Industry Services Division
2400 E Washington Ave
P.O. Box 7162
Madison, WI 53707–7162

RECEIVED
MAY 26 2015
BARRON COUNTY ZONING OFFICE

County
BARRON

Sanitary Permit Number (to be filled in by Co.)
575946

Sanitary Permit Application

In accordance with SPS 383.21(2), Wis. Adm. Code, submission of this form to the appropriate governmental unit is required prior to obtaining a sanitary permit. Note: Application forms for state-owned POWTS are submitted to the Department of Safety and Professional Services. Personal information you provide may be used for secondary purposes in accordance with the Privacy Law, s. 15.04(1)(m), Stats.

State Transaction Number

Project Address (if different than mailing address)
512 CTH SS

I. Application Information – Please Print All Information

Property Owner's Name
NORTHERN INDUSTRIAL SANDS, LLC

Parcel #
022-0800-04-000

Property Owner's Mailing Address
P.O. BOX 887

Property Location
Govt. Lot
NE ¼, NE ¼, Section 8
(circle one)
T 32 N10; R W ~~E or W~~

City, State	Zip Code	Phone Number
CHETEK, WI	54728	715-699-0285

II. Type of Building (check all that apply)

☐ 1 or 2 Family Dwelling – Number of Bedrooms _____

☒ Public/Commercial – Describe Use OFFICE 17 employees / 1 floor drain

☐ State Owned – Describe Use _____

Lot #

Block #

CSM Number

Subdivision Name

☐ City of
☐ Village of
☒ Town of DOVRE

III. Type of Permit: (Check only one box on line A. Complete line B if applicable)

A.	☒ New System	☐ Replacement System	☐ Treatment/Holding Tank Replacement Only		☐ Other Modification to Existing System (explain)
B.	☐ Permit Renewal Before Expiration	☐ Permit Revision	☐ Change of Plumber	☐ Permit Transfer to New Owner	List Previous Permit Number and Date Issued

IV. Type of POWTS System/Component/Device: (Check all that apply)

☒ Non-Pressurized In-Ground ☐ Pressurized In-Ground ☐ At-Grade ☐ Mound ≥ 24 in. of suitable soil ☐ Mound < 24 in. of suitable soil
☐ Holding Tank ☐ Other Dispersal Component (explain) ☐ Pretreatment Device (explain)

V. Dispersal/Treatment Area Information:

Design Flow (gpd)	Design Soil Application Rate(gpdsf)	Dispersal Area Required (sf)	Dispersal Area Proposed (sf)	System Elevation
1403	0.7	2004.3	2018.4	1072.00'

VI. Tank Info

	Capacity in Gallons		Total Gallons	# of Units	Manufacturer	Prefab Concrete	Site Constructed	Steel	Fiber Glass	Plastic
	New Tanks	Existing Tanks								
Septic or Holding Tank	3136	0	3136	1	SKAW	☒	☐	☐	☐	☐
Dosing Chamber	1600	0	1600	1	SKAW	☒	☐	☐	☐	☐

VII. Responsibility Statement- I, the undersigned, assume responsibility for installation of the POWTS shown on the attached plans.

Plumber's Name (Print)	Plumber's Signature	MP/MPRS Number	Business Phone Number
ED BERGH		221889	(715) 577-8205

Plumber's Address (Street, City, State, Zip Code)
N4050 CTH H - ELK MOUND, WI 54739

VIII. County/Department Use Only

☒ Approved	☐ Disapproved ☐ Owner Given Reason for Denial	Permit Fee $ 375.00	Date Issued 5-27-15	Issuing Agent Signature

IX. Conditions of Approval/Reasons for Disapproval

Attach to complete plans for the system and submit to the County only on paper not less than 8 1/2 x 11 inches in size

SBD-6398 (R03/14)

Soil Testing, Septic Designs & Inspections
Serving North Western Wisconsin since 1994
(715) 577-6838 WastewaterPros.com

Client: NORTHERN INDUSTRIAL SANDS, LLC
P.O. Box 887 – Chetek, WI 54728

NON-PRESSURIZED IN-GROUND SOIL ABSORPTION COMPONENT – USING LEACHING CHAMBERS

Reference Component Manual
In-ground Absorption Component Manual (VERSION 2.0)

Location: **512 CTH SS**
NE ¼, NE ¼ Sec. 08 T 32 N R 10 W
Town: DOVRE
County: **BARRON**

Designer's information: William J. Bergh (License No. 1577-007)

I the undersigned state that these plans were designed and submitted under my authority

Designer's signature:

WISCONSIN WILLIAM J. BERGH 1577-007 CHIPPEWA FALLS, WI PROFESSIONAL DESIGNER

Designer's address: 11091 30th Avenue
Chippewa Falls, WI 54729

Designer's phone number: 715-577-6838 voice
888-466-8573 fax
billy@wastewaterpros.com email

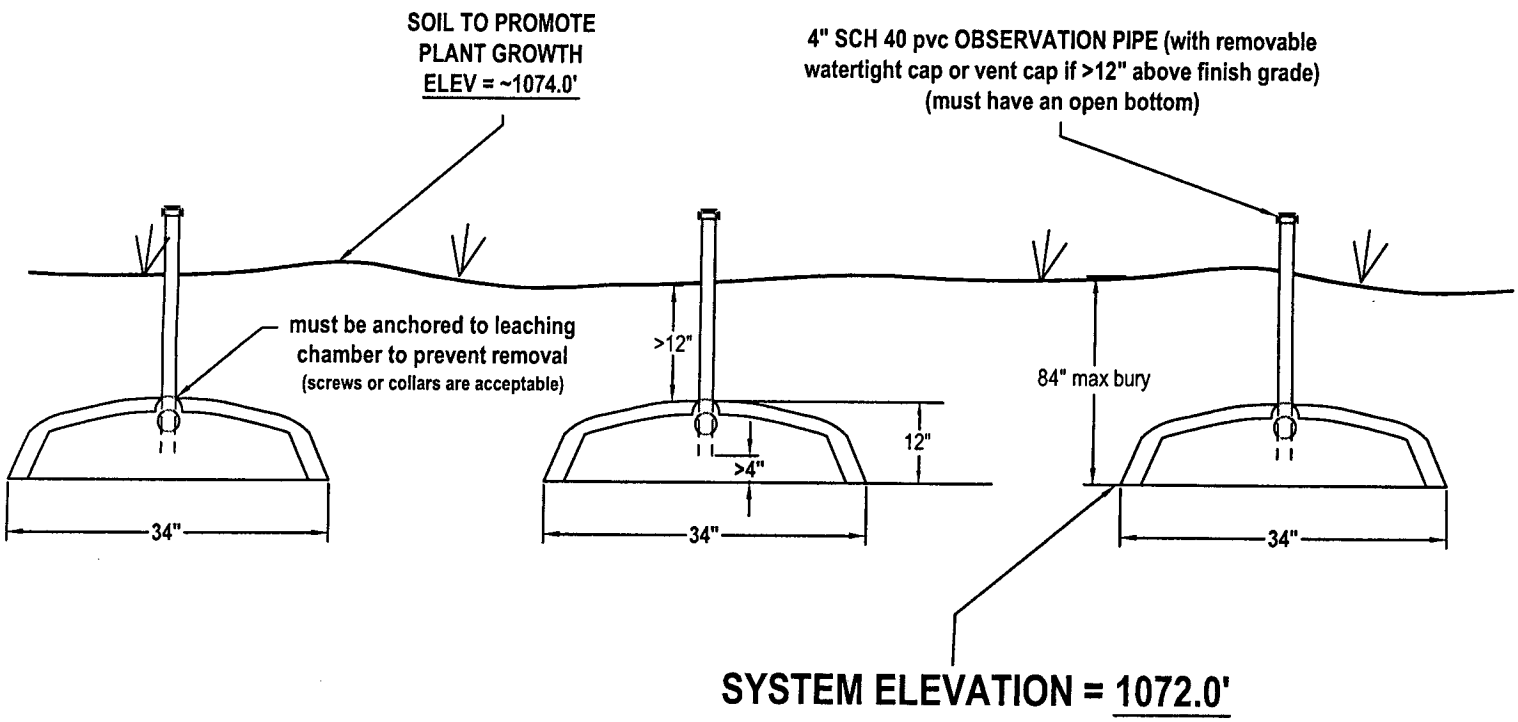
Contents

Page 1	cover sheet
Page 2	site plan
Page 3	Distribution cells (leaching chamber x-section)
Page 4	leaching chamber manufacturer specifications
Page 5	Treatment tank cross-section
Page 6	Effluent filter manufacturer & maintenance specifications
Page 7	Dose pump specifications
Page 8	O&M
Page 9	O&M

INFILTRATOR QUICK 4LP LEACHING CHAMBER (typical)

installations may require additional cells (not shown here)

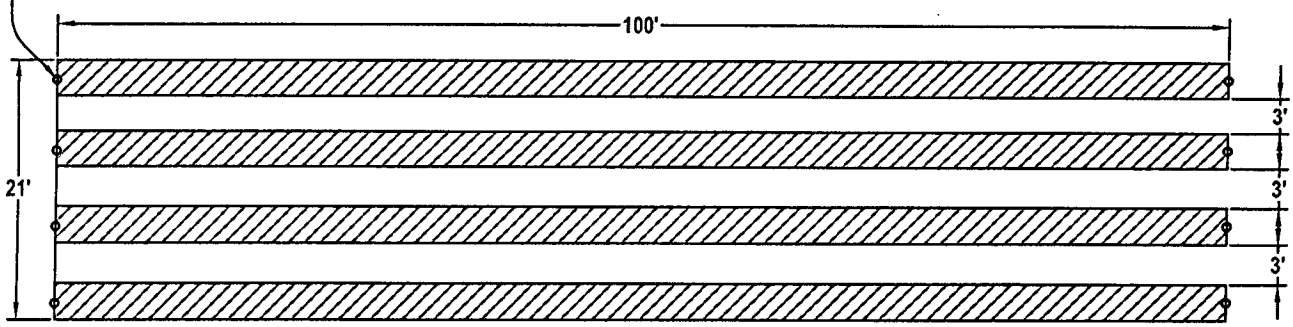
"DRAWING NOT TO SCALE"



25	NUMBER OF LEACHING CHAMBERS (per cell)
4	NUMBER OF CELLS
100	TOTAL NUMBER OF LEACHING CHAMBERS (all cells)

4" OBSERVATION PIPE (installed in the end cap typical installation)

DIMENSIONED PLAN VIEW OF COMPONENT



INFILTRATOR QUICK 4LP CHAMBER - OPEN BOTTOM AREA = 16.1 SQFT

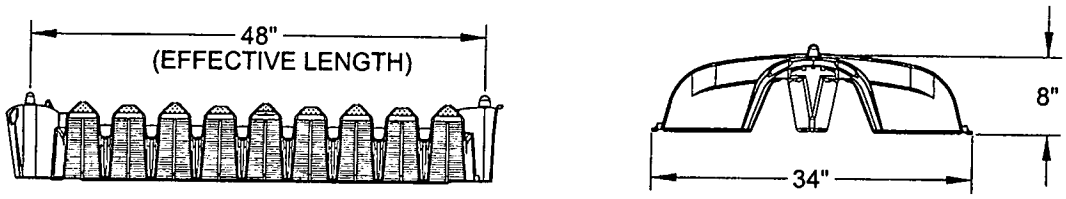
INFILTRATIVE SURFACE PER CHAMBER BASED ON EISA RATING = 20.0 SQFT

QUICK 4 STANDARD END CAPS PER PAIR EISA RATING = 4.6 SQFT

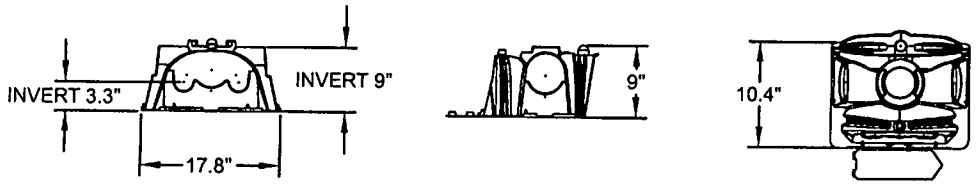
ALL MATERIAL AND PIPING SPECIFICATIONS AS PER THE CONVENTIONAL SOIL ABSORPTION COMPONENT MANUAL

THE QUICK4 PLUS STANDARD LP CHAMBER

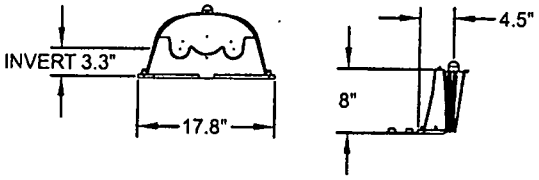
Quick4 Plus Standard LP Chamber Side and End Views



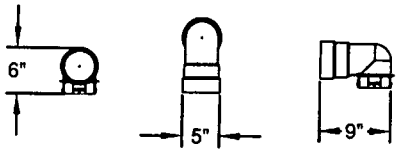
Quick4 Plus All-in-One End Cap Front, Side and End Views



Quick4 Plus End Cap Front, Side and End Views



Quick4 Plus All-in-One Periscope



Quick4 Plus Standard Chamber Specifications	
Size (W x L x H) ..... 34" x 53" x 8" (86 cm x122 cm x 20 cm)	Invert Height ..... 0.6", 3.3", 7", 8" (1.52 cm, 8.4 cm, 18.5 cm, 22.6 cm)
Effective Length ..... 48" (122 cm)	

INFILTRATOR SYSTEMS, INC. STANDARD LIMITED WARRANTY

(a) The structural integrity of each chamber, end cap and other accessory manufactured by Infiltrator ("Units"), when installed and operated in a leachfield or other septic system in accordance with Infiltrator's instructions, is warranted to the original purchaser ("Holder") against defective materials and workmanship for one year from the date that the septic permit is issued for the septic system containing the Units, provided, however, that if a septic permit is not required by applicable law, the warranty period will begin upon the date that installation of the septic system commences. To exercise its warranty rights, Holder must notify Infiltrator in writing at its Corporate Headquarters in Old Saybrook, Connecticut within fifteen (15) days of the alleged defect. Infiltrator will supply replacement Units for Units determined by Infiltrator to be covered by this Limited Warranty. Infiltrator's liability specifically excludes the cost of removal and/or installation of the Units.

(b) THE LIMITED WARRANTY AND REMEDIES IN SUBPARAGRAPH (a) ARE EXCLUSIVE. THERE ARE NO OTHER WARRANTIES WITH RESPECT TO THE UNITS, INCLUDING NO IMPLIED WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE.

(c) This Limited Warranty shall be void if any part of the chamber system is manufactured by anyone other than Infiltrator. The Limited Warranty does not extend to incidental, consequential, special or indirect damages. Infiltrator shall not be liable for penalties or liquidated damages, including loss of production and profits, labor and materials, overhead costs, or other losses or expenses incurred by the Holder or any third party. Specifically excluded from Limited Warranty coverage are damage to the Units due to ordinary wear and tear, alteration, accident, misuse, abuse or neglect of the Units; the Units being subjected to vehicle traffic or other conditions which are not permitted by the Infiltrator instructions; failure to maintain the minimum ground covers set forth in the Infiltrator instructions; the placement of improper materials into the system containing the Units; failure of the Units or the septic system due to improper sizing or improper siting, excessive water usage, improper grease disposal, or improper operation, or any other event not caused by Infiltrator. This Limited Warranty shall be void if the Holder fails to comply with all of the terms set forth in this Limited Warranty. Further, in no event shall Infiltrator be responsible for any loss or damage to the Units, the Units, or any third party resulting from installation or shipment, or from any product liability claims of Holder or any third party. For this Limited Warranty to apply, the Units must be installed in accordance with all site conditions required by state and local codes, all other applicable laws, and Infiltrator's installation instructions.

(d) No representative of Infiltrator has the authority to change or extend this Limited Warranty. No warranty applies to any party other than the original Holder.

The above represents the Standard Limited Warranty offered by Infiltrator. A limited number of states and countries have different warranty requirements. Any purchaser of Units should contact Infiltrator's Corporate Headquarters in Old Saybrook, Connecticut prior to such purchase, to obtain a copy of the applicable warranty, and should carefully read that warranty prior to the purchase of Units.

INFILTRATOR®
systems inc.

6 Business Park Road • P.O. Box 768
Old Saybrook, CT 06475
860.577.7000 • FAX 860.577.7001

800.221.4436
www.infiltratorsystems.com

For technical assistance, installation instructions or customer service, call Infiltrator Systems at 800.221-4436

U.S. Patents: 4,759,661; 5,017,041; 5,156,488; 5,336,017; 5,401,116; 5,401,459; 5,511,903; 5,716,163; 5,588,778; 5,839,844
Canadian Patents: 1,329,959; 2,004,564 Other patents pending.

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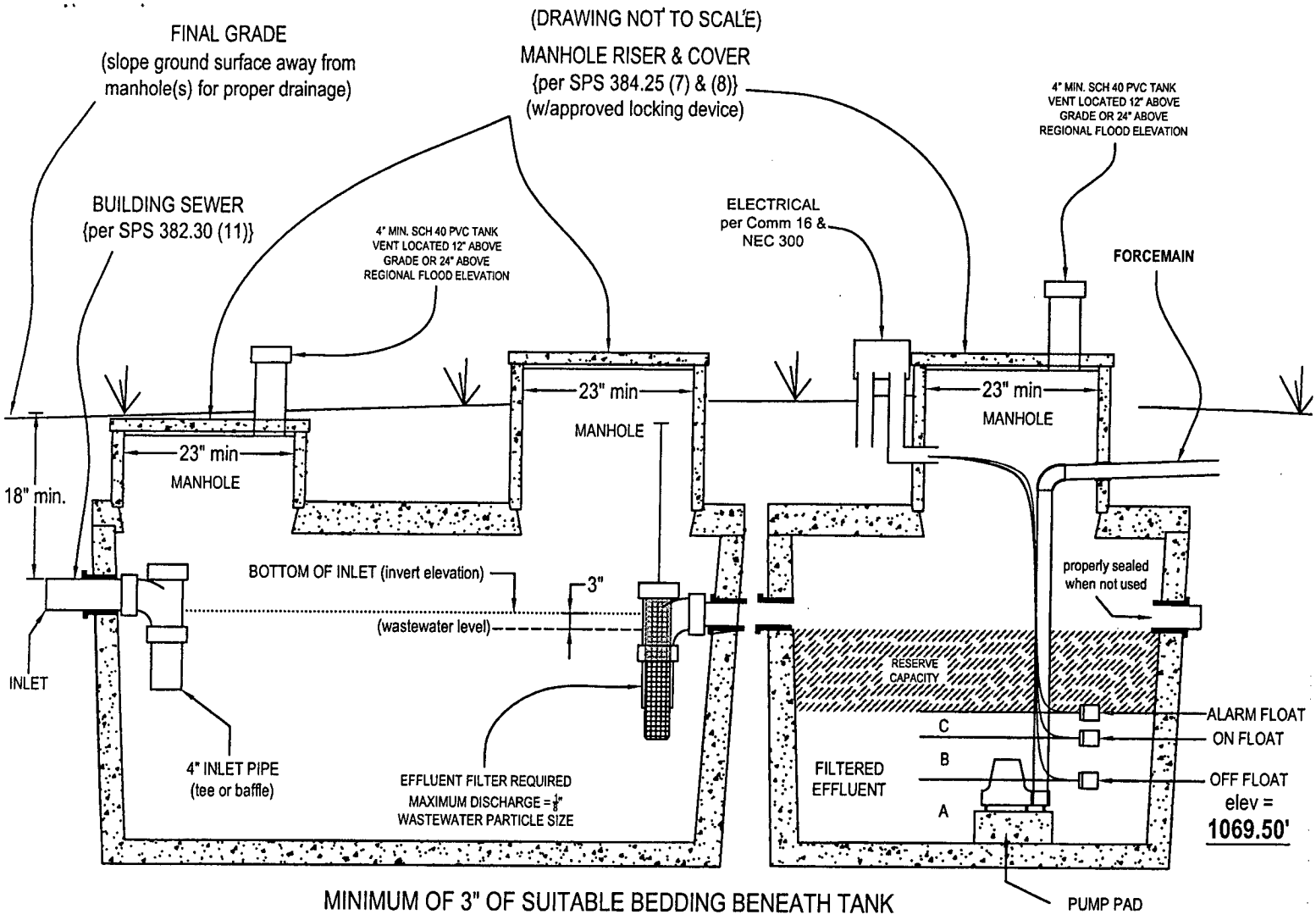
SEPTIC TANK & PUMP TANK X-SECTION

(DRAWING NOT TO SCALE)



MINIMUM OF 3" OF SUITABLE BEDDING BENEATH TANK

EFFLUENT FILTER **BEAR** ** ** OR EQUIVALENT COMPONENT

Tank Manufacturer	**SKAW**	DWF (daily wastewater flow)	**1403 GPD**
Septic/Pump tank model (DWF / actual dose volume)	**3136/1600**	Number of daily doses	**4.93**
Alarm manufacturer	**SJE RHOMBUS ****		
Alarm model number	**SJE SignalMaster® SPDT ****	Forcemain volume	**65.2**
Type of float switch	**MECHANICAL**	Actual dose volume (gallons) (total dose volume - volume of forcemain)	**284.56**

Effluent pump manufacturer	**ZOELLER**
Effluent pump model number	**137**
Minimum pump discharge rate (GPM)	**NA**
Vertical lift (pump off to distribution lateral)	**9.0'**
system head (distal pressure X 1.3 feet)	**NA**
Friction loss in the forcemain/fittings	**<2.5**
Total dynamic head (TDH)	**<11.5**

PUMP TANK CAPACITIES

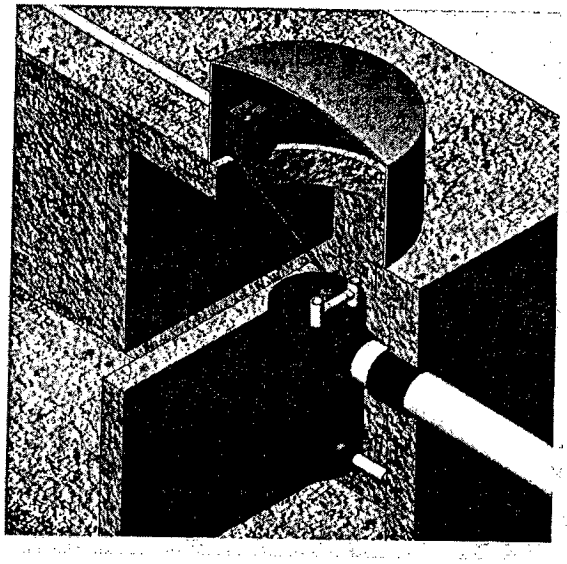
Reserve above alarm	**21.5** inches	= **939.98**	gallons
Alarm float above on float	**2** inches	= **87.44**	gallons (C)
On/Off float measurement	**8** inches	= **349.76**	gallons (B)
Off above bottom of tank	**7.5** inches	= **327.90**	gallons (A)

PUMP CHAMBER DIMENSIONS

Length	144.0"	Width	67.0"
Liquid depth	39.0"	Gallons per inch	43.72

FILTER CARTRIDGE INSTRUCTIONS

Installation



STEP 1 Dry fit the filter case onto the end of the outlet pipe to ensure it is centered under the access opening. If not, then either insert more pipe into the tank through the outlet or solvent weld (glue) additional pipe onto the outlet pipe.

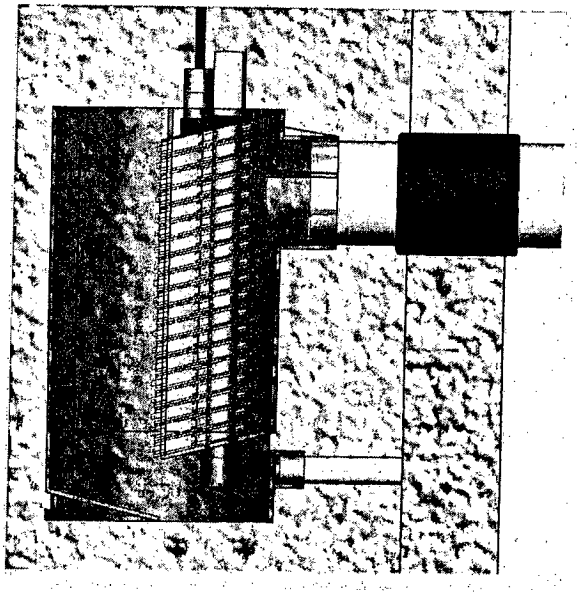
STEP 2 While the case is still dry fitted on the outlet pipe, measure the length of ¾-inch pipe needed to brace the filter to the tank end wall if utilizing the optional supplemental side support. If side support method is not utilized, proceed to step four.

STEP 3 For installations utilizing the optional supplemental side support: solvent weld the ¾-inch pipe onto the filter case. If side support method is not utilized, proceed to step four.

STEP 4 Solvent weld the filter case onto the outlet pipe. Insert the filter cartridge into the case, pressing down until the filter locks into the bottom of the case.

STEP 5 If a VRS switch is utilized: insert into the filter and lock by turning clockwise 90°.

Maintenance

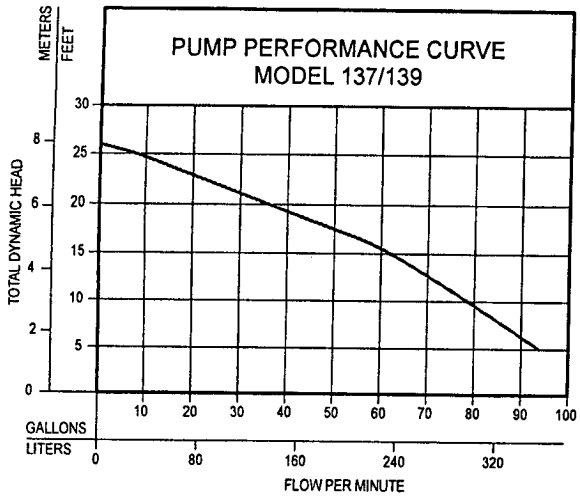


1. The effluent filter should be cleaned every time the septic tank is serviced.
2. Open the outlet access opening to inspect the tank and filter.
3. Pump the septic tank completely, making sure to remove the sludge layer on the bottom of the tank and not just the scum and effluent.
4. Once the effluent level has been lowered below the invert of the outlet pipe, firmly pull up on the filter handle to dislodge the cartridge from the case.
5. Slide the cartridge up and out of the case for cleaning.
6. If a VRS switch connected to an alarm is present, the switch should be removed by turning counterclockwise 90° and cleaned with water only.
7. While holding the cartridge on its side (large flat surface facing down) over the access opening, rinse off the cartridge with water only, making sure all septage material is rinsed back into the tank.
8. If VRS switch is utilized, replace by inserting into filter and turning clockwise 90°.
9. Insert the filter cartridge back into the case, pressing down until the filter locks into the bottom of the case.
10. Replace and secure the access opening on the tank.

BEAR ONSITE™ FILTER CARTRIDGE - FIVE-YEAR LIMITED WARRANTY
Bear Onsite filter cartridges are warranted to be free of defects in material and workmanship for five (5) years from the date of consumer purchase.

BEAR ONSITE™ Filter Case -Lifetime Limited Warranty
Bear Onsite warrants the filter case will be free of defects in material and workmanship during normal use for the period of time the original purchaser owns the product.

If a defect is found in normal use, Bear Onsite will, at its election, repair, provide a replacement part or product, or make appropriate adjustment. Damage to a product caused by accident, misuse, or abuse is not covered by this warranty. Improper care or malfunctions resulting from units not installed, operated, or maintained in accordance with instructions provided will void the warranty. Proof of purchase (original sales receipt) must be provided to Bear Onsite with all warranty claims. Bear Onsite is not responsible for labor charges, removal charges, installation,or other incidental or consequential costs. In no event shall the liability of Bear Onsite exceed the purchase price of the product.



TOTAL DYNAMIC HEAD/FLOW
PER MINUTE
EFFLUENT AND DEWATERING

MODEL		137/139	
Feet	Meters	Gal.	Liters
5	1.5	93	352
10	3.0	79	299
15	4.6	64	242
20	6.1	36	136
25	7.6	8	30
Shut-off Head:		26 ft.(8.0m)	

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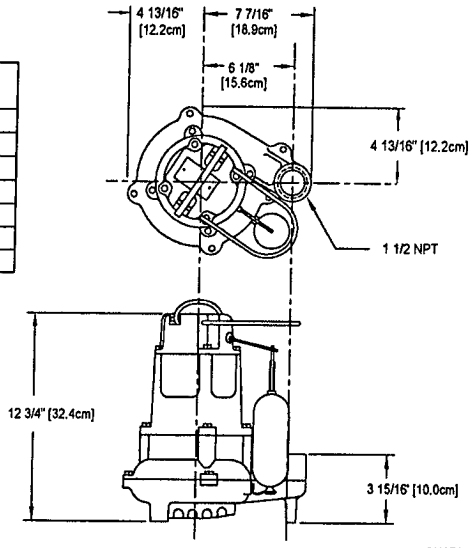


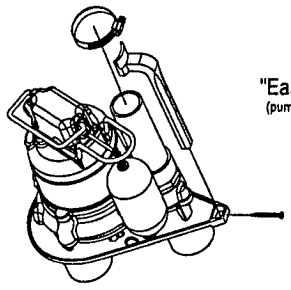
SK373

CONSULT FACTORY FOR SPECIAL APPLICATIONS

- Three phase pumps are available in 200/208V, 230V or 460V.
- Electrical alternators, for duplex systems, are available and supplied with an alarm.
- Mechanical alternators, for duplex systems, are available with or without alarm switches.
- Simplex Panels are available for 3 phase pumps.
- Control alarm systems are available for 1 phase pumps.
- Variable level control switches are available for controlling single and 3 phase systems.
- Double piggyback variable level float switches are available for variable level long cycle controls.
- Over 130°F (54°C) special quotation required.
- Refer to FM1922 and FM0806 for temperatures over 130°F (54°C).

⚠ CAUTION

All installation of controls, protection devices and wiring should be done by a qualified licensed electrician. All electrical and safety codes should be followed including the most recent National Electric Code (NEC) and the Occupational Safety and Health Act (OSHA).



"Easy assembly"
(pump & discharge pipe not included.)

OPTIONAL PUMP STAND P/N 10-2421

- Reduces potential clogging by debris.
- Replaces rocks or bricks under the pump.
- Made of durable, noncorrosive ABS.
- Raises pump 2" off bottom of basin.
- Provides the ability to raise intake by adding sections of 1½" or 2" PVC piping.
- Attaches securely to pump.
- Accommodates sump, dewatering and effluent applications.

NOTE: Make sure float is free from obstruction.

RESERVE POWERED DESIGN

For unusual conditions a reserve safety factor is engineered into the design of every Zoeller pump.

137 Series - 47 lbs. 139 Series - 51 lbs.

Single Seal	Control Selection						Listings	
Model	Volts-Ph		Mode	Amps	Simplex	Duplex	CSA	UL
M137/139	115	1	Auto	10.7	1	4	Y	Y
N137/139	115	1	Non	10.7	2 or 3	2 or 4	Y	Y
** BN137	115	1	Auto	10.7	**	4	Y	Y
D137/139	230	1	Auto	5.8	1	4	Y	Y
E137/139	230	1	Non	5.8	2 or 3	4	Y	Y
* H137/139	200-208	1	Auto	6.2	1	4	Y	N
* I137/139	200-208	1	Non	6.2	3	4	Y	N
* J137/139	200-208	3	Non	2.6	3	4	Y	Y
* F137/139	230	3	Non	2.6	3	4	Y	Y
* G137	460	3	Non	1.4	3	4	N	N
* G139	460	3	Non	1.4	3	4	N	N

*No molded plug **Single piggyback switch included.

Pumps must be operated in upright position.

Three phase units require a control switch to operate an external magnetic contactor.

For information on additional Zoeller products refer to catalog on Piggyback Variable Level Float Switches, FM0477; Electrical Alternator, FM0486; Mechanical Alternator, FM0495; Alarm Package, FM0732; and Sump/Sewage Basins, FM0487.

SELECTION GUIDE

1. Integral float operated mechanical switch, no external control required.
2. For automatic use single piggyback variable level float switch or double piggyback variable level float switch. Refer to FM0477.
3. See FM1228 for correct model of simplex control panel.
4. See FM0712 for correct model of duplex control panel or FM1663 for a residential alternator system.

ZOELLER®
PUMP COMPANY

MAIL TO: P.O. BOX 16347 • Louisville, KY 40256-0347
SHIP TO: 3649 Cane Run Road • Louisville, KY 40211-1961
(502) 778-2731 • 1 (800) 928-PUMP • FAX (502) 774-3624

Your Peace of Mind is Our Top Priority®

visit our web site:
www.zoeller.com

Owner/Agent:	**NORTHERN INDUSTRIAL SANDS, LLC – 512 CTH SS**
POWTS Maintainer:	Geo Tech Soil & Site Evaluation – Chippewa Falls, WI 715-577-6838
Local Regulatory Authority:	**Barron** County **Zoning** Department **Barron, WI 715-537-6375**
POWTS Installer:	Edward Bergh - Bergh Contractors Inc. – Elk Mound, WI 715-577-6838
Septage Servicing Operator	

DESIGN PARAMETERS

Influent/Effluent quality (values typical for domestic (non-commercial wastewater and septic tank effluent) Fats, Oil and greases (FOG) <30 mg/L, Biochemical Oxygen Demand (BOD) <220 mg/L, Total Suspended Solids (TSS) <150 mg/L **Soil Loading Rate (SLR) = 0.7 (eff #1)**

SYSTEM SPECIFICATIONS

The components of this septic system are intended to serve a an office building with no kitchen facilities. The components include **a Skaw 3136 septic tank, (with effluent filter), a Skaw model 1600 dose tank with Zoeller 137 effluent pump,** alarms and controls. Install **(4)** non-pressurized distribution cells using Infiltrator Quick4LP leaching chambers. Install a minimum of **100** leaching chambers when applying an EISA rating of **20.0** as specified by SPS. All parts of the components must comply with WI Adm. Code SPS 384 and be installed per manufacturer specifications and approval letters.

DESIGN CRITERIA

✓ In ground Soil Absorption component Manual Version 2.0

MAINTENANCE & MANAGEMENT

Inspect the condition of the treatment tank(s) and dispersal cell(s) a minimum of every three years. The septic tank contents must be removed in accordance with Chapter NR 113, WI Adm. Code when the combined sludge and scum equals one-third (1/3) the tank volume. The effluent filter should be inspected annually to ensure maximum performance. At a minimum the filter must be cleaned every three years when the tank is pumped. Immediately following the tank pumping the effluent filter should be properly removed and thoroughly flushed with a hose or other suitable means so that any debris accumulated on the filter have been properly removed. Upon successful removal of all foreign matter replace the filter so that it is properly "seated" in the filter housing canister. Refer to individual filter manufacturer specifications for additional information about specific products.

START UP

For new construction prior to use of the POWTS check treatment tank(s) for presence of painting products or other chemicals that may impede the treatment process and/or damage the dispersal cell(s). If high concentrations are detected have the contents of the tank(s) removed by a septage-servicing operator prior to use.

OPERATION

The property owner is responsible for the operation and maintenance of the POWTS and submission of required reports. The quantity and quality of wastewater will affect the performance and longevity of your POWTS. The installation of water-saving appliances and fixtures along with prompt repair of leaks reduces the wastewater volume. Also, the brine or waste from water softeners, iron removal units, and other clear water treatment devices and foundation drains should be discharged to the ground surface whenever possible. Note: this does not include laundry waste, showers, dishwater, etc.

The system is designed to handle domestic strength wastewater, however the disposal of food based greases and oils, vegetable/fruit peels and seeds, bones, and food solids such as those produced be a garbage disposal should be minimized. Toilet tissue is the only paper that should be discharged into the system. Other non-biodegradable items such as baby wipes, tampons, sanitary napkins, condoms, cigarette butts, dental floss, and cotton swabs should not enter the system. Chemicals such as petroleum products, paint, disinfectants, pesticides, antibiotics (medications), solvents, etc., should not be flushed into the system as they can seriously damage your POWTS and contaminate your drinking water supply.

Maintain regular steady flow by spreading the laundry washing throughout the week. Avoid vehicle traffic over all system components. Compaction of snow over the unit may cause it to freeze up.

INSPECTIONS

Inspections shall be made by a person carrying one of the following licenses or certifications: Master Plumber, Master Plumber Restricted Sewer, POWTS Maintainer or Septage Servicing Operator (per the attached Maintenance Schedule)

✓ Septic Tank Component
Tank inspections must include a visual inspection of the tank to identify any missing or broken hardware, identify any cracks of leaks, measure the volume of combined sludge and scum and to check for any backup or surface discharge of effluent. Access openings used for service of assessment shall be sealed and/or locked upon completion of service. Any defects shall be promptly corrected. Exposed openings greater than 8 inches in diameter shall be secured with an effective locking device to prevent accidental of unauthorized entry into the tank.

The outlet (effluent) filter(s) shall be inspected and cleaned to remove any accumulated solids according to manufacturer's specifications. Provisions are to be made to retain solids in the tank during cleaning. Filter cleaning may be necessary at more frequent intervals than stated in the maintenance schedule to keep the system operating properly.

✓ Pump Chamber/Treatment Tank(s) Component
The inspection must include a test of all electrical equipment such as pumps, alarms and floats. A visual check must me made for leaks, backups, surfacing, missing or broken security devices and other hardware and the condition of the filter. Any service needs or repairs shall be promptly taken care of.

✓ In-Ground Gravity Component dispersal Cells
The inspection shall include recording the levels of ponding, if any in the observation tubes and a visual inspection for any evidence of surface seepage or discharge. Any discharge to the ground must be promptly reported to the regulatory authority. Ponding greater than 75% of the height of the component may indicate overloading or impending hydraulic failure necessitating more frequent monitoring.

o Divertor Valve
The divertor valve shall be switched to serve the opposing distribution component every three years (when the septic tank is due for it regular maintenance). However, if ponding is observed in the observation/vent pipe of any cell, the divertor valve shall be switch to the opposing component. Furthermore, ponding greater than 75% of the height of the component may indicate overloading or impending hydraulic failure necessitating more frequent monitoring

REPORTS
Reports for maintenance, inspection, and monitoring shall be submitted in accordance with SPS 383.55 Wisconsin Administrative Code.

ABANDONMENT
When the POWTS fails and/or is permanently taken out of service the following steps shall be taken to ensure that the system is properly and safely abandoned in compliance with Ch. SPS 383.33, Wisconsin Administrative Code.

- All piping to tanks and pits shall be disconnected and the abandoned pipe opening sealed.
- The contents of all tanks and pits shall be removed and properly disposed of be a Septage Servicing Operator.
- After pumping, all tanks and pits shall be excavated and removed or their covers removed and the void space filled with soil, gravel or other inert solid material.

CONTINGENCY PLAN
If the POWTS fails and cannot be repaired the following measures have been, or must be taken, to provide a code compliant replacement system.

o A suitable replacement area has been evaluated and may be utilized for the location of a replacement soil absorption system. The replacement area should be protected from disturbance and compaction and should not be infringed upon by required setbacks from existing and proposed structure(s), lot lines and wells. Failure to protect the replacement area will result in the need for a new soil and site evaluation to establish a suitable replacement area. Replacement systems must comply with the rules in effect at that time.

o A suitable replacement area is not available due to setback and/or soil limitations. Barring advances in POWTS technology a holding tank may be installed as a last resort to replace the failed POWTS.

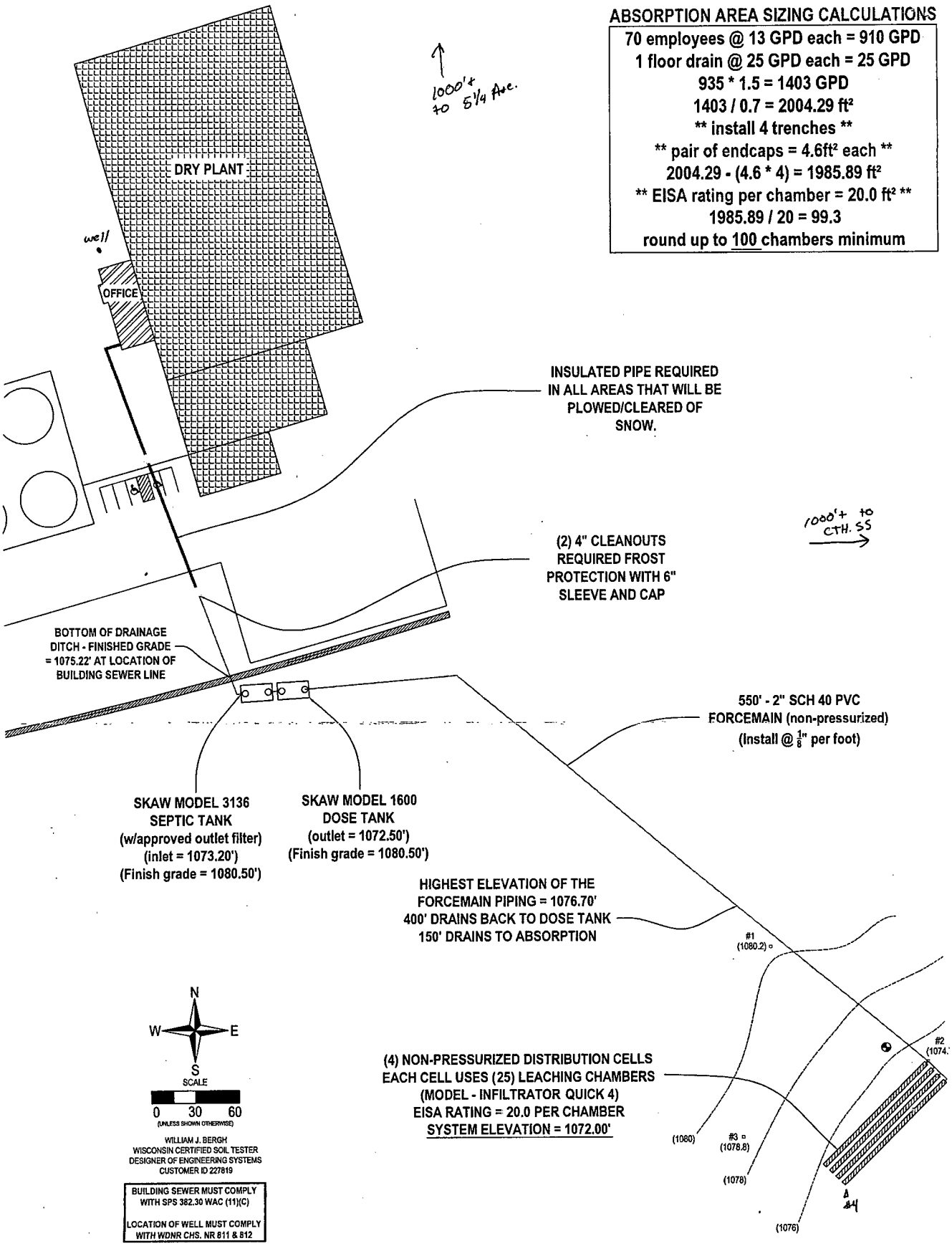
✓ The site has not been evaluated to identify a suitable replacement area. Upon failure of the POWTS a soil and site evaluation must be performed to locate a suitable replacement area. If no replacement area is available a holding tank may be installed as a last resort to replace the failed POWTS.

WARNING

SEPTIC, PUMP AND OTHER TREATMENT TANKS MAY CONTAIN LETHAL GASES AND/OR INSUFFICIENT OXYGEN. DO NOT ENTER A SEPTIC, PUMP OF OTHER TREATMENT TANK UNDER ANY CIRCUMSTANCES. DEATH MAY RESULT. RESCUE OF A PERSON FROM THE INTERIOR OF A TANK MAY BE DIFFICULT OR IMPOSSIBLE.

ABSORPTION AREA SIZING CALCULATIONS

70 employees @ 13 GPD each = 910 GPD
1 floor drain @ 25 GPD each = 25 GPD
935 * 1.5 = 1403 GPD
1403 / 0.7 = 2004.29 ft²
** install 4 trenches **
** pair of endcaps = 4.6ft² each **
2004.29 - (4.6 * 4) = 1985.89 ft²
** EISA rating per chamber = 20.0 ft² **
1985.89 / 20 = 99.3
round up to 100 chambers minimum



WILLIAM J. BERGH
WISCONSIN CERTIFIED SOIL TESTER
DESIGNER OF ENGINEERING SYSTEMS
CUSTOMER ID 227819

BUILDING SEWER MUST COMPLY WITH SPS 382.30 WAC (11)(C)

LOCATION OF WELL MUST COMPLY WITH WDNR CHS. NR 811 & 812

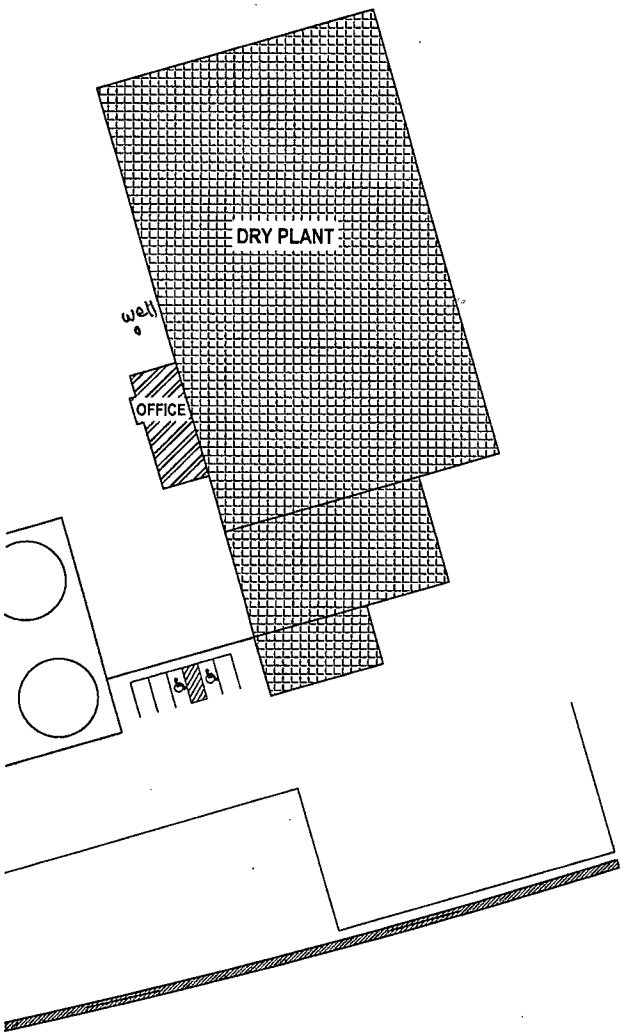
- BENCHMARK ELEVATION = _____ - BASE OF FLAGGED STEEL STAKE
- △ LOCATION OF SOIL BORING(S)
- ▫ LOCATION OF SOIL PIT(S)
- ✱ NO APPARENT SPS 383.43 SETBACKS
- Ⓟ DESCRIBED LOCATION OF LOT LINE
- Ⓡ LOCATION OF RIGHT-OF-WAY
- Ⓒ CENTERLINE OF DESCRIBED ROAD

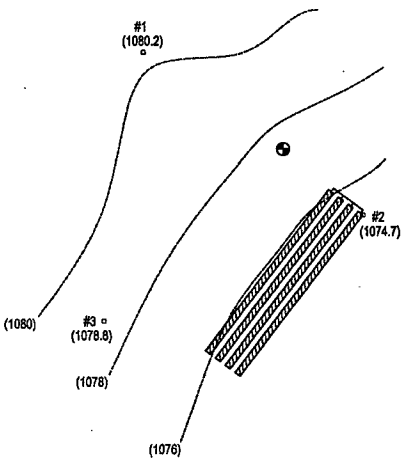
GEO TECH, LLC
11091 30TH AVENUE
CHIPPEWA FALLS, WI 54729
PH: (715)723-5555 FAX: (888)466-8573
email: billy@wastewaterpros.com

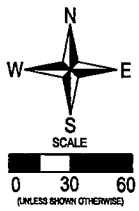
JOBSITE INFORMATION:
NORTHERN INDUSTRIAL SANDS
P.O. BOX 887
CHETEK, WI

NE-NE-08-32-10W
DOVRE TOWNSHIP
BARRON, WI
PARCEL DESCRIBED AS 100+ AC.

POWTS PLAN







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PARCEL DESCRIBED AS 100+ AC.

SOIL TEST PLOT PLAN

SOIL EVALUATION REPORT

#2788

Department of Safety and Professional Services
Division of Safety and Buildings

RECEIVED
MAY 14 2015
BARRON COUNTY ZONING OFFICE

P.O. # 1620

Page 1 of 3

Geo Tech Soil & Site Evaluation, LLC

in accordance with Comm 85, Wis. Adm. Code

Attach complete site plan on paper not less than 8½ x 11 inches in size. Plan must include, but not limited to, vertical and horizontal reference point (BM), direction and percent slope, scale or dimensions, north arrow, and location and distance to nearest road.

Please print all information.

Personal information you provide may be used for secondary purposes (Privacy Law, s. 15.04 (1) (m)).

County	Barron
Parcel I.D.	022-0800-04-000
Reviewed By	Date 6-17-15

ORIGINAL

Property Owner				Property Location		
NORTHERN INDUSTRIAL SANDS, LLC				Govt. Lot NE1/4, NE1/4, S8, T32N, R10W		
Property Owner's Mailing Address				Lot #	Block #	Subd. Name or CSM#
P.O. BOX 887						
City	State	Zip Code	Phone Number	☐ City ☐ Village ☒ Town		Nearest Road
CHETEK	WI	54728	715-699-0285	Dovre		512 CTH SS

☒ New Construction ☐ Replacement

Use: ☐ Residential / Number of bedrooms _____ ☒ Public or commercial - Describe: 70 EMPLOYEES & 1 FLOOR DRAIN

Code derived design flow rate 1403 GPD

Parent material OUTWASH

Flood plain elevation, if applicable NA ft.

General comments and recommendations: Site is suitable for a non-pressurized conventional POWTS. Maximum SLR = 0.7 (eff #1). System elevation = 1072.00'.

1 Boring # ☐ Boring ☒ Pit

Ground surface elev. 1080.2 ft. Depth to limiting factor >88 in.

Horizon	Depth in.	Dominant Color Munsell	Redox Description Qu. Sz. Cont. Color	Texture	Structure Gr. Sz. Sh.	Consistence	Boundary	Roots	Soil Application Rate GPD/ft² *Eff#1	*Eff#2
1	0-10	10YR 2/2		LOAM	1 C SBK	MFR	CS	1F	0.4	0.6
2	10-28	7.5YR 3/4		SL	2 M SBK	MFR	GS	--	0.4	0.6
3	28-36	7.5YR 4/4-6		LS	0	MVFR	GS	--	0.7	1.6
4	36-52	10YR 4/6		S	0	ML	AW	--	0.7	1.6
5	52-88	10YR 4-5/4		LFS	0	MVFR	--	--	0.5	1.0

No.4 with 1/2 -1" banding throught horizon (variegated in color).

1075.87

2 Boring # ☐ Boring ☒ Pit

Ground surface elev. 1074.7 ft. Depth to limiting factor >102 in.

Horizon	Depth in.	Dominant Color Munsell	Redox Description Qu. Sz. Cont. Color	Texture	Structure Gr. Sz. Sh.	Consistence	Boundary	Roots	Soil Application Rate GPD/ft² *Eff#1	*Eff#2
1	0-10	10YR 2/2		LOAM	1 C SBK	MFR	CS	1F	0.4	0.6
2	10-20	7.5YR 3/4		SL	2 M SBK	MFR	GS	--	0.4	0.6
3	20-50	10YR 4/6		S	0	ML	AW	--	0.7	1.6
4	50-102	10YR 5/6		S	0	ML	--	--	0.7	1.6

No.3 w/7.5YR4/4-6 LS irregular/discontinuous banding. No.4 w/similar banding 1/2-1 1/2" continuous and wavy.

1069.20

* Effluent #1 = BOD_5 > 30 ≤ 220 mg/L and TSS >30 ≤ 150 mg/L

* Effluent #2 = BOD_5 ≤ 30 mg/L and TSS ≤ 30 mg/L

CST Name (Please Print)	Signature:	CST Number
William J. Bergh		227819
Address Geo Tech Soil & Site Evaluation, LLC 11091 30th Avenue Chippewa Falls, WI 54729	Date Evaluation Conducted 2/9/2015	Telephone Number 715-577-6838

SBD-8330 (R.11/11)

3 Boring # ☐ Boring ☒ Pit Ground surface elev. 1078.8 ft. Depth to limiting factor >90 in.

1074.30

Horizon	Depth in.	Dominant Color Munsell	Redox Description Qu. Sz. Cont. Color	Texture	Structure Gr. Sz. Sh.	Consistence	Boundary	Roots	Soil Application Rate GPD/ft² *Eff#1	*Eff#2
1	0-10	10YR 2/2		LOAM	1 C SBK	MFR	CS	1F	0.4	0.6
2	10-17	7.5YR 3/4		SL	2 M SBK	MFR	GS	--	0.4	0.6
3	17-51	10YR 4/4-6		LS	0	ML	AW	--	0.7	1.6
4	51-90	10YR 4-5/4		LFS	0	MVFR	--	--	0.5	1.0

4 Boring # ☒ Boring ☐ Pit Ground surface elev. 1074.4 ft. Depth to limiting factor >80 in.

1070.73

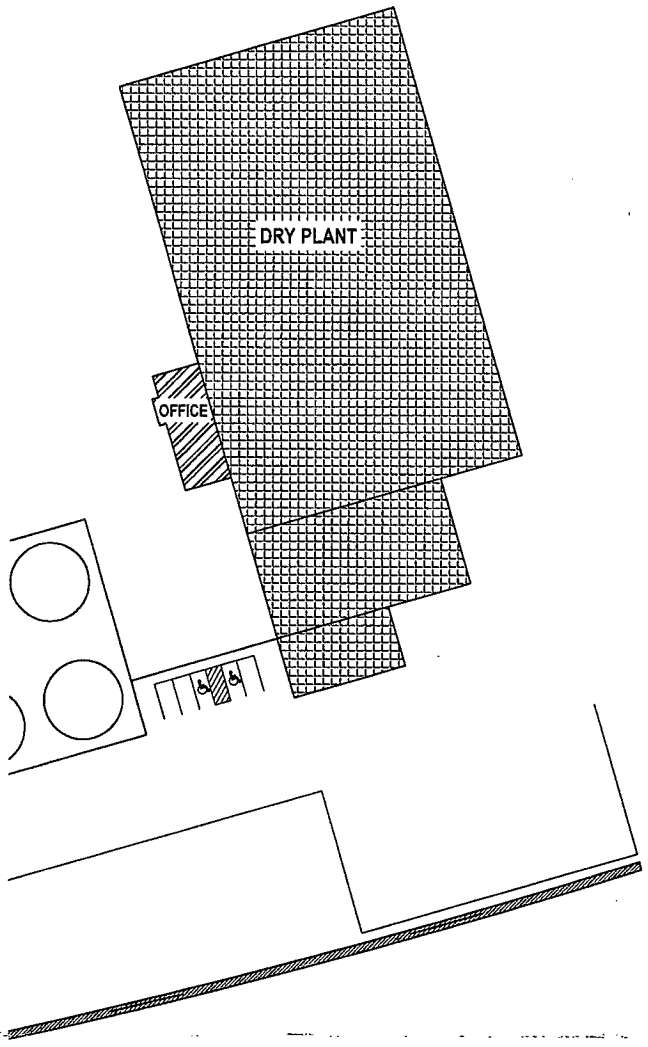
Horizon	Depth in.	Dominant Color Munsell	Redox Description Qu. Sz. Cont. Color	Texture	Structure Gr. Sz. Sh.	Consistence	Boundary	Roots	Soil Application Rate GPD/ft² *Eff#1	*Eff#2
1	0-9	10YR 3/3		LS	--	--	--	--		
2	9-20	10YR 3/4		LS	--	--	--	--		
3	20-36	7.5YR 3-4/4		LS-S	--	--	--	--		
4	36-80	7.5YR 4/6		S	--	--	--	--		

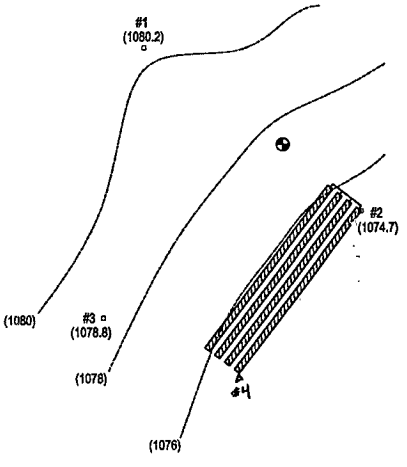
_____ Boring # ☐ Boring ☐ Pit Ground surface elev. _____ ft. Depth to limiting factor _____ in.

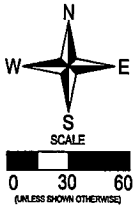
Horizon	Depth in.	Dominant Color Munsell	Redox Description Qu. Sz. Cont. Color	Texture	Structure Gr. Sz. Sh.	Consistence	Boundary	Roots	Soil Application Rate GPD/ft² *Eff#1	*Eff#2

* Effluent #1 = BOD_5 > 30 ≤ 220 mg/L and TSS >30 ≤ 150 mg/L

* Effluent #2 = BOD_5 ≤ 30 mg/L and TSS ≤ 30 mg/L







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DOVRE TOWNSHIP
BARRON, WI
PARCEL DESCRIBED AS 100+ AC.

SOIL TEST PLOT PLAN

PRIVATE ONSITE WASTE TREATMENT SYSTEMS (POWTS) INSPECTION REPORT

(ATTACH TO PERMIT)

County: **BARRON**

San. Permit Number **575946**

State Plan Trans. #

Parcel Tax No# 022-0800-04-000

GENERAL INFORMATION

Personal information you provide may be used for secondary purposes [Privacy Law, s.15.04(1)(m)].

Permit Holder's Name:	☐ City ☐ Village ☑ Town of:
Northern Industrial Sands LLC	**Dovre**

CST BM Elev:	Insp BM Elev:	BM Description:
100	**100.0**	**Ground Level @ Steel Post**

TANK INFORMATION

TYPE	MANUFACTURER	CAPACITY	
Septic	**Skaw**	**3136**	gal
Dosing	**Skaw**	**1600**	gal
Aeration			gal
Holding			gal

TANK SETBACK INFORMATION

TANK TO	P/L	BLDG	WELL	VENT	ROAD
Septic	**100'+**	**100'+**	**100'+**		NA
Dosing	**100'+**	**100'+**	**100'+**		NA
Aeration					NA
Holding					

PUMP / SIPHON INFORMATION

Manufacturer	**Zoeller**		System Demand GPM
Model Number	**137**		
Lift **6.36**	Friction Loss	System Head **3.25**	
TDH **9.61**			
Forcemain Length **450**	Dia (in) **2**	Dist. To W **100** ft	

PRETREATMENT UNIT

2.067

Type	
Model	
Manufacturer	

ELEVATION DATA

STATION	BS	HI	FS	ELEV.
Benchmark	**4.40**	**104.40**		**100.00**
Turn	**3.10**	**103.76**	**3.74**	**100.66**
Bldg. Sewer		**103.76**	**7.70**	**96.06**
S.T. Inlet		**103.76**	**9.90**	**93.86**
S.T. Outlet		**103.76**	**10.05**	**93.71**
D. T. Outlet		**103.76**	**10.15**	**93.61**
D.T. Bottom		**104.40**	**14.16**	**90.24**
Top of Tank				
Ground at tank				
Install. Contour				
Header		**104.40**	**7.80**	**96.60**
Dist. Pipe				
Infiltration Surface		**104.40**	**8.80**	**95.60**
Final Grade		**104.40**	**5.30**	**99.10**

EFFLUENT FILTER

Manufacturer	**Bear**
Model	

DISPERSAL CELL INFORMATION

Dimensions	Width	Length	No of Cells	Type of System	Leaching Unit
	3 ft	**102** ft	**4**		
Setback Information Cell to (ft.)	P/ L **500'+**	Bldg **500'+**	Well **600'+**	OHWM of Nav Waters	**I.G.N.P. non-aggregate**

Manufacturer: **Infitrator**
Model: **Quick-4+**
# of Units: **100**

DISTRIBUTION SYSTEM

Header / Manifold		Distribution Pipe(s)			x Hole Size	x Hole Spacing	Observation Pipes
Length ft.	Dia. in.	Length ft.	Dia. in.	Spacing ft.		in.	☑ Yes ☐ No

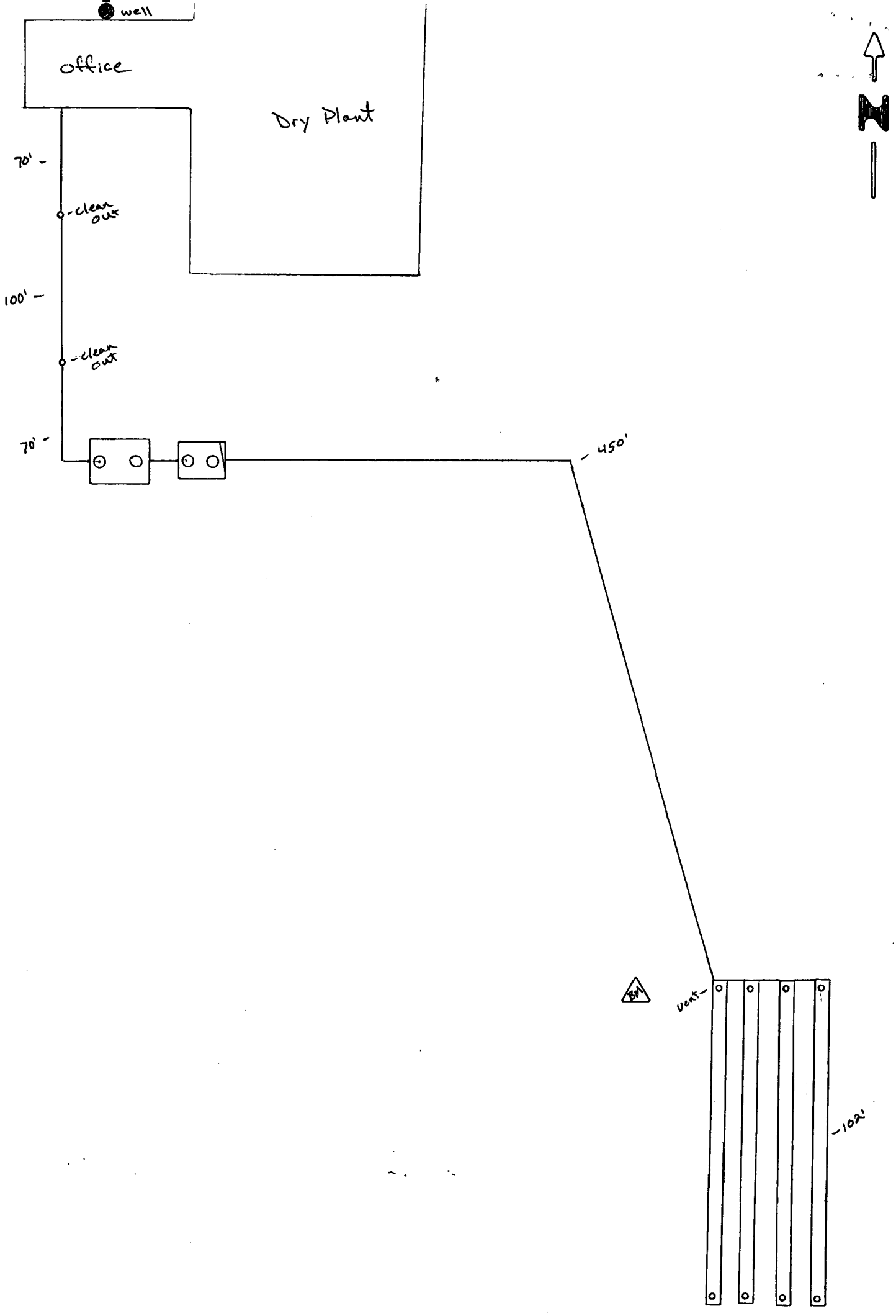
SOIL COVER x Pressure Systems Only

Depth Over Cell Center in.	Depth Over Cell Edges in.	Depth of Topsoil in.	Seeded / Sodded	Mulched
			☐ Yes ☐ No	☐ Yes ☐ No

COMMENTS: (Include code discrepancies, persons present, ect.)

Use other side for additional information.

Date	Inspector's Signature	Credential No.
6/1/2015		1296564


well
office
Dry Plant
70'
clean out
100'
clean out
70'
450'
BM
vents
102'
N