

STATE OF IDAHO
DEPARTMENT OF WATER RESOURCES
BENEFICIAL USE FIELD REPORT

A. GENERAL INFORMATION

Permit No: 67-14972

Exam Date: 8/26/10

1. Current Owner: JUDY CHANDLER
683 LAWRENCE LN
WEISER ID 83672
(208)549-2527
2. Accompanied by: Ernie Chandler
Phone No: 550-1122
Relationship to Permit Holder: Judy's son

3. SOURCE

GROUNDWATER

B. OVERLAP REVIEW

1. Other water rights with the same place of use: **NONE**, there are overlapping SW rights from the Weiser Irrigation District for 60 acres.
2. Other water rights with the same point of diversion: **NONE**

C. DIVERSION AND DELIVERY SYSTEM**1. LOCATION OF POINT(S) OF DIVERSION:**

GROUNDWATER L3 NE¼NW¼ Sec. 36, Twp 11N, Rge 06W, B.M. WASHINGTON County

Method of Determination: GPS

2.

<u>PLACE OF USE:</u>			IRRIGATION																
<u>Twp</u>	<u>Rge</u>	<u>Sec</u>	<u>NE</u>				<u>NW</u>				<u>SW</u>				<u>SE</u>				
			<u>NE</u>	<u>NW</u>	<u>SW</u>	<u>SE</u>	<u>NE</u>	<u>NW</u>	<u>SW</u>	<u>SE</u>	<u>NE</u>	<u>NW</u>	<u>SW</u>	<u>SE</u>	<u>NE</u>	<u>NW</u>	<u>SW</u>	<u>SE</u>	<u>Totals</u>
11N	06W	25												8.0					8.0
11N	06W	36							42.8										42.8
									L 3										

Total Acres: 50.8

Method of Determination:

3. ☒ Delivery System Diagram Attached (required). Indicate all major components and distances between components. Indicate weir size/pipe as applicable.
- ☐ Map Attached Showing Location(s) of point(s) of diversion and place(s) of use (required). Scale must be 1:24,000 or greater.
- ☒ Aerial Photo Attached (required for irrigation of 10+ acres).
- ☒ Photo of Diversion and System Attached

4.

Well or Diversion
ID No.*

Motor MakeHp
15Motor Serial No.

Pump Make
Berkley

Pump Serial No. or Discharge
Size

4" discharge from well

*Code to correspond with No. on map and aerial photo

D. FLOW MEASUREMENTS

1.

<u>Measurement Equipment</u>	<u>Type</u>	<u>Make</u>	<u>Model No.</u>	<u>Serial No.</u>	<u>Size</u>	<u>Calib. Date</u>
McCrometic Flow Meter						
Polysonic		Tyme-Flyte				2010

2. Measurements:

McCrometic Flow Meter reading = 75 gpm

Secondary measurement with the polysonic confirmed 75 gpm

In addition, see the below calculation of the drip system:

220 drip system tape, holes 8" apart with rows 44" apart. This tape is equivalent to 0.22 gpm/100 ft. According to Ernie, they irrigate 3.3 acres at one time with the drip system. Using this information I was able to confirm that the capacity of the system is at least 0.17 cfs.

3.3 acres = 143,748ft² Drip Lines Spaced 44" or 3.6' apart gives him 379/3.6=105rows

$$\frac{0.22 \text{ gpm}}{100'} = \frac{0.83 \text{ gpm}}{379'} \times 105 \text{ rows} = 87 \text{ gpm or } 0.19 \text{ cfs}$$

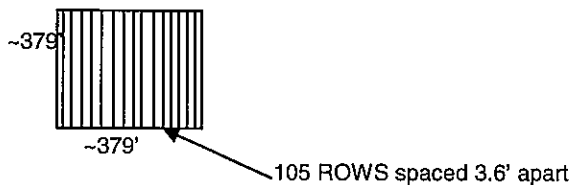


Diagram is just for illustrative purposes and in order to estimate the system capacity.

E. FLOW CALCULATIONS

___x___ Additional Computation Sheets Attached

Measured Method: The polysonic ran for 12 minutes. I did not run the totalizer but I added each measurement together and obtained the average to get the 75 gpm figure.

F. VOLUME CALCULATIONS

1. Volume Calculations for Irrigation:

$$V_{I.R.} = (\text{Acres Irrigated}) \times (\text{Irrigation Requirement}) = 25 \times 4.5 = 112.5 \text{ afa}$$

$$V_{D.R.} = [\text{Diversion Rate (cfs)}] \times (\text{Days in Irrigation season}) \times 1.9835 = 0.17 \times 260 \times 1.9835 = 87.7 \text{ afa}$$

$$V = \text{Smaller of } V_{I.R.} \text{ and } V_{D.R.} = 87.7 \text{ afa, will not be added to the license since this water is combined with SW}$$

2. Volume Calculations for Other Uses: NA

G. NARRATIVE/REMARKS/COMMENTS: With the drip system, Ernie is using only 30% of water that he had historically used, with 40% more produce. He rotates crops yearly, this year being onions and next year will be sugar beets. This is a manual system, no timer runs the drip system.

Typically, SW should be used first to irrigate lands before GW. In this case, the onion field is primarily being irrigated by GW. SW is not being applied to the onion field at all. The condition that stipulates that SW should be used first was not applied to the permit. The right holder has set up their irrigation system under the assumption that GW could be used at any time and should not be restricted at this point. *However, this right will be supplemental to SW.*

Have conditions of permit approval been met? ___x___ Yes ___ No

H. RECOMMENDATIONS**1. Recommended Amounts**

<u>BENEFICIAL USE</u>	<u>PERIOD OF USE</u>	<u>DIVERSION RATE</u>	<u>ANNUAL VOLUME</u>
IRRIGATION	03/01 to 11/15	0.170 CFS	87.7 AF
	<u>Totals:</u>	0.170 CFS	87.7 AF

2. Recommended Amendments

☐ Change P.D. as reflected above ☐ Add P.D. as reflected above ☒ None

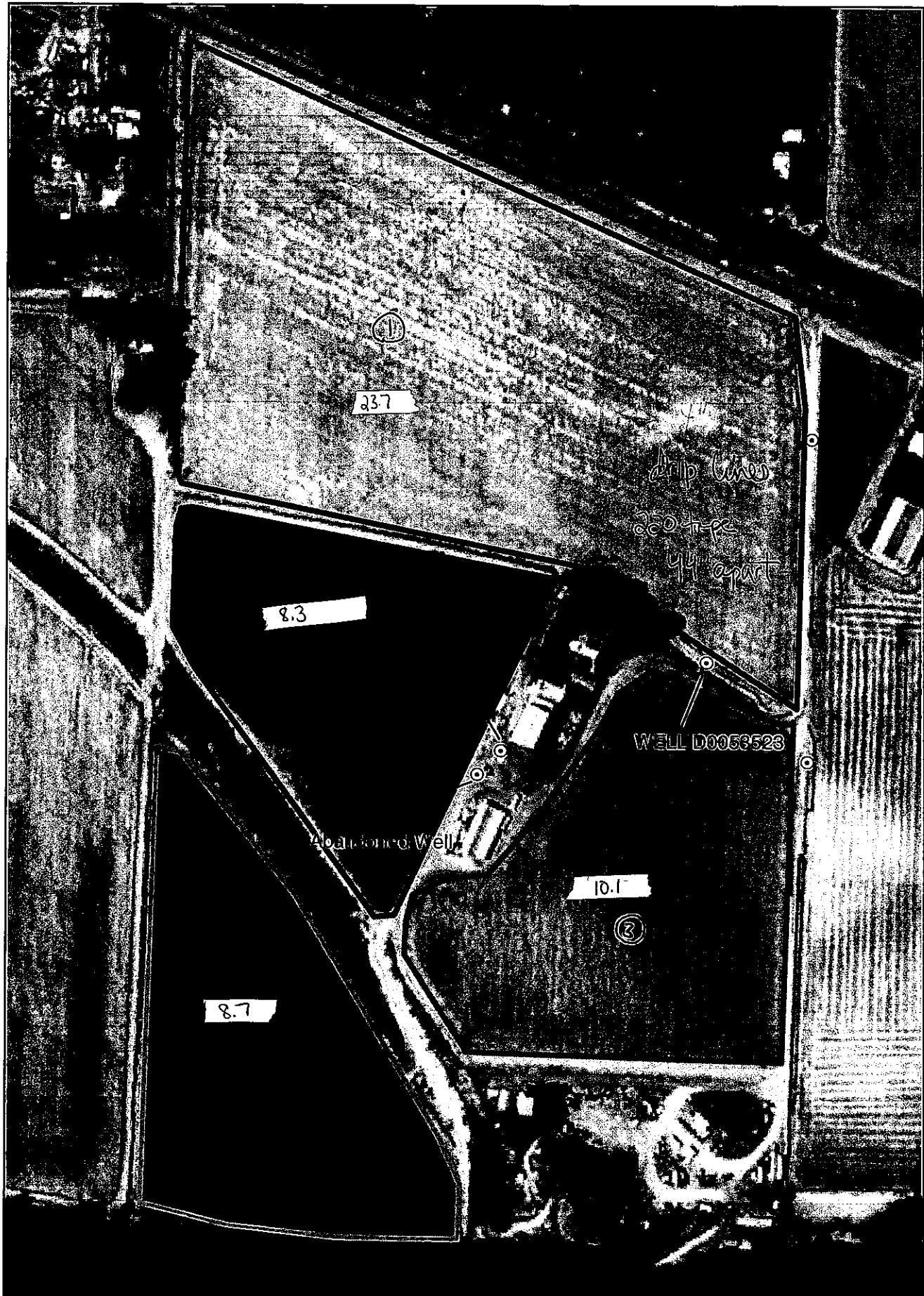
☐ Change P.U. as reflected above ☐ Add P.U. as reflected above ☐ Other

I. AUTHENTICATION

Field Examiner's Name Cherie Padilla Date 9/7/10

Reviewer _____ Date _____

67-14972 POU and PD



2009 Imagery

Total = 50.8 acres



Picture 1 - onion field

Facing SW direction

Picture of a corner of field #3.

← Home

← note the line that comes from the well

Well is at my back in picture.

Field #3 had onions on date = FE. this field irrigated with well water this season.



Picture 2

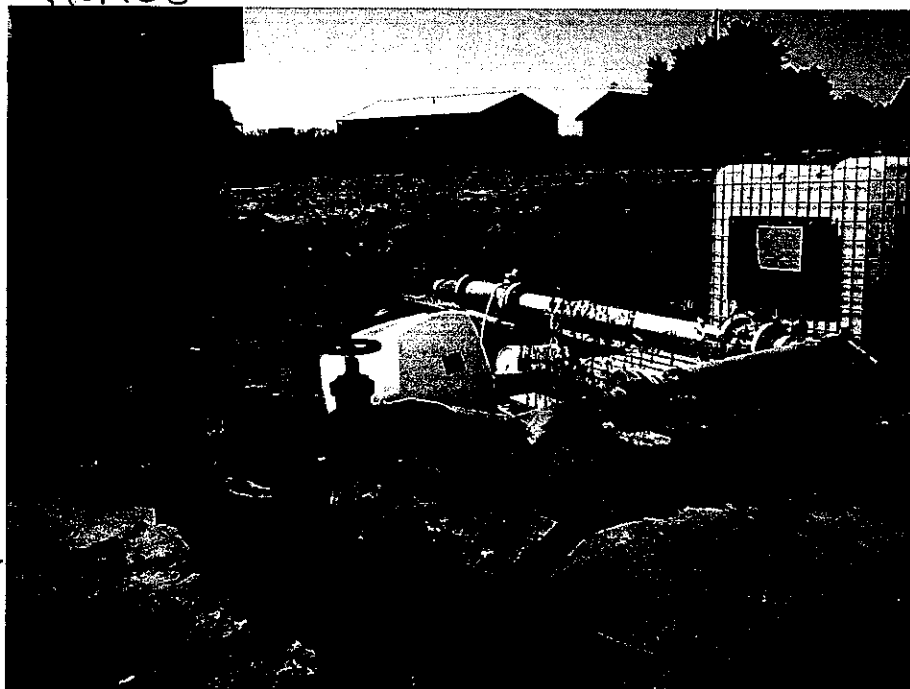
4" line from well.

The line runs under the driveway to the diversion system.

Facing NW direction

↑
driveway

Picture 3



Home



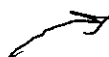
Facing SW direction

The field in picture 4 is at my back in this pic.

Driveway



well



Field #1

Facing N direction

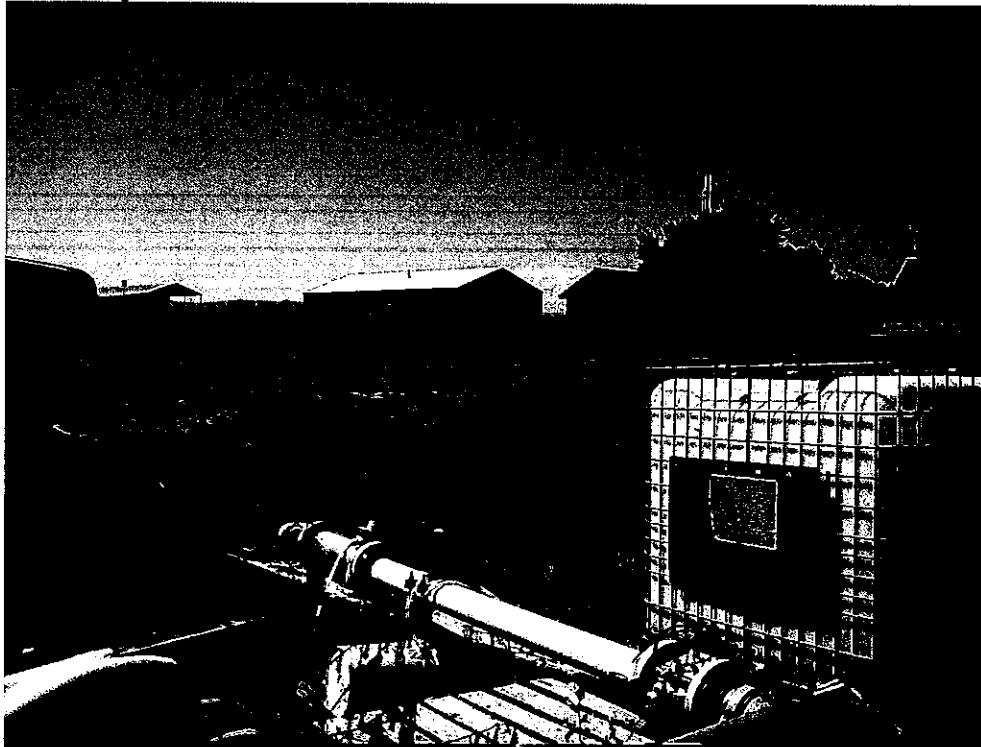
This field was irrigated by SW only at the time of the field exam.



Sugar beets

Picture 4

Picture 4



Diversion System

site of polysonic measurement

Picture 5

McGromatic Flow Meter

Picture 6



McCrometer
flow meter
Reading on 8/26/10



Pressure gauge
on system
while system running

Picture 7

67-14972 POU and PD



2009 Imagery

Total = 50.8 acres



Picture 1 - onion field

Facing SW direction

Picture of a corner of field #3.

← Home

← note the line that comes from the well

Well is at my back in picture.

Field #3 had onions on date of FE. this field irrigated with well water this season.



Picture 2

4" line from well.

The line runs under the driveway to the diversion system.

Facing NW direction

↑
driveway

Picture 3



Driveway
→

well
→

Home
↙

Facing SW direction
The field in picture 4 is
at my back in this pic.



Picture 4

Field #1

Facing N direction

This field was irrigated
by SW only at the time
of the field exam.

↖
Sugar beets

Picture 4



Diversion system

site of polysonic measurement

Micrometric Flow Meter

Picture 5

Picture 6



McCrometer
Flow Meter
Reading on 8/26/10



Pressure gauge
on system
while system running

Picture 7

Form 238-7
6/07IDAHO DEPARTMENT OF WATER RESOURCES
WELL DRILLER'S REPORT

1. WELL TAG NO. D 0053523 Well 2
 Drilling Permit No. 907602-855312
 Water right or injection well # 67-14972

2. OWNER:

Name Wayne Chandler
 Address 683 Lawrence Ln
 City Weiser State Id Zip 83672

3. WELL LOCATION:

Twp. 11 North ☒ or South ☐ Roe. 6 East ☐ or West ☒
 Sec. 36 1/4 NE 1/4 NW 1/4

Gov't Lot _____ County Washington
 Lat. 44 ° 15.05 (Deg. and Decimal minutes)
 Long. 117 ° 0.25 (Deg. and Decimal minutes)
 Address of Well Site 683 Lawrence Ln
 City Weiser

(Give at least name of road - Distance to Road or Landmark)

Lot. _____ Blk. _____ Sub. Name _____

4. USE:

☐ Domestic ☐ Municipal ☐ Monitor ☒ Irrigation ☐ Thermal ☐ Injection
☐ Other _____

5. TYPE OF WORK:

☒ New well ☐ Replacement well ☐ Modify existing well
☐ Abandonment ☐ Other _____

6. DRILL METHOD:

☐ Air Rotary ☐ Mud Rotary ☒ Cable ☐ Other _____

7. SEALING PROCEDURES:

Seal material	From (ft)	To (ft)	Quantity (lbs or ft ³)	Placement method/procedure
<u>3/8 Bentonite</u>	<u>0</u>	<u>21</u>	<u>1150#</u>	<u>14" Overbore</u>

8. CASING/LINER:

Diameter (nominal)	From (ft)	To (ft)	Gauge/Schedule	Material	Casing	Liner	Threaded	Welded
<u>10"</u>	<u>41</u>	<u>32</u>	<u>.250</u>	<u>Steel</u>	☒	☐	☐	☒

Was drive shoe used? ☒ Y ☐ N Shoe Depth(s) 32

9. PERFORATIONS/SCREENS:

Perforations ☐ Y ☒ N Method _____

Manufactured screen ☒ Y ☐ N Type Johnson 10" Telescopic

Method of installation _____

From (ft)	To (ft)	Slot size	Number/ft	Diameter (nominal)	Material	Gauge or Schedule
<u>36</u>	<u>47</u>	<u>35</u>		<u>9.25</u>	<u>Stainless</u>	<u>.250</u>

Length of Headpipe _____ Length of Tailpipe _____

Packer ☒ Y ☐ N Type 3-Ring Neoprene

10. FILTER PACK:

Filter Material	From (ft)	To (ft)	Quantity (lbs or ft ³)	Placement method
-----------------	-----------	---------	------------------------------------	------------------

11. FLOWING ARTESIAN:

Flowing Artesian? ☐ Y ☒ N Artesian Pressure (PSIG) _____

Describe control device _____

12. STATIC WATER LEVEL and WELL TESTS:

Depth first water encountered (ft) 28' Static water level (ft) 18'-6"

Water temp. (°F) 56 Bottom hole temp. (°F) _____

Describe access port _____

Well test:

Drawdown (feet)	Discharge or yield (gpm)	Test duration (minutes)
<u>2'</u>	<u>100 gpm</u>	<u>60</u>

Test method:

Pump ☐ Baler ☒ Air ☐ Flowing artesian ☐

Water quality test or comments: _____

13. LITHOLOGIC LOG and/or repairs or abandonment:

Bore Dia. (in)	From (ft)	To (ft)	Remarks, lithology or description of repairs or abandonment, water temp.	Water	
				Y	N
<u>14</u>	<u>0</u>	<u>12</u>	<u>BROWN SILT</u>		☒
<u>14</u>	<u>12</u>	<u>21</u>	<u>DARK BROWN CLAY</u>		☒
<u>10</u>	<u>21</u>	<u>24</u>	<u>DARK BROWN CLAY</u>		☒
<u>10</u>	<u>24</u>	<u>28</u>	<u>SANDY CLAY</u>		☒
<u>10</u>	<u>28</u>	<u>35</u>	<u>SAND & GRAVEL</u>	☒	
<u>10</u>	<u>35</u>	<u>47</u>	<u>BLUE CLAY</u>		☒

RECEIVED

APR 29 2009

WATER RESOURCES
WESTERN REGION

Completed Depth (Measurable): 47

Date Started: 3-30-09 Date Completed: 4-11-09

14. DRILLER'S CERTIFICATION:

I/We certify that all minimum well construction standards were complied with at the time the rig was removed.

Company Name CAT DELL Co. No. 288

*Principal Driller Jim O'Rourke Date 4-13-09

*Driller _____ Date _____

*Operator II _____ Date _____

Operator I _____ Date _____

* Signature of Principal Driller and rig operator are required.

OUTER DIAMETER
4.5000 IN

PIPE MATERIAL
? PVC

WALL THICKNESS
0.1440 IN

INNER LINING
? NO LING.

KIND OF FLUID
? WATER

SENSOR MOUNTING
? U

TYPE OF SENSOR
? SMALL

DATA CHANGE
? NO

SPACING
2.652 IN U

MM-DD HH:MM
08-26 14:00

MODE SELECT
DATA SET

DATA SET MODE
? PRINTER

08-26 14:0400 *R
+779.043E-16PM

① 14:06+713.528E-16PM 00R
+00000 *G 00R
-00000 *G 00R

② 14:07+766.363E-16PM 00R
+00000 *G 00R
-00000 *G 00R

③ 14:08+747.871E-16PM 00R
+00000 *G 00R
-00000 *G 00R

④ 14:09+744.965E-16PM 00R
+00000 *G 00R
-00000 *G 00R

⑤ 14:10+709.302E-16PM 00R
+00000 *G 00R
-00000 *G 00R

⑥ 14:11+771.910E-16PM 00R
+00000 *G 00R
-00000 *G 00R

⑦ 14:12+742.059E-16PM 00R
+00000 *G 00R
-00000 *G 00R

⑧ 14:13+769.269E-16PM 00R
+00000 *G 00R
-00000 *G 00R

⑨ 14:14+744.965E-16PM 00R
+00000 *G 00R
-00000 *G 00R

⑩ 14:15+750.777E-16PM 00R
+00000 *G 00R
-00000 *G 00R

⑪ 14:16+776.401E-16PM 00R
+00000 *G 00R
-00000 *G 00R

Average = 75 GPM or 0.17

4.5000 IN

PIPE MATERIAL
? PVC

WALL THICKNESS
0.1440 IN

INNER LINING
? NO LING.

KIND OF FLUID
? WATER

SENSOR MOUNTING
? U

TYPE OF SENSOR
? SMALL

DATA CHANGE
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SPACING
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-00000 *G 00R

⑨ 14:14+744.965E-16PM 00R
+00000 *G 00R
-00000 *G 00R

⑩ 14:15+750.777E-16PM 00R
+00000 *G 00R
-00000 *G 00R

⑪ 14:16+776.401E-16PM 00R
+00000 *G 00R
-00000 *G 00R

The Tale of the Tape



Install an ordinary drip tape and you'll be locked into ordinary results. That's because ordinary tapes can't affordably offer emitters spaced closer than 12 inches, *and* they may be more likely to plug.

But install premium drip tape — **Aqua-Traxx® with the PBX Advantage** —

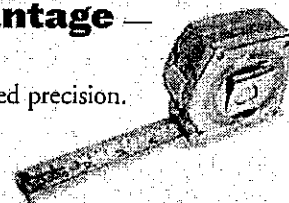
and you'll enjoy extraordinary results and durability. So, what's the PBX Advantage? Unmatched precision.

With options from 4 to 24 inches, you can select the emitter **spacing and flow**

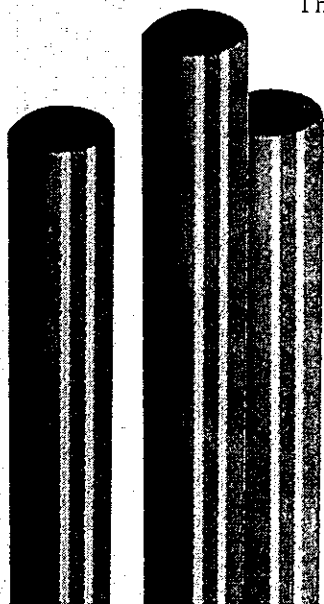
rates that work best for your soil type, crop and application needs.



Plus, the advanced flowpath design helps reduce clogging, so you'll worry less about plants going thirsty. **Precise. Efficient. Practical.** That's the PBX Advantage.



That's the tape you want. *Ask us for more details or visit toromicroirrigation.com*



Aqua-Traxx®
with the **PBX Advantage**

TORO. Count on it.

Aqua-Traxx®

with the **PBX Advantage**

Premium Drip Tape with Unmatched Precision

Precision

- Emitter spacing options from 4 to 24 inches
- Flow rates that match your soil type
- Accurately delivers water, fertilizer and chemicals

Uniformity

- Advanced flowpath design ensures accurate delivery of water from every emitter
- Best-in-class coefficients of variation (Cv's) — below 3 percent

Durability

- Seamless construction provides maximum strength
- Premium materials provide ultra-high strength and flexibility

Plugging Resistance

- Extra-large cross-sectional area helps prevent clogging
- PBX flowpath requires only 140-mesh filtration for most flow rates



The Proportionally Balanced Cross-Section (PBX) design optimizes flowpath turbulence to effectively manage water flow, deliver uniform distribution and reduce clogging.

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Fax: +1 (800) 892-1822 or +1 (619) 258-9973
toromicroirrigation.com

ALT046-1 11/08

Flow Rates

Available in 4, 5, 6, 8, 10, 12 & 15 mil Tape

Part Number	Outlet Spacing (In.)	Individual Emitter Flow Rate (gph)		Q-100 (gpm/100 ft.)		Filtration Requirement
		@ 8 psi	@ 10 psi	@ 8 psi	@ 10 psi	Mesh
0.07 Emitter		gph/Emitter		gpm/100 ft.		200
EAXxx0817	8	.07	.08	.17	.20	
EAXxx1608	16	.07	.08	.08	.10	
0.09 Emitter		gph/Emitter		gpm/100 ft.		200
EAXxx0822	8	.09	.10	.22	.25	
0.10 Emitter		gph/Emitter		gpm/100 ft.		200
EAXxx0825	8	.10	.11	.25	.28	
0.13 Emitter		gph/Emitter		gpm/100 ft.		140 NEW
EAXxx0467	4	.13	.15	.67	.75	
EAXxx0834	8	.13	.15	.34	.37	
EAXxx1222	12	.13	.15	.22	.25	
EAXxx1617	16	.13	.15	.17	.19	
EAXxx2411	24	.13	.15	.11	.12	
0.15 Emitter		gph/Emitter		gpm/100 ft.		140 NEW
EAXxx0650	6	.15	.17	.50	.56	
EAXxx1225	12	.15	.17	.25	.28	
0.20 Emitter		gph/Emitter		gpm/100 ft.		140 NEW
EAXxx04100	4	.20	.23	1.00	1.12	
EAXxx0667	6	.20	.23	.67	.75	
EAXxx0850	8	.20	.23	.50	.56	
EAXxx1234	12	.20	.23	.34	.38	
EAXxx1625	16	.20	.23	.25	.28	
EAXxx2417	24	.20	.23	.17	.19	
0.27 Emitter		gph/Emitter		gpm/100 ft.		140 NEW
EAXxx04134	4	.27	.30	1.34	1.50	
EAXxx0867	8	.27	.30	.67	.75	
EAXxx1245	12	.27	.30	.45	.50	
EAXxx1634	16	.27	.30	.34	.38	
EAXxx2422	24	.27	.30	.22	.25	
0.34 Emitter		gph/Emitter		gpm/100 ft.		140 NEW
EAXxx0884	8	.34	.37	.84	.94	
EAXxx1256	12	.34	.37	.56	.62	
EAXxx1642	16	.34	.37	.42	.47	
EAXxx2428	24	.34	.37	.28	.31	

NOTE: X - denotes the diameter. 5 for 5/8", 7 for 7/8" and 11 for 1-3/8"; xx - denotes mil thickness.

Wall Thickness	Pressure (psi)		Reel Length (ft.)	Reel Weight (lbs.)	Diameter
	Min	Max			
4 mil	4	8	15,000	64	5/8"
5 mil	4	10	13,000	74	
6 mil	4	12	10,000	64	
8 mil	4	15	7,500	66	
10 mil	4	15	6,000	63	
12 mil	4	15	5,100	63	
15 mil	4	15	4,000	63	7/8"
6 mil	4	10	7,380	68	
8 mil	4	15	6,000	72	
10 mil	4	15	4,400	71	
12 mil	4	15	4,000	72	
15 mil	4	15	3,000	66	1-3/8"
15 mil	4	15	2,700	87	

TORO® Count on it.