ENVIRONMENTAL TROUBLESHOOTERS, INC.

3825 GRAND AVENUE
DULUTH, MN 55807
TEL: (218) 722-6013
FAX: (218) 722-6319
TOLL FREE: 1-800-470-3536

August 30, 2021

Mr. Grant Neitzel, Hydrogeologist
Wisconsin Department of Natural Resources
Northern Region
Remediation and Redevelopment
1701 N 4th St, Superior, WI 54880

Re: Remaining Actions Needed for Case Closure - WAC chs. NR 700-754
Fraser Shipyards – Punch Shed Building
1 Clough Avenue, Superior, Wisconsin
DNR BRRTS Activity #02-16-562899
ET Project No. 14-1004

Dear Mr. Neitzel,

Pursuant to the letter from Mr. Saari dated July 16, 2021, Environmental Troubleshooters (ET) has prepared this submittal. The two items requested are discussed below.

Remaining Actions Needed

Monitoring Well or Remedial System Piping Filling and Sealing

Site monitoring wells have been properly filled and sealed in accordance with Wis. Admin. Code ch. NR 141. Documentation of filling and sealing for all wells and boreholes is attached.

Purge Water, Waste and/or Soil Pile Removal

All purge water, solid waste and/or contaminated soil piles generated as part of site investigation or remediation activities were removed from the site concurrently with site investigation and remediation activities.

If you have any questions, please contact me at (218) 722-6013 or by email at jmccarthy@etsmn.com.

Sincerely,
Environmental Troubleshooters, Inc.

Attachments: Form 4400-005 for Monitoring Wells PS-MW-1 through PS-MW-4

Cc: Mr. Dave Steininger, Fraser Shipyards, 1 Clough Ave., Superior, WI 54880

State of Wis., Dept. of Natural Resources
dnr.wi.gov

Well / Drillhole / Borehole Filling & Sealing Report

Form 3300-005 (R 4/2015)

Notice: Completion of this report is required by chs. 160, 281, 283, 289, 291-293, 295, and 299, Wis. Stats., and chs. NR 141 and 812, Wis. Adm. Code. In accordance with chs. 281, 289, 291-293, 295, and 299, Wis. Stats., failure to file this form may result in a forfeiture of between $10-25,000, or imprisonment for up to one year, depending on the program and conduct involved. Personally identifiable information on this form is not intended to be used for any other purpose. Return form to the appropriate DNR office and bureau. See instructions on reverse for more information.

☐ **Verification Only of Fill and Seal**

Route to DNR Bureau:
☐ Drinking Water ☐ Watershed/Wastewater ☒ Remediation/Redevelopment
☐ Waste Management ☐ Other:

1. Well Location Information

County	WI Unique Well # of Removed Well	Hicap #
Douglas	VT9088 (pemw1)	

Latitude / Longitude (see instructions)	Format Code	Method Code
46° 44' 09.30 N	☐ DD	☐ GPS008
-92° 05' 22.86 W	☒ DDM	☒ SCR002
		☐ OTH001

¼ / ¼ or Gov't Lot #	¼	Section	Township	Range
SE/SW	SW	11	49 N	14 ☐ E ☒ W

Well Street Address: 1 Clough Ave

Well City, Village or Town	Well ZIP Code
Superior	54880

Subdivision Name	Lot #

Reason for Removal from Service	WI Unique Well # of Replacement Well
Project Complete	

2. Facility / Owner Information

Facility Name: Fraser Shipyard

Facility ID (FID or PWS):

License/Permit/Monitoring #:

Original Well Owner:

Present Well Owner:

Mailing Address of Present Owner: 1 Clough Ave

City of Present Owner	State	ZIP Code
Superior	WI	54880

3. Filled & Sealed Well / Drillhole / Borehole Information

☒ Monitoring Well ☐ Water Well ☐ Borehole / Drillhole

Original Construction Date (mm/dd/yyyy): 04/15/2016

If a Well Construction Report is available, please attach.

Construction Type:
☒ Drilled ☐ Driven (Sandpoint) ☐ Dug ☐ Other (specify):

Formation Type:
☒ Unconsolidated Formation ☐ Bedrock

Total Well Depth From Ground Surface (ft.)	Casing Diameter (in.)
13.5'	2"

Lower Drillhole Diameter (in.)	Casing Depth (ft.)

Was well annular space grouted? ☒ Yes ☐ No ☐ Unknown

If yes, to what depth (feet)?	Depth to Water (feet)
13.5'	6.14'

4. Pump, Liner, Screen, Casing & Sealing Material

Pump and piping removed?	☐ Yes	☐ No	☒ N/A
Liner(s) removed?	☐ Yes	☐ No	☒ N/A
Liner(s) perforated?	☐ Yes	☐ No	☒ N/A
Screen removed?	☒ Yes	☐ No	☐ N/A
Casing left in place?	☐ Yes	☒ No	☐ N/A
Was casing cut off below surface?	☐ Yes	☐ No	☒ N/A
Did sealing material rise to surface?	☒ Yes	☐ No	☐ N/A
Did material settle after 24 hours?	☐ Yes	☒ No	☐ N/A
If yes, was hole retopped?	☐ Yes	☐ No	☐ N/A
If bentonite chips were used, were they hydrated with water from a known safe source?	☒ Yes	☐ No	☐ N/A

Required Method of Placing Sealing Material
☐ Conductor Pipe-Gravity ☒ Conductor Pipe-Pumped
☐ Screened & Poured (Bentonite Chips) ☐ Other (Explain):

Sealing Materials
☐ Neat Cement Grout ☐ Concrete
☐ Sand-Cement (Concrete) Grout ☐ Bentonite Chips

For Monitoring Wells and Monitoring Well Boreholes Only:
☐ Bentonite Chips ☒ Bentonite - Cement Grout
☐ Granular Bentonite ☐ Bentonite - Sand Slurry

5. Material Used to Fill Well / Drillhole

	From (ft.)	To (ft.)	No. Yards, Sacks Sealant or Volume (circle one)	Mix Ratio or Mud Weight
Bentonite Liquid Grout	Surface	13.5'	1/8	

6. Comments

7. Supervision of Work

Name of Person or Firm Doing Filling & Sealing	License #	Date of Filling & Sealing or Verification (mm/dd/yyyy)
Environmental Troubleshooters		07/28/2021

Street or Route	Telephone Number
3825 Grand Avenue	(218) 348-7625

City	State	ZIP Code	Signature of Person Doing Work	Date Signed
Duluth	MN	55807		08/2/2021

DNR Use Only

Date Received	Noted By

Comments:

State of Wisconsin
Department of Natural Resources

Route to: Watershed/Wastewater ☐ Waste Management ☐
Remediation/Redevelopment ☒ Other ☐ _____

MONITORING WELL CONSTRUCTION

Form 4400-113A Rev. 7-98

Facility/Project Name: Fraser	Local Grid Location of Well: ____ ft. ☐ N. ☐ S. ____ ft. ☐ E. ☐ W.	Well Name: PS-MW-1 VT908
Facility License, Permit or Monitoring No.	Local Grid Origin ☐ (estimated: ☒) or Well Location ☐ Lat. 46° 44' 09.30" Long. -92° 05' 22.86" or	Wis. Unique Well No. / DNR Well ID No.
Facility ID	St. Plane ____ ft. N, ____ ft. E. S/C/N	Date Well Installed: 6/15/2016 (m m d d y y y y)
Type of Well — Well Code ____ / ____	Section Location of Waste/Source: SE 1/4 of SW 1/4 of Sec. 11, T. 49 N, R. 14 ☐ E. ☒ W.	Well Installed By: Name (first, last) and Firm: Joe Fye / Environmental Troubleshooters
Distance from Waste/Source ____ ft. — Enf. Stds. Apply ☐	Location of Well Relative to Waste/Source: u ☐ Upgradient s ☐ Sidegradient d ☐ Downgradient n ☐ Not Known	Gov. Lot Number

A. Protective pipe, top elevation _____ ft. MSL

B. Well casing, top elevation _____ ft. MSL

C. Land surface elevation _____ ft. MSL

D. Surface seal, bottom 3 ft. MSL or _____ ft.

12. USCS classification of soil near screen:
GP ☐ GM ☐ GC ☐ GW ☐ SW ☐ SP ☐
SM ☐ SC ☐ ML ☐ MH ☐ CL ☐ CH ☐
Bedrock ☐

13. Sieve analysis performed? ☐ Yes ☐ No

14. Drilling method used: Rotary ☐ 50 / Hollow Stem Auger ☒ 41 / Other ☐ ___

15. Drilling fluid used: Water ☐ 02 Air ☐ 01 / Drilling Mud ☐ 03 None ☒ 99

16. Drilling additives used? ☐ Yes ☒ No

Describe _____

17. Source of water (attach analysis, if required):

E. Bentonite seal, top 0.5 ft. MSL or _____ ft.

F. Fine sand, top 1.5 ft. MSL or _____ ft.

G. Filter pack, top 2.5 ft. MSL or _____ ft.

H. Screen joint, top 5.5 ft. MSL or _____ ft.

I. Well bottom 13 ft. MSL or _____ ft.

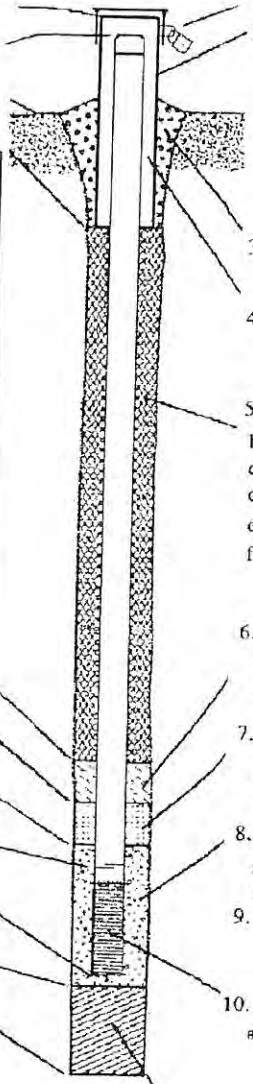
J. Filter pack, bottom 13.5 ft. MSL or _____ ft.

K. Borehole, bottom 13.5 ft. MSL or _____ ft.

L. Borehole, diameter 6 1/4 in.

M. O.D. well casing 2 in.

N. I.D. well casing 1.98 in.



1. Cap and lock? ☒ Yes ☐ No

2. Protective cover pipe:
a. Inside diameter: 6 in.
b. Length: 7 ft.
c. Material: Steel ☒ 04 / Other ☐ ___
d. Additional protection? ☐ Yes ☐ No
If yes, describe: Wood Bumper Posts

3. Surface seal: Bentonite ☒ 30 / Concrete ☒ 01 / Other ☐ ___

4. Material between well casing and protective pipe: Bentonite ☒ 30 / Other ☐ ___

5. Annular space seal: a. Granular/Chipped Bentonite ☒ 33
b. ____ Lbs/gal mud weight ... Bentonite-sand slurry ☐ 35
c. ____ Lbs/gal mud weight ... Bentonite slurry ☐ 31
d. ____ % Bentonite ... Bentonite-cement grout ☐ 50
e. 5 Ft³ volume added for any of the above
f. How installed: Tremie ☐ 01 / Tremie pumped ☐ 02 / Gravity ☒ 08

6. Bentonite seal: a. Bentonite granules ☒ 33
b. ☐1/4 in. ☐3/8 in. ☐1/2 in. Bentonite chips ☐ 32
c. _____ Other ☐ ___

7. Fine sand material: Manufacturer, product name & mesh size
a. Red Flint, Filter Sand, 0.010
b. Volume added _____ Ft³

8. Filter pack material: Manufacturer, product name & mesh size
a. Red Flint, Filter Sand, 0.050
b. Volume added 10 Ft³

9. Well casing: Flush threaded PVC schedule 40 ☐ 23 / Flush threaded PVC schedule 80 ☐ 24 / Other ☐ ___

10. Screen material: _____
a. Screen type: Factory cut ☒ 11 / Continuous slot ☐ 01 / Other ☐ ___
b. Manufacturer Johnson
c. Slot size: 0.010 in.
d. Slotted length: 10 ft.

11. Backfill material (below filter pack): None ☒ 14 / Other ☐ ___

I hereby certify that the information on this form is true and correct to the best of my knowledge.

Signature _____ Firm _____

Please complete both Forms 4400-113A and 4400-113B and return them to the appropriate DNR office and bureau. Completion of these reports is required by chs. 160, 281, 283, 289, 291, 292, 293, 295, and 299, Wis. Stats., and ch. NR 141, Wis. Adm. Code. In accordance with chs. 281, 289, 291, 292, 293, 295, and 299, Wis. Stats., failure to file these forms may result in a forfeiture of between $10 and $25,000, or imprisonment for up to one year, depending on the program and conduct involved. Personally identifiable information on these forms is not intended to be used for any other purpose. NOTE: See the instructions for more information, including where the completed forms should be sent.

State of Wisconsin
Department of Natural Resources

MONITORING WELL DEVELOPMENT

Form 4400-113B Rev. 7-98

Route to: Watershed/Wastewater ☐ Waste Management ☐
Remediation/Redevelopment ☒ Other ☐ _____

Facility/Project Name	County Name	Well Name
Fraser	Douglas	PS-MW-1 VT908
Facility License, Permit or Monitoring Number	**County Code**	**Wis. Unique Well Number** / **DNR Well ID Number**
	__	_____ / ____

1. Can this well be purged dry? ☒ Yes ☐ No

2. Well development method

surged with bailer and bailed	☒ 41
surged with bailer and pumped	☐ 61
surged with block and bailed	☐ 42
surged with block and pumped	☐ 62
surged with block, bailed and pumped	☐ 70
compressed air	☐ 20
bailed only	☐ 10
pumped only	☐ 51
pumped slowly	☐ 50
Other _____	☐ __

3. Time spent developing well 30 min.

4. Depth of well (from top of well casisng) 15.6 ft.

5. Inside diameter of well 2.00 in.

6. Volume of water in filter pack and well casing 1.4 gal.

7. Volume of water removed from well 4.1 gal.

8. Volume of water added (if any) ____ gal.

9. Source of water added N/A

10. Analysis performed on water added? ☐ Yes ☐ No
(If yes, attach results)

11. Depth to Water (from top of well casing)	Before Development	After Development
a.	10.47 ft.	15.02 ft.
Date b. (m m d d y y y y)	04/27/2016	04/27/2016
Time c.	4:00 ☐ a.m. ☒ p.m.	4:30 ☐ a.m. ☒ p.m.
12. Sediment in well bottom	____ inches	____ inches
13. Water clarity	Clear ☐ 10 Turbid ☒ 15 (Describe)	Clear ☒ 20 Turbid ☐ 25 (Describe)
14. Total suspended solids	____ mg/l	____ mg/l
15. COD	____ mg/l	____ mg/l

Fill in if drilling fluids were used and well is at solid waste facility:

16. Well developed by: Name (first, last) and Firm
First Name: Brice Last Name: Wizer
Firm: Environmental Troubleshooters

17. Additional comments on development:

Name and Address of Facility Contact /Owner/Responsible Party
First Name: _____ Last Name: _____
Facility/Firm: _____
Street: _____
City/State/Zip: _____

I hereby certify that the above information is true and correct to the best of my knowledge.
Signature: _____
Print Name: _____
Firm: _____

NOTE: See instructions for more information including a list of county codes and well type codes.

State of Wis., Dept. of Natural Resources
dnr.wi.gov

Well / Drillhole / Borehole Filling & Sealing Report

Form 3300-005 (R 4/2015)

Notice: Completion of this report is required by chs. 160, 281, 283, 289, 291-293, 295, and 299, Wis. Stats., and chs. NR 141 and 812, Wis. Adm. Code. In accordance with chs. 281, 289, 291-293, 295, and 299, Wis. Stats., failure to file this form may result in a forfeiture of between $10-25,000, or imprisonment for up to one year, depending on the program and conduct involved. Personally identifiable information on this form is not intended to be used for any other purpose. Return form to the appropriate DNR office and bureau. See instructions on reverse for more information.

☐ **Verification Only of Fill and Seal**

Route to DNR Bureau:
☐ Drinking Water ☐ Watershed/Wastewater ☒ Remediation/Redevelopment
☐ Waste Management ☐ Other:

1. Well Location Information

County	WI Unique Well # of Removed Well	Hicap #
Douglas	VT911 (psmw2)	

Latitude / Longitude (see instructions)	Format Code	Method Code
46° 44' 09.38" N	☐ DD	☐ GPS008
-92° 05' 19.98" W	☒ DDM	☒ SCR002 ☐ OTH001

¼ / ¼ or Gov't Lot #	¼	Section	Township	Range
SE/SW	SW	11	49 N	14 ☐ E ☒ W

Well Street Address: 1 Clough Ave

Well City, Village or Town	Well ZIP Code
Superior	54880

Subdivision Name	Lot #

Reason for Removal from Service	WI Unique Well # of Replacement Well
Project Complete	

2. Facility / Owner Information

Facility Name: Fraser Shipyard

Facility ID (FID or PWS):

License/Permit/Monitoring #:

Original Well Owner:

Present Well Owner:

Mailing Address of Present Owner: 1 Clough Ave

City of Present Owner	State	ZIP Code
Superior	WI	54880

3. Filled & Sealed Well / Drillhole / Borehole Information

☒ Monitoring Well ☐ Water Well ☐ Borehole / Drillhole

Original Construction Date (mm/dd/yyyy): 04/15/2016

If a Well Construction Report is available, please attach.

Construction Type:
☒ Drilled ☐ Driven (Sandpoint) ☐ Dug ☐ Other (specify):

Formation Type:
☒ Unconsolidated Formation ☐ Bedrock

Total Well Depth From Ground Surface (ft.)	Casing Diameter (in.)
13.5'	2"

Lower Drillhole Diameter (in.)	Casing Depth (ft.)

Was well annular space grouted? ☒ Yes ☐ No ☐ Unknown

If yes, to what depth (feet)?	Depth to Water (feet)
13.5'	6.27'

4. Pump, Liner, Screen, Casing & Sealing Material

Pump and piping removed?	☐ Yes	☐ No	☒ N/A
Liner(s) removed?	☐ Yes	☐ No	☒ N/A
Liner(s) perforated?	☐ Yes	☐ No	☒ N/A
Screen removed?	☒ Yes	☐ No	☐ N/A
Casing left in place?	☐ Yes	☒ No	☐ N/A
Was casing cut off below surface?	☐ Yes	☐ No	☒ N/A
Did sealing material rise to surface?	☒ Yes	☐ No	☐ N/A
Did material settle after 24 hours?	☐ Yes	☒ No	☐ N/A
If yes, was hole retopped?	☐ Yes	☐ No	☐ N/A
If bentonite chips were used, were they hydrated with water from a known safe source?	☒ Yes	☐ No	☐ N/A

Required Method of Placing Sealing Material
☐ Conductor Pipe-Gravity ☒ Conductor Pipe-Pumped
☐ Screened & Poured (Bentonite Chips) ☐ Other (Explain):

Sealing Materials
☐ Neat Cement Grout ☐ Concrete
☐ Sand-Cement (Concrete) Grout ☐ Bentonite Chips

For Monitoring Wells and Monitoring Well Boreholes Only:
☐ Bentonite Chips ☒ Bentonite - Cement Grout
☐ Granular Bentonite ☐ Bentonite - Sand Slurry

5. Material Used to Fill Well / Drillhole

	From (ft.)	To (ft.)	No. Yards, Sacks Sealant or Volume (circle one)	Mix Ratio or Mud Weight
Bentonite Liquid Grout	Surface	13.5'	1/8	

6. Comments

7. Supervision of Work

Name of Person or Firm Doing Filling & Sealing	License #	Date of Filling & Sealing or Verification (mm/dd/yyyy)
Environmental Translesthotes		07/28/2021

Street or Route	Telephone Number
3825 Grand Avenue	(218) 722-6013

City	State	ZIP Code	Signature of Person Doing Work	Date Signed
Duluth	MN	55807		08/2/2021

DNR Use Only

Date Received	Noted By

Comments:

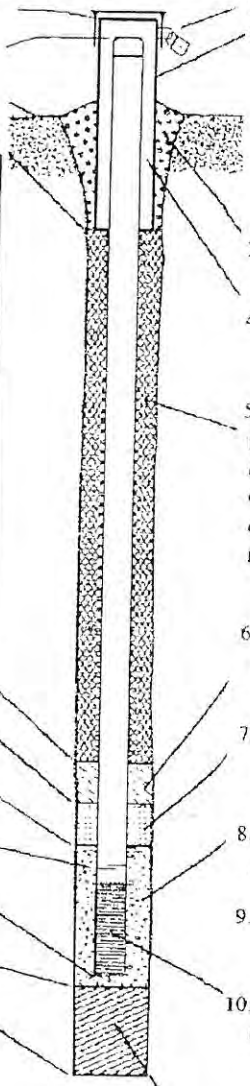
State of Wisconsin
Department of Natural Resources

Route to: Watershed/Wastewater ☐ Waste Management ☐
Remediation/Redevelopment ☒ Other ☐

MONITORING WELL CONSTRUCTION

Form 4400-113A Rev. 7-98

Facility/Project Name: Fraser	Local Grid Location of Well: ____ ft. ☐N ☐S ____ ft. ☐E ☐W	Well Name: PS-MW-2 VT911
Facility License, Permit or Monitoring No.	Local Grid Origin ☐ (estimated: ☒) or Well Location ☐ Lat. 46° 44' 09.38" Long. -92° 05' 19.98" or	Wis. Unique Well No. / DNR Well ID No.
Facility ID	St. Plane ____ ft. N, ____ ft. E. S/C/N	Date Well Installed: 6/15/2016 (m m d d y y y y)
Type of Well: Well Code ____/____	Section Location of Waste/Source: SE 1/4 of SW 1/4 of Sec. 11, T. 49 N, R. 14 ☐E ☒W	Well Installed By: Name (first, last) and Firm: Joe Eye, Environmental Troubleshooters
Distance from Waste/Source ____ ft. / Enf. Stds. Apply ☐	Location of Well Relative to Waste/Source: u ☐ Upgradient s ☐ Sidegradient d ☐ Downgradient n ☐ Not Known	Gov. Lot Number



A. Protective pipe, top elevation ____ ft. MSL

B. Well casing, top elevation ____ ft. MSL

C. Land surface elevation ____ ft. MSL

D. Surface seal, bottom 3 ft. MSL or ____ ft.

12. USCS classification of soil near screen:
GP ☐ GM ☐ GC ☐ GW ☐ SW ☐ SP ☐
SM ☐ SC ☐ ML ☐ MH ☐ CL ☐ CH ☐
Bedrock ☐

13. Sieve analysis performed? ☐ Yes ☐ No

14. Drilling method used: Rotary ☐ 50 Hollow Stem Auger ☒ 41 Other ☐ __

15. Drilling fluid used: Water ☐ 02 Air ☐ 01 Drilling Mud ☐ 03 None ☒ 99

16. Drilling additives used? ☐ Yes ☒ No

Describe ____

17. Source of water (attach analysis, if required):

E. Bentonite seal, top 0.5 ft. MSL or ____ ft.

F. Fine sand, top 1.5 ft. MSL or ____ ft.

G. Filter pack, top 2.5 ft. MSL or ____ ft.

H. Screen joint, top 5.5 ft. MSL or ____ ft.

I. Well bottom 13 ft. MSL or ____ ft.

J. Filter pack, bottom 13.5 ft. MSL or ____ ft.

K. Borehole, bottom 13.5 ft. MSL or ____ ft.

L. Borehole, diameter 6¼ in.

M. O.D. well casing 2 in.

N. I.D. well casing 1.98 in

1. Cap and lock? ☒ Yes ☐ No

2. Protective cover pipe:
a. Inside diameter: 6 in.
b. Length: 7 ft.
c. Material: Steel ☒ 04 Other ☐ __
d. Additional protection? ☐ Yes ☐ No
If yes, describe: Wood Bumper Posts

3. Surface seal: Bentonite ☒ 30 Concrete ☒ 01 Other ☐ __

4. Material between well casing and protective pipe: Bentonite ☒ 30 Other ☐ __

5. Annular space seal: a. Granular/Chipped Bentonite ☒ 33
b. ____ Lbs/gal mud weight Bentonite-sand slurry ☐ 35
c. ____ Lbs/gal mud weight Bentonite slurry ☐ 31
d. ____ % Bentonite Bentonite-cement grout ☐ 50
e. 5 Ft^3 volume added for any of the above
f. How installed: Tremie ☐ 01 Tremie pumped ☐ 02 Gravity ☒ 08

6. Bentonite seal: a. Bentonite granules ☒ 33
b. ☐1/4 in. ☐3/8 in. ☐1/2 in. Bentonite chips ☐ 32
c. ____ Other ☐ __

7. Fine sand material: Manufacturer, product name & mesh size
a. Red Flint, filter sand, 0.010
b. Volume added ____ ft^3

8. Filter pack material: Manufacturer, product name & mesh size
a. Red Flint, filter sand, 0.050
b. Volume added 10 ft^3

9. Well casing: Flush threaded PVC schedule 40 ☐ 23 Flush threaded PVC schedule 80 ☐ 24 Other ☐ __

10. Screen material: ____
a. Screen type: Factory cut ☒ 11 Continuous slot ☐ 01 Other ☐ __
b. Manufacturer Johnson
c. Slot size: 0.010 in.
d. Slotted length: 10 ft.

11. Backfill material (below filter pack): None ☒ 14 Other ☐ __

I hereby certify that the information on this form is true and correct to the best of my knowledge.

Signature | Firm

Please complete both Forms 4400-113A and 4400-113B and return them to the appropriate DNR office and bureau. Completion of these reports is required by chs. 160, 281, 283, 289, 291, 292, 293, 295, and 299, Wis. Stats., and ch. NR 141, Wis. Adm. Code. In accordance with chs. 281, 289, 291, 292, 293, 295, and 299, Wis. Stats., failure to file these forms may result in a forfeiture of between $10 and $25,000, or imprisonment for up to one year, depending on the program and conduct involved. Personally identifiable information on these forms is not intended to be used for any other purpose. NOTE: See the instructions for more information, including where the completed forms should be sent.

State of Wisconsin
Department of Natural Resources

MONITORING WELL DEVELOPMENT

Form 4400-113B Rev. 7-98

Route to: Watershed/Wastewater ☐ Waste Management ☐
Remediation/Redevelopment ☒ Other ☐ _____

Facility/Project Name	County Name	Well Name
Fraser	Douglas	BS-MW-2 VT911

Facility License, Permit or Monitoring Number	County Code	Wis. Unique Well Number	DNR Well ID Number
	__	_ _ _ _ _ _	_ _ _

1. Can this well be purged dry? ☒ Yes ☐ No

2. Well development method

surged with bailer and bailed	☒	41
surged with bailer and pumped	☐	61
surged with block and bailed	☐	42
surged with block and pumped	☐	62
surged with block, bailed and pumped	☐	70
compressed air	☐	20
bailed only	☐	10
pumped only	☐	51
pumped slowly	☐	50
Other _____	☐	__

3. Time spent developing well __55__ min.

4. Depth of well (from top of well casisng) _15.7_ ft.

5. Inside diameter of well _2.00_ in.

6. Volume of water in filter pack and well casing __3.0 gal.

7. Volume of water removed from well __83 gal.

8. Volume of water added (if any) _____ gal.

9. Source of water added N/A

10. Analysis performed on water added? (If yes, attach results) ☐ Yes ☐ No

	Before Development	After Development
11. Depth to Water (from top of well casing)	a. __4.67 ft.	__14.60 ft.
Date	b. 04/27/2016 (m m d d y y y y)	04/27/2016 (m m d d y y y y)
Time	c. 2:45 ☐ a.m. ☒ p.m.	3:45 ☐ a.m. ☒ p.m.
12. Sediment in well bottom	_____ inches	_____ inches
13. Water clarity	Clear ☐ 10 Turbid ☒ 15 (Describe)	Clear ☒ 20 Turbid ☐ 25 (Describe)
14. Total suspended solids	_____ mg/l	_____ mg/l
15. COD	_____ mg/l	_____ mg/l

Fill in if drilling fluids were used and well is at solid waste facility:

16. Well developed by: Name (first, last) and Firm
First Name: Brice Last Name: Wizner
Firm: Environmental Troubleshooters

17. Additional comments on development:

Name and Address of Facility Contact /Owner/Responsible Party
First Name: _____ Last Name: _____
Facility/Firm: _____
Street: _____
City/State/Zip: _____

I hereby certify that the above information is true and correct to the best of my knowledge.
Signature: _____
Print Name: _____
Firm: _____

NOTE: See instructions for more information including a list of county codes and well type codes.

State of Wis., Dept. of Natural Resources
dnr.wi.gov

Well / Drillhole / Borehole Filling & Sealing Report

Form 3300-005 (R 4/2015)

Notice: Completion of this report is required by chs. 160, 281, 283, 289, 291-293, 295, and 299, Wis. Stats., and chs. NR 141 and 812, Wis. Adm. Code. In accordance with chs. 281, 289, 291-293, 295, and 299, Wis. Stats., failure to file this form may result in a forfeiture of between $10-25,000, or imprisonment for up to one year, depending on the program and conduct involved. Personally identifiable information on this form is not intended to be used for any other purpose. Return form to the appropriate DNR office and bureau. See instructions on reverse for more information.

☐ **Verification Only of Fill and Seal**

Route to DNR Bureau:
☐ Drinking Water ☐ Watershed/Wastewater ☒ Remediation/Redevelopment
☐ Waste Management ☐ Other: _____

1. Well Location Information

County	WI Unique Well # of Removed Well	Hicap #
Douglas	VT912 (DSMW3)	

Latitude / Longitude (see instructions)	Format Code	Method Code
46° 44' 11.66 N	☐ DD	☐ GPS008
-92° 05' 22.39 W	☒ DDM	☒ SCR002
		☐ OTH001

¼ / ¼ or Gov't Lot #	¼	Section	Township	Range
SE/SW	SW	11	49 N	14 ☒ W ☐ E

Well Street Address: 1 Clough Ave

Well City, Village or Town	Well ZIP Code
Superior	54880

Subdivision Name	Lot #

Reason for Removal from Service	WI Unique Well # of Replacement Well
Project complete	

2. Facility / Owner Information

Facility Name: Fraser Shipyard

Facility ID (FID or PWS):

License/Permit/Monitoring #:

Original Well Owner:

Present Well Owner:

Mailing Address of Present Owner: 1 Clough Ave

City of Present Owner	State	ZIP Code
Superior	WI	54880

3. Filled & Sealed Well / Drillhole / Borehole Information

☒ Monitoring Well ☐ Water Well ☐ Borehole / Drillhole

Original Construction Date (mm/dd/yyyy): 04/15/2015

If a Well Construction Report is available, please attach.

Construction Type:
☒ Drilled ☐ Driven (Sandpoint) ☐ Dug
☐ Other (specify): _____

Formation Type:
☒ Unconsolidated Formation ☐ Bedrock

Total Well Depth From Ground Surface (ft.)	Casing Diameter (in.)
13.5	2"
Lower Drillhole Diameter (in.)	**Casing Depth (ft.)**

Was well annular space grouted? ☒ Yes ☐ No ☐ Unknown

If yes, to what depth (feet)?	Depth to Water (feet)
13.5'	5.74'

4. Pump, Liner, Screen, Casing & Sealing Material

Pump and piping removed?	☐ Yes	☐ No	☒ N/A
Liner(s) removed?	☐ Yes	☐ No	☒ N/A
Liner(s) perforated?	☐ Yes	☐ No	☒ N/A
Screen removed?	☒ Yes	☐ No	☐ N/A
Casing left in place?	☐ Yes	☒ No	☐ N/A
Was casing cut off below surface?	☐ Yes	☐ No	☒ N/A
Did sealing material rise to surface?	☒ Yes	☐ No	☐ N/A
Did material settle after 24 hours?	☐ Yes	☒ No	☐ N/A
If yes, was hole retopped?	☐ Yes	☐ No	☐ N/A
If bentonite chips were used, were they hydrated with water from a known safe source?	☒ Yes	☐ No	☐ N/A

Required Method of Placing Sealing Material
☐ Conductor Pipe-Gravity ☒ Conductor Pipe-Pumped
☐ Screened & Poured (Bentonite Chips) ☐ Other (Explain): _____

Sealing Materials
☐ Neat Cement Grout ☐ Concrete
☐ Sand-Cement (Concrete) Grout ☐ Bentonite Chips

For Monitoring Wells and Monitoring Well Boreholes Only:
☐ Bentonite Chips ☒ Bentonite - Cement Grout
☐ Granular Bentonite ☐ Bentonite - Sand Slurry

5. Material Used to Fill Well / Drillhole

	From (ft.)	To (ft.)	No. Yards, Sacks Sealant or Volume (circle one)	Mix Ratio or Mud Weight
Bentonite Liquid Grout	Surface	13.5'	1/8	

6. Comments

7. Supervision of Work

Name of Person or Firm Doing Filling & Sealing	License #	Date of Filling & Sealing or Verification (mm/dd/yyyy)
Environmental Troubleshooters		07/28/2021

Street or Route	Telephone Number
3825 Grand Avenue	(218) 722-6013

City	State	ZIP Code	Signature of Person Doing Work	Date Signed
Duluth	MN	55807		08/02/2021

DNR Use Only

Date Received	Noted By

Comments:

State of Wisconsin
Department of Natural Resources

Route to: Watershed/Wastewater ☐ Waste Management ☐
Remediation/Redevelopment ☒ Other ☐

MONITORING WELL CONSTRUCTION

Form 4400-113A Rev. 7-98

Facility/Project Name: Fraser	Local Grid Location of Well: ____ ft. ☐N ☐S ____ ft. ☐E ☐W	Well Name: PS-MW-3 VT912
Facility License, Permit or Monitoring No.	Local Grid Origin ☐ (estimated ☐) or Well Location ☐ Lat. 46° 44' 11.66" Long -92° 05' 22.39" or	Wis. Unique Well No. / DNR Well ID No.
Facility ID	St. Plane ____ ft. N, ____ ft. E. S/C/N	Date Well Installed: 04/15/2016 (m m d d y y y y)
Type of Well: Well Code ____/____	Section Location of Waste/Source: SE 1/4 of SW 1/4 of Sec. 11 T. 49 N. R. 14 ☒E ☐W	Well Installed By: Name (first, last) and Firm: Joe Fye / Environmental Troubleshooters
Distance from Waste/Source ____ ft. / Enf. Stds. Apply ☐	Location of Well Relative to Waste/Source: u ☐ Upgradient s ☐ Sidegradient d ☐ Downgradient n ☐ Not Known	Gov. Lot Number

A. Protective pipe, top elevation ____ ft. MSL

B. Well casing, top elevation ____ ft. MSL

C. Land surface elevation ____ ft. MSL

D. Surface seal, bottom 3 ft. MSL or ____ ft.

12. USCS classification of soil near screen:
GP ☐ GM ☐ GC ☐ GW ☐ SW ☐ SP ☐
SM ☐ SC ☐ ML ☐ MH ☐ CL ☐ CH ☐
Bedrock ☐

13. Sieve analysis performed? ☐ Yes ☐ No

14. Drilling method used: Rotary ☐ 50 Hollow Stem Auger ☒ 41 Other ☐ __

15. Drilling fluid used: Water ☐ 02 Air ☐ 01 Drilling Mud ☐ 03 None ☒ 99

16. Drilling additives used? ☐ Yes ☒ No

Describe ____

17. Source of water (attach analysis, if required):

E. Bentonite seal, top 0.5 ft. MSL or ____ ft.

F. Fine sand, top 1.5 ft. MSL or ____ ft.

G. Filter pack, top 2.5 ft. MSL or ____ ft.

H. Screen joint, top 5.5 ft. MSL or ____ ft.

I. Well bottom 13 ft. MSL or ____ ft.

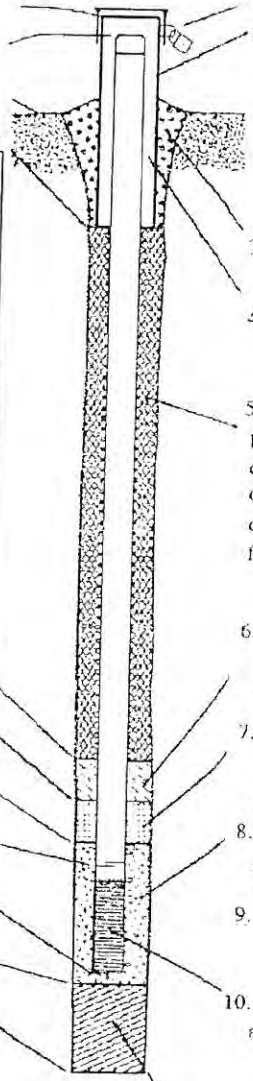
J. Filter pack, bottom 13.5 ft. MSL or ____ ft.

K. Borehole, bottom 13.5 ft. MSL or ____ ft.

L. Borehole, diameter 6 1/4 in.

M. O.D. well casing 2 in.

N. I.D. well casing 1.98 in.



1. Cap and lock? ☒ Yes ☐ No
2. Protective cover pipe:
a. Inside diameter: 6 in.
b. Length: 7 ft.
c. Material: Steel ☒ 04 Other ☐ __
d. Additional protection? ☐ Yes ☐ No
If yes, describe: Wood Bumper Posts
3. Surface seal: Bentonite ☒ 30 Concrete ☒ 01 Other ☐ __
4. Material between well casing and protective pipe: Bentonite ☒ 30 Other ☐ __
5. Annular space seal: a. Granular/Chipped Bentonite ☒ 33
b. ____ Lbs/gal mud weight Bentonite-sand slurry ☐ 35
c. ____ Lbs/gal mud weight Bentonite slurry ☐ 31
d. ____ % Bentonite Bentonite-cement grout ☐ 50
e. 5 Ft³ volume added for any of the above
f. How installed: Tremie ☐ 01 Tremie pumped ☐ 02 Gravity ☒ 08
6. Bentonite seal: a. Bentonite granules ☒ 33
b. ☐1/4 in. ☐3/8 in. ☐1/2 in. Bentonite chips ☐ 32
c. ____ Other ☐ __
7. Fine sand material: Manufacturer, product name & mesh size
a. Red Flint, Filter Sand, 0.010
b. Volume added ____ ft³
8. Filter pack material: Manufacturer, product name & mesh size
a. Red Flint, Filter Sand, 0.050
b. Volume added 10 ft³
9. Well casing: Flush threaded PVC schedule 40 ☐ 23 Flush threaded PVC schedule 80 ☐ 24 Other ☐ __
10. Screen material: ____
a. Screen type: Factory cut ☒ 11 Continuous slot ☐ 01 Other ☐ __
b. Manufacturer Johnson
c. Slot size: 0.010 in.
d. Slotted length: 10 ft.
11. Backfill material (below filter pack): None ☒ 14 Other ☐ __

I hereby certify that the information on this form is true and correct to the best of my knowledge.

Signature | Firm

Please complete both Forms 4400-113A and 4400-113B and return them to the appropriate DNR office and bureau. Completion of these reports is required by chs. 160, 281, 283, 289, 291, 292, 293, 295, and 299, Wis. Stats., and ch. NR 141, Wis. Adm. Code. In accordance with chs. 281, 289, 291, 292, 293, 295, and 299, Wis. Stats., failure to file these forms may result in a forfeiture of between $10 and $25,000, or imprisonment for up to one year, depending on the program and conduct involved. Personally identifiable information on these forms is not intended to be used for any other purpose. NOTE: See the instructions for more information, including where the completed forms should be sent.

State of Wisconsin
Department of Natural Resources

MONITORING WELL DEVELOPMENT

Form 4400-113B Rev. 7-98

Route to: Watershed/Wastewater ☐ Waste Management ☐
Remediation/Redevelopment ☒ Other ☐ _____

Facility/Project Name	County Name	Well Name
Fraser	Douglas	PS-MW-3 VT912

Facility License, Permit or Monitoring Number	County Code	Wis. Unique Well Number	DNR Well ID Number
	__	_____	___

1. Can this well be purged dry? ☐ Yes ☒ No

2. Well development method

surged with bailer and bailed	☒	41
surged with bailer and pumped	☐	61
surged with block and bailed	☐	42
surged with block and pumped	☐	62
surged with block, bailed and pumped	☐	70
compressed air	☐	20
bailed only	☐	10
pumped only	☐	51
pumped slowly	☐	50
Other _____	☐	--

3. Time spent developing well 60 min.

4. Depth of well (from top of well casisng) 15.3 ft.

5. Inside diameter of well 2.00 in.

6. Volume of water in filter pack and well casing 2.9 gal.

7. Volume of water removed from well 31.7 gal.

8. Volume of water added (if any) ____.__ gal.

9. Source of water added N/A

10. Analysis performed on water added? ☐ Yes ☐ No
(If yes, attach results)

	Before Development	After Development
11. Depth to Water (from top of well casing)	a. 4.57 ft.	5.82 ft.
Date	b. 04/27/2016 (m m d d y y y y)	04/27/2016
Time	c. 12:45 ☐ a.m. ☒ p.m.	2:00 ☐ a.m. ☒ p.m.
12. Sediment in well bottom	___.__ inches	___.__ inches
13. Water clarity	Clear ☐ 10 Turbid ☒ 15 (Describe) _____	Clear ☒ 20 Turbid ☐ 25 (Describe) Slight sediment.
14. Total suspended solids	_____.__ mg/l	_____.__ mg/l
15. COD	_____.__ mg/l	_____.__ mg/l

Fill in if drilling fluids were used and well is at solid waste facility:

16. Well developed by: Name (first, last) and Firm
First Name: Brice Last Name: Wizner
Firm: Environmental Troubleshooters

17. Additional comments on development:

Name and Address of Facility Contact /Owner/Responsible Party
First Name: _____ Last Name: _____
Facility/Firm: _____
Street: _____
City/State/Zip: _____

I hereby certify that the above information is true and correct to the best of my knowledge.
Signature: _____
Print Name: _____
Firm: _____

NOTE: See instructions for more information including a list of county codes and well type codes.

State of Wis., Dept. of Natural Resources
dnr.wi.gov

Well / Drillhole / Borehole Filling & Sealing Report

Form 3300-005 (R 4/2015)

Notice: Completion of this report is required by chs. 160, 281, 283, 289, 291-293, 295, and 299, Wis. Stats., and chs. NR 141 and 812, Wis. Adm. Code. In accordance with chs. 281, 289, 291-293, 295, and 299, Wis. Stats., failure to file this form may result in a forfeiture of between $10-25,000, or imprisonment for up to one year, depending on the program and conduct involved. Personally identifiable information on this form is not intended to be used for any other purpose. Return form to the appropriate DNR office and bureau. See instructions on reverse for more information.

☐ **Verification Only of Fill and Seal**

Route to DNR Bureau:
☐ Drinking Water ☐ Watershed/Wastewater ☒ Remediation/Redevelopment
☐ Waste Management ☐ Other: _____

1. Well Location Information

County	WI Unique Well # of Removed Well	Hicap #
Douglas	UT910 (PSMW4)	

Latitude / Longitude (see instructions)	Format Code	Method Code
46° 44' 08.85" N	☐ DD	☐ GPS008
-92° 05' 23.77" W	☒ DDM	☒ SCR002
		☐ OTH001

¼ / ¼ or Gov't Lot #	¼	Section	Township	Range
SE/SW	SW	11	49 N	14 ☒ W ☐ E

Well Street Address: 1 Clough Ave

Well City, Village or Town	Well ZIP Code
Superior	54880

Subdivision Name	Lot #

Reason for Removal from Service	WI Unique Well # of Replacement Well
project complete	

2. Facility / Owner Information

Facility Name: Fraser Shipyard

Facility ID (FID or PWS):

License/Permit/Monitoring #:

Original Well Owner:

Present Well Owner:

Mailing Address of Present Owner: 1 Clough Ave

City of Present Owner	State	ZIP Code
Superior	WI	54880

3. Filled & Sealed Well / Drillhole / Borehole Information

☒ Monitoring Well ☐ Water Well ☐ Borehole / Drillhole

Original Construction Date (mm/dd/yyyy): 04/15/2016

If a Well Construction Report is available, please attach.

Construction Type:
☒ Drilled ☐ Driven (Sandpoint) ☐ Dug
☐ Other (specify): _____

Formation Type:
☒ Unconsolidated Formation ☐ Bedrock

Total Well Depth From Ground Surface (ft.)	Casing Diameter (in.)
13.5'	2"
Lower Drillhole Diameter (in.)	**Casing Depth (ft.)**

Was well annular space grouted? ☒ Yes ☐ No ☐ Unknown

If yes, to what depth (feet)?	Depth to Water (feet)
13.5'	6.89'

4. Pump, Liner, Screen, Casing & Sealing Material

Pump and piping removed?	☐ Yes	☐ No	☒ N/A
Liner(s) removed?	☐ Yes	☐ No	☒ N/A
Liner(s) perforated?	☐ Yes	☐ No	☒ N/A
Screen removed?	☒ Yes	☐ No	☐ N/A
Casing left in place?	☐ Yes	☒ No	☐ N/A
Was casing cut off below surface?	☐ Yes	☐ No	☒ N/A
Did sealing material rise to surface?	☒ Yes	☐ No	☐ N/A
Did material settle after 24 hours?	☐ Yes	☒ No	☐ N/A
If yes, was hole retopped?	☐ Yes	☐ No	☐ N/A
If bentonite chips were used, were they hydrated with water from a known safe source?	☒ Yes	☐ No	☐ N/A

Required Method of Placing Sealing Material
☐ Conductor Pipe-Gravity ☒ Conductor Pipe-Pumped
☐ Screened & Poured (Bentonite Chips) ☐ Other (Explain): _____

Sealing Materials
☐ Neat Cement Grout ☐ Concrete
☐ Sand-Cement (Concrete) Grout ☐ Bentonite Chips

For Monitoring Wells and Monitoring Well Boreholes Only:
☐ Bentonite Chips ☒ Bentonite - Cement Grout
☐ Granular Bentonite ☐ Bentonite - Sand Slurry

5. Material Used to Fill Well / Drillhole

Material	From (ft.)	To (ft.)	No. Yards, Sacks Sealant or Volume (circle one)	Mix Ratio or Mud Weight
Bentonite Liquid Grout	Surface	13.5'	1/8	

6. Comments

7. Supervision of Work

Name of Person or Firm Doing Filling & Sealing	License #	Date of Filling & Sealing or Verification (mm/dd/yyyy)
Environmental Troubleshooters		07/28/2021

Street or Route	Telephone Number
3825 Grand Avenue	(218) 722-6013

City	State	ZIP Code	Signature of Person Doing Work	Date Signed
Duluth	MN	55807		08/02/2021

DNR Use Only

Date Received	Noted By

Comments:

State of Wisconsin
Department of Natural Resources

Route to: Watershed/Wastewater ☐ Waste Management ☐
Remediation/Redevelopment ☒ Other ☐ _____

MONITORING WELL CONSTRUCTION

Form 4400-113A Rev. 7-98

Facility/Project Name: Fraser	Local Grid Location of Well: _____ ft. ☐N. ☐S. _____ ft. ☐E. ☐W.	Well Name: PS-MW-4 VT910
Facility License, Permit or Monitoring No.	Local Grid Origin ☐ (estimated: ☐) or Well Location ☐ Lat. 46° 44' 08.85" Long. -92° 05' 23.77" or	Wis. Unique Well No. _____ DNR Well ID No. _____
Facility ID _____	St. Plane _____ ft. N, _____ ft. E. S/C/N	Date Well Installed: 04/15/2016 (m m d d y y y y)
Type of Well: Well Code ____/____	Section Location of Waste/Source: SE 1/4 of SW 1/4 of Sec. 11 T. 49 N, R. 14 ☐E ☒W	Well Installed By: Name (first, last) and Firm: Joe Fye, Environmental Troubleshooters
Distance from Waste/Source _____ ft. / Enf. Stds. Apply ☐	Location of Well Relative to Waste/Source: u ☐ Upgradient s ☐ Sidegradient d ☐ Downgradient n ☐ Not Known	Gov. Lot Number _____

A. Protective pipe, top elevation _____ ft. MSL

B. Well casing, top elevation _____ ft. MSL

C. Land surface elevation _____ ft. MSL

D. Surface seal, bottom 3 ft. MSL or _____ ft.

12. USCS classification of soil near screen:
GP ☐ GM ☐ GC ☐ GW ☐ SW ☐ SP ☐
SM ☐ SC ☐ ML ☐ MH ☐ CL ☐ CH ☐
Bedrock ☐

13. Sieve analysis performed? ☐ Yes ☐ No

14. Drilling method used: Rotary ☐ 50 Hollow Stem Auger ☒ 41 Other ☐ ___ _____

15. Drilling fluid used: Water ☐ 02 Air ☐ 01 Drilling Mud ☐ 03 None ☒ 99

16. Drilling additives used? ☐ Yes ☒ No

Describe _____

17. Source of water (attach analysis, if required):
_____

E. Bentonite seal, top 0.5 ft. MSL or _____ ft.

F. Fine sand, top 1.5 ft. MSL or _____ ft.

G. Filter pack, top 2.5 ft. MSL or _____ ft.

H. Screen joint, top 5.5 ft. MSL or _____ ft.

I. Well bottom 13 ft. MSL or _____ ft.

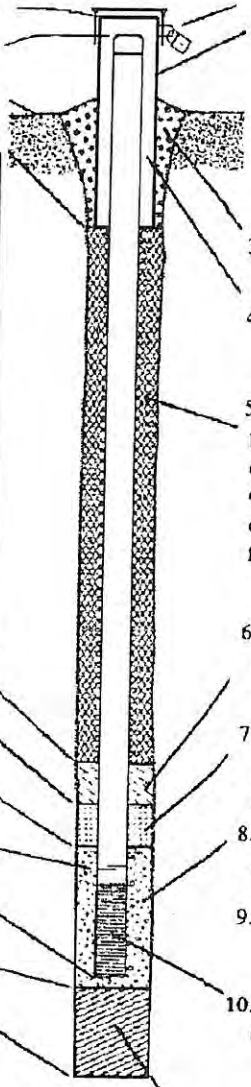
J. Filter pack, bottom 13.5 ft. MSL or _____ ft.

K. Borehole, bottom 13.5 ft. MSL or _____ ft.

L. Borehole, diameter 6 1/4 in.

M. O.D. well casing 2 in.

N. I.D. well casing 1.98 in.



1. Cap and lock? ☒ Yes ☐ No

2. Protective cover pipe:
a. Inside diameter: 6 in.
b. Length: 7 ft.
c. Material: Steel ☒ 04 Other ☐ ___ _____
d. Additional protection? ☐ Yes ☐ No
If yes, describe: Wood bumper posts

3. Surface seal: Bentonite ☒ 30 Concrete ☒ 01 Other ☐ ___ _____

4. Material between well casing and protective pipe: Bentonite ☒ 30 Other ☐ ___ _____

5. Annular space seal: a. Granular/Chipped Bentonite ☒ 33
b. _____ Lbs/gal mud weight . . . Bentonite-sand slurry ☐ 35
c. _____ Lbs/gal mud weight . . . . . Bentonite slurry ☐ 31
d. _____ % Bentonite . . . . . Bentonite-cement grout ☐ 50
e. 5 Ft^3 volume added for any of the above
f. How installed: Tremie ☐ 01 Tremie pumped ☐ 02 Gravity ☒ 08

6. Bentonite seal: a. Bentonite granules ☒ 33
b. ☐1/4 in. ☐3/8 in. ☐1/2 in. Bentonite chips ☐ 32
c. _____ Other ☐ ___

7. Fine sand material: Manufacturer, product name & mesh size
a. Red flint, filter sand, 0.010
b. Volume added _____ ft^3

8. Filter pack material: Manufacturer, product name & mesh size
a. Red flint, filter sand, 0.050
b. Volume added 10 ft^3

9. Well casing: Flush threaded PVC schedule 40 ☐ 23 Flush threaded PVC schedule 80 ☐ 24 Other ☐ ___ _____

10. Screen material: _____
a. Screen type: Factory cut ☒ 11 Continuous slot ☐ 01 Other ☐ ___ _____
b. Manufacturer Johnson
c. Slot size: 0.010 in.
d. Slotted length: 10 ft.

11. Backfill material (below filter pack): None ☒ 14 Other ☐ ___ _____

I hereby certify that the information on this form is true and correct to the best of my knowledge.

Signature _____ Firm _____

Please complete both Forms 4400-113A and 4400-113B and return them to the appropriate DNR office and bureau. Completion of these reports is required by chs. 160, 281, 283, 289, 291, 292, 293, 295, and 299, Wis. Stats., and ch. NR 141, Wis. Adm. Code. In accordance with chs. 281, 289, 291, 292, 293, 295, and 299, Wis. Stats., failure to file these forms may result in a forfeiture of between $10 and $25,000, or imprisonment for up to one year, depending on the program and conduct involved. Personally identifiable information on these forms is not intended to be used for any other purpose. NOTE: See the instructions for more information, including where the completed forms should be sent.

State of Wisconsin
Department of Natural Resources

MONITORING WELL DEVELOPMENT

Form 4400-113B Rev. 7-98

Route to: Watershed/Wastewater ☐ Waste Management ☐
Remediation/Redevelopment ☒ Other ☐ _____

Facility/Project Name	County Name	Well Name
Fraser	Douglas	PS-MW-4 VT910
Facility License, Permit or Monitoring Number	**County Code**	**Wis. Unique Well Number** / **DNR Well ID Number**
	__	_____ / ___

1. Can this well be purged dry? ☒ Yes ☐ No

2. Well development method

surged with bailer and bailed	☒ 41
surged with bailer and pumped	☐ 61
surged with block and bailed	☐ 42
surged with block and pumped	☐ 62
surged with block, bailed and pumped	☐ 70
compressed air	☐ 20
bailed only	☐ 10
pumped only	☐ 51
pumped slowly	☐ 50
Other _____	☐ __

3. Time spent developing well __90 min.

4. Depth of well (from top of well casisng) __15.5 ft.

5. Inside diameter of well __2.00 in.

6. Volume of water in filter pack and well casing __2.8 gal.

7. Volume of water removed from well __8.1 gal.

8. Volume of water added (if any) ____.__ gal.

9. Source of water added N/A

10. Analysis performed on water added? ☐ Yes ☐ No
(If yes, attach results)

	Before Development	After Development
11. Depth to Water (from top of well casing)	a. __5.15 ft.	__11.21 ft.
Date	b. 04/27/2016 (m m d d y y y y)	04/27/2016 (m m d d y y y y)
Time	c. 10:45 ☒ a.m. ☐ p.m.	12:30 ☐ a.m. ☒ p.m.
12. Sediment in well bottom	____.__ inches	____.__ inches
13. Water clarity	Clear ☐ 10 Turbid ☒ 15 (Describe) _____	Clear ☒ 20 Turbid ☐ 25 (Describe) Slight sediment

Fill in if drilling fluids were used and well is at solid waste facility:

14. Total suspended solids	____.__ mg/l	____.__ mg/l
15. COD	____.__ mg/l	____.__ mg/l

16. Well developed by: Name (first, last) and Firm
First Name: Brice Last Name: Wizner
Firm: Environmental Troubleshooters

17. Additional comments on development:

Name and Address of Facility Contact /Owner/Responsible Party
First Name: _____ Last Name: _____
Facility/Firm: _____
Street: _____
City/State/Zip: _____

I hereby certify that the above information is true and correct to the best of my knowledge.
Signature: _____
Print Name: _____
Firm: _____

NOTE: See instructions for more information including a list of county codes and well type codes.