTATIVE

**DEQ MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY**  
**DRINKING WATER & RADIOLOGICAL PROTECTION DIVISION**  
**WATER WELL AND PUMP RECORD**

TAX NO:  
**002-055-000-001-00**

PERMIT NO:  
**0417**

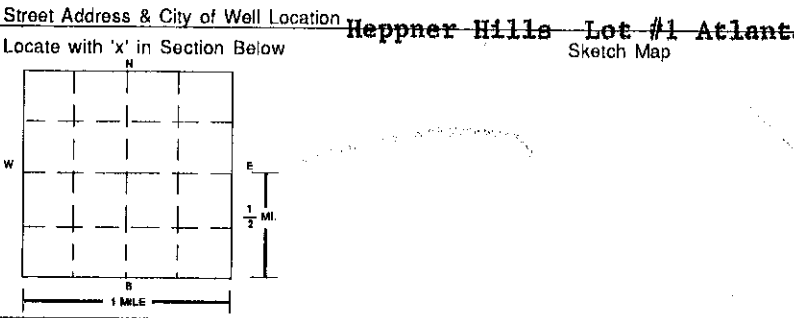
Completion is required under authority of Part 127 Act 368 PA 1978  
 Failure to comply is a misdemeanor

1. LOCATION OF WELL  
 County **Montmorency**

Township Name **Avery** Fraction **1/4 1/4 1/4** Section No. **17** Town No. **30** Range No. **3**

Distance and Direction from Road Intersection  
 Street Address & City of Well Location **Hepner Hills Lot #1 Atlanta**

3. OWNER OF WELL **Clinton Smith**  
 Address **5891 Dixie Hwy Clarkston, MI 48346**  
 Address Same as Well Location  Yes  No



4. WELL DEPTH: **79** ft. Date Completed **7/28/98**  
 New Well  
 Replacement Well

5.  Cable Tool  Rotary  Driven  Dug  
 Hollow Rod  Auger/Bored  Jetted

6. USE:  Household  Type I Public  Type III Public  
 Irrigation  Type IIa Public  Heat Pump  
 Test Well  Type IIb Public

7. CASING:  Steel  Threaded  Plastic  Welded  
 Other  
 Diameter: **4** in. to **75** ft. depth  
 Weight: **10.79** lbs./ft.  
 BORE HOLE:  Drive Shoe  Shale Packer  
 Diameter: **10** in. to **79** ft. depth

2. FORMATION DESCRIPTION	THICKNESS OF STRATUM	DEPTH TO BOTTOM OF STRATUM
<b>Hard packed Gravel, clay &amp; rocks</b>		<b>13</b>
<b>dry sand</b>	<b>7</b>	<b>20</b>
<b>Red clay, Gravelly, small</b>	<b>4</b>	<b>24</b>
<b>dry Gravel</b>	<b>16</b>	<b>40</b>
<b>Red clay, sand &amp; gravel</b>	<b>19</b>	<b>59</b>
<b>water bearing 7#10 slot sand</b>	<b>20</b>	<b>79</b>

8. SCREEN:  Not Installed  Gravel-Packed  
 Type **S.S. Johnson** Diameter **3"**  
 Slot/Gauze **156t** Length: **4'**  
 Set Between **75** ft. and **79** ft.  
 FITTINGS:  K-Packer  Bremer Check  
 Blank Above Screen **1** ft. Other **plug**

9. STATIC WATER LEVEL: **40** ft. Below Land Surface  Flowing

10. PUMPING LEVEL: Below Land Surface  
**52** ft. After **2** hrs. Pumping at **8** G.P.M.  
 Plunger  Bailor  Air  Test Pump

11. WELL HEAD COMPLETION:  
 Pitless Adapter  12" Above Grade  
 Basement Offset  Well House

12. WELL GROUTED?  No  Yes From **1** to **79** ft.  
 Neat Cement  Bentonite  Other  
 No. of Bags **1** Additives **#8**

13. NEAREST SOURCE OF POSSIBLE CONTAMINATION:  
 Type **Septic** Distance **54** ft. Direction **N**  
 Type \_\_\_\_\_ Distance \_\_\_\_\_ ft. Direction \_\_\_\_\_

15. ABANDONED WELL PLUGGED?  Yes  No  
 Casing Diameter \_\_\_\_\_ in. Depth \_\_\_\_\_ ft.  
 PLUGGING MATERIAL:  Neat Cement  Bentonite Slurry  
 Cement/Bentonite Slurry  Concrete Grout  Bentonite Chips  
 No. of Bags \_\_\_\_\_ Casing Removed?  Yes  No

14. PUMP:  Not Installed  Pump Installation Only  
 Manufacturer's Name **myers**  
 Model Number **NFL-52-12** HP **1/2** Volts **230**  
 Length of Drop Pipe **65** ft. Capacity **12** G.P.M.  
 TYPE:  Submersible  Jet  Other  
 PRESSURE TANK:  
 Manufacturer's Name **well-rite**  
 Model Number **WR-60-02** Capacity **62** Gallons

16. REMARKS: (Elevation, Source of Data, etc.)

18. WATER WELL CONTRACTOR'S CERTIFICATION:  
 This well was drilled under my jurisdiction and this report is true to the best of my knowledge and belief.  
**PJ Miller & son well drilling inc. 60-21-63**  
 REGISTERED BUSINESS NAME REGISTRATION NO.  
 Address **20885 M-32 PO Box 153 Hillman MI 49746**  
 Signed **PJ Miller Jr.** Date **8-15-98**  
 AUTHORIZED REPRESENTATIVE

17. DRILLING MACHINE OPERATOR:  
 Employee  Subcontractor  
 Name **PJ Miller Sr**

**WATER WELL AND PUMP RECORD**

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PERMIT NUMBER

<b>1 LOCATION OF WELL</b>		
County <b>MONTMORENCY</b>	Township Name <b>AVERY</b>	Fraction <b>SE 1/4 SW 1/4 SW 1/4</b>
Distance And Direction From Road Intersection <b>1 1/2 MI TO COLEMAN RD EAST 1 1/4 MI. WELL ON NORTH SIDE OF RD.</b>		Section Number <b>17</b>
Street Address & City of Well Location		Town Number <b>30 N18</b>
Locate with "X" in Section Below		Range Number <b>3 E18</b>
		Sketch Map: <b>COLEMAN Rd. ↓</b>
<b>3 OWNER OF WELL: RON BRETZ</b>		
Address <b>23709 N. KEYSTONE MT. CLEMENS, MICH. 48043</b>		
Address Same As Well Location? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		
<b>4 WELL DEPTH: (completed) 61 ft.</b>		Date of Completion <b>5-19-87</b>
<b>5</b> <input type="checkbox"/> Cable tool <input type="checkbox"/> Rotary <input type="checkbox"/> Driven <input type="checkbox"/> Dug <input type="checkbox"/> Hollow rod <input checked="" type="checkbox"/> Auger <input type="checkbox"/> Jetted <input type="checkbox"/>		
<b>6 USE:</b> <input checked="" type="checkbox"/> Domestic <input type="checkbox"/> Type I Public <input type="checkbox"/> Type III Public <input type="checkbox"/> Irrigation <input type="checkbox"/> Type IIa Public <input type="checkbox"/> Heat pump <input type="checkbox"/> Test Well <input type="checkbox"/> Type IIb Public <input type="checkbox"/>		
<b>7 CASING:</b>		Height: Above/Below
Diameter: <input checked="" type="checkbox"/> Steel <input checked="" type="checkbox"/> Threaded <input type="checkbox"/> Plastic <input type="checkbox"/> Welded		Surface <b>1</b> ft.
_____ in. to _____ ft. depth		Weight <b>3,175</b> lbs./ft.
Grouded Drill Hole Diameter		Drive Shoe <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
_____ in. to _____ ft. depth		
_____ in. to _____ ft. depth		
<b>8 SCREEN:</b> <input type="checkbox"/> Not Installed		
Type <b>STAINLESS</b> Diameter <b>1 1/2"</b>		
Slot/Screen <b>10</b> Length <b>4'</b>		
Set between <b>57</b> ft. and <b>61</b> ft.		
FITTINGS: <input checked="" type="checkbox"/> K-Packer <input type="checkbox"/> Lead Packer <input checked="" type="checkbox"/> Bremer Check		
<input checked="" type="checkbox"/> Blank above screen <b>1</b> ft. Other _____		
<b>9 STATIC WATER LEVEL:</b> <b>49</b> ft. below land surface <input type="checkbox"/> Flow		
<b>10 PUMPING LEVEL:</b> below land surface		
<b>49</b> ft. after <b>1/2</b> hrs. pumping at <b>10</b> G.P.M.		
_____ ft. after _____ hrs. pumping at _____ G.P.M.		
<b>11 WELL HEAD COMPLETION:</b> <input type="checkbox"/> Pitless adapter <input checked="" type="checkbox"/> 12" above grade		
<input type="checkbox"/> Basement offset <input type="checkbox"/> Approved pit		
<b>12 WELL GROUDED?</b> <input type="checkbox"/> No <input checked="" type="checkbox"/> Yes From <b>0</b> to <b>50</b> ft.		
<input type="checkbox"/> Neat cement <input type="checkbox"/> Bentonite <input type="checkbox"/> Other <b>BACK WASH NATURAL MATERIAL</b>		
No. of bags of cement _____ Additives _____		
<b>13 Nearest source of possible contamination</b>		
Type <b>septic</b> Distance <b>50'</b> Direction <b>N</b>		
Well disinfected upon completion? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		
<b>14 PUMP:</b> <input checked="" type="checkbox"/> Not Installed <input type="checkbox"/> Pump Installation Only		
Manufacturer's name _____		
Model number _____ HP _____ Volts _____		
Length of Drop Pipe _____ ft. capacity _____ G.P.M.		
TYPE: <input type="checkbox"/> Submersible <input type="checkbox"/> Jet _____		
PRESSURE TANK: Manufacturer's name _____		
Model number _____ Capacity _____ Gallons		
<b>15. Remarks, elevation, source of data, etc.</b>		<b>16. WATER WELL CONTRACTOR'S CERTIFICATION:</b>
<p style="text-align: center;">RECEIVED Mich. Dept. of Public Health  JUN 03 1987  Bureau of Environmental and Occupational Health - EWOS  USE A 2ND SHEET IF NEEDED</p>		This well was drilled under my jurisdiction and this report is true to the best of my knowledge and belief.
		<b>KAMEN'S WELL DRILLING 1845</b>
		REGISTERED BUSINESS NAME <span style="float: right;">REGISTRATION NO.</span>
		Address <b>ATLANTA Mich</b>
		Signed <b>Roy D. Kamen</b> Date <b>5-29-87</b>
		AUTHORIZED REPRESENTATIVE

the lands, premises and property situated in the TOWNSHIP OF AVERY 17 T30N/R3W

County of MONTMORENCY and State of Michigan, described as follows, to-wit:

BEGINNING AT AN IRON PIPE SET IN THE EARTH, BEING NORTH ALONG SECTION 1/8 LINE 429.11 FEET TO AN IRON PIPE THENCE EAST PARALLEL WITH SECTION 1/2 LINE 249.63 FEET TO AN IRON PIPE, THENCE NORTH 4 DEGREES 47 MINUTES WEST 220 FEET FROM THE SOUTHEAST CORNER OF THE SOUTHWEST QUARTER OF THE NORTHWEST QUARTER OF SECTION 17, TOWN 30 NORTH, RANGE 3 EAST, AVERY TOWNSHIP, MONTMORENCY COUNTY, MICHIGAN, FROM SAID POINT OF BEGINNING NORTH 4 DEGREES 47 MINUTES WEST 392.04 FEET TO AN IRON PIPE SET ON THE BANK OF THUNDER BAY RIVER, AND CONTINUING TO THE CENTERLINE OF MEAN ANNUAL FLOW THEREOF, THENCE RIGHT ALONG SAID CENTERLINE 1185 FEET MORE OR LESS TO THE SOUTHERLY LOT LINE EXTENDED, THENCE SOUTH 63 DEGREES 26 MINUTES WEST TO AN IRON PIPE SET ON THE BANK OF SAID RIVER AND CONTINUING 203.65 FEET TO THE POINT OF BEGINNING. THE BOUNDARY HEREIN DELINEATED ENCOMPASSES 3 ACRES OF LAND, MORE OR LESS.

*This is the kind of descriptions we get here in the north. How am I supposed to figure this out.*

Together with the hereditaments and appurtenances thereof.

NOV 08 1973

WATER WELL RECORD

ACT 294 PA 1965

MICHIGAN DEPARTMENT OF PUBLIC HEALTH

1 LOCATION OF WELL

County Montgomery Twp. Prichard Aveny Fraction 1/4 Section No. 17 Town 30 N/S. 3 E/W.

Distance And Direction from Road Intersections  
off Kohlman Rd on Thunder Boy in Heppner Sub. No Street Names.  
 Street address & City of Well Location.

OWNER No. \_\_\_\_\_

3 OWNER OF WELL: Robert Huenzel  
 Address 19751 E. Kings et. Grass Pointe Woods.

2 FORMATION	THICKNESS OF STRATUM	DEPTH TO BOTTOM OF STRATUM
<u>sand</u>	<u>12 ft</u>	<u>12 ft</u>
<u>clay</u>	<u>6 ft</u>	<u>18 ft</u>
<u>Water sand</u>	<u>3 ft</u>	<u>21 ft</u>
<u>Hard pan</u>	<u>7 ft</u>	<u>98 ft</u>
<u>sand</u>	<u>8 ft</u>	<u>106 ft</u>
<u>Blue clay</u>	<u>6 ft</u>	<u>168 ft</u>
<u>sand &amp; gravel (Water slow)</u>	<u>4 ft</u>	<u>172 ft</u>
<u>5 gal a min.</u>		

4 WELL DEPTH: (completed) 170 ft. Date of Completion 6/6/72

5  Cable tool  Rotary  Driven  Dug  
 Hollow rod  Jetted  Bored

6 USE:  Domestic  Public Supply  Industry  
 Irrigation  Air Conditioning  Commercial  
 Test Well

7 CASING: Threaded  Welded   
 Digm. 4 in. to 168 ft. Depth Height: Above/Below surface \_\_\_\_\_ ft.  
 \_\_\_\_\_ in. to \_\_\_\_\_ ft. Depth Weight \_\_\_\_\_ lbs./ft. Drive Shoe? Yes  No

8 SCREEN: Type: Stainless Steel Dia.: 3 in  
 Slot/Groze 12 Length 4 ft  
 Set between 168 ft. and 172 ft.  
 Fittings: 18 in nip & K packer

9 STATIC WATER LEVEL Flowing slow  
 \_\_\_\_\_ ft. below land surface

10 PUMPING LEVEL below land surface  
120 ft. after 4 hrs. pumping 5 g.p.m.  
 \_\_\_\_\_ ft. after 4 hrs. pumping 5 g.p.m.

11 WATER QUALITY in Parts Per Million:  
 Iron (Fe) \_\_\_\_\_ Chlorides (Cl) \_\_\_\_\_  
 Hardness \_\_\_\_\_

12 WELL HEAD COMPLETION:  In Approved Pit  
 Pitless Adapter  12" Above Grade

13 GROUTING: Well Grouted?  Yes  No  
 Material:  Neat Cement  \_\_\_\_\_  
 Depth: From \_\_\_\_\_ ft. to \_\_\_\_\_ ft.

14 SANITARY: Nearest Source of possible contamination  
 \_\_\_\_\_ feet \_\_\_\_\_ Direction \_\_\_\_\_ Type  
 Well disinfected upon completion  Yes  No

15 PUMP: Manufacturer's Name \_\_\_\_\_  
 Model Number \_\_\_\_\_ HP  
 Length of Drop Pipe \_\_\_\_\_ ft. capacity \_\_\_\_\_ G.P.M.  
 Type:  Submersible  \_\_\_\_\_  
 Jet  Reciprocating

16 Remarks, elevation, source of data, etc.  
 ADDED INFO. BY DRILLER, ITEM NO.  
 CORRECTED BY:  
 CONDITION BY:

17 WATER WELL CONTRACTOR'S CERTIFICATION:  
 This well was drilled under my jurisdiction and this report is true to the best of my knowledge and belief.  
[Signature] 0074  
 REGISTERED BUSINESS NAME REGISTRATION NO.  
 Address \_\_\_\_\_  
 Signed \_\_\_\_\_ Date \_\_\_\_\_  
 AUTHORIZED REPRESENTATIVE

2

APR 6 1966

1 LOCATION OF WELL

County Macomb Twp. Avery Fraction NE 1/4 Section No. 17 Township 30 N. Range 3 E.

Distance And Direction from Road Intersections 1/2 mi. W. of rd. Norman St.

Street address & City of Well Location OWNER No.

2 FORMATION	THICKNESS OF STRATUM	DEPTH TO BOTTOM OF STRATUM
Yellow Sand	14 ft	14 ft
clay	24 ft	40 ft
light sand	18 ft	58 ft
fine clay sand	27 ft	85 ft
sand & clay	20 ft	105 ft
sand	5 ft	110 ft
gravel	103 ft	118 ft

3 OWNER OF WELL: B. A. Bongi  
Address 78 Ford St. Dearborn Mich

4 WELL DEPTH: (completed) 104 ft. Date of Completion 4/24/66

5  Cable tool  Rotary  Driven  Dig  
 Hollow rod  Jetted  Bored

6 USE:  Domestic  Public Supply  Industry  
 Irrigation  Air Conditioning  Commercial  
 Test Well

7 CASING: Diam. 4 in. to 110 ft. Depth  Threaded  Welded  Height: Above/Below surface \_\_\_\_\_ ft. Weight \_\_\_\_\_ lbs./ft. Drive Shoe? Yes  No

8 SCREEN: Type Starline Tub Dia. 3 in. Slot 12 Length 4 ft. Set between 106 ft. and 108 ft. Fittings: 1 1/2 in. Nip. K-Pack

9 STATIC WATER LEVEL \_\_\_\_\_ ft. below land surface

10 PUMPING LEVEL: below land surface \_\_\_\_\_ ft. after \_\_\_\_\_ hrs. pumping 7 p.m. \_\_\_\_\_ ft. after \_\_\_\_\_ hrs. pumping \_\_\_\_\_ p.m.

11 WATER QUALITY in Parts Per Million: Iron (Fe) \_\_\_\_\_ Chlorides (Cl) \_\_\_\_\_ Hardness \_\_\_\_\_

12 WELL HEAD COMPLETION:  In Approved Pit  Pitless Adapter  12" Above Grade

13 GROUTING: Well Grouted?  Yes  No Material:  Neat Cement \_\_\_\_\_ Depth: From \_\_\_\_\_ ft. to \_\_\_\_\_ ft.

14 SANITARY: Nearest Source of possible contamination 50 feet W Direction Syston Type \_\_\_\_\_ Well disinfected upon completion  Yes  No

15 PUMP: Manufacturer's Name \_\_\_\_\_ Model Number \_\_\_\_\_ HP \_\_\_\_\_ Length of Drop Pipe \_\_\_\_\_ ft. capacity \_\_\_\_\_ G.P.M. Type:  Submersible  Jet  Reciprocating

16 Remarks, elevation, source of data, etc.

APPROVED BY [Signature]

DATE 4/24/66

17 WATER WELL CONTRACTOR'S CERTIFICATION: This well was drilled under my jurisdiction and this report is true to the best of my knowledge and belief.

[Signature] REGISTERED BUSINESS NAME 0074 REGISTRATION NO.

Address Box 115 Dearborn Mich

Signed \_\_\_\_\_ Date \_\_\_\_\_ AUTHORIZED REPRESENTATIVE

Geological Survey