

TAX NO:

45-008-810-011

MICHIGAN DEPARTMENT OF PUBLIC HEALTH
WATER WELL AND PUMP RECORD

PERMIT NO:

3008

1. LOCATION OF WELL

County

Leelanau

Township Name

Leelanau

Fraction

SE 1/4 NW 1/4 SE 1/4

Section No.

25

Town No.

31W

Range No.

11W

Distance and Direction from Road Intersection

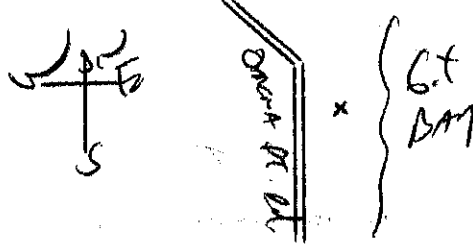
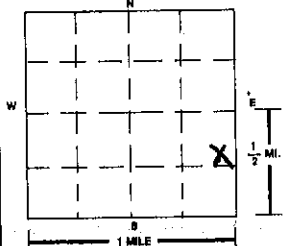
Singing Sands Lot # 14

Street Address & City of Well Location

Omena Pt Rd

Locate with 'x' in Section Below

Sketch Map



3. OWNER OF WELL

Address

Curtis Wolina
12447 JAINA DR
60AND HAVEN, MI 49417

Address Same as Well Location

☐ Yes ☐ No

4. WELL DEPTH:

Date Completed

31

ft.

11 / 25 / 96

☒ New Well☐ Replacement Well5. ☐ Cable Tool☐ Hollow Rod☒ Rotary☒ Auger/Bored☐ Driven☐ Jetted☐ Dug

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

Height: Above/Below

Surface: 1 ft

Diameter: 5 in. to 25 ft. depth

in. to 25 ft. depth

Weight: SDR21 lbs./ft.

BORE HOLE:

Diameter: 7-7/8 in. to 20 ft. depth

in. to 20 ft. depth

☐ Drive Shoe☐ Shale Packer

8. SCREEN:

☐ Not Installed☒ Gravel-Packed

Type PVC

Diameter 4"

Slot/Gauze #12

Length: 8'

Set Between 25 ft. and 31 ft.

FITTINGS: ☒ K-Packer☐ Bremer Check☐ Blank Above Screen

ft. Other

9. STATIC WATER LEVEL:

1 ft. Below Land Surface

ft. Below Land Surface

☐ Flowing

10. PUMPING LEVEL: Below Land Surface

ft. After

hrs. Pumping at

G.P.M.

☐ Plunger☐ Bailer☐ Air☐ Test Pump

11. WELL HEAD COMPLETION:

☒ Pitless Adapter☐ 12" Above Grade☒ Basement Offset☐ Well House

12. WELL GROUTED?

☐ No☒ Yes

From 0 to 20 ft.

☐ Neat Cement☐ Bentonite☒ Other

Volclay

No. of Bags 3

Additives

13. NEAREST SOURCE OF POSSIBLE CONTAMINATION:

Type Septic

Distance 50+

ft. Direction E

Type

Distance

ft. Direction

USE A 2ND SHEET IF NEEDED

15. ABANDONED WELL PLUGGED?

☐ Yes ☐ No

Casing Diameter in.

Depth ft.

PLUGGING MATERIAL:

☐ Cement/Bentonite Slurry☐ Neat Cement☐ Bentonite Slurry☐ Concrete Grout☐ Bentonite Chips

No. of Bags

Casing Removed?

☐ Yes ☐ No

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

17. DRILLING MACHINE OPERATOR:

☒ Employee ☐ Subcontractor

Name Robert J. Bufka

15. 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.

B & Z Well Drilling Co.

REGISTERED BUSINESS NAME

Address 233 E. Kasson Rd., Maple City, MI 49664

Signed Mal W. Zith

AUTHORIZED REPRESENTATIVE

Date 11-26-96

Authority: Act 368 PA 1978

Completion: Required

Penalty: Conviction of a violation of any provision is a misdemeanor.

GEOLOGICAL SURVEY COPY

TAX NO:

45-008-810-001

MICHIGAN DEPARTMENT OF PUBLIC HEALTH
WATER WELL AND PUMP RECORD

PERMIT NO:

2769

1. LOCATION OF WELL

County

Township Name

Fraction

Section No.

Town No.

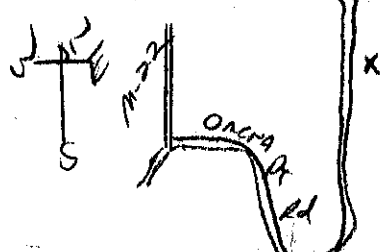
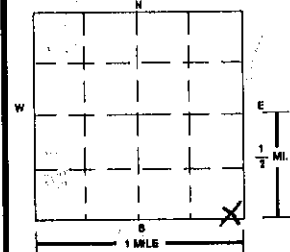
Range No.

Distance and Direction from Road Intersection

Street Address & City of Well Location

Locate with 'x' in Section Below

Sketch Map



2. FORMATION DESCRIPTION

THICKNESS
OF
STRATUMDEPTH TO
BOTTOM OF
STRATUM

Topsoil

1

1

Stones - Sand

3

4

Clay - Sand - Stones

11

15

Sand - Clay

27

42

Sand - Stones - Clay

10

52

Clay on bottom

+

3. OWNER OF WELL

Address

John Smart
c/o Norm Morgan
PO Box 335
Northport, MIAddress Same as Well Location ☐ Yes ☒ No

4. WELL DEPTH:

Date Completed

☒ New Well☐ Replacement Well

52 ft.

10/2/96

5. ☒ Cable Tool☐ Rotary☐ Driven☐ Dug☐ Hollow Rod☐ Auger/Bored☐ Jetted6. USE: ☒ Household☐ Type I Public☐ Type III Public☐ Irrigation☐ Type IIa Public☐ Heat Pump☐ Test Well☐ Type IIb Public7. CASING: ☒ Steel☐ Threaded☐ Plastic☒ Welded☐ OtherHeight: Above/Below
Surface: 1 XXX

Diameter

in. to ft. depth

Weight: 18.5 lbs./ft.6 in. to 52 ft. depth

BORE HOLE:

Diameter

in. to ft. depth

☒ Drive Shoe☐ Shale Packer8 3/4 in. to 42 ft. depth6 in. to 52 ft. depth8. SCREEN: ☒ Not Installed☐ Gravel-Packed

Type

Diameter

Slot/Gauze

Length:

Set Between

ft. and

FITTINGS: ☐ K-Packer☐ Bremer Check☐ Blank Above Screen

ft. Other

9. STATIC WATER LEVEL:

0 ft. Below Land Surface☐ Flowing

10. PUMPING LEVEL: Below Land Surface

ft. After

hrs. Pumping at

G.P.M.

☐ Plunger☐ Bailor☐ Air☐ Test Pump

11. WELL HEAD COMPLETION:

☒ Pitless Adapter☐ 12" Above Grade☐ Basement Offset☐ Well House12. WELL GROUTED? ☐ No ☒ Yes

From

to

ft.

☐ Neat Cement☒ Bentonite☐ Other

No. of Bags

Additives

13. NEAREST SOURCE OF POSSIBLE CONTAMINATION:

Type septic

Distance

ft.

Direction SE

Type

Distance

ft.

Direction

USE A 2ND SHEET IF NEEDED

15. ABANDONED WELL PLUGGED? ☐ Yes ☐ No

Casing Diameter

in.

Depth

ft.

PLUGGING MATERIAL:

☐ Cement/Bentonite Slurry☐ Neat Cement☐ Bentonite Slurry☐ Concrete Grout☐ Bentonite Chips

No. of Bags

Casing Removed? ☐ Yes ☐ No

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

17. DRILLING MACHINE OPERATOR:

☐ Employee ☐ Subcontractor

Name Dale Kropp / Leonard Kropp

15. 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.

Kropp Well Drilling, Inc.

28-0795

REGISTERED BUSINESS NAME

Address 6010 E. Traverse Hwy Traverse City MI 49684

Signed

Dale Z Kropp

Date 10-02-96

AUTHORIZED REPRESENTATIVE

REGISTRATION NO.

Completion: Required

PA 1978

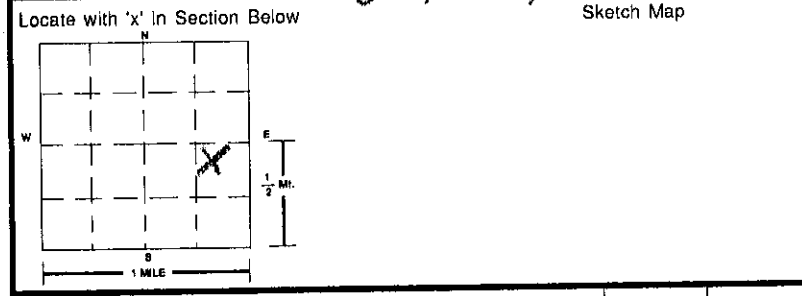
Authority: Act 368

Penalty: Conviction of a violation of any provision is a misdemeanor.

GEOLOGICAL SURVEY COPY

1. LOCATION OF WELL County: Leelanau Township Name: Leelanau Fraction: NW 1/4 NE 1/4 Section No.: 25 Town No.: 315 Range No.: 11

Distance and Direction from Road Intersection: 5270 Omena Pt. Rd. Street Address & City of Well Location: Omena, MI 49674



2. FORMATION DESCRIPTION	THICKNESS OF STRATUM	DEPTH TO BOTTOM OF STRATUM
Sand, Rocks, Stone	11	11
Clay, Stones	14	25
Clay	35	60
Clay, Sand, Stones	8	68

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

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

17. DRILLING MACHINE OPERATOR: ☒ Employee ☐ Subcontractor Name: Greg Kilinski

3. OWNER OF WELL: Jesse M. Reiter Address: 575 East St. Northville, MI 48167 Address Same as Well Location ☐ Yes ☒ No

4. WELL DEPTH: 68 ft. Date Completed: 5/19/97 ☒ 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 Height: Above/Below Surface: 1 ft. Diameter: 5 in. to _____ ft. depth _____ in. to _____ ft. depth Weight: SDR 21 lbs./ft. BORE HOLE: Diameter: 3 3/4 in. to 68 ft. depth _____ in. to _____ ft. depth ☐ Drive Shoe ☐ Shale Packer

8. SCREEN: ☐ Not Installed ☒ Gravel-Packed Type: Johnson telescope Diameter: 5 in. Slot/Gauze: 15 Length: 8 ft. Set Between: 60 ft. and 68 ft. FITTINGS: ☒ K-Packer ☐ Bremer Check ☐ Blank Above Screen 2 ft. Other:

9. STATIC WATER LEVEL: 20 ft. Below Land Surface ☐ Flowing

10. PUMPING LEVEL: Below Land Surface _____ ft. After _____ hrs. Pumping at _____ G.P.M. ☐ Plunger ☐ Bailer ☒ Air ☐ Test Pump

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

12. WELL GROUTED? ☐ No ☒ Yes From 0 to 50 ft. ☐ Neat Cement ☐ Bentonite ☒ Other: grout well No. of Bags: 3 Additives:

13. NEAREST SOURCE OF POSSIBLE CONTAMINATION: Type: Septic Distance: 50+ ft. Direction: SE Type: _____ Distance: _____ ft. Direction: _____

14. PUMP: ☐ Not Installed ☐ Pump Installation Only Manufacturer's Name: Myers Model Number: 2ST52-18 HP: 1/2 Volts: 230 Length of Drop Pipe: 30 ft. Capacity: 0 G.P.M. TYPE: ☒ Submersible ☐ Jet ☐ Other PRESSURE TANK: Manufacturer's Name: Well Rite Model Number: 60 Capacity: _____ Gallons: 20

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. Cliff Well Drilling Co., 28-1244 REGISTERED BUSINESS NAME 440 Center Rd., Traverse City, MI 49686 Address: _____ Signed: _____ Date: 5-29-97 AUTHORIZED REPRESENTATIVE

TAX NO:

465-08-720-033

MICHIGAN DEPARTMENT OF PUBLIC HEALTH
WATER WELL AND PUMP RECORD

PERMIT NO:

2927

1. LOCATION OF WELL

County

Leelanau

Township Name

Leelanau

Fraction

SE 1/4 SW 1/4

Section No.

25

Town No.

31N

Range No.

11W

Distance and Direction from Road Intersection

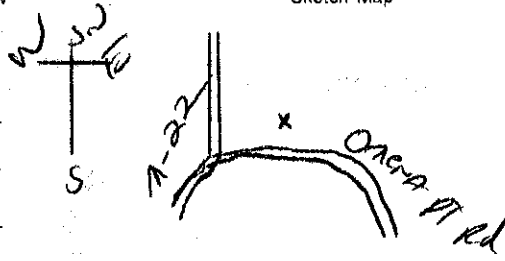
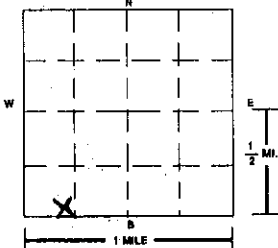
Omena Shores Sub Lot #33

Street Address & City of Well Location

OMENA PT. RD

Locate with 'x' in Section Below

Sketch Map



2. FORMATION DESCRIPTION

THICKNESS
OF
STRATUMDEPTH TO
BOTTOM OF
STRATUM

Stones, Gravel & Sand

14

18

Sand & Gravel

5

19

Stones, Gravel & Sand

31

50

3. OWNER OF WELL

Address

Charles Silkworth
3340 Omena Pt Rd
Omena, MI 49624Address Same as Well Location ☐ Yes ☒ No

4. WELL DEPTH:

Date Completed

ft.

10 / 1 / 96

☒ New Well☐ Replacement Well5. ☐ 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

Height: Above/Below

Surface: 1 ft

Diameter: 5 in. to 42 ft. depth

Weight: SDR21 lbs./ft.

in. to 42 ft. depth

BORE HOLE:

Diameter: 7-7/8 in. to 38 ft. depth

in. to 38 ft. depth

☐ Drive Shoe☐ Shale Packer

8. SCREEN:

☐ Not Installed☒ Gravel-Packed

Type: PVC

Diameter: 4"

Slot/Gauze: #12

Length: 8'

Set Between: 42 ft. and 50 ft.

FITTINGS:

☒ K-Packer☐ Bremer Check☐ Blank Above Screen ft. Other

9. STATIC WATER LEVEL:

12 ft. Below Land Surface

☐ Flowing

10. PUMPING LEVEL: Below Land Surface

ft. After hrs. Pumping at 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 0 to 38 ft.

☐ Neat Cement☒ Bentonite☐ Other

No. of Bags: 4

Additives: x

Volclay

13. NEAREST SOURCE OF POSSIBLE CONTAMINATION:

Type: Septic

Distance: 50 ft.

Direction: S

Type:

Distance:

Direction:

14. PUMP:

☐ Not Installed☐ Pump Installation Only

Manufacturer's Name: Aermotor

Model Number: T12-50

HP: 1/2

Volts: 230

Length of Drop Pipe: 40 ft.

Capacity: 12 G.P.M.

TYPE: ☒ Submersible☐ Jet☐ Other

PRESSURE TANK:

Manufacturer's Name: Well-Rite

Model Number: 140-01

Capacity: 44

Gallons

15. ABANDONED WELL PLUGGED?

☐ Yes ☐ No

Casing Diameter in.

Depth ft.

PLUGGING MATERIAL:

☐ Cement/Bentonite Slurry☐ Neat Cement☐ Bentonite Slurry☐ Concrete Grout☐ Bentonite Chips

No. of Bags

Casing Removed?

☐ Yes ☐ No

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

17. DRILLING MACHINE OPERATOR:

☒ Employee ☐ Subcontractor

Name: Robert J. Bufka

15. 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.

D & Z Well Drilling Co.

REGISTERED BUSINESS NAME

Address: 233 E. Kasson Rd., Maple City, MI 49664

Signed: Mark W. Zuth

AUTHORIZED REPRESENTATIVE

Date: 10-18-98

Authority: Act 368 PA 1978

Completion: Required

Penalty: Conviction of a violation of any provision is a misdemeanor.

GEOLOGICAL SURVEY COPY

WATER WELL AND PUMP RECORD

PERMIT NUMBER

1947

45-008-125-001-03

1 LOCATION OF WELL		County <u>Leelanau</u>		Township Name <u>Leelanau</u>		Fraction <u>SW 1/4 NW 1/4</u>		Section Number <u>25</u>		Town Number <u>31</u>		Range Number <u>11</u>	
Distance And Direction From Road Intersection <u>ON east side of M-22, 1/2 mile north of OMENA PT. RD.</u>				3 OWNER OF WELL: <u>Sunshine Fruit Farms</u> Address <u>3530 N. West Bay Shore Dr.</u> <u>OMENA, MI</u>									
Street Address & City of Well Location <u>3530 N. West Bay Shore Dr.</u>				Address Same As Well Location? ☒ Yes ☐ No									
Locate with "X" in Section Below				4 WELL DEPTH: Date Completed <u>MO 3 DAY 2 YEAR 94</u> <u>130</u> FT. ☐ New Well ☒ Replacement Well									
Sketch Map				5 ☐ Cable tool ☒ Rotary ☐ Driven ☐ Dug ☐ Hollow rod ☐ Auger ☐ Jetted									
6 USE: ☒ Domestic ☐ Type I Public ☐ Type III Public ☐ Irrigation ☐ Type IIa Public ☐ Heat pump ☐ Test Well ☐ Type IIb Public				7 CASING: Diameter ☐ Steel ☐ Threaded ☒ Plastic ☐ Welded <u>5</u> in. to <u>122</u> ft. depth <u>7-7/8</u> in. to <u>25</u> ft. depth Ground Drill Hole Diameter <u>7-7/8</u> in. to <u>25</u> ft. depth									
8 SCREEN: ☐ Not Installed Type <u>PVC</u> Diameter <u>4"</u> Slot/Gauze <u>#12</u> Length <u>8'</u> Set between <u>122</u> ft. and <u>130</u> ft. FITTINGS: ☒ K-Packer ☐ Lead Packer ☐ Bremer Check ☐ Blank above screen <u> </u> ft. Other <u> </u>				9 STATIC WATER LEVEL: <u>19</u> ft. below land surface ☐ Flow									
10 PUMPING LEVEL: below land surface <u> </u> ft. after <u> </u> hrs. pumping at <u> </u> G.P.M. <u> </u> ft. after <u> </u> hrs. pumping at <u> </u> G.P.M.				11 WELL HEAD COMPLETION: ☒ Pitless adapter ☐ 12" above grade ☐ Basement offset ☐ Approved pit									
12 WELL GROUTED? ☐ No ☒ Yes From <u>0</u> to <u>25</u> ft. ☐ Neat cement ☒ Bentonite ☒ Other <u>Holeplug</u> No. of bags of cement <u> </u> Additives <u> </u>				13 Nearest source of possible contamination Type <u>Septic</u> Distance <u>30</u> ft. Direction <u>S</u> Well disinfected upon completion? ☒ Yes ☐ No Was old well plugged? ☐ Yes ☐ No									
14 PUMP: ☒ Not Installed ☐ Pump Installation Only Manufacturer's name <u> </u> Model number <u> </u> HP <u> </u> Volts <u> </u> Length of Drop Pipe <u> </u> ft. capacity <u> </u> G.P.M. TYPE: ☐ Submersible ☐ Jet PRESSURE TANK: Manufacturer's name <u>Well-Rite</u> Model number <u>120-04</u> Capacity <u>33.4</u> Gallons				15 Remarks, elevation, source of data, etc.									
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. <u>B & Z Well Drilling Co.</u> <u>45-2030</u> REGISTERED BUSINESS NAME REGISTRATION NO. Address <u>233 E. Kasson Rd., Maple City, MI</u> Signed <u>Mark W. Zitz</u> Date <u>3-4-94</u> AUTHORIZED REPRESENTATIVE				17. Rig Operator's Name: <u>Robert J. Bufka</u>									

TAX NO:
45-008-480-013-00MICHIGAN DEPARTMENT OF PUBLIC HEALTH
WATER WELL AND PUMP RECORD

PERMIT NO:

2549

1. LOCATION OF WELL

County

Leelanau

Township Name

Leelanau

Fraction

NE 1/4 SE 1/4 NW 1/4

Section No.

25

Town No.

31W

Range No.

4N

Distance and Direction from Road Intersection

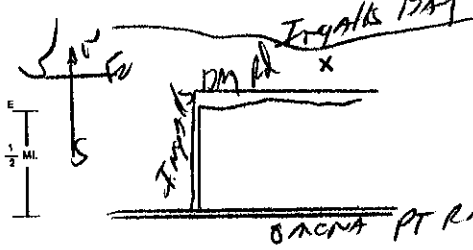
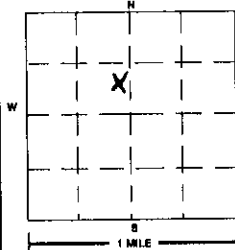
on north side of Ingalls Blvd Rd.
1/2 mile from Omena Pt. Rd.

Street Address & City of Well Location

13629 E Ingalls Blvd Rd

Locate with 'x' in Section Below

Sketch Map



3. OWNER OF WELL

Address

Cathy Stephenson
533 W Roscoe
Chicago IL 60657Address Same as Well Location ☐ Yes ☒ No

4. WELL DEPTH:

Date Completed

33 ft.

6/13/95

☐ New Well☒ Replacement Well5. ☒ Cable Tool☐ Rotary☐ Driven☐ Dug☒ Hollow Rod☐ Auger/Bored☐ Jetted6. USE: ☒ Household☐ Type I Public☐ Type III Public☐ Irrigation☐ Type IIa Public☐ Heat Pump☐ Test Well☐ Type IIb Public7. CASING: ☒ Steel☐ Threaded☐ Plastic☐ Welded☐ Other

Height: Above/Below

Surface: 1 ft

Diameter: 4 in. to 29 ft. depth

in. to ft. depth

Weight: 11 lbs./ft.

BORE HOLE:

Diameter: in. to ft. depth

in. to ft. depth

☒ Drive Shoe☐ Shale Packer8. SCREEN: ☐ Not Installed☐ Gravel-Packed

Type stainless steel

Diameter 3"

Slot/Groove

Size 10

Length: 4'

Set Between

29 ft. and

33 ft.

FITTINGS: ☒ J-K-Packer☐ Bremer Check☒ Blank Above Screen

ft. Other

9. STATIC WATER LEVEL:

8 ft. Below Land Surface

☐ Flowing

10. PUMPING LEVEL: Below Land Surface

ft. After hrs. Pumping at

G.P.M.

☐ Plunger☐ Bailer☐ Air☐ Test Pump

11. WELL HEAD COMPLETION:

☒ Pitless Adapter☐ 12" Above Grade☐ Basement Offset☐ Well House

12. WELL GROUTED?

☐ No☒ Yes

From to ft.

☐ Neat Cement☒ Bentonite☐ Other

No. of Bags

Additives

13. NEAREST SOURCE OF POSSIBLE CONTAMINATION:

Type septic

Distance 50+

ft. Direction NW

Type

Distance

ft. Direction

USE A 2ND SHEET IF NEEDED

15. ABANDONED WELL PLUGGED?

☐ Yes☒ No

can't find

Casing Diameter in.

Depth ft.

PLUGGING MATERIAL:

☐ Cement/Bentonite Slurry☐ Neat Cement☐ Bentonite Slurry☐ Concrete Grout☐ Bentonite Chips

No. of Bags

Casing Removed?

☐ Yes☐ No

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

17. DRILLING MACHINE OPERATOR:

☐ Employee ☐ Subcontractor

Name Date Kropp

15. 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.

Kropp Well Drilling Inc

0795

REGISTERED BUSINESS NAME

REGISTRATION NO.

Address 6010 E. Traverse Hwy Traverse City MI 49684

Signed

Dale L. Kropp

Date 6-14-95

AUTHORIZED REPRESENTATIVE

Authority: Act 368 PA 1978

Completion: Required

Penalty: Conviction of a violation of any provision is a misdemeanor.

GEOLOGICAL SURVEY COPY

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

WATER WELL AND PUMP RECORD

1716

PERMIT NUMBER

45-008-810-010-00

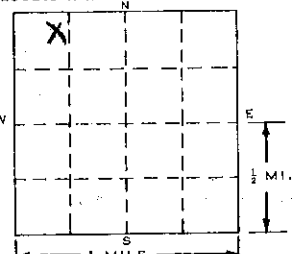
1 LOCATION OF WELL		Fraction		Section Number		Town Number		Range Number	
County <u>Leelanau</u>		Township Name <u>Leelanau</u>		<u>SE 1/4 SE 1/4</u>		<u>25</u>		<u>31 (N) 11 (E/W)</u>	
Distance And Direction From Road Intersection <u>East side of OACNA Pt Rd.</u> <u>1.1 mile from M-22</u>									
Street Address & City of Well Location <u>Singing Sand Sub Lot #13</u>									
Locate with "X" in Section Below									
Sketch Map: 									
3. OWNER OF WELL <u>JAMES + JANICE RYND</u> Address <u>8853 E Hoxie Rd</u> <u>Cedar, MI 49621</u> Address Same As Well Location? ☐ Yes ☒ No									
4 WELL DEPTH: <u>104</u> FT. Date Completed <u>12-8-93</u> ☒ New Well ☐ Replacement Well									
5 ☐ Cable tool ☒ Rotary ☐ Driven ☐ Dug ☐ Hollow rod ☐ Auger ☐ Jetted ☐									
6 USE: ☒ Domestic ☐ Type I Public ☐ Type III Public ☐ Irrigation ☐ Type IIa Public ☐ Heat pump ☒ Test Well ☐ Type IIb Public ☐									
7 CASING: ☐ Steel ☐ Threaded ☐ Height: Above/Below ☒ Plastic ☐ Welded Surface <u>5</u> ft. Weight <u>99</u> lbs./ft. Ground Drill Hole Diameter: <u>7 1/8</u> in. to <u>99</u> ft. depth Drive Shoe ☐ Yes ☐ No									
8 SCREEN: ☐ Not Installed Type <u>Johnson PDK</u> Diameter <u>5</u> Slot/Gauge <u>12</u> Length <u>5</u> Set between <u>12</u> ft. and <u>5</u> ft. FITTINGS: ☒ K-Packer ☐ Lead Packer ☐ Bremer Check ☐ Blank above screen <u>2</u> ft. Other <u>2</u>									
9 STATIC WATER LEVEL: <u>10</u> ft. below land surface ☐ Flow									
10 PUMPING LEVEL: below land surface <u>90</u> ft. after <u>1</u> hrs. pumping at <u>12</u> G.P.M. <u>90</u> ft. after <u>1</u> hrs. pumping at <u>12</u> G.P.M.									
11 WELL HEAD COMPLETION: ☒ Pitless adapter ☐ 12" above grade ☐ Basement offset ☐ Approved pit									
12 WELL GROUTED? ☐ No ☒ Yes From <u>0</u> to <u>25</u> ft. ☐ Neat cement ☐ Bentonite ☒ Other <u>grout</u> No. of bags of cement <u>5</u> Additives <u>grout</u>									
13 Nearest source of possible contamination Type <u>holding tank</u> Distance <u>53</u> ft. Direction <u>W</u> Well disinfected upon completion? ☒ Yes ☐ No Was old well plugged? ☐ Yes ☐ No									
14 PUMP: ☐ Not Installed ☐ Pump Installation Only Manufacturer's name <u>BOULDS</u> Model number <u>7E105</u> HP <u>1/2</u> Volts <u>231</u> Length of Drop Pipe <u>90</u> ft. capacity <u>7.10</u> G.P.M. TYPE: ☒ Submersible ☐ Jet PRESSURE TANK: <u>will Rite</u> Manufacturer's name <u>will Rite</u> Model number <u>200-02</u> Capacity <u>62</u> Gallons									
15. Remarks: elevation, source of data, etc.									
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. <u>Chadwell Drilling Co.</u> <u>28-1244</u> REGISTERED BUSINESS NAME REGISTRATION NO. Address <u>6410 Centre Rd. Tawas City, MI</u> Signed <u>Chadwell Drilling Co.</u> Date <u>12-8-93</u> AUTHORIZED REPRESENTATIVE									
17. Rig Operator's Name: <u>Gregg L. Linsch</u>									

WATER WELL AND PUMP RECORD

PERMIT NUMBER

1395

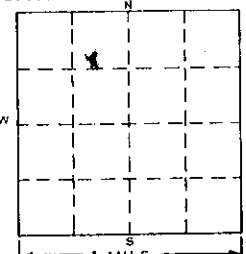
TAX NO 45-08-125-001-00

1 LOCATION OF WELL		TAX NO 45-08-125-001-00		PERMIT NUMBER 1395	
County <u>Leelanau</u>	Township Name <u>Leelanau</u>	Fraction <u>NE 1/4 NW 1/4</u>	Section Number <u>25</u>	Town Number <u>31 (N) S</u>	Range Number <u>11 EAW</u>
Distance And Direction From Road Intersection <u>2 1/2 mile west and north from right turn in Fryds Bay Rd. on water off private Rd. 5800 Meadow Lane</u>		3 OWNER OF WELL <u>Sunshine Fruit Farm</u> Address <u>1250 N. Overlook Rd Northport, MI 49670</u>			
Street Address & City of Well Location <u>5800 Meadow Lane</u>		Address Same As Well Location? ☐ Yes ☒ No			
Locate with "X" in Section Below		4 WELL DEPTH: Date Completed <u>5/27/93</u> ☒ New Well ☐ Replacement Well			
Sketch Map: 		5 ☐ Cable tool ☒ Rotary ☐ Driven ☐ Dug ☐ Hollow rod ☐ Auger ☐ Jetted ☐			
		6 USE: ☒ Domestic ☐ Type I Public ☐ Type III Public ☐ Irrigation ☐ Type IIa Public ☐ Heat pump ☐ Test Well ☐ Type IIb Public ☐			
		7 CASING: ☐ Steel ☐ Threaded ☒ Plastic ☐ Welded 5 in. to 135 ft. depth 7-7/8 in. to 25 ft. depth Height: Above/Below Surface <u>1</u> ft. Weight: <u>SDR21</u> lbs./ft. Drive Shoe ☐ Yes ☒ No			
2 FORMATION DESCRIPTION		8 SCREEN: ☐ Not Installed Type <u>Stainless</u> Diameter <u>4"</u> Slot/Gauze <u>#12</u> Length <u>15'</u> Set between <u>135</u> ft. and <u>150</u> ft. FITTINGS: ☒ K-Packer ☐ Lead Packer ☐ Bremer Check. ☒ Blank above screen <u>2 1/2</u> ft. Other <u>4" Plug</u>			
THICKNESS OF STRATUM		9 STATIC WATER LEVEL: <u>28</u> ft. below land surface ☐ Flow			
DEPTH TO BOTTOM OF STRATUM		10 PUMPING LEVEL: below land surface ____ ft. after ____ hrs. pumping at ____ G.P.M. ____ ft. after ____ hrs. pumping at ____ G.P.M.			
Topsoil	1	1	11 WELL HEAD COMPLETION: ☒ Pitless adapter ☐ 12" above grade ☐ Basement offset ☐ Approved pit		
Sand	5	6	12 WELL GROUTED? ☐ No ☒ Yes From <u>0</u> to <u>25</u> ft. ☐ Neat cement ☐ Bentonite ☒ Other <u>Holeplug</u>		
Sand, Gravel & Stones	7	13	No. of bags of cement _____ Additives _____		
Sand	40	53	13 Nearest source of possible contamination Type <u>Septic</u> Distance <u>800+</u> Direction <u>EAST</u> Well disinfected upon completion? ☒ Yes ☐ No Was old well plugged? ☐ Yes ☐ No		
Soft Red Clay	1	54	14 PUMP: ☐ Not Installed ☐ Pump Installation Only		
Sand	4	58	Manufacturer's name <u>Aermotor</u> Model number <u>A50B-500</u> HP <u>5</u> Volts <u>230</u> Length of Drop Pipe <u>105</u> ft. capacity <u>50</u> G.P.M. TYPE: ☒ Submersible ☐ Jet		
Gravel, Stones & Red Clay	5	63	PRESSURE TANK: Manufacturer's name <u>4- Well-Rite</u> Model number <u>260-03</u> Capacity <u>85</u> Gallons		
Rocks & Grey Clay	4	67	15. Remarks, elevation, source of data, etc.		
Sandy Grey Clay w/ Streaks Gravel	28	95	16. WATER WELL CONTRACTOR'S CERTIFICATION: This well was drilled under my jurisdiction and this report is true and correct to the best of my knowledge and belief. <u>B&Z Well Drilling Co.</u> <u>1647</u> REGISTERED BUSINESS NAME REGISTRATION NO. Address <u>233 E. Kasson Rd., Maple City, MI</u> Signed <u>Edward J. Zentel</u> Date <u>6-1-93</u> AUTHORIZED REPRESENTATIVE		
Sand & Gravel	4	99	17. Rig Operator's Name: <u>Robert J. Bufka</u>		
Grey Clay w/ Streaks Gravel	23	122	RECEIVED JUN 7 1993 GEOLOGICAL SURVEY COPY		
Sand	28	150	Authority: <u>Completion:</u> <u>Penalty:</u> Act 368 PA 1978 Required Conviction of a violation of any provision is a misdemeanor.		

WATER WELL AND PUMP RECORD

PERMIT NUMBER

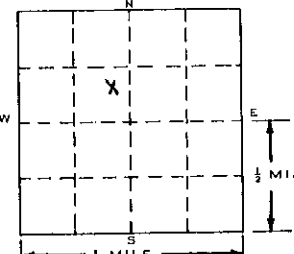
662

1 LOCATION OF WELL		TAX NO 45-008-480-006-00	
County <u>Leelanau</u>	Township Name <u>Leelanau</u>	Fraction <u>SW 1/4 NE 1/4 NW 1/4</u>	Section Number <u>25</u>
Distance And Direction From Road Intersection <u>1/2 mile from sharp turn to right (east) on Ingalls Bay Rd.</u>		Town Number <u>31 (NS)</u>	Range Number <u>11 EW</u>
Street Address & City of Well Location <u>Ingalls Bay Rd</u>		3 OWNER OF WELL <u>Betty Graft</u>	
Locate with "X" in Section Below		Address <u>13477 Ingalls Bay Rd</u>	
Sketch Map: 		Address Same As Well Location? ☒ Yes ☐ No	
2 FORMATION DESCRIPTION		4 WELL DEPTH: Date Completed MO. DAY YEAR ☒ New Well <u>45</u> FT. <u>8</u> <u>19</u> <u>91</u> ☐ Replacement Well	
THICKNESS OF STRATUM		5 ☐ Cable tool ☒ Rotary ☐ Driven ☐ Dug ☐ Hollow rod ☐ Auger ☐ Jetted ☐	
DEPTH TO BOTTOM OF STRATUM		6 USE: ☒ Domestic ☐ Type I Public ☐ Type III Public ☐ Irrigation ☐ Type IIa Public ☐ Heat pump ☐ Test Well ☐ Type IIb Public ☐	
Topsoil 1 1		7 CASING: Diameter ☐ Steel ☐ Threaded Height: Above/Below ☒ Plastic ☐ Welded Surface <u>SDR21</u>	
Sand & Traces of Med. Gravel 5 5		5 in. to 40 ft. depth in. to ft. depth Grouted Drill Hole Diameter	
Med. Gravel & Sand 6 11		7 7/8 in. to 25 ft. depth in. to ft. depth	
Sand & Fine Gravel 15 26		8 SCREEN: ☐ Not installed Type <u>Stainless</u> Diameter <u>4" Telescope</u> Slot/Gauze <u>#12</u> Length <u>4'</u> Set between <u>40</u> ft. and <u>45</u> ft. FITTINGS: ☒ K-Packer ☐ Lead Packer ☐ Bremer Check ☒ Blank above screen <u>1</u> ft. Other <u>plug</u>	
Soft Grey Clay 12 38		9 STATIC WATER LEVEL: <u>8</u> ft. below land surface ☐ Flow	
Sand & Fine Gravel 7 45		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 <u>0</u> to <u>25</u> ft. ☐ Neat cement ☒ Bentonite ☐ Other <u>w/ Hole Plug</u> to <u>38'</u> No. of bags of cement Additives	
		13 Nearest source of possible contamination Type <u>Septic</u> Distance <u>75</u> ft. Direction <u>N</u> Well disinfected upon completion? ☒ Yes ☐ No Was old well plugged? ☐ Yes ☐ No	
		14 PUMP: ☐ Not installed ☐ Pump Installation Only Manufacturer's name <u>Aermotor</u> Model number <u>A12B-50</u> HP <u>1/2</u> Volts <u>220</u> Length of Drop Pipe <u>30</u> ft. capacity <u>12</u> G.P.M. TYPE: ☒ Submersible ☐ Jet PRESSURE TANK: Manufacturer's name <u>-Existing-</u> Model number Capacity Gallons	
15. Remarks, elevation, source of data, etc.		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. <u>B&Z Well Drilling Co.</u> <u>1645</u> REGISTERED BUSINESS NAME REGISTRATION NO. Address <u>233 E. Kasson Rd.</u> <u>Maple City, MI</u> Signed <u>Jerome E. Bufka</u> Date <u>10-07-91</u> AUTHORIZED REPRESENTATIVE	
17. Rig Operator's Name: <u>Robert J. Bufka</u>		Authority: <u>Completion:</u> Penalty: <u>Act 368 PA 1978 Required Conviction of a violation of any provision is a misdemeanor.</u>	

WATER WELL AND PUMP RECORD

PERMIT NUMBER

TAX # 45-008-480-007-00

1 LOCATION OF WELL		TAX # 45-008-480-007-00		PERMIT NUMBER	
County <u>Leelanau</u>	Township Name <u>Leelanau</u>	Fraction <u>NE 1/4 SE 1/4 NW 1/4</u>	Section Number <u>25</u>	Town Number <u>31</u>	Range Number <u>11</u>
Distance And Direction From Road Intersection <u>1/2 mile north and then west on Ingalls Bay Rd from Omena Pt. Road</u> <u>13489 Ingalls Bay Rd.</u>			3 OWNER OF WELL: <u>MRS. S. Shepherd Tate</u> Address <u>266 Breckinridge place</u> <u>Memphis, TN 38111</u>		
Street Address & City of Well Location <u>Ingalls Bay Rd</u>			Address Same As Well Location? ☐ Yes ☒ No		
Locate with "X" in Section Below			4 WELL DEPTH: Date Completed <u>7</u> <u>17</u> <u>90</u> ☒ New Well <u>45</u> FT. ☐ Replacement Well		
			5 ☐ Cable tool ☒ Rotary ☐ Driven ☐ Dug ☐ Hollow rod ☐ Auger ☐ Jetted ☐		
2 FORMATION DESCRIPTION			6 USE: ☒ Domestic ☐ Type I Public ☐ Type III Public ☐ Irrigation ☐ Type IIa Public ☐ Heat pump ☐ Test Well ☐ Type IIb Public ☐		
			7 CASING: Diameter ☐ Steel ☐ Threaded ☒ Plastic ☐ Welded <u>5</u> in. to <u>40</u> ft. depth <u>7 7/8</u> in. to <u>25</u> ft. depth Grouted Drill Hole Diameter <u>7 7/8</u> in. to <u>25</u> ft. depth <u>7 7/8</u> in. to <u>25</u> ft. depth		
			Height: Above/Below Surface <u>1</u> ft. Weight <u>SDR21</u> lbs./ft. Drive Shoe ☐ Yes ☒ No		
			8 SCREEN: ☐ Not Installed Type <u>Stainless</u> Diameter <u>4"</u> Telescope Slot/Gauze <u>#10</u> Length <u>4'</u> Set between <u>40</u> ft. and <u>45</u> ft. FITTINGS: ☒ K-Packer ☐ Lead Packer ☐ Bremer Check ☒ Blank above screen <u>1</u> ft. Other <u>plug</u>		
9 STATIC WATER LEVEL: <u>6</u> ft. below land surface ☐ Flow			10 PUMPING LEVEL: below land surface <u> </u> ft. after <u> </u> hrs. pumping at <u> </u> G.P.M. <u> </u> ft. after <u> </u> hrs. pumping at <u> </u> G.P.M.		
11 WELL HEAD COMPLETION: ☒ Pitless adapter ☐ 12" above grade ☐ Basement offset ☐ Approved pit			12 WELL GROUTED? ☐ No ☒ Yes From <u>0</u> to <u>25</u> ft. w/ Hole Plug ☐ Neat cement ☒ Bentonite ☐ Other <u> </u> to 38'		
13 Nearest source of possible contamination Type <u>Septic</u> Distance <u>65'</u> Direction <u>N</u> Well disinfected upon completion? ☒ Yes ☐ No Was old well plugged? ☐ Yes ☐ No			14 PUMP: ☐ Not Installed ☐ Pump Installation Only Manufacturer's name <u>Aermotor</u> Model number <u>A12B-50</u> HP <u>1/2</u> Volts <u>220</u> Length of Drop Pipe <u>20</u> ft. capacity <u>12</u> G.P.M. TYPE: ☒ Submersible ☐ Jet PRESSURE TANK: Manufacturer's name <u>Well-Rite</u> Model number <u>140-01</u> Capacity <u>44</u> Gallons		
15. Remarks, elevation, source of data, etc. <u>RECEIVED</u> <u>MICHIGAN DEPT. OF PUBLIC HEALTH</u> <u>OCT 1 1990</u> <u>BUREAU OF ENVIRONMENTAL AND OCCUPATIONAL HEALTH-GWQS</u>			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. <u>B&Z Well Drilling Co.</u> <u>1645</u> REGISTERED BUSINESS NAME REGISTRATION NO. Address <u>133 E. Casson Rd. / Maple City, MI 49664</u> Signed <u>Gene E. B. [Signature]</u> Date <u>7-19-90</u> AUTHORIZED REPRESENTATIVE		
17. Rig Operator's Name: <u>Robert J. Bufka</u> <u>GRAND TRAVERSE COUNTY</u> <u>HEALTH DEPARTMENT</u>			Authority: <u> </u> Completion: <u> </u> Penalty: <u> </u> Act 368 PA 1978 Required Conviction of a violation of any provision is a misdemeanor.		

MICHIGAN DEPARTMENT OF PUBLIC HEALTH

WATER WELL AND PUMP RECORD

PERMIT NUMBER

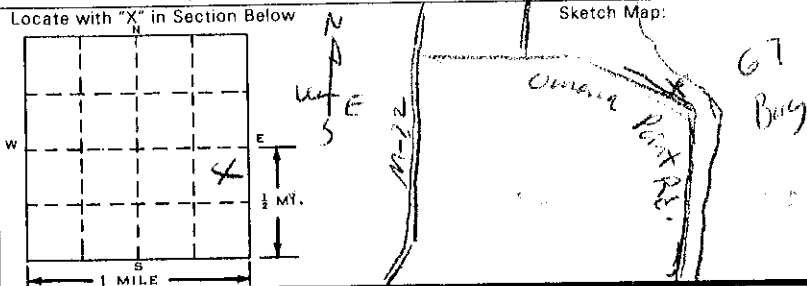
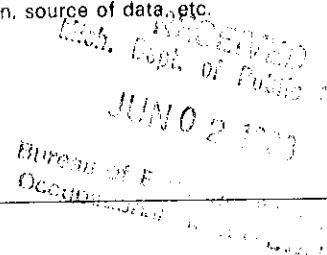
1313

1 LOCATION OF WELL		3 OWNER OF WELL:																												
County <u>Leelanau</u>	Township Name <u>Leelanau</u>	Fraction <u>1/4 NE 1/4 SE 1/4</u>	Section Number <u>25</u>																											
		Town Number <u>31 CMS</u>	Range Number <u>11 E 1/4</u>																											
Distance And Direction From Road Intersection <u>Lot #23 Singing Sands Subdivision</u> <u>off Central Point Rd on Grand Traverse</u> <u>OMENA, MI Bay</u>		Address <u>SUTTONS BAY MI 49682</u>																												
Street Address & City of Well Location <u>OMENA, MI Bay</u>		Address Same As Well Location? ☐ Yes ☒ No																												
Locate with "X" in Section Below		4 WELL DEPTH: (completed) <u>63</u> ft. Date of Completion <u>12-18-84</u>																												
		5 ☐ Cable tool ☒ Rotary ☐ Driven ☐ Dug ☐ Hollow rod ☐ Auger ☐ Jetted ☐																												
		6 USE: ☒ Domestic ☐ Type I Public ☐ Type II Public ☐ Irrigation ☐ Type IIA Public ☐ Heat pump ☐ Test Well ☐ Type IIB Public ☐																												
<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <th style="width: 40%;">2 FORMATION DESCRIPTION</th> <th style="width: 10%;">THICKNESS OF STRATUM</th> <th style="width: 10%;">DEPTH TO BOTTOM OF STRATUM</th> </tr> <tr> <td>BLACK DIRT</td> <td>1</td> <td>1</td> </tr> <tr> <td>SAND & GRAVEL</td> <td>3</td> <td>4</td> </tr> <tr> <td>CLAY & GRAVEL & SAND</td> <td>5</td> <td>9</td> </tr> <tr> <td>CLAY</td> <td>50</td> <td>59</td> </tr> <tr> <td>SAND</td> <td>4</td> <td>63</td> </tr> <tr> <td>ROCKS & CLAY</td> <td></td> <td></td> </tr> <tr> <td>ON BOTTOM</td> <td></td> <td></td> </tr> <tr> <td>DIDNT PENETRATE</td> <td></td> <td></td> </tr> </table>		2 FORMATION DESCRIPTION	THICKNESS OF STRATUM	DEPTH TO BOTTOM OF STRATUM	BLACK DIRT	1	1	SAND & GRAVEL	3	4	CLAY & GRAVEL & SAND	5	9	CLAY	50	59	SAND	4	63	ROCKS & CLAY			ON BOTTOM			DIDNT PENETRATE			7 CASING: Diameter ☐ Steel ☒ Plastic ☒ Threaded ☒ Welded <u>5</u> in. to <u>59</u> ft. depth <u>7 3/4</u> in. to <u>63</u> ft. depth Grouted Drill Hole Diameter <u>7 3/4</u> in. to <u>63</u> ft. depth in. to <u>63</u> ft. depth	
		2 FORMATION DESCRIPTION	THICKNESS OF STRATUM	DEPTH TO BOTTOM OF STRATUM																										
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ON BOTTOM																														
DIDNT PENETRATE																														
		Height: Above/Below Surface <u>SDR</u> ft. Weight <u>21</u> lbs./ft. Drive Shoe ☐ Yes ☒ No																												
		8 SCREEN: ☐ Not installed Type <u>STAINLESS STEEL</u> Diameter <u>4 INCH</u> Slot/Gauge <u>20</u> Length <u>4 FEET</u> Set between <u>59</u> ft. and <u>63</u> ft. FITTINGS: ☒ K-Packer ☐ Lead Packer ☐ Bremer Check ☒ Blank above screen <u>2</u> ft. <u>GRAVEL PACKED</u>																												
		9 STATIC WATER LEVEL: <u>14</u> ft. below land surface ☐ Flow																												
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		12 WELL GROUTED? ☐ No ☒ Yes: From <u>0</u> to <u>50</u> ft. ☐ Neat cement ☒ Bentonite ☐ Other ____ No. of bags of cement ____ Additives ____																												
		13 Nearest source of possible contamination Type <u>SEPTIC</u> Distance <u>50</u> ft. Direction <u>SW</u> Well disinfected upon completion? ☒ Yes ☐ No																												
		14 PUMP: ☐ Not installed ☐ Pump Installation Only Manufacturer's name <u>McDONALD</u> Model number <u>37C</u> HP <u>1/2</u> Volts <u>230</u> Length of Drop Pipe <u>40</u> ft. capacity <u>10</u> G.P.M. TYPE: ☒ Submersible ☐ Jet PRESSURE TANK: <u>CLAYTON-MARK</u> Manufacturer's name <u>CLAYTON-MARK</u> Model number <u>CM100</u> Capacity <u>13</u> Gallons																												
15. Remarks, elevation, source of data, etc.		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. <u>KROPP WELL DRILLING 0795</u> REGISTERED BUSINESS NAME <u>TRAVERSE CITY</u> REGISTRATION NO. ____ Address <u>6010 M-72 W</u> Signed <u>Fernand Kropp</u> Date <u>12-19-84</u> AUTHORIZED REPRESENTATIVE																												

MICHIGAN DEPARTMENT OF PUBLIC HEALTH
WATER WELL AND PUMP RECORD

15282

PERMIT NUMBER

1 LOCATION OF WELL		3 OWNER OF WELL: <u>William & Mary Fuertges</u>																									
County <u>Leelanau</u>	Township Name <u>Leelanau</u>	Fraction <u>1/4 NE 1/4 SE 1/4</u>	Section Number <u>25</u>																								
Distance And Direction From Road Intersection <u>Lot #20 Singing Sands Sub off Omara</u> <u>Rd on Grand Traverse Bay</u>		Town Number <u>31</u> Range Number <u>11</u>																									
Street Address & City of Well Location <u>Locate with "X" in Section Below</u>		Address <u>44683 North Hills Dr. Apt F-63</u> <u>Northville, MI 48167</u>																									
Sketch Map: 		Address Same As Well Location? ☐ Yes ☒ No																									
2 FORMATION DESCRIPTION		4 WELL DEPTH: (completed) <u>111</u> ft. Date of Completion <u>4-29-88</u>																									
<table border="1" style="width: 100%;"><thead><tr><th></th><th>THICKNESS OF STRATUM</th><th>DEPTH TO BOTTOM OF STRATUM</th></tr></thead><tbody><tr><td>Rocks</td><td>1</td><td>1</td></tr><tr><td>Sand - Gravel</td><td>9</td><td>10</td></tr><tr><td>Clay - Gravel</td><td>15</td><td>25</td></tr><tr><td>Clay</td><td>79</td><td>104</td></tr><tr><td>Sand - Clay streaks</td><td>3</td><td>107</td></tr><tr><td>Sand</td><td>4</td><td>111</td></tr><tr><td>Sand - Gravel- Clay on bottom</td><td>?</td><td></td></tr></tbody></table>			THICKNESS OF STRATUM	DEPTH TO BOTTOM OF STRATUM	Rocks	1	1	Sand - Gravel	9	10	Clay - Gravel	15	25	Clay	79	104	Sand - Clay streaks	3	107	Sand	4	111	Sand - Gravel- Clay on bottom	?		5 ☐ Cable tool ☒ Rotary ☐ Driven ☐ Dug ☐ Hollow rod ☐ Auger ☐ Jetted	
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Sand - Gravel- Clay on bottom	?																										
		6 USE: ☒ Domestic ☐ Type I Public ☐ Type III Public ☐ Irrigation ☐ Type IIa Public ☐ Heat pump ☐ Test Well ☐ Type IIb Public																									
		7 CASING: Diameter ☐ Steel ☒ Plastic ☐ Threaded ☐ Welded <u>5</u> in. to <u>106</u> ft. depth Height: Above/Below Surface <u>1</u> ft. <u>7 7/8</u> in. to <u>111</u> ft. depth Grouted Drill Hole Diameter <u>SDR 21</u> lbs./ft. Weight <u>3</u> lbs./ft. Drive Shoe ☐ Yes ☒ No																									
		8 SCREEN: ☐ Not Installed Type <u>PVC</u> Diameter <u>3"</u> Slot/Grain <u>30</u> Length <u>5'</u> Set between <u>106</u> ft. and <u>111</u> ft. FITTINGS: ☒ K-Packer ☐ Lead Packer ☐ Bremer Check ☒ Blank above screen <u>1</u> ft. Other _____																									
		9 STATIC WATER LEVEL: <u>29</u> 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. ☐ Neat cement ☐ Bentonite ☐ Other _____ No. of bags of cement _____ Additives _____																									
		13 Nearest source of possible contamination Type <u>septic</u> Distance <u>50+</u> ft. Direction <u>East</u> Well disinfected upon completion? ☒ Yes ☐ No																									
		14 PUMP: ☐ Not Installed ☐ Pump Installation Only Manufacturer's name <u>Duro</u> Model number <u>9DD5</u> HP <u>1/2</u> Volts <u>220</u> Length of Drop Pipe <u>80</u> ft. capacity <u>9+</u> G.P.M. TYPE: ☒ Submersible ☐ Jet PRESSURE TANK: Manufacturer's name <u>Well X Trol</u> Model number <u>WXT-250</u> Capacity <u>44</u> Gallons																									
15. Remarks, elevation, source of data, etc.  Bureau of Environmental Geology Occupational Health Division		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. <u>Kropp Well Drilling Inc</u> 0795 REGISTERED BUSINESS NAME 6010 M72 West Traverse City MI 49684 Address Signed <u>Kathy Kalchuk</u> Date <u>4/29/88</u> AUTHORIZED REPRESENTATIVE																									

MICHIGAN DEPARTMENT OF PUBLIC HEALTH

WATER WELL AND PUMP RECORD

PERMIT NUMBER

PART 127 ACT 368, P.A. 1978

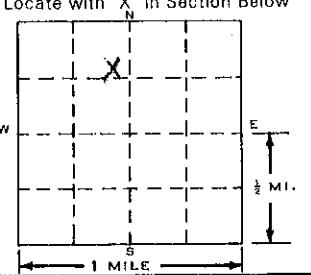
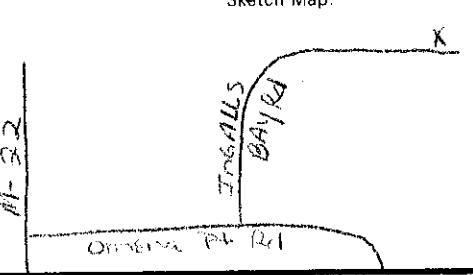
9065

1 LOCATION OF WELL		3 OWNER OF WELL:																
County <u>Leelanau</u>	Township Name <u>Leelanau</u>	Fraction <u>1/4 SE 1/4 SE 1/4</u>	Section Number <u>25</u>															
		Town Number <u>31</u>	Range Number <u>11 E/W</u>															
Distance And Direction From Road Intersection <u>Lot 10 and N. 1/2 of Lot 9 Singing Sands Sub</u> <u>On Omara Pt Rd Approx 1 mile from M-22 on</u> <u>Grand Traverse Bay</u>		Address <u>Bruce A. Balas</u> <u>310 Lee Point Rd</u> <u>Suttons Bay, MI</u>																
Street Address & City of Well Location		Address Same As Well Location? ☐ Yes ☒ No																
Locate with "X" in Section Below		4 WELL DEPTH: (completed) ft. <u>47</u> Date of Completion <u>9, 13, 89</u>																
		5 ☐ Cable tool ☒ Rotary ☐ Driven ☐ Dug ☐ Hollow rod ☐ Auger ☐ Jetted																
		6 USE: ☒ Domestic ☐ Type I Public ☐ Type III Public ☐ Irrigation ☐ Type IIa Public ☐ Heat pump ☐ Test Well ☐ Type IIb Public																
<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <th style="width: 40%;">2 FORMATION DESCRIPTION</th> <th style="width: 10%;">THICKNESS OF STRATUM</th> <th style="width: 10%;">DEPTH TO BOTTOM OF STRATUM</th> </tr> <tr> <td><u>STONES</u></td> <td><u>0</u></td> <td><u>1</u></td> </tr> <tr> <td><u>CLAY GRAVEL SAND</u></td> <td><u>0</u></td> <td><u>44 1/2</u></td> </tr> <tr> <td><u>GRAVEL & SAND</u></td> <td><u>3</u></td> <td><u>47 1/2</u></td> </tr> <tr> <td><u>CLAY on bottom</u></td> <td></td> <td></td> </tr> </table>		2 FORMATION DESCRIPTION	THICKNESS OF STRATUM	DEPTH TO BOTTOM OF STRATUM	<u>STONES</u>	<u>0</u>	<u>1</u>	<u>CLAY GRAVEL SAND</u>	<u>0</u>	<u>44 1/2</u>	<u>GRAVEL & SAND</u>	<u>3</u>	<u>47 1/2</u>	<u>CLAY on bottom</u>			7 CASING: Diameter ☐ Steel ☐ Threaded ☒ Plastic ☐ Welded Height: Above/Below Surface <u>1</u> ft. Weight <u> </u> lbs./ft. Drive Shoe ☐ Yes ☐ No	
		2 FORMATION DESCRIPTION	THICKNESS OF STRATUM	DEPTH TO BOTTOM OF STRATUM														
<u>STONES</u>	<u>0</u>	<u>1</u>																
<u>CLAY GRAVEL SAND</u>	<u>0</u>	<u>44 1/2</u>																
<u>GRAVEL & SAND</u>	<u>3</u>	<u>47 1/2</u>																
<u>CLAY on bottom</u>																		
		8 SCREEN: ☐ Not installed Type <u>STAIN STEEL</u> Diameter <u>3</u> PIPE Slot/Gauze <u>30</u> Length <u>4</u> Set between <u>47 1/2</u> ft. and <u>43</u> ft. FITTINGS: ☒ K-Packer ☐ Lead Packer ☐ Bremer Check ☐ Blank above screen <u> </u> ft. Other <u> </u>																
		9 STATIC WATER LEVEL: <u>3</u> ft. below land surface ☐ Flow																
		10 PUMPING LEVEL: below land surface <u>10</u> ft. after <u> </u> hrs. pumping at <u> </u> G.P.M. <u> </u> ft. after <u> </u> hrs. pumping at <u> </u> G.P.M.																
		11 WELL HEAD COMPLETION: ☒ Pitless adapter ☐ 12" above grade ☐ Basement offset ☐ Approved pit																
		12 WELL GROUTED? ☐ No ☐ Yes From <u> </u> to <u> </u> ft. ☐ Neat cement ☐ Bentonite ☐ Other <u> </u> No. of bags of cement <u> </u> Additives <u>WOL PLUG</u>																
		13 Nearest source of possible contamination, Type <u>SEPTIC</u> Distance <u> </u> ft. Direction <u> </u> Well disinfected upon completion? ☒ Yes ☐ No																
		14 PUMP: ☐ Not Installed ☐ Pump Installation Only Manufacturer's name <u> </u> HP <u>1/2</u> Volts <u>230</u> Model number <u> </u> Length of Drop Pipe <u>30</u> ft. capacity <u>10</u> G.P.M. TYPE: ☒ Submersible ☐ Jet PRESSURE TANK: Manufacturer's name <u>EXTROL</u> Model number <u>202-2 TANK</u> Capacity <u>40</u> Gallons																
15. Remarks, elevation, source of data, etc.		16. WELL CONTRACTOR'S CERTIFICATION: This well was drilled under my jurisdiction and this report is true to the best of my knowledge and belief. <u>ITROPP WELL DRILLING</u> 0795 REGISTERED BUSINESS NAME REGISTRATION NO. Address <u>6012 M 22 WEST TRAVERSE CITY</u> Signed <u>J. and K. Tropp</u> Date <u>Oct 14, 89</u> AUTHORIZED REPRESENTATIVE																

MICHIGAN DEPARTMENT OF PUBLIC HEALTH
WATER WELL AND PUMP RECORD

PERMIT NUMBER

 16781

1 LOCATION OF WELL		Fraction		Section Number		Town Number		Range Number	
County <u>Leelanau</u>		Township Name <u>Leelanau</u>		<u>SE 1/4 NW 1/4</u>		<u>25</u>		<u>31 N/S</u>	
Distance And Direction From Road Intersection <u>1/2 mile from Onondaga Pt Rd on Ingalls Bay Rd</u>									
Street Address & City of Well Location <u>Ingalls Bay Rd</u>									
Locate with "X" in Section Below					Sketch Map:				
									
2 FORMATION DESCRIPTION				THICKNESS OF STRATUM		DEPTH TO BOTTOM OF STRATUM			
Black Dirt				1		1			
Sand				9		10			
Sand & Gravel				12		22			
Sand				10		32			
3 OWNER OF WELL: <u>Helen Gregory</u>									
Address <u>2485 Wood Trail Lane</u>									
Address Same As Well Location? ☐ Yes ☒ No									
4 WELL DEPTH: <u>32</u> FT. Date Completed MO. <u>6</u> DAY <u>27</u> YEAR <u>1989</u> ☐ New Well ☒ Replacement Well									
5 ☐ Cable tool ☒ Rotary ☐ Driven ☐ Dug ☐ Hollow rod ☐ Auger ☐ Jetted									
6 USE: ☒ Domestic ☐ Type I Public ☐ Type III Public ☐ Irrigation ☐ Type IIa Public ☐ Heat pump ☐ Test Well ☐ Type IIb Public									
7 CASING: Diameter ☐ Steel ☐ Threaded ☒ Plastic ☐ Welded Height: Above/Below Surface <u>1</u> ft. Weight <u>SDR21</u> lbs./ft. ☐ Grouted Drill Hole Diameter ☐ Drive Shoe ☐ Yes ☒ No									
8 SCREEN: ☐ Not Installed Type <u>Stainless</u> Diameter <u>4"</u> Telescope Slot/Gauze <u>#10</u> Length <u>4'</u> Set between <u>28</u> ft. and <u>32</u> ft. FITTINGS: ☒ K-Packer ☐ Lead Packer ☐ Brainer Check ☒ Blank above screen <u>2</u> ft. Other <u>plug</u>									
9 STATIC WATER LEVEL: <u>12</u> 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 <u>0</u> to <u>22</u> ft. ☐ Neat cement ☒ Bentonite ☐ Other _____ No. of bags of cement _____ Additives _____									
13 Nearest source of possible contamination Type <u>Septic</u> Distance <u>90+</u> ft. Direction <u>N</u> Well disinfected upon completion? ☒ Yes ☐ No Was old well plugged? ☐ Yes ☐ No									
14 PUMP: ☐ Not Installed ☐ Pump Installation Only Manufacturer's name <u>Aermotor</u> Model number <u>A8B-33</u> HP <u>1/3</u> Volts <u>220</u> Length of Drop Pipe <u>15</u> ft. capacity <u>8</u> G.P.M. TYPE: ☒ Submersible ☐ Jet PRESSURE TANK: Manufacturer's name <u>Well-x-trol</u> Model number <u>205</u> Capacity <u>34</u> Gallons									
15. Remarks, elevation, source of data, etc.									
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. <u>B&Z Well Drilling Co.</u> <u>1645</u> REGISTERED BUSINESS NAME REGISTRATION NO. Address <u>233 E. Kasson Rd., Maple City, MI 49664</u> Signed <u>Jerome E. Blythe</u> Date <u>7-13-89</u> AUTHORIZED REPRESENTATIVE									
17. Rig Operator's Name: <u>Mark W. Zientek</u>									

D67d 12/85

GEOLOGICAL SURVEY COPY

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

GEOLOGICAL SURVEY NO.

MICHIGAN DEPARTMENT OF PUBLIC HEALTH

WATER WELL AND PUMP RECORD

PERMIT NUMBER

D67d 12/85

GEOLOGICAL SURVEY COPY

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

WATER WELL AND PUMP RECORD

PART 127 ACT 368, P.A. 1978

PERMIT NUMBER

8082

1 LOCATION OF WELL		
County <u>Leelanau</u>	Township Name <u>Leelanau</u>	Fraction <u>1/4 SW 1/4 SW 1/4</u> Section Number <u>25</u> Town Number <u>31</u> Range Number <u>11</u> <u>EW</u>
Distance And Direction From Road Intersection <u>LOT #31 Omensh Shores Subdivision, On Omensh Pt Rd approx 1/2 mile west of M-22</u>		
Street Address & City of Well Location		
Locate with "X" in Section Below 		
2 FORMATION DESCRIPTION		3 OWNER OF WELL:
	THICKNESS OF STRATUM	Owner <u>Walter & Beverly Gaudette</u> Address <u>1105 E. Windemere Royal Oak, MI 48073</u> Address Same As Well Location? ☐ Yes ☒ No
<u>DIRT/GRAVEL</u>	<u>3'</u>	4 WELL DEPTH: (completed) <u>39</u> ft. Date of Completion <u>6/25/84</u>
<u>GRAVEL/STONES</u>	<u>14'</u>	5 ☐ Cable tool ☒ Rotary ☐ Driven ☐ Dug ☐ Hollow rod ☐ Auger ☐ Jetted
<u>SAND/GRAVEL</u>	<u>6'</u>	6 USE: ☒ Domestic ☐ Type I Public ☐ Type III Public ☐ Irrigation ☐ Type IIa Public ☐ Heat pump ☐ Test Well ☐ Type IIb Public
<u>GRAVEL</u>	<u>7'</u>	7 CASING: ☐ Steel ☐ Threaded Height: Above/ Below <u>1</u> ft. ☒ Plastic ☐ Welded Surface <u>SDR21</u> ft. <u>5</u> in. to <u>35</u> ft. depth Weight <u>SDR21</u> lbs./ft. Grouted Drill Hole Diameter _____ in. to _____ ft. depth _____ in. to _____ ft. depth Drive Shoe ☐ Yes ☒ No
<u>SAND/GRAVEL</u>	<u>9'</u>	8 SCREEN: ☐ Not Installed Type <u>Stainless</u> Diameter <u>3"</u> Slot/Gauze <u>#10</u> Length <u>4'</u> Set between <u>35</u> ft. and <u>39</u> ft. FITTINGS: ☒ K-Packer ☐ Lead Packer ☐ Bremer Check ☒ Blank above screen <u>2</u> ft. Other <u>Plug</u>
		9 STATIC WATER LEVEL: <u>15</u> 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 <u>0</u> to <u>30</u> ft. ☐ Neat cement ☒ Bentonite ☐ Other _____ No. of bags of cement _____ Additives _____
		13 Nearest source of possible contamination Type <u>Septic</u> Distance <u>65</u> ft. Direction <u>South</u> Well disinfected upon completion? ☒ Yes ☐ No
		14 PUMP: ☐ Not Installed ☐ Pump Installation Only Manufacturer's name <u>Sears (His)</u> Model number <u>M4C02S-05</u> HP <u>1/2</u> Volts <u>220</u> Length of Drop Pipe <u>20</u> ft. capacity _____ G.P.M. TYPE: ☒ Submersible ☐ Jet PRESSURE TANK: Manufacturer's name <u>(His)</u> Model number _____ Capacity _____ Gallons
15. Remarks, elevation, source of data, etc.		16. WATER WELL CONTRACTOR'S CERTIFICATION:
RECEIVED Mich. Dept. of Public Health DEC 27 1984 Bureau of Environmental and Occupational Health - CWS USE A 2ND SHEET IF NEEDED		This well was drilled under my jurisdiction and this report is true to the best of my knowledge and belief. <u>B & Z Well Drilling Co.</u> 1645 REGISTERED BUSINESS NAME REGISTRATION NO. _____ Address <u>233 E. Kesson Road, Maple City, MI</u> Signed <u>James E. Buehler</u> Date <u>6/26/84</u> AUTHORIZED REPRESENTATIVE

WATER WELL AND PUMP RECORD

PERMIT NUMBER

PART 127 ACT 368, P.A. 1978

9078

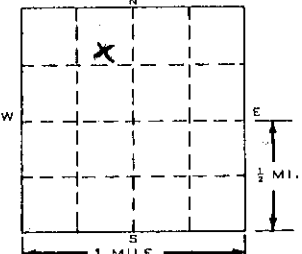
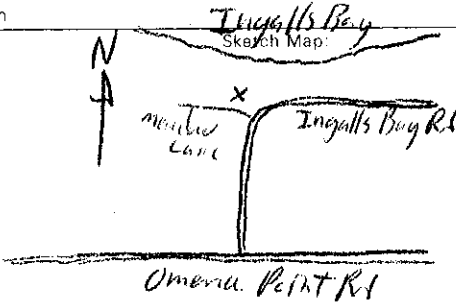
1 LOCATION OF WELL		TOWNSHIP NAME		Fraction	Section Number	Town Number	Range Number
County <u>Leelanau</u>		<u>Leelanau</u>		<u>N 1/4 SE 1/4 N 1/4</u>	<u>25</u>	<u>31</u>	<u>11</u> EKV
Distance And Direction From Road Intersection <u>off Ingalls Bay Rd on Grand Traverse Bay approx 1/4 mile north of Omnia Point Rd</u>							
Street Address & City of Well Location Locate with "X" in Section Below							
		Sketch Map: 					
2 FORMATION DESCRIPTION		THICKNESS OF STRATUM	DEPTH TO BOTTOM OF STRATUM	3 OWNER OF WELL:			
TOP SOIL		1	1	Sully Lott			
SAND & GRAVEL		19	20	Ingalls Bay Rd			
GRAVEL & STONES & SAND		10	30	Omnia Pt Rd			
SAND & GRAVEL		5	35	49674			
				Address Same As Well Location? ☒ Yes ☐ No			
				4 WELL DEPTH: (completed) <u>35</u> ft. Date of Completion <u>7-11-83</u>			
				5 ☐ Cable tool ☒ Rotary ☐ Driven ☐ Dug			
				☐ Hollow rod ☐ Auger ☐ Jetted			
				6 USE: ☒ Domestic ☐ Type I Public ☐ Type III Public			
				☐ Irrigation ☐ Type IIa Public ☐ Heat pump			
				☐ Test Well ☐ Type IIb Public			
				7 CASING: ☐ Steel ☐ Threaded ☒ Plastic ☒ Welded			
				Height: Above/Below Surface <u>1</u> ft.			
				Weight <u>SDR 21</u> lbs			
				Drive Shoe ☐ Yes ☐ No			
				8 SCREEN: ☐ Not Installed			
				Type <u>STAINLESS</u> Diameter <u>4 INCH</u>			
				Slot/G <u>1/2</u> Length <u>4 FEET</u>			
				Set between <u>31</u> ft. and <u>35</u> ft.			
				FITTINGS: ☐ K-Packer ☒ Lead Packer ☐ Bremer Check			
				☒ Blank above screen <u>2 1/2</u> ft. Other			
				9 STATIC WATER LEVEL: <u>7</u> 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 <u>0</u> to <u>25</u> ft.			
				☐ Neat cement ☒ Bentonite ☐ Other			
				No. of bags of cement Additives			
				13 Nearest source of possible contamination			
				Type <u>SEPTIC</u> Distance <u>50</u> ft. Direction <u>N</u>			
				Well disinfected upon completion? ☐ Yes ☐ No			
				14 PUMP: ☐ Not Installed ☐ Pump Installation Only			
				Manufacturer's name <u>AEROMOTOR</u>			
				Model number <u>50833</u> HP <u>1/2</u> Volts <u>115</u>			
				Length of Drop Pipe <u>20</u> ft. capacity G.P.M.			
				TYPE: ☒ Submersible ☐ Jet			
				PRESSURE TANK: <u>HERS</u>			
				Manufacturer's name			
				Model number Capacity Gallons			
15. Remarks, elevation, source of data, etc.				16. WATER WELL CONTRACTOR'S CERTIFICATION:			
RECEIVED Mich. Dept of Public Health AUG 15 1983 Environmental and Occupational Health Services Administration USE A 2ND SHEET IF NEEDED ADDITIONAL INFO BY DRILLER, ITEM NO. *CORRECTED BY **ADDITION BY ELEVATION DEPTH TO ROCK (Rev. 10-80)				This well was drilled under my jurisdiction and this report is true to the best of my knowledge and belief. <u>KROPP & SONS DRILLING</u> 0795 REGISTERED BUSINESS NAME REGISTRATION NO. Address <u>600 M-72 W TRAVERSE CITY</u> Signed <u>Donald Kropp</u> Date <u>7-18-83</u> AUTHORIZED REPRESENTATIVE			

WATER WELL AND PUMP RECORD

PART 127 ACT 368, P.A. 1978

PERMIT NUMBER

9017

1 LOCATION OF WELL		3 OWNER OF WELL:													
County <u>Leelanau</u>	Township Name <u>Leelanau</u>	Fraction <u>1/4 NE 1/4 NW 1/4</u>	Section Number <u>25</u>												
Distance And Direction From Road Intersection <u>off Meadow Lane on Ingalls Bay off Ingalls Bay Rd</u>		Town Number <u>31</u>	Range Number <u>11</u>												
Street Address & City of Well Location Locate with "X" in Section Below		Address <u>Dr. Lyon</u> <u>1337 Meadow Lane</u> <u>Omara, MI</u>													
		Address Same As Well Location? ☒ Yes ☐ No													
		4 WELL DEPTH: (completed) <u>40</u> ft. Date of Completion <u>7-8-83</u>													
		5 ☐ Cable tool ☒ Rotary ☐ Driven ☐ Dug ☐ Hollow rod ☐ Auger ☐ Jetted ☐													
2 FORMATION DESCRIPTION		6 USE: ☒ Domestic ☐ Type I Public ☐ Type III Public ☐ Irrigation ☐ Type IIa Public ☐ Heat pump ☐ Test Well ☐ Type IIb Public ☐													
		7 CASING: ☐ Steel ☐ Threaded ☐ Welded ☒ Plastic ☐ Height: Above/ XXX Surface <u>1</u> ft. Weight <u>SDR 24</u> lbs./ft. Drive Shoe ☐ Yes ☒ No													
<table border="1" style="width:100%; border-collapse: collapse;"> <thead> <tr> <th></th> <th>THICKNESS OF STRATUM</th> <th>DEPTH TO BOTTOM OF STRATUM</th> </tr> </thead> <tbody> <tr> <td>SAND</td> <td>4'</td> <td>4'</td> </tr> <tr> <td>GRAVEL</td> <td>13'</td> <td>17'</td> </tr> <tr> <td>SAND</td> <td>23'</td> <td>40'</td> </tr> </tbody> </table>			THICKNESS OF STRATUM	DEPTH TO BOTTOM OF STRATUM	SAND	4'	4'	GRAVEL	13'	17'	SAND	23'	40'	8 SCREEN: ☐ Not Installed Type <u>Stainless</u> Diameter <u>4"</u> Telescope Slot/Gauze <u>#10</u> Length <u>4'</u> Set between <u>36</u> ft. and <u>40</u> ft. FITTINGS: ☒ K-Packer ☐ Lead Packer ☐ Bremer Check ☒ Blank above screen <u>2</u> ft. Other <u>Plug</u>	
	THICKNESS OF STRATUM	DEPTH TO BOTTOM OF STRATUM													
SAND	4'	4'													
GRAVEL	13'	17'													
SAND	23'	40'													
RECEIVED Mich. Dept. of Public Health OCT. 6 1983 Environmental and Occupational Health Services Administration		9 STATIC WATER LEVEL: <u>6</u> 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.													
15. Remarks, elevation, source of data, etc.		11 WELL HEAD COMPLETION: ☒ Pitless adapter ☐ 12" above grade ☐ Basement offset ☐ Approved pit													
		12 WELL GROUTED? ☐ No ☒ Yes From <u>0</u> to <u>33</u> ft. ☐ Neat cement ☒ Bentonite ☐ Other _____ No. of bags of cement _____ Additives _____													
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.		13 Nearest source of possible contamination Type <u>Septic</u> Distance <u>80</u> ft. Direction <u>SE</u> Well disinfected upon completion? ☒ Yes ☐ No													
		14 PUMP: ☐ Not Installed ☐ Pump Installation Only Manufacturer's name <u>Aermotor</u> Model number <u>A8-50</u> HP <u>1/2</u> Volts <u>220</u> Length of Drop Pipe <u>20</u> ft. capacity <u>8</u> G.P.M. TYPE: ☒ Submersible ☐ Jet PRESSURE TANK: Manufacturer's name <u>Well-x-Trol</u> Model number <u>203</u> Capacity <u>36</u> Gallons													

WATER WELL AND PUMP RECORD

PART 127 ACT 368, P.A. 1978

PERMIT NUMBER

10406

1 LOCATION OF WELL		3 OWNER OF WELL:																
County Leelanau	Township Name Leelanau	Fraction SE 1/4 SW 1/4 SW 1/4	Section Number 25															
Distance And Direction From Road Intersection Lot # 30 Omena Shores Sub. on Omena Point Rd .2 mile east of M-22		Town Number 31 (N)																
Street Address & City of Well Location		Range Number 11 E (N)																
Locate with "X" in Section Below		Address Harold Putnam 541 E. 8th TC Bay Shore Coast Bldg.																
		Address Same As Well Location? ☐ Yes ☒ No																
		4 WELL DEPTH: (completed) ft. 42 Date of Completion 3, 30, 84																
2 FORMATION DESCRIPTION		5 ☐ Cable tool ☒ Rotary ☐ Driven ☐ Dug ☐ Hollow rod ☐ Auger ☐ Jetted ☐																
		6 USE: ☒ Domestic ☐ Type I Public ☐ Type III Public ☐ Irrigation ☐ Type IIa Public ☐ Heat pump ☐ Test Well ☐ Type IIb Public ☐																
<table border="1" style="width:100%; border-collapse: collapse;"> <thead> <tr> <th style="width:60%;">FORMATION DESCRIPTION</th> <th style="width:20%;">THICKNESS OF STRATUM</th> <th style="width:20%;">DEPTH TO BOTTOM OF STRATUM</th> </tr> </thead> <tbody> <tr> <td>GRAVEL ROUTS SAND</td> <td>0</td> <td>23</td> </tr> <tr> <td>GRAVEL SAND</td> <td>12</td> <td>35</td> </tr> <tr> <td>SAND</td> <td>7</td> <td>42</td> </tr> <tr> <td>CLAY SAND - ON P.T.</td> <td></td> <td></td> </tr> </tbody> </table>		FORMATION DESCRIPTION	THICKNESS OF STRATUM	DEPTH TO BOTTOM OF STRATUM	GRAVEL ROUTS SAND	0	23	GRAVEL SAND	12	35	SAND	7	42	CLAY SAND - ON P.T.			7 CASING: ☐ Steel ☐ Threaded ☐ Height Above/Below ☒ Plastic ☐ Welded Surface _____ ft. _____ in. to _____ ft. depth Weight 5 DR lbs./ft. _____ in. to _____ ft. depth Grouted Drill Hole Diameter _____ _____ in. to _____ ft. depth Drive Shoe ☐ Yes ☐ No _____ in. to _____ ft. depth	
		FORMATION DESCRIPTION	THICKNESS OF STRATUM	DEPTH TO BOTTOM OF STRATUM														
GRAVEL ROUTS SAND	0	23																
GRAVEL SAND	12	35																
SAND	7	42																
CLAY SAND - ON P.T.																		
8 SCREEN: ☐ Not Installed ☒ 3 PIPE Type _____ Diameter _____ Slot/Gauze 12 Length 4 Set between 38 ft. and 42 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. ☐ Neat cement ☐ Bentonite ☐ Other _____ No. of bags of cement _____ Additives _____		13 Nearest source of possible contamination Type SEPTIC Distance 50 ft. Direction _____ Well disinfected upon completion? ☒ Yes ☐ No																
		14 PUMP: ☐ Not Installed ☐ Pump Installation Only Manufacturer's name AER MOTOR Model number SD 33 HP 5 Volts 220 Length of Drop Pipe 24 ft. capacity 10 G.P.M. TYPE: ☒ Submersible ☐ Jet PRESSURE TANK: CLAY MARIT Manufacturer's name _____ Model number _____ Capacity 10-30 Gallons																
15. Remarks, elevation, source of data, etc. RECEIVED Mich. Dept. of Public Health JUN 14 1984 Bureau of Environmental and Occupational Health - GWQS USE A 2ND SHEET IF NEEDED		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. KROPP WELL DRILLING 0795 REGISTERED BUSINESS NAME _____ REGISTRATION NO. _____ Address 6010 M 72 WEST Signed Leond Kropp Date 3, 30, 84 AUTHORIZED REPRESENTATIVE																

8	9	0	7
---	---	---	---

GEOLOGICAL SURVEY COPY

TAX NO:
45-008-480-031-00MICHIGAN DEPARTMENT OF PUBLIC HEALTH
WATER WELL AND PUMP RECORD

PERMIT NO:

2851

1. LOCATION OF WELL

County

Leelanau

Township Name

Leelanau

Fraction

NE 1/4 NE 1/4

Section No.

25

Town No.

31 N

Range No.

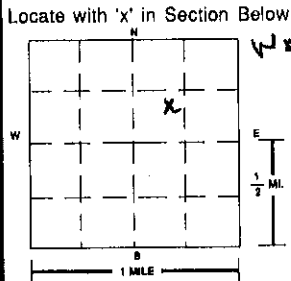
11 W

Distance and Direction from Road Intersection

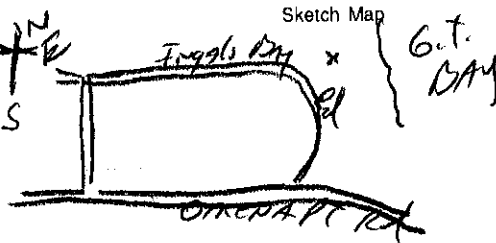
Ingalls Bayside Sub Lot #31

Street Address & City of Well Location

Locate with 'x' in Section Below



Sketch Map



3. OWNER OF WELL

Address

Joel Fisher
6106 Birchwood Rd
Woodbury, MN 55125Address Same as Well Location ☐ Yes ☒ No

4. WELL DEPTH:

Date Completed

49 ft.

8/9/96

☒ New Well☐ Replacement Well5. ☐ Cable Tool☒ Rotary☐ Driven☐ Dug☐ Hollow Rod☐ Auger/Bored☐ Jetted6. 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

Height: Above/Below

Surface: _____ ft

Diameter: 5 in. to 41 ft. depth

Weight: _____ lbs./ft.

_____ in. to _____ ft. depth

BORE HOLE:

Diameter: 7 3/4 in. to 49 ft. depth

_____ in. to _____ ft. depth

☐ Drive Shoe☐ Shale Packer

8. SCREEN:

☐ Not Installed☒ Gravel-Packed

Type

Johnson Rite

Diameter

5

Slot/Screen

5

Length:

8

Set Between 41 ft. and 49 ft.

FITTINGS:

☒ K-Packer☐ Bremer Check☐ Blank Above Screen

2 ft. Other

9. STATIC WATER LEVEL:

10 ft. Below Land Surface

☐ Flowing

10. PUMPING LEVEL: Below Land Surface

_____ ft. After _____ hrs. Pumping at _____ 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 0 to 31 ft.

☐ Neat Cement☐ Bentonite☐ Other

No. of Bags

3

Additives

groutwell

13. NEAREST SOURCE OF POSSIBLE CONTAMINATION:

Type Septic Distance 50+ ft. Direction S.W.

Type _____ Distance _____ ft. Direction _____

USE A 2ND SHEET IF NEEDED

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

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

17. DRILLING MACHINE OPERATOR:

☒ Employee ☐ Subcontractor

Name Gary Selimski

15. 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.

REGISTERED BUSINESS NAME

Address

Signed

AUTHORIZED REPRESENTATIVE

REGISTRATION NO.

Date

WATER WELL AND PUMP RECORD

PART 127 ACT 368, P.A. 1978

(Rev. 10-80)

JAN 15 1981

WATER WELL RECORD

ACT 294 PA 1965

MICHIGAN DEPARTMENT
OF
PUBLIC HEALTH

1 LOCATION OF WELL

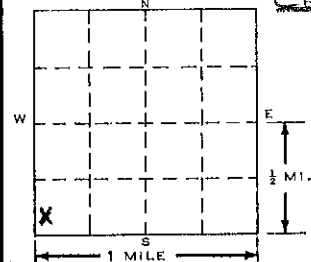
County Leelanau	Township Name Leelanau Twp.	Fraction SW 1/4 SW 1/4	Section Number 25	Town Number 31 N.E.	Range Number 11 E.W.
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Distance And Direction from Road Intersections

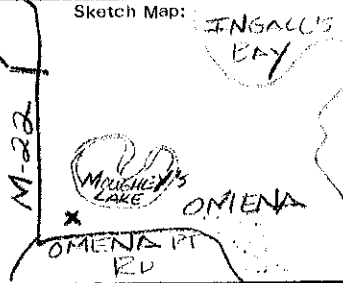
Approx. $\frac{1}{4}$ mile E of M-22 and 40' N of
Omena Point Rd., Lot 16 Omena Shores
13202 = 13210 Isthmus, Omena, MI.

Street address & City of Well Location

Locate with "X" in section below



Sketch Map:



3 OWNER OF WELL

JIM ANDERSON, Builder
Address **13202 - 13210 Isthmus**
Omena, MI 49674

4 WELL DEPTH: (completed) Date of Completion

55 ft. **12/08/80**

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 ☐ Height: Above ~~XXXX~~
Diam. Surface **1** ft.
5 PVC in. to **50** ft. Depth Weight **sch 40** /ft.
in. to ft. Depth Drive Shoe? Yes ☐ No ☒

8 SCREEN:

Type: **Stainless** Dia.: **3** Inch

Slot: ~~XXXX~~ **#7** Length **5** Feet

Set between **50** ft. and **55** ft.

Fittings:

K-Packer/Set Length/Plug Bottom

9 STATIC WATER LEVEL

21 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 **10** ft. to **45** ft.

14 Nearest Source of possible contamination

95 feet **SE** Direction **Septic Tank** Type

Well disinfected upon completion ☒ Yes ☐ No

15 PUMP:

☐ Not installed

Manufacturer's Name **Aermotor - Century**

Model Number **SD12-50** HP $\frac{1}{2}$ Volts **220**

Length of Drop Pipe **35** ft. capacity **12** G.P.M.

Type: ☒ Submersible

☐ Jet

☐ Reciprocating

USE A 2ND SHEET IF NEEDED

16 Remarks, elevation, source of data, etc.

ADDED INFO BY DRILLER, ILM NLL

*CORRECTED BY *St*

**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.

B & Z Well Drilling Co. 1645

REGISTERED BUSINESS NAME

REGISTRATION NO.

Address **233 E. Kasson Rd., Maple City, MI**

Signed *James M. Nemeshal* Date **12/08/80**

OFFICE REP.

SEP 04 1979

WATER WELL RECORD

ACT 294 PA 1965

MICHIGAN DEPARTMENT

OF
PUBLIC HEALTH

1 LOCATION OF WELL

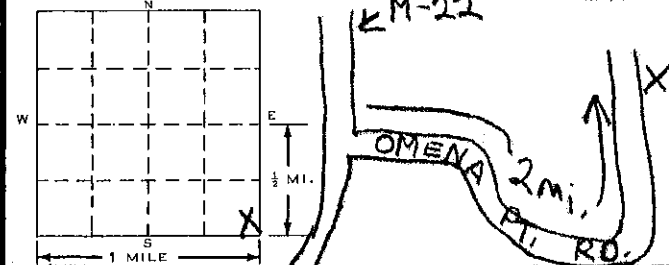
County **LEELANAU** Township Name **LEELANAU** Fraction **SE 1/4 SE 1/4** Section Number **25** Town Number **31 N 4** Range Number **11 W.**

Distance And Direction from Road Intersections

2 MILES WEST OF M-22 ON OMENA PT. RD.

Street address & City of Well Location

Locate with "X" in section below Sketch Map:



2 FORMATION

THICKNESS
OF
STRATUMDEPTH TO
BOTTOM OF
STRATUM

SAND & GRAVEL

5

5

GRAVEL

15

20

CLAY

83

103

SAND & GRAVEL

9

112

3 OWNER OF WELL:

Address **MIKE BISKUPSKI**
Box 81
OMENA, MI.

4 WELL DEPTH: (completed) Date of Completion

112 ft. 8-2-79

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 ☒ Height: Above/Below
Diam. **5** in. to **104** ft. Depth **1** ft.
Weight **200** lbs. **TEST**
Drive Shoe? Yes ☐ No ☒

8 SCREEN: **COOK**

Type: **S.S.** Dia.: **4 INCH**
Slot/Groove **10** Length **8 FEET**
Set between **104** ft. and **112** ft.

Fittings: **PLUG BOTTOM, LEAD PACKER, BLANK**

9 STATIC WATER LEVEL

27 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

50 feet **SW** Direction **SEPTIC** Type

Well disinfected upon completion ☒ Yes ☐ No

15 PUMP:

☐ Not installed

Manufacturer's Name **AERMOTOR**

Model Number **SD8-50** HP **1/2** Volts **230**

Length of Drop Pipe **92** ft. capacity **2** G.P.M.

Type: ☒ Submersible

☐ Jet

☐ Reciprocating

USE A 2ND SHEET IF NEEDED

16 Remarks, elevation, source of data, etc.

ADDED INFO BY DRILLER, ITEM NO.

*CORRECTED BY

*ADDITION BY **ST**

ELEVATION

DEPTH TO ROCK

17 WATER WELL CONTRACTOR'S CERTIFICATION:

B. & Z. WELL DRILLING for my jurisdiction and this report is true to the best of my knowledge and belief.

233 EAST KASSON ROAD

MAPLE CITY, MICHIGAN 49664

SHOP 228-5678 OFF 947-1694

REGISTRATION NO. **1645**

Signed **Jerome E. Buffa** Date **8-6-79**
AUTHORIZED REPRESENTATIVE

JUL 22 1982

WATER WELL AND PUMP RECORD

7823

PERMIT NUMBER

PART 127 ACT 368, P.A. 1978

1 LOCATION OF WELL		Township Name		Fraction	Section Number	Town Number	Range Number
County <u>Leelanau</u>		<u>Leelanau</u>		<u>1/4 SE 1/4 SW 1/4</u>	<u>25</u>	<u>31 (N)</u>	<u>11 E (N)</u>
Distance And Direction From Road Intersection <u>North east corner of Omema Point Rd and Lake St., approx 1/4 mi east of M-22 in Omema</u>							
Street Address & City of Well Location <u>13283 Omema Point Rd Omema, MI 49674</u>							
Locate with "X" in Section Below							
2 FORMATION DESCRIPTION		THICKNESS OF STRATUM	DEPTH TO BOTTOM OF STRATUM	3 OWNER OF WELL:			
SAND - GRAVEL		42'	42'	James E. Woodrow 13283 Omema Point Rd Omema, MI 49674			
				Address Same As Well Location? ☒ Yes ☐ No			
				4 WELL DEPTH: (completed) <u>42</u> ft. Date of Completion <u>5-26-82</u>			
				5 ☐ Cable tool ☒ Rotary ☐ Driven ☐ Dug ☐ Hollow rod ☐ Auger ☐ Jetted ☐			
				6 USE: ☒ Domestic ☐ Type I Public ☐ Type III Public ☐ Irrigation ☐ Type IIa Public ☐ Heat pump ☐ Test Well ☐ Type IIb Public ☐			
				7 CASING: Diameter ☐ Steel ☐ Threaded ☒ Plastic ☐ Welded 5 in. to 38 ft. depth Grouted Drill Hole Diameter _____ in. to _____ ft. depth Drive Shoe ☐ Yes ☒ No			
				8 SCREEN: ☐ Not installed Type <u>Stainless</u> Diameter <u>4"</u> Slot/Gauze <u>#7</u> Length <u>4'</u> Set between <u>38</u> ft. and <u>42</u> ft. FITTINGS: ☒ K-Packer ☒ Lead Packer ☐ Bremer Check ☒ Blank above screen <u>3</u> ft. Other <u>Plug</u>			
				9 STATIC WATER LEVEL: <u>6</u> 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 <u>0</u> to <u>35</u> ft. ☐ Neat cement ☒ Bentonite ☐ Other _____ No. of bags of cement _____ Additives _____			
				13 Nearest source of possible contamination Type <u>Septic</u> Distance <u>65</u> ft. Direction <u>SE</u> Well disinfected upon completion? ☒ Yes ☐ No			
				14 PUMP: ☐ Not Installed ☐ Pump Installation Only Manufacturer's name <u>Aermotor</u> Model number <u>SD8-33</u> HP <u>1/3</u> Volts <u>220</u> Length of Drop Pipe <u>20</u> ft. capacity <u>8</u> G.P.M. TYPE: ☒ Submersible ☐ Jet PRESSURE TANK: Manufacturer's name <u>Well-x-Trol</u> Model number <u>202</u> Capacity <u>20</u> Gallons			
15. Remarks, elevation, source of data, etc. ADDED INFO BY DRILLER, ITEM NO. *CORRECTED BY <u>ST</u> **ADDITION BY _____ ELEVATION _____ DEPTH TO ROCK _____							
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. <u>B & Z WELL DRILLING CO.</u> 1645 REGISTERED BUSINESS NAME REGISTRATION NO. Address <u>233 E. Kassar Road, Maple City, MI</u> Signed <u>Jerome E. Belfrage</u> Date _____ AUTHORIZED REPRESENTATIVE							

USE A 2ND SHEET IF NEEDED

SEP 09 1980

WATER WELL RECORD
ACT 294 PA 1965MICHIGAN DEPARTMENT
OF
PUBLIC HEALTH

1 LOCATION OF WELL

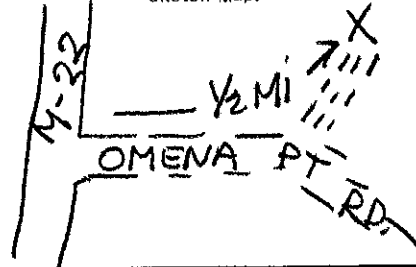
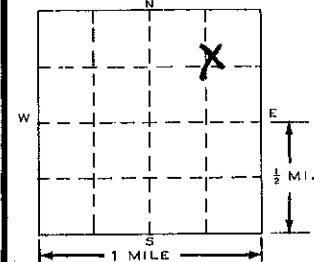
County **LEELANAU** Township Name **LEELANAU** Fraction **SW 1/4 NE 1/4 NE 1/4** Section Number **25** Town Number **31** Range Number **11** N.W.

Distance And Direction from Road Intersections

1/2 MILE EAST OF M-22 ON OMENA PT RD.Street address & City of Well Location **OMENA, MI.**

Locate with "X" in section below

Sketch Map:



3 OWNER OF WELL:

RICHARD TAYLOR
Address **6410 SO. 149 AVE**
OMAHA, NEB. 68137

4 WELL DEPTH: (completed) Date of Completion

37 ft. **7-29-80**

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 ☒ Height: Above/Below
Diam. Surface **1** ft.

5 in. to **33** ft. Depth Weight **200** lbs./ft. TEST
in. to ft. Depth Drive Shoe? Yes ☐ No ☒

8 SCREEN:

Type: **S.S.** Dia.: **4 INCH**
Slot **10** Length **4 FEET**
Set between **33** ft. and **37** ft.

Fittings: **PLUG, SET LENGTH, K-PACKER**

9 STATIC WATER LEVEL

11 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 **0** ft. to **10** ft.

14 Nearest Source of possible contamination

50 feet **S** Direction **SEPTIC** Type

Well disinfected upon completion ☒ Yes ☐ No

15 PUMP:

☐ Not installed

Manufacturer's Name **AERMOTOR**

Model Number **SD8-33** HP **1/3** Volts **230**

Length of Drop Pipe **21** ft. capacity **8** G.P.M.

Type: ☒ Submersible

☐ Jet

☐ Reciprocating

USE A 2ND SHEET IF NEEDED

16 Remarks, elevation, source of data, etc.

ADDED INFO BY DRILLER, ITEM NO.

*CORRECTED BY **ST**

**ADDITION BY

ELEVATION

DEPTH TO ROCK

17 WATER WELL CONTRACTOR'S CERTIFICATION:

LEONARD KROPP WELL DRILLING and this report is true
to the best of my knowledge and belief.

6010 WEST M-72

TRAVERSE CITY, MI 49684

PHONE: 947-1684

REGISTRATION NO. **0795**

Signed

AUTHORIZED REPRESENTATIVE

Date

7-30-80

NOV 06 1980

WATER WELL RECORD

ACT 294 PA 1965

MICHIGAN DEPARTMENT
OF
PUBLIC HEALTH

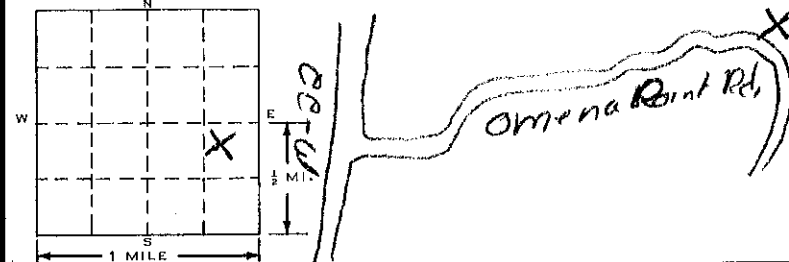
1 LOCATION OF WELL

County <u>Leelanau</u>	Township Name <u>Leelanau</u>	Fraction <u>1/4 NE 1/4 SE 1/4</u>	Section Number <u>25</u>	Town Number <u>31 N/6</u>	Range Number <u>11 E/W.</u>
---------------------------	----------------------------------	--------------------------------------	-----------------------------	------------------------------	--------------------------------

Distance And Direction from Road Intersection 1 1/2 miles East of
M-22 on Omena point Rd. in
Singing Sands
 Street address & City of Well Location

Locate with "X" in section below

Sketch Map:



2 FORMATION

THICKNESS
OF
STRATUMDEPTH TO
BOTTOM OF
STRATUM

SAND

4

4

clay

13

17

gravel

3

20

clay

61

81

water sand

6

87

3 OWNER OF WELL

Address

Tucker Const
Singing Sands Sub Omena

4 WELL DEPTH: (completed) Date of Completion

87 ft. 8-6-805 ☐ 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.Weight 11.0 lbs./ft.Drive Shoe? Yes ☒ No ☐

8 SCREEN:

Type: SS Dia.: 4"Slot/Gauze 10/10 Length 5'Set between 82 ft. and 87 ft.

Fittings:

9 STATIC WATER LEVEL

20 ft. below land surface

10 PUMPING LEVEL below land surface

20 ft. after 2 hrs. pumping 1 g.p.m.20 ft. after 2 hrs. pumping 1 g.p.m.

11 WATER QUALITY in Parts Per Million:

Iron (Fe) 1 Chlorides (Cl) 1Hardness 1 Other 112 WELL HEAD COMPLETION: ☐ In Approved Pit☒ Pitless Adapter ☐ 12" Above Grade13 Well Grouted? ☒ Yes ☐ No☐ Neat Cement ☒ Bentonite ☐Depth: From 1 ft. to 1 ft.

14 Nearest Source of possible contamination

50 feet Septic Type SepticWell disinfected upon completion ☒ Yes ☐ No

15 PUMP:

☐ Not installedManufacturer's Name Red Jack KetModel Number 2-10 HP 1/2 Volts 230Length of Drop Pipe 40 ft. capacity 10 G.P.M.Type: ☐ Submersible☐ Jet ☐ Reciprocating

16 Remarks, elevation, source of data, etc.

ADDED INFO BY DRILLER, ITEM NO.

*CORRECTED BY ST

**ADDITION BY

ELEVATION

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.

Phil's Well Drilling 0481

REGISTERED BUSINESS NAME REGISTRATION NO.

Address 10785 Grandview Rd. T.C.Signed Phil Shannawski Date 8-25-80

AUTHORIZED REPRESENTATIVE

JUN 25 1980

WATER WELL RECORD

ACT 294 PA 1965

MICHIGAN DEPARTMENT
OF
PUBLIC HEALTH

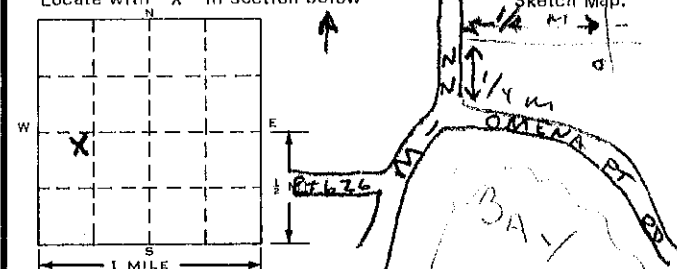
1 LOCATION OF WELL

County LEELANAU	Township Name LEELANAU	Fraction NE 1/4 NW 1/4 SW 1/4	Section Number 25	Town Number 31 N.W.	Range Number 11 E.W.
---------------------------	----------------------------------	---	-----------------------------	-------------------------------	--------------------------------

Distance And Direction from Road Intersections
1/4 mi EAST of M-22 & 1/4 mi. W. of OMENA
PT RD. OMENA, MI

Street address & City of Well Location

Locate with "X" in section below



3 OWNER OF WELL:

Address
DICK SMITH
OMENA, MI

4 WELL DEPTH: (completed) Date of Completion

51 ft. **6-13-80**

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 ☒ Height: Above/Below
Diam. **4** in. to **48'** ft. Depth

Surface **11** lbs./ft.Weight **11** lbs./ft.Drive Shoe? Yes ☒ No ☐

8 SCREEN:

Type: **STAINLESS STEEL** Dia.: **1 INCH**Slot: **1/8** in. Length **3 FEET**Set between **48** ft. and **51** ft.Fittings:
PLUG BOTTOM - WELDED TO PIPE

9 STATIC WATER LEVEL

12 ft. below land surface

10 PUMPING LEVEL below land surface

51 ft. after **1** hrs. pumping **12** g.p.m.**51** ft. after **1** hrs. pumping **12** 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 Grade13 Well Grouted? ☐ Yes ☒ No☐ Neat Cement ☐ Bentonite ☐

Depth: From _____ ft. to _____ ft.

14 Nearest Source of possible contamination

50 feet **NW** Direction **SEPTIC** TypeWell disinfected upon completion ☒ Yes ☐ No

15 PUMP:

☐ Not installedManufacturer's Name **AER MOTOR**Model Number **SD1250** HP **1/2** Volts **230**Length of Drop Pipe **33** ft. capacity **12** G.P.M.Type: ☒ Submersible☐ Jet☐ Reciprocating

USE A 2ND SHEET IF NEEDED

16 Remarks, elevation, source of data, etc.

ADDED INFO BY DRILLER, ITEM NO.

*CORRECTED BY **ST**

**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.

KROPP WELL DRILLING**0795**

REGISTERED BUSINESS NAME

REGISTRATION NO.

Address **6010 M-72 W TRAVERSE CITY MI 49684**Signed **Wesley J. J...**

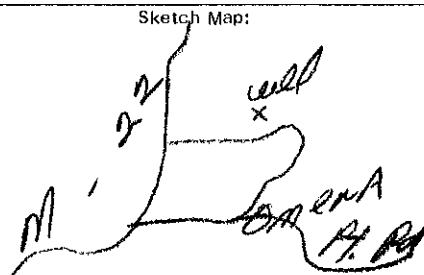
AUTHORIZED REPRESENTATIVE

Date

6-13-80

JAN 16 1979

WATER WELL RECORD
ACT 294 PA 1965MICHIGAN DEPARTMENT
OF
PUBLIC HEALTH

1 LOCATION OF WELL		2			
County <i>Leelanau</i>	Township Name <i>Leelanau</i>	Fraction <i>NE 1/4 SW 1/4 Q 1/4</i>	Section Number <i>25</i>	Town Number <i>31 N/2</i>	Range Number <i>11 S/W.</i>
Distance And Direction from Road Intersections <i>1/4 mi East of M-22 in Omena Shores Sub.</i>		3 OWNER OF WELL: <i>Cole Dionseth</i> Address <i>R#1 Box 200 Suttons Bay Mich 49882</i>			
Street address & City of Well Location Locate with "X" in section below X Sketch Map: 		4 WELL DEPTH: (completed) Date of Completion <i>48</i> ft. <i>7/6/78</i>			
		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. <i>4</i> in. to <i>44</i> ft. Depth Height: Above/Below Surface <i>18</i> " ft. Weight <i>11</i> lbs./ft. Drive Shoe? Yes ☒ No ☐			
FORMATION		THICKNESS OF STRATUM	DEPTH TO BOTTOM OF STRATUM	8 SCREEN:	
				Type: <i>Stainless</i> Dia.: <i>4"</i> Slot/Gauge <i>10</i> Length <i>4"</i> Set between <i>44</i> ft. and <i>48</i> ft. Fittings: <i>Plug - 18 Blank K-Packer</i>	
<i>Coarse Sand & Gravel</i>		<i>30</i>	<i>30</i>	9 STATIC WATER LEVEL	
				<i>10</i> ft. below land surface	
<i>Water Sand</i>		<i>18</i>	<i>48</i>	10 PUMPING LEVEL below land surface	
				<i>15</i> ft. after <i>1</i> hrs. pumping <i>15</i> 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	
				<i>60</i> feet <i>SW</i> Direction <i>Septic System</i> Well disinfected upon completion ☒ Yes ☐ No	
				15 PUMP:	
				☐ Not installed Manufacturer's Name <i>Flint & Walling</i> Model Number <i>5BR8</i> HP <i>1/2</i> Volts <i>230</i> Length of Drop Pipe <i>30</i> ft. capacity <i>15</i> G.P.M. Type: ☒ Submersible ☐ Jet ☐ Reciprocating	
16 Remarks, elevation, source of data, etc.		17 WATER WELL CONTRACTOR'S CERTIFICATION:			
ADDED INFO BY DRILLER. ITEM NO. *CORRECTED BY <i>ST</i> **ADDITION BY ELEVATION DEPTH TO ROCK		This well was drilled under my jurisdiction and this report is true to the best of my knowledge and belief. <i>Dionseth Well Drilling 1241</i> REGISTERED BUSINESS NAME REGISTRATION NO.			
		Address <i>1747 Linden Ave T.O.</i>			
		Signed <i>Dionseth</i> Date <i>9/18/78</i> AUTHORIZED REPRESENTATIVE			

USE A 2ND SHEET IF NEEDED

JAN 16 1979

WATER WELL RECORD

ACT 294 PA 1965

MICHIGAN DEPARTMENT
OF
PUBLIC HEALTH

1 LOCATION OF WELL

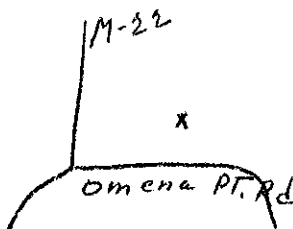
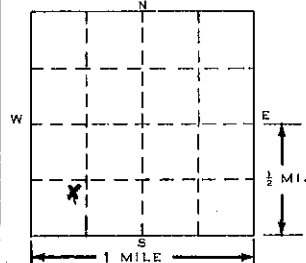
County <u>Leelanau</u>	Township Name <u>Leelanau</u>	Fraction <u>NE 1/4 SW 1/4 SW 1/4</u>	Section Number <u>25</u>	Town Number <u>31</u>	Range Number <u>11</u> N/W.
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Distance And Direction from Road Intersections
0.25 Mi. E of M-22 & 350' N of Omena Pt. Rd
Omena Shores Subd, Omena

Street address & City of Well Location

Locate with "X" in section below

Sketch Map:



2 FORMATION

THICKNESS
OF
STRATUMDEPTH TO
BOTTOM OF
STRATUM

Gravel	30	30
Sand-gravel	19	49
Fine sand	7	56

3 OWNER OF WELL:

Herbert Wheeler
Omena, Mich

Address

4 WELL DEPTH: (completed) 56 ft. Date of Completion 10-31-78

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 ☒ Height: Above/Below
 Diam. Surface 1 ft.

4 in. to 50 ft. Depth Weight 11 lbs./ft.
 in. to ft. Depth Drive Shoe? Yes ☒ No ☐

8 SCREEN:

Type: stainless Dia.: 4"
 Slot/Gauze 6 Length 5'
 Set between 50 ft. and 56 ft.
 Fittings: Lead packer, closed bottom

9 STATIC WATER LEVEL

25 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

60 feet SE Direction Septic Type
 Well disinfected upon completion ☒ Yes ☐ No

15 PUMP:

☐ Not installed
 Manufacturer's Name Aermotor
 Model Number SD8-33 HP 1/3 Volts 230
 Length of Drop Pipe 36 ft. capacity 8 G.P.M.
 Type: ☒ Submersible ☐ Jet ☐ Reciprocating

16 Remarks, elevation, source of data, etc.

ADDED INFO BY DRILLER, ITEM NO.

*CORRECTED BY SG

**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.

B+Z Well Drilling 1645
 REGISTERED BUSINESS NAME REGISTRATION NO.
 Address 233 E. Kasson Rd, Maple City

Signed Jerome E. Biffla Date 10-31-78
 AUTHORIZED REPRESENTATIVE

JAN 16 1979

WATER WELL RECORD

ACT 294 PA 1965

MICHIGAN DEPARTMENT
OF
PUBLIC HEALTH

1 LOCATION OF WELL

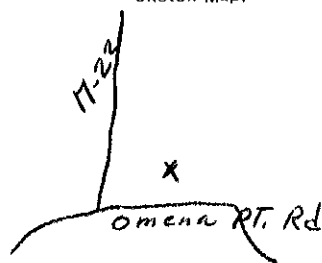
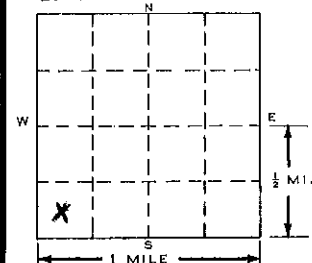
County <u>Leelanau</u>	Township Name <u>Leelanau</u>	Fraction <u>SW 1/4 SW 1/4</u>	Section Number <u>25</u>	Town Number <u>31 N.W.</u>	Range Number <u>11 E.W.</u>
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Distance And Direction from Road Intersections
2.1 mi. E of M-22 + 350' N of Omena Pt. Rd
Omena

Street address & City of Well Location

Locate with "X" in section below

Sketch Map:



3 OWNER OF WELL:

Spartan Properties, Ltd
Address 33 W. Peach Orchard Rd
Dayton, Ohio 45419

4 WELL DEPTH: (completed) Date of Completion

56 ft. 10-30-78

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.Weight 11 lbs./ft.Drive Shoe? Yes ☒ No ☐

8 SCREEN:

Type: Stainless Dia.: 4"Slot/Gauze 7 Length 5'Set between 51 ft. and 56 ft.Fittings: 3' blank
Lead packer, closed bottom

9 STATIC WATER LEVEL

19 ft. below land surface

10 RUMPLING 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 Grade13 Well Grouted? ☐ Yes ☒ No☐ Neat Cement ☐ Bentonite ☐Depth: From ft. to ft.

14 Nearest Source of possible contamination

100 feet NW Direction Septic TypeWell disinfected upon completion ☒ Yes ☐ No

15 PUMP:

☐ Not installedManufacturer's Name AermotorModel Number SD12-50 HP 1/2 Volts 230Length of Drop Pipe 36 ft. capacity 14 G.P.M.Type: ☒ Submersible☐ Jet☐ Reciprocating

USE A 2ND SHEET IF NEEDED

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.

B+Z Well Drilling1645

REGISTERED BUSINESS NAME

REGISTRATION NO.

Address 233 E. Kasson Rd, Maple CitySigned Jerome E. Biffa Date 10-30-78

AUTHORIZED REPRESENTATIVE

D67d 12/85

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

D67d 12/86

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

1 LOCATION OF WELL		Fraction	Section Number	Town Number	Range Number
County <u>Lecanum</u>	Township Name <u>Lecanum</u>	<u>S 1/4 N 1/4 S 1/4</u>	<u>25</u>	<u>31</u> NYS	<u>11</u> E.M.
Distance And Direction From Road Intersection <u>Lot #3 Omena Shores Subdivision</u>					
Street Address & City of Well Location Locate with "X" in Section Below		3 OWNER OF WELL: <u>Glenn L. Brown</u> Address <u>5318 Manitow Trail</u> <u>Omena, MT</u> Address Same As Well Location? ☐ Yes ☒ No			
		4 WELL DEPTH: Date Completed MO DAY YEAR ☒ New Well <u>45</u> FT. <u>11</u> / <u>05</u> / <u>87</u> ☐ Replacement Well			
		5 ☐ Cable tool ☒ Rotary ☐ Driven ☐ Dug ☐ Hollow rod ☐ Auger ☐ Jetted ☐			
		6 USE: ☒ Domestic ☐ Type I Public ☐ Type III Public ☐ Irrigation ☐ Type IIa Public ☐ Heat pump ☐ Test Well ☐ Type IIb Public ☐			
		7 CASING: Diameter ☐ Steel ☐ Threaded Height Above Surface <u>XXXX</u> ☒ Plastic ☐ Welded Surface <u>1</u> ft. <u>5</u> in. to <u>41</u> ft. depth Weight <u>SDR21</u> lbs./ft. GROUTED Drill Hole Diameter _____ in. to _____ ft. depth Drive Shoe ☐ Yes ☒ No _____ in. to _____ ft. depth			
		8 SCREEN: ☐ Not Installed Type <u>Stainless</u> Diameter <u>4"</u> <u>Telescope</u> Slot/Gauze <u>#10</u> Length <u>4'</u> Set between <u>41</u> ft. and <u>45</u> ft. FITTINGS: ☒ K-Packer ☐ Lead Packer ☐ Bremer Check ☒ Blank above screen <u>2</u> ft. Other <u>Plug</u>			
2 FORMATION DESCRIPTION THICKNESS OF STRATUM DEPTH TO BOTTOM OF STRATUM		9 STATIC WATER LEVEL: <u>13</u> ft. below land surface ☐ Flow			
SAND/STONES		20'	20'	10 PUMPING LEVEL: below land surface _____ ft. after _____ hrs. pumping at _____ G.P.M. _____ ft. after _____ hrs. pumping at _____ G.P.M.	
SAND/clay/Gravel		17'	37'	11 WELL HEAD COMPLETION: ☒ Pitless adapter ☐ 12" above grade ☐ Basement offset ☐ Approved pit	
SAND/GRAVEL		8'	45'	12 WELL GROUTED? ☐ No ☒ Yes From <u>0</u> to <u>36</u> ft. ☐ Neat cement ☒ Bentonite ☐ Other _____ No. of bags of cement _____ Additives _____	
				13 Nearest source of possible contamination Type <u>Septic</u> Distance _____ ft. Direction _____ Well disinfected upon completion? ☒ Yes ☐ No Was old well plugged? ☐ Yes ☐ No	
				14 PUMP: ☐ Not Installed ☐ Pump Installation Only Manufacturer's name <u>Aermotor</u> Model number <u>A8B-33</u> HP <u>1/3</u> Volts <u>220</u> Length of Drop Pipe <u>25</u> ft. capacity <u>8</u> G.P.M. TYPE: ☒ Submersible ☐ Jet PRESSURE TANK: Manufacturer's name <u>Well-x-Trol</u> Model number <u>203</u> Capacity <u>32</u> Gallons	
15. Remarks, elevation, source of data, etc.		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. <u>B & Z WELL DRILLING CO. 1647</u> REGISTERED BUSINESS NAME REGISTRATION NO. Address <u>233 E. Kasson Road, Maple City, MN</u> Signed <u>[Signature]</u> DATE <u>12-01-87</u>			
17. Rig Operator's Name:					
<u>ROBERT G. STACHNIK</u>					

MICHIGAN DEPARTMENT OF PUBLIC HEALTH

WATER WELL AND PUMP RECORD

PERMIT NUMBER

13944

1 LOCATION OF WELL			3 OWNER OF WELL:																																												
County <u>Leelanau</u>	Township Name <u>Leelanau</u>	Fraction <u>1/4 SW 1/4 SE 1/4</u>	Section Number <u>255</u>	Town Number <u>310</u>	Range Number <u>11 E/W</u>																																										
Distance And Direction From Road Intersection <u>Omara Heights, access east of Omara Point Rd. approx 1/2 mile east of M-22</u>			Address <u>Holly Smith</u> <u>Omara, MI</u>																																												
Street Address & City of Well Location			Address Same As Well Location? ☒ Yes ☐ No																																												
Locate with "X" in Section Below			4 WELL DEPTH: <u>112</u> FT. Date Completed <u>8/27/87</u> ☐ New Well ☒ Replacement Well																																												
			5 ☐ Cable tool ☒ Rotary ☐ Driven ☐ Dug ☐ Hollow rod ☐ Auger ☐ Jetted ☐																																												
			6 USE: ☒ Domestic ☐ Type I Public ☐ Type III Public ☐ Irrigation ☐ Type IIa Public ☐ Heat pump ☐ Test Well ☐ Type IIb Public ☐																																												
<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <th style="width: 40%;">2 FORMATION DESCRIPTION</th> <th style="width: 10%;">THICKNESS OF STRATUM</th> <th style="width: 10%;">DEPTH TO BOTTOM OF STRATUM</th> </tr> <tr><td>Sand</td><td>10</td><td>10</td></tr> <tr><td>Clay</td><td>3</td><td>13</td></tr> <tr><td>Gravel, Sand</td><td>12</td><td>25</td></tr> <tr><td>Sand, Gravel</td><td>15</td><td>40</td></tr> <tr><td>Clay, Sand, Gravel</td><td>20</td><td>60</td></tr> <tr><td>Gravel, XX Sand</td><td>3</td><td>63</td></tr> <tr><td>Gravel, Sand, Clay</td><td>9</td><td>72</td></tr> <tr><td>XX Clay</td><td>8</td><td>80</td></tr> <tr><td>Gravel, Clay</td><td>16</td><td>96</td></tr> <tr><td>Sand</td><td>1 1/2</td><td>97 1/2</td></tr> <tr><td>Clay, Sand</td><td>5 1/2</td><td>101</td></tr> <tr><td>Sand</td><td>11</td><td>112</td></tr> <tr><td>Clay on bottom</td><td></td><td>112</td></tr> </table>			2 FORMATION DESCRIPTION	THICKNESS OF STRATUM	DEPTH TO BOTTOM OF STRATUM	Sand	10	10	Clay	3	13	Gravel, Sand	12	25	Sand, Gravel	15	40	Clay, Sand, Gravel	20	60	Gravel, XX Sand	3	63	Gravel, Sand, Clay	9	72	XX Clay	8	80	Gravel, Clay	16	96	Sand	1 1/2	97 1/2	Clay, Sand	5 1/2	101	Sand	11	112	Clay on bottom		112	7 CASING: Diameter ☐ Steel ☐ Threaded ☒ Plastic ☒ Welded <u>5</u> in. to <u>107</u> ft. depth <u>7 7/8</u> in. to <u>112</u> ft. depth Grouted Drill Hole Diameter <u>7 7/8</u> in. to <u>112</u> ft. depth		
			2 FORMATION DESCRIPTION	THICKNESS OF STRATUM	DEPTH TO BOTTOM OF STRATUM																																										
Sand	10	10																																													
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Gravel, XX Sand	3	63																																													
Gravel, Sand, Clay	9	72																																													
XX Clay	8	80																																													
Gravel, Clay	16	96																																													
Sand	1 1/2	97 1/2																																													
Clay, Sand	5 1/2	101																																													
Sand	11	112																																													
Clay on bottom		112																																													
			Height: Above/Below Surface <u>1</u> above Weight <u>SDR21</u> lbs./ft. Drive Shoe ☐ Yes ☒ No																																												
			8 SCREEN: ☐ Not Installed Type <u>PVC</u> Diameter <u>3"</u> Slot/Gauze <u>30 slot</u> Length <u>5'</u> Set between <u>107</u> ft. and <u>112</u> ft. FITTINGS: ☒ K-Packer ☐ Lead Packer ☐ Bremer Check ☐ Blank above screen <u>1</u> ft. Other _____																																												
			9 STATIC WATER LEVEL: <u>81</u> 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. ☐ Neat cement ☒ Bentonite ☐ Other _____ No. of bags of cement _____ Additives _____																																												
			13 Nearest source of possible contamination Type <u>septic</u> Distance <u>80</u> ft. Direction <u>West</u> Well disinfected upon completion? ☒ Yes ☐ No Was old well plugged? ☐ Yes ☒ No																																												
			14 PUMP: ☐ Not Installed ☐ Pump Installation Only Manufacturer's name <u>XX Burks</u> Model number <u>10</u> HP <u>1/2</u> Volts <u>220</u> Length of Drop Pipe <u>94</u> ft. capacity <u>10+</u> G.P.M. TYPE: ☒ Submersible ☐ Jet PRESSURE TANK: <u>Well X Trol</u> Manufacturer's name _____ Model number <u>203</u> Capacity <u>32</u> Gallons																																												
15. Remarks, elevation, source of data, etc.			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. Kropp Well Drilling Inc 0795 REGISTERED BUSINESS NAME _____ REGISTRATION NO. _____ Address <u>6010 M-72 West Traverse City MI 49684</u> Signed <u>Kathy Kropp</u> Date <u>8/26/87</u> AUTHORIZED REPRESENTATIVE																																												
17. Rig Operator's Name: <u>Robert Miller</u>																																															

USE A 2ND SHEET IF NEEDED

MICHIGAN DEPARTMENT OF PUBLIC HEALTH

WATER WELL AND PUMP RECORD

PERMIT NUMBER

1 LOCATION OF WELL			3 OWNER OF WELL:		
County LEELANAU	Township Name LEELANAU	Fraction SE 1/4 SW 1/4 SW 1/4	Section Number 25	Town Number 31	Range Number 11
Distance And Direction From Road Intersection 400 E of M-22 ON OMENA PT RD 200' N. of RD.			Address ED & D. CONSTRUCTION 3244 PEMBROOK DR TRAVERSE CITY, MI		
Street Address & City of Well Location OMENA, MI			Address Same As Well Location? ☐ Yes ☒ No		
Locate with "X" in Section Below			4 WELL DEPTH: 50 FT. Date Completed 11/4/88		
			☒ New Well ☐ Replacement Well		
			5 ☐ Cable tool ☒ Rotary ☐ Driven ☐ Dug ☐ Hollow rod ☐ Auger ☐ Jetted ☐		
			6 USE: ☒ Domestic ☐ Type I Public ☐ Type III Public ☐ Irrigation ☐ Type IIa Public ☐ Heat pump ☐ Test Well ☐ Type IIb Public ☐		
			7 CASING: Diameter ☐ Steel ☒ Plastic ☒ Threaded ☒ Welded Height: Above/Below Surface 1 ft. Weight 3 lbs./ft. Drive Shoe ☐ Yes ☒ No		
2 FORMATION DESCRIPTION			8 SCREEN: ☐ Not Installed		
			Type PVC Diameter 4 INCH Slot/Opening 10 Length 5 FEET Set between 45 ft. and 50 ft. FITTINGS: ☒ K-Packer ☐ Lead Packer ☐ Bremer Check ☒ Blank above screen 1 ft. Other _____		
SAND GRAVEL SAND & GRAVEL SOFT GRAY CLAY SAND & GRAVEL			9 STATIC WATER LEVEL: 10 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. ☐ Neat cement ☒ Bentonite ☒ Other VOLCLAY No. of bags of cement _____ Additives _____		
			13 Nearest source of possible contamination Type SEPTIC Distance 50 ft. Direction _____ Well disinfected upon completion? ☒ Yes ☐ No Was old well plugged? ☐ Yes ☐ No		
			14 PUMP: ☐ Not Installed ☐ Pump Installation Only Manufacturer's name MYERS Model number 2W HP 1/2 Volts 230 Length of Drop Pipe 40 ft. capacity 10 G.P.M. TYPE: ☒ Submersible ☐ Jet PRESSURE TANK: _____ Manufacturer's name WEL X-TREME Model number WX202 Capacity 40 Gallons		
15. Remarks, elevation, source of data, etc.			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. PHIL'S WELL DRILLING 0481 REGISTERED BUSINESS NAME _____ REGISTRATION NO. _____ Address 1785 GRANDVIEW RD. TC Signed Phil Thernashi Date 11-11-88 AUTHORIZED REPRESENTATIVE _____		
17. Rig Operator's Name: ROBERT NELSON					

D87d 12/85

 Authority:
 Completion:
 Penalty:

 Act 368 PA 1978
 Required
 Conviction of a violation
 of any provision is a
 misdemeanor.

MICHIGAN DEPARTMENT OF PUBLIC HEALTH

WATER WELL AND PUMP RECORD

PERMIT NUMBER

1 LOCATION OF WELL		3 OWNER OF WELL:	
County <u>Leelanau</u>	Township Name <u>Leelanau</u>	Fraction <u>SW 1/4 NE 1/4 NW 1/4</u>	Section Number <u>25</u>
		Town Number <u>31</u>	Range Number <u>11</u>
Distance And Direction From Road Intersection <u>1/2 mile down Private Dr from Ingalls Bay Rd</u> <u>and 3/10 from Ontario Pt Rd.</u>		Address <u>John Stephenson Jr</u> <u>Box 58</u> <u>Ontario, MI 49674</u>	
Street Address & City of Well Location		Address Same As Well Location? ☒ Yes ☐ No	
Locate with "X" in Section Below		4 WELL DEPTH: Date Completed	
		☒ New Well ☐ Replacement Well	
		5 ☐ Cable tool ☒ Rotary ☐ Driven ☐ Dug ☐ Hollow rod ☐ Auger ☐ Jetted ☐	
		6 USE: ☒ Domestic ☐ Type I Public ☐ Type III Public	
		☐ Irrigation ☐ Type IIa Public ☐ Heat pump ☐ Test Well ☐ Type IIb Public ☐	
		7 CASING: Diameter ☐ Steel ☐ Threaded ☒ Plastic ☐ Welded	
		Height: Above/Below Surface <u>1</u> ft. Weight <u>SDR21</u> lbs./ft. Drive Shoe ☐ Yes ☒ No	
		8 SCREEN: ☐ Not Installed	
		Type <u>Stainless</u> Diameter <u>4"</u> Telescope Slot/Gauze <u>#10</u> Length <u>4'</u> Set between <u>26</u> ft. and <u>30</u> ft. FITTINGS: ☒ K-Packer ☐ Lead Packer ☐ Bremer Check ☒ Blank above screen <u>2</u> ft. Other <u>plug</u>	
		9 STATIC WATER LEVEL: <u>13</u> ft. below land surface ☐ Flow	
		10 PUMPING LEVEL: below land surface	
		11 WELL HEAD COMPLETION: ☒ Pitless adapter ☐ 12" above grade	
		☐ Basement offset ☐ Approved pit	
		12 WELL GROUTED? ☐ No ☒ Yes From <u>0</u> to <u>20</u> ft.	
		☐ Neat cement ☒ Bentonite ☐ Other _____ No. of bags of cement _____ Additives _____	
		13 Nearest source of possible contamination	
		Type <u>Septic</u> Distance <u>75'</u> ft. Direction <u>NE</u> Well disinfected upon completion? ☒ Yes ☐ No Was old well plugged? ☐ Yes ☐ No	
		14 PUMP: ☐ Not installed ☐ Pump Installation Only	
		Manufacturer's name <u>Aermotor (Mueller)</u> Model number <u>A8-33</u> HP <u>1/3</u> Volts <u>220</u> Length of Drop Pipe <u>18</u> ft. capacity <u>8</u> G.P.M. TYPE: ☒ Submersible ☐ Jet PRESSURE TANK: Manufacturer's name <u>Well-x-trol</u> Model number <u>202</u> Capacity <u>20</u> Gallons	
		15. Remarks, elevation, source of data, etc.	
		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. <u>B&Z Well Drilling Co.</u> REGISTERED BUSINESS NAME Address <u>233 E. Kasson Rd.</u> <u>Maple City, MI 49664</u> Signed <u>Jerome E. Bepko</u> Date <u>Aug. 11, 1988</u> AUTHORIZED REPRESENTATIVE	
		Authority: <u>1645</u> Completion: <u>1645</u> Penalty: <u>1645</u> Act 368 PA 1978 Required Conviction of a violation of any provision is a misdemeanor.	

MAY 29 1979

WATER WELL RECORD

ACT 294 PA 1965

MICHIGAN DEPARTMENT
OF
PUBLIC HEALTH

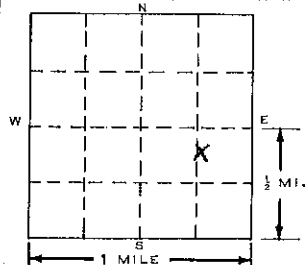
1 LOCATION OF WELL

County Leelanau Township Name Leelanau Fraction N¹/₂ E¹/₂ S¹/₂ E¹/₂ Section Number 25 Town Number 31 Range Number 11 N¹/₂ W.

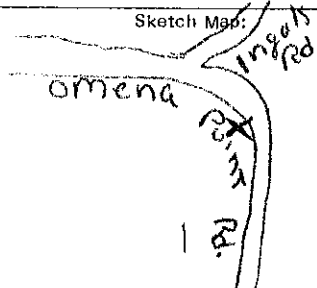
Distance And Direction from Road Intersections just south of Ingalls Rd. on Omena Pt. Rd.

Street address & City of Well Location

Locate with "X" in section below



Sketch Map:



3 OWNER OF WELL:

North Port Const.

Address

Omena Point Rd.

4 WELL DEPTH: (completed) Date of Completion

58 ft. 3-16-795 ☒ 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 ☐ Height: Above/BelowDiam. 4 in. to 53 ft. Depth Surface 1 ft.Weight 110 lbs./ft.Drive Shoe? Yes ☒ No ☐

2 FORMATION

THICKNESS
OF
STRATUMDEPTH TO
BOTTOM OF
STRATUMSand + Stone66silt39clay + Rock4352water sand658

8 SCREEN:

Type: SS Dia.: 4"Slot/Gauze 10/10 Length 5'Set between 53 ft. and 58 ft.

Fittings:

9 STATIC WATER LEVEL

18 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 Grade13 Well Grouted? ☒ Yes ☐ No☐ Neat Cement ☐ Bentonite ☒ sand

Depth: From _____ ft. to _____ ft.

14 Nearest Source of possible contamination

50 feet _____ Direction septic Type _____Well disinfected upon completion ☒ Yes ☐ No

15 PUMP:

☐ Not installedManufacturer's Name Red JacketModel Number 2-W HP 1/2 Volts 230Length of Drop Pipe 40 ft. capacity 12 G.P.M.Type: ☒ Submersible☐ Jet☐ Reciprocating

16 Remarks, elevation, source of data, etc.

ADDED INFO BY DRILLER, ITEM NO.

*CORRECTED BY S

**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.

Phil's Well Drilling0481

REGISTERED BUSINESS NAME

REGISTRATION NO.

Address 10785 Grandview Rd. T.C.Signed Phil's Well Drilling Date 3-19-79

AUTHORIZED REPRESENTATIVE

DEC 29 1981

WATER WELL AND PUMP RECORD

PART 127 ACT 368, P.A. 1978

PERMIT NUMBER

1 LOCATION OF WELL		3 OWNER OF WELL:																
County Leelanau	Township Name Leelanau	Fraction NE 1/4 SW 1/4 SW 1/4	Section Number 25															
Distance And Direction From Road Intersection 1/4 mile East of M-22 on Omena Point Road on the North Side., Omena.		Town Number 31 N/3																
Street Address & City of Well Location Locate with "X" in Section Below		Range Number 11 E/W																
		James Anderson Address 13202/13210 Isthmus Omena, MI 49674 Address Same As Well Location? ☐ Yes ☒ No																
2 FORMATION DESCRIPTION <table border="1" style="width:100%; border-collapse: collapse;"> <thead> <tr> <th></th> <th>THICKNESS OF STRATUM</th> <th>DEPTH TO BOTTOM OF STRATUM</th> </tr> </thead> <tbody> <tr> <td>GRAVEL - SAND</td> <td>15'</td> <td>15'</td> </tr> <tr> <td>SAND</td> <td>21'</td> <td>36'</td> </tr> <tr> <td>CLAY</td> <td>4'</td> <td>40'</td> </tr> <tr> <td>SAND</td> <td>7'</td> <td>47'</td> </tr> </tbody> </table>			THICKNESS OF STRATUM	DEPTH TO BOTTOM OF STRATUM	GRAVEL - SAND	15'	15'	SAND	21'	36'	CLAY	4'	40'	SAND	7'	47'	4 WELL DEPTH: (completed) 47 ft.	
			THICKNESS OF STRATUM	DEPTH TO BOTTOM OF STRATUM														
		GRAVEL - SAND	15'	15'														
		SAND	21'	36'														
CLAY	4'	40'																
SAND	7'	47'																
5 ☐ Cable tool ☒ Rotary ☐ Driven ☐ Dug ☐ Hollow rod ☐ Auger ☐ Jetted ☐		Date of Completion 11-12-81																
6 USE: ☒ Domestic ☐ Type I Public ☐ Type III Public ☐ Irrigation ☐ Type IIa Public ☐ Heat pump ☐ Test Well ☐ Type IIb Public ☐		7 CASING: ☐ Steel ☐ Threaded ☐ Welded ☒ Plastic ☐ Height: Above XXXX Surface 1 ft. 5 in. to 42 ft. depth Grouted Drill Hole Diameter _____ in. to _____ ft. depth _____ in. to _____ ft. depth _____ in. to _____ ft. depth Drive Shoe ☐ Yes ☒ No																
8 SCREEN: ☐ Not Installed Type Stainless Diameter 4" Slot/ XXXX #7 Length 5' Set between 42 ft. and 47 ft. FITTINGS: ☒ K-Packer ☐ Lead Packer ☐ Bremer Check ☒ Blank above screen 3 ft. Other Plug		9 STATIC WATER LEVEL: 6 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 0 to 39 ft. ☐ Neat cement ☒ Bentonite ☐ Other _____ No. of bags of cement _____ Additives _____		13 Nearest source of possible contamination Type Septic Distance 75 ft. Direction SW Well disinfected upon completion? ☒ Yes ☐ No																
14 PUMP: ☐ Not Installed ☐ Pump Installation Only Manufacturer's name TAIT Model number SDL210F HP 1/2 Volts 220 Length of Drop Pipe 20 ft. capacity 10 G.P.M. TYPE: ☒ Submersible ☐ Jet PRESSURE TANK: Manufacturer's name Well-x-Trol Model number 202 Capacity 20 Gallons		15. Remarks, elevation, source of data, etc. ADDED INFO BY GENLOR, ITEM NO. *CORRECTED BY ST *ADDITION BY ELEVATION DEPTH TO ROCK																
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. B & Z WELL DRILLING CO. 1647 REGISTERED BUSINESS NAME REGISTRATION NO. Address 233 E. Kasson Road, Maple City, MI Signed Paul Ann Nemeskal Date 11-13-81 AUTHORIZED REPRESENTATIVE		USE A 2ND SHEET IF NEEDED																

SEP 15 1975

WATER WELL RECORD

ACT 294 PA 1965

MICHIGAN DEPARTMENT
OF
PUBLIC HEALTH

1 LOCATION OF WELL

County

LEELANAU

Township Name

LEELANAU

Fraction

SW 1/4 SW 1/4 NW 1/4

Section Number

25

Town Number

31 N 26.

Range Number

11 E/W.

Distance And Direction from Road Intersections

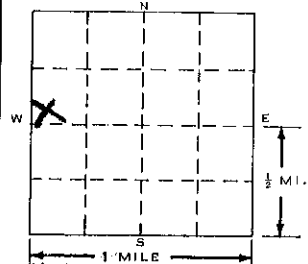
500' No. of Ingals Bay Rd. on M-22
250' East of M-22

Street address & City of Well Location

OMENA, MI. 49674

Locate with "X" in section below

Sketch Map:



3 OWNER OF WELL:

Address

MRS GEORGE HARRIS
CHERRY BASKET ORCHARDS
OMENA, MICHIGAN 49674

4 WELL DEPTH: (completed) Date of Completion

46' ft. 8/23/75

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 ☒ Height: Above ~~XXXX~~

Diam. Surface 1 ft.

4 in. to 42 ft. Depth Weight 11 lbs./ft.

in. to ft. Depth Drive Shoe? Yes ☐ No ☒

8 SCREEN:

JOHNSON STAIN LESS -STEEL

Type: DRIVE POINT Dia.: 4 inch

Slot: ~~XXXX~~ 10 Length: 4 feet

Set between 42 ft. and 46 ft.

Fittings: drive point type

9 STATIC WATER LEVEL

24 ft. below land surface

10 PUMPING LEVEL below land surface

24 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

12 WELL HEAD COMPLETION:

☐ In Approved Pit☒ Pitless Adapter ☐ 12" Above Grade13 Well Grouted? ☐ Yes ☒ No☐ Neat Cement ☐ Bentonite ☐

Depth: From ft. to ft.

14 Nearest Source of possible contamination

50 feet E Direction septic Type

Well disinfected upon completion ☐ Yes ☒ No

15 PUMP:

☐ Not installed

Manufacturer's Name AERMOTOR

Model Number SD25-5 HP 1/2 Volts 230

Length of Drop Pipe 31 ft. capacity 5 G.P.M.

Type: ☒ Submersible☐ Jet☐ Reciprocating

USE A 2ND SHEET IF NEEDED

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.

KROPP WELL DRILLING 0795

REGISTERED BUSINESS NAME

REGISTRATION NO.

Address CEDAR, MI. 49621

Signed

AUTHORIZED REPRESENTATIVE

Date 8/23/75

3 OCT 17 1977

WATER WELL RECORD
ACT 294 PA 1965MICHIGAN DEPARTMENT
OF
PUBLIC HEALTH

1 LOCATION OF WELL			2		
County LEELANAU	Township Name LEELANAU	Fraction SW 1/4 SW 1/4 NE 1/4	Section Number 25	Town Number 31	Range Number 11
Distance And Direction from Road Intersections 1 MILE EAST OF M 22 ON OMENA PT. RD. NORTH OF ROAD			3 OWNER OF WELL: V. MISANGYI		
Street address & City of Well Location OMENA, MI.			Address OMENA, MI.		
Locate with "X" in section below			4 WELL DEPTH: (completed) 45 ft. Date of Completion 7-18-77		
Sketch Map: 			5 ☐ Cable tool ☐ Rotary ☐ Driven ☐ Dug ☐ Hollow rod ☐ Jetted ☒ Bored ☐		
2 FORMATION			6 USE: ☒ Domestic ☐ Public Supply ☐ Industry ☐ Irrigation ☐ Air Conditioning ☐ Commercial ☐ Test Well ☐		
			7 CASING: Threaded ☐ Welded ☒ Height: Above/Below Surface 1 ft. Weight 11 lbs./ft. Drive Shoe? Yes ☒ No ☐		
			4 in. to 41 ft. Depth in. to 45 ft. Depth		
			8 SCREEN: COOK Type STAINLESS STEEL Dia.: 4 INCH Slot 10 Length 4 FEET Set between 41 ft. and 45 ft.		
			Fittings: PLUG BOTTOM LEAD PACKER, SET LENGTH		
THICKNESS OF STRATUM			9 STATIC WATER LEVEL 18 ft. below land surface		
DEPTH TO BOTTOM OF STRATUM			10 PUMPING LEVEL below land surface 18 ft. after 1 hrs. pumping 20 g.p.m. ft. after ___ hrs. pumping ___ g.p.m.		
DIRT			11 WATER QUALITY in Parts Per Million: Iron (Fe) ___ Chlorides (Cl) ___ Hardness ___ Other ___		
GRAVEL & SAND			12 WELL HEAD COMPLETION: ☐ In Approved Pit ☒ Pitless Adapter ☐ 12" Above Grade		
SAND & GRAVEL			13 Well Grouted? ☐ Yes ☒ No ☐ Neat Cement ☐ Bentonite ☐ Depth: From ___ ft. to ___ ft.		
			14 Nearest Source of possible contamination 50 feet SW Direction SEPTIC Type Well disinfected upon completion ☐ Yes ☒ No		
			15 PUMP: ☐ Not installed Manufacturer's Name AERMOTOR Model Number SD5X 33 HP 1/3 Volts 220 Length of Drop Pipe 35 ft. capacity 5 G.P.M. Type: ☒ Submersible ☐ Jet ☐ Reciprocating		
USE A 2ND SHEET IF NEEDED			16 Remarks, elevation, source of data, etc. 		
			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. THOMPSON WELL DRILLING 1646 REGISTERED BUSINESS NAME REGISTRATION NO. Address CEDAR, MI 49621 Signed Date 7-20-77 AUTHORIZED REPRESENTATIVE		

WATER WELL RECORD

ACT 294 PA 1965

MICHIGAN DEPARTMENT
OF
PUBLIC HEALTH

1 LOCATION OF WELL

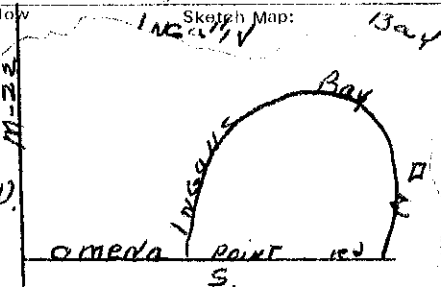
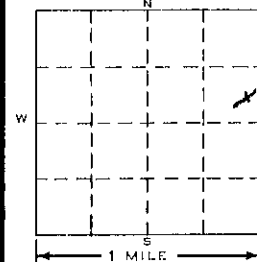
County Leelanau Township Name South part Fraction SE 1/4 NE 1/4 Section Number 25 Town Number 31 N/8 Range Number 11 E/W

Distance And Direction from Road Intersections

Engalls Bay side Plat.

Street address & City of Well Location

Locate with "X" in section below



3 OWNER OF WELL:

WALTERS & SON
Address 2016 SHAWNEE
TRAVERSE CITY, MICH.

4 WELL DEPTH: (completed) Date of Completion

35 ft. 7-18-74

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 ☐ Height: Above/Below
Diam. _____ Surface _____ ft.
4 in. to 30 ft. Depth Weight _____ lbs./ft.
_____ in. to _____ ft. Depth Drive Shoe? Yes ☒ No ☐

8 SCREEN: STAINLESS STEEL
Type: CORRUGATED Dia.: 4"
SIX/Gauze 10 Length 5'
Set between 30 ft. and 35 ft.
Fittings: BREMER CHECK

9 STATIC WATER LEVEL
16 ft. below land surface

10 PUMPING LEVEL below land surface
21 ft. after 10 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 _____

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
75 feet W Direction Septic Type
Well disinfected upon completion ☒ Yes ☐ No

15 PUMP: ☐ Not installed
Manufacturer's Name Goulds CO
Model Number VEH 05432 HP 1/2 Volts 120
Length of Drop Pipe 21 ft. capacity 10 G.P.M.
Type: ☒ Submersible ☐ Jet ☐ Reciprocating

USE A 2ND SHEET IF NEEDED

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

**ADDITION BY

ELEVATION

DEPTH TO ROCK

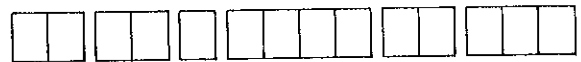
17 WATER WELL CONTRACTOR'S CERTIFICATION:

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

CLIFFWELL DRIG CO.
REGISTERED BUSINESS NAME

REGISTRATION NO. 1244Address 6410 CENTER RD. TRAVERSE CITY, MICH.

Signed Frank W. Dzwonke Date 7-19-74
AUTHORIZED REPRESENTATIVE



OCT 23 1973

WATER WELL RECORD
ACT 294 PA 1965MICHIGAN DEPARTMENT
OF
PUBLIC HEALTH

1 LOCATION OF WELL

County LEELANAU Township Name LEELANAU Fraction NE 1/4 SW 1/4 NE 1/4 Section Number 25 Town Number 31 Range Number 11

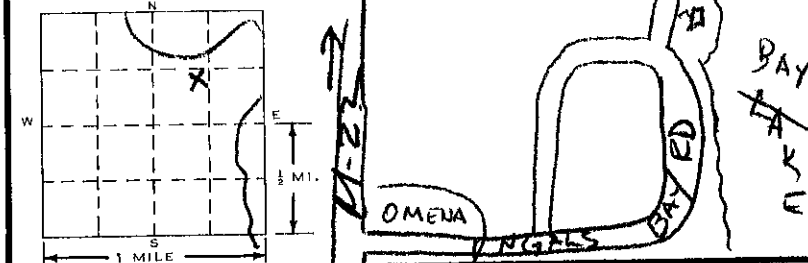
Distance and Direction from Road Intersections

JUNCTION M-22 TO INGALLS BAY RD
13817 INGALLS BAY RD

Street address & City of Well Location OMENA, MI

Locate with "X" in section below

Sketch Map:



3 OWNER OF WELL:

WAYNE L. DEAL
Address **2307 Oxford St.**
ROCKFORD, ILL. 61103

Address

4 WELL DEPTH: (completed) Date of Completion

129 ft. 4/23/73

5 ☒ Cable tool ☐ Rotary ☐ Driven ☐ Dug
☐ Hollow rod ☐ Jetted ☐ Borod

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

7 CASING: Threaded ☐ Welded ☒
Diam. _____ Height: Above/Below
Surface 1 ft.
Weight 11 lbs./ft.
Drive Shoe? Yes ☒ No ☐

8 SCREEN:
Type: none Dia.: _____
Slot/Gauze _____ Length _____
Set between _____ ft. and _____ ft.
Fittings: _____

9 STATIC WATER LEVEL
3 ft. below land surface

10 PUMPING LEVEL below land surface
10 ft. after 1 hrs. pumping 25 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
50 feet NW Direction SEPTIC Type
Well disinfected upon completion ☐ Yes ☒ No

15 PUMP: ☐ Not installed
Manufacturer's Name AERMOTOR
Model Number SD12-50 HP _____ Volts _____
Length of Drop Pipe 84 ft. capacity 10 G.P.M.
Type: ☒ Submersible ☐ Jet ☐ Reciprocating

USE A 2ND SHEET IF NEEDED

16 Remarks, elevation, source of data, etc.

ADDED INFO BY DRILLER, DATE 4/23/73

ADDED INFO BY DRILLER

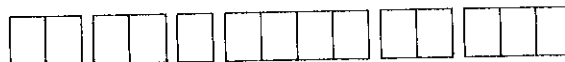
ADDITIONAL INFO

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.

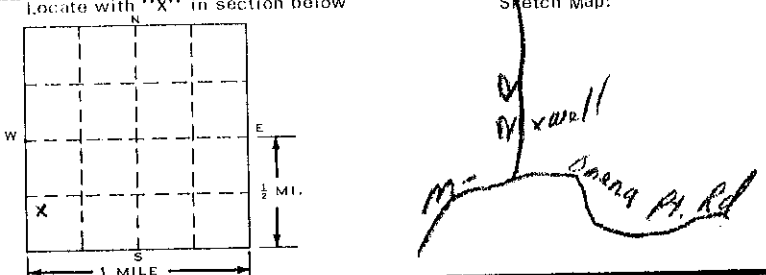
LEONARD KROPP **0795**

REGISTERED BUSINESS NAME WELL DRILLING REGISTRATION NO. _____Address CEDAR, MICHIGAN 49621Signed Walt Kropp Date 5/3/73
AUTHORIZED REPRESENTATIVE



NOV 01 1973

WATER WELL RECORD
ACT 294 PA 1965MICHIGAN DEPARTMENT
OF
PUBLIC HEALTH

1 LOCATION OF WELL		County <u>Leelanau</u>	Township Name <u>Leelanau</u>	Range Number <u>25</u>
Distance And Direction from Road Intersections <u>0.3 mi. West Omena Rd on M-22</u>		Section Number <u>31 N.S.</u> Town Number <u>11 E/W</u>		
Street address & City of Well Location Locate with "X" in section below		3 OWNER OF WELL: Address <u>Cole Gronseth</u> <u>1622 Main St.</u> <u>Suttons Bay, Mich. 49682</u>		
		4 WELL DEPTH: (completed) Date of Completion		
		5 <u>54</u> ft. ☒ Cable tool ☐ Rotary ☐ Driven ☐ Dug ☐ Hollow rod ☐ Jetted ☐ Bored		
2 FORMATION		6 USE: ☒ Domestic ☐ Public Supply ☐ Industry ☐ Irrigation ☐ Air Conditioning ☐ Commercial ☐ Test Well		
		7 CASING: Threaded ☒ Welded ☐ Diam. <u>4</u> in. to <u>50</u> ft. Depth Height: Above/Below Surface <u>18'</u> ft. Weight <u>11</u> lbs./ft. Drive Shoe? Yes ☒ No ☐		
FORMATION		8 SCREEN:		
		Type: <u>Stainless</u> Dia.: <u>4"</u> Slot/Gauze <u>10</u> Length <u>4'</u> Set between <u>50</u> ft. and <u>54</u> ft. Fittings: <u>Plug - 18" Blank - K packer</u>		
FORMATION		9 STATIC WATER LEVEL <u>30</u> ft. below land surface		
		10 PUMPING LEVEL below land surface <u>33</u> ft. after <u>1</u> hrs. pumping <u>15</u> g.p.m. _____ ft. after _____ hrs. pumping _____ g.p.m.		
FORMATION		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		
FORMATION		13 Well Grouted? ☐ Yes ☒ No ☒ Neat Cement ☐ Bentonite ☐ _____ Depth: From _____ ft. to _____ ft.		
		14 Nearest Source of possible contamination <u>55</u> feet <u>N</u> Direction <u>Tike Field</u> Type Well disinfected upon completion ☒ Yes ☐ No		
FORMATION		15 PUMP: <u>Aradator</u> ☐ Not installed Manufacturer's Name <u>Fast Manufacturing</u> Model Number <u>5047</u> HP <u>1/4</u> Volts <u>230</u> Length of Drop Pipe <u>43</u> ft. capacity <u>15</u> G.P.M. Type: ☒ Submersible ☐ Jet ☐ Reciprocating		
		16 Remarks, elevation, source of data, etc. <u>USE A 2ND SHEET IF NEEDED</u>		
FORMATION		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. <u>Thomas Well Drilling</u> <u>1941</u> REGISTERED BUSINESS NAME REGISTRATION NO. Address <u>1602 Boone Rd TR Mich</u> Signed <u>Thomas Well Drilling</u> Date _____ AUTHORIZED REPRESENTATIVE		

DEC 26 1972

WATER WELL RECORD
ACT 294 PA 1965MICHIGAN DEPARTMENT
OF
PUBLIC HEALTH

1 LOCATION OF WELL

County KEELANAU	Township Name KEELANAU	Fraction SW 1/4 NE 1/4	Section Number 25	Town Number 310	Range Number 11 W.
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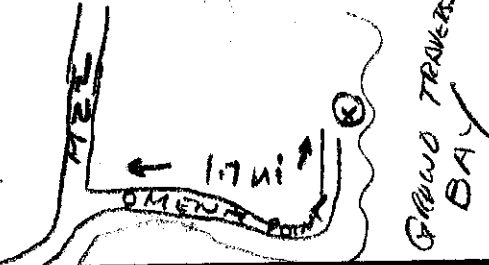
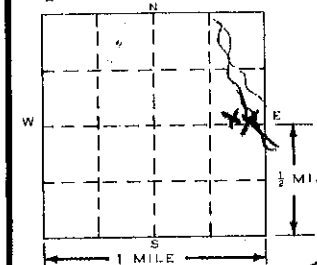
Distance And Direction from Road Intersections

**1.7 MILES FROM M-22 ON OMENA PT
RD - 300' PAST BLACK TOP**

Street address & City of Well Location

Locate with "X" in section below

Sketch Map:



2 FORMATION

THICKNESS
OF
STRATUMDEPTH TO
BOTTOM OF
STRATUM

GRAVEL & SAND

5

5

GRAVEL & CLAY

17

22

STONES

1

23

(WATER SAND)

26

49

3 OWNER OF WELL:

Address

**TOM HALBERG BLDG.
413 ROSE
TRAVERSE CITY, MI 49684**

4 WELL DEPTH: (completed) Date of Completion

49

ft.

8-16-72

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 ☒Diam. ☐ Height: Above/BelowSurface ☐ ft.

4 in. to 45 ft. Depth Weight 11 lbs./ft.

in. to ft. Depth Drive Shoe? Yes ☒ No ☐

8 SCREEN:

Type: **COOK-RED BASS** Dia.: **4 INCH**Slot/Gauge **15** Length **4 FEET**Set between **45** ft. and **49** ft.

Fittings:

STANDARD BOTTOM

9 STATIC WATER LEVEL

18 ft. below land surface

10 PUMPING LEVEL below land surface

18 ft. after **1** hrs. pumping **20** 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 Grade13 Well Grouted? ☐ Yes ☒ No☐ Neat Cement ☐ Bentonite ☐

Depth: From ft. to ft.

14 Nearest Source of possible contamination

75 feet **W** Direction **SEPTIC** TypeWell disinfected upon completion ☒ Yes ☐ No15 PUMP: ☐ Not installedManufacturer's Name **AEROMOTOR**Model Number **SASOM** HP **1/4** Volts **230**Length of Drop Pipe **32** ft. capacity **9** G.P.M.Type: ☒ Submersible ☐ Jet ☐ Reciprocating

USE A 2ND SHEET IF NEEDED

16 Remarks, elevation, source of data, etc.

INFO. BY DRILLER **LEONARD KROPP**TESTED BY **MM**CORRECTED BY **MM**

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.

LEONARD KROPP
REGISTERED BUSINESS NAME REGISTRATION NO. **0795****WELL DRILLING**
CEDAR, MICHIGAN 49621

Address

Signed **Walt Frey**

AUTHORIZED REPRESENTATIVE

Date **8-16-72**

OCT 20 1971

WATER WELL RECORD

ACT 294 PA 1965

MICHIGAN DEPARTMENT
OF
PUBLIC HEALTH

1 LOCATION OF WELL

County LEELANAU Township Name S. PAR Fraction NE Section Number 25 Town Number 31 Range Number 11

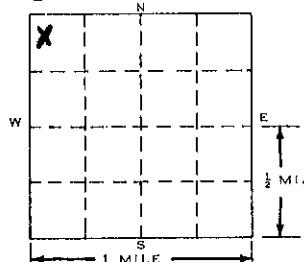
Distance And Direction from Road Intersections

1000 ft E of M-22

Street address & City of Well Location

Locate with "X" in section below

Sketch Map:



2 FORMATION

THICKNESS
OF
STRATUMDEPTH TO
BOTTOM OF
STRATUMCOARSE SAND5'5'GRAVEL20'25'COARSE SAND15'40'GRAVEL20'60'WATER SAND17'77'

3 OWNER OF WELL:

OSCAR M. ANDERSONAddress 5579 GAERTNER CT.
BAY CITY, MICH. 48706

4 WELL DEPTH: (completed) Date of Completion

77

ft.

7-9-71

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 ☐

Height: Above/Below

Diam.

6 in. to62 ft. Depth

Surface _____ ft.

_____ in. to

_____ ft. Depth

Weight _____ lbs./ft.

Drive Shoe? Yes ☒ No ☐

8 SCREEN:

Type: RED BRASS Dia.: 6"Slot/Gr. X 10 Length 15'Set between 62 ft. and 77 ft.

Fittings:

9 STATIC WATER LEVEL

42 ft. below land surface

10 PUMPING LEVEL below land surface

70 ft. after 1 hrs. pumping 80 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 Grade13 Well Grouted? ☐ Yes ☒ No☐ Neat Cement ☐ Bentonite ☐

Depth: From _____ ft. to _____ ft.

14 Nearest Source of possible contamination

_____ feet _____ Direction NONE TypeWell disinfected upon completion ☒ Yes ☐ No

15 PUMP:

☐ Not installedManufacturer's Name BURKSModel Number SOST12B HP 5 Volts 220Length of Drop Pipe 70 ft. capacity 80 G.P.M.Type: ☒ Submersible☐ Jet☐ Reciprocating

USE A 2ND SHEET IF NEEDED

16 Remarks, elevation, source of data, etc.

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.

CLIFF WELL DRILLING CO0993

REGISTERED BUSINESS NAME

REGISTRATION NO.

Address 6910 CENTERD. TRAVERSE CITY

Signed

Frank W. Dymally 7-14-71

AUTHORIZED REPRESENTATIVE