RESULTS OF SOIL PROFILING AND DOUBLE RING INFILTROMETER TESTING FOR MOUNTAIRE FARMS OF DELAWARE MILLSBORO, DELAWARE

DECEMBER 2019

Prepared for:

Mountaire Farms of Delaware
29106 John L. Williams Hwy.
Millsboro, DE 19966

Prepared by:

Earth Data INCORPORATED

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131 Comet Drive
Centreville, Maryland 21617
www.earthdatainc.com

STATE OF DELAWARE
JON-PAUL B. STOKES
No. 1211
LICENSED PROFESSIONAL GEOLOGIST

Earth Data File 4940-D

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INTRODUCTION

This report summarizes field work and presents the results of soil profiling and double ring infiltrometer testing performed to determine the average and maximum soil infiltration rates at the wastewater disposal site operated by Mountaire Farms of Delaware (Mountaire). The disposal site encompasses approximately 900 acres within 13 spray fields along Highway 24 in Millsboro, Delaware. Field studies were conducted in September and October 2019.

BACKGROUND

Mountaire was recently required by the Delaware Department of Natural Resources and Environmental Control (DNREC) to update its existing Operations Permit (Permit No. 359191-04), including verification of soil infiltration rates within the 13 spray fields. Mountaire's current Operations Permit allows for a maximum wastewater application rate of 2.5 inches per acre per 7-day period (in/wk.), which is the maximum application rate allowed by DNREC. Previous investigations at Mountaire determined that infiltration velocity rates across the spray fields ranged from 2.25 to 17 inches per hour (in/hr.). To support the current Operations Permit update, new soil profiles were collected, and infiltration tests were performed. These data were used to calculate current infiltration rates (in./wk.) for each of the spray fields.

DATA COLLECTION

Summary:

Earth Data was retained by Mountaire to perform the requisite field work and analyze the data in support of the Operations Permit update. The work included digging test pits and soil profiling to identify the most restrictive subsurface layer within the top 60 inches below land surface (bls), and double ring infiltrometer testing. DNREC stipulated a minimum of one test pit and infiltration test per 25 across the entire spray site, resulting in a total of 46 separate infiltration tests. A total of 47 test pits were dug, one of which was used only for soil profiling.

Test Pits:

Mountaire provided a backhoe and operator to facilitate excavation of test pits to a depth of approximately 7 feet bls at 47 locations across the 13 spray fields. At each test pit location an Earth Data geologist assisted Bruce Bagley, a Delaware certified (D-3) soil scientist, in making soil classification determinations. Field observations included soil horizon, United States Department of Agriculture (USDA) texture, composition and color of matrix; redoximorphic features; soil structure; and identification of the most limiting layer for infiltration testing. A map identifying the 13 spray fields and showing locations of the test pits is presented as Figure 1. At 46 test pit locations, double-ring infiltration testing was performed immediately adjacent to the test pit once the appropriate test depth was determined. Table 1 presents a summary of the

double ring infiltrometer testing, including the latitude and longitude of each test pit. Descriptive soil data from each individual test pit can be found in Appendix A. Special note was made of test pit locations where agricultural operations have resulted in varying degrees of soil compaction. Mitigation of those conditions are discussed in the recommendations section of this report.

Infiltrometer Testing:

A total of 46 double-ring infiltration tests were conducted; all testing was performed in accordance with ASTM standard D3385-18.

Double-ring testing involves installation of inner and outer rings set to the depth of the most restrictive (limiting) subsurface layer. The rings are connected to a Mariotte (constant head) tube which allows for a calculated volume of clean water to be added during the test. To facilitate placement of the rings, a pit is dug to just above the depth of the limiting layer and the infiltrometer rings are driven into the bottom of the pit to a depth of 6 inches. The soil surface inside the inner ring is then hand raked to mitigate any compacted/smeared formation and help achieve a more natural, undisturbed soil state. The inside and outside edges of the infiltrometer rings are hand-packed to eliminate water leakage at surface.

Water is then added to the inner ring and maintained at a constant head of 6 inches above the depth of the soil layer being tested. The design of the Mariotte tube allows for a constant level to be maintained during the test. During testing the length of time required for a given volume of water to infiltrate into the soil through the inner ring is measured with a stopwatch and recorded. The volume of water added to maintain a constant head within the outer ring is also measured and recorded. The temperature of the water was periodically recorded through-out the test. The first 3 hours of each test is considered to be the time it takes for the soil to reach a saturated state (pre-wetting). After the initial 3-hour pre-wetting period, readings are taken documenting the time required for the measured volume of water to infiltrate the soil through the inner ring. Testing continues until at least 3 readings within 10% of each other have been obtained. Experience has shown this can take from 30 minutes to more than 24 hours depending upon the permeability of the saturated soil.

DATA ANALYSIS

Soil Types:

The extensive test pitting, soil descriptions and infiltrometer testing recently completed revealed the Mountaire spray site can generally be viewed as north and south areas, characterized by similar soil types but distinct infiltration rates.

Based on field testing the north area was determined to consist of spray fields WHBJ-1, WHBJ-2, WHBJ-3, WHBJ-4. WHBJ-5, WHBJ-6, and WHBJ-7. Similarly, field testing resulted in the inclusion of fields CB-3, CB-3A, CB-3B, CB-3C, CB-3DE, and CB-3DW in the south area.

The northern area is predominantly mapped as Arenic Hapludalt soils, which are moderately to well drained. Inclusions of Aquic Hapludalt soil are present, which are mostly saturated soils that are poorly drained. The south area is dominated by the moderately-to-well-drained Arenic Hapludalt soils with some *minor* inclusions of the saturated, poorly drained Aquic Hapludalt soils. This is a subtle, but important distinction.

Infiltration Velocity:

The field measurements of water flow into the inner ring are collected and reported in units of milliliters per minute (ml/min). Field measurements are also corrected to a constant temperature of 60 degrees F. To calculate the infiltration rate, the reported field data is converted to infiltration velocity, expressed as inches per hour (in./hr.) according to the following formula:

$$V_{IR} = \Delta V_{IR} / (A_{IR} \times \Delta t)$$

Where:

V_{IR} = inner ring incremental infiltration velocity, in./hr.
ΔV_{IR} = volume of water (cubic inches) used during the time interval to maintain a constant head in the inner ring (ml x 0.061024) = in^3
A_{IR} = internal area of the inner ring, in^2
Δt = time interval (hours)

The calculated infiltration velocities (in/hr.) for each of the 46 double-ring tests are part of the data presented in Table 1. Also included are the limiting velocity rates, which were measured during the final 30 to 60 minutes of each test and the "best fit" final rate determined from an empirical analysis of the log-log data plot.

Using the limiting velocity rate measured for each double-ring test (the most conservative value), the geometric mean was calculated for each individual spray field. Note: some calculated rates were considered outliers and were not used in the determination of the geometric mean. Data were considered outliers when the lowest calculated velocity was less than 0.01 in./hr. and the highest calculated velocity was orders of magnitude greater than the other rates within a specific spray field.

Graphical representations of the infiltration velocity data for each double ring test are presented in Appendix B. Each graph also includes an additional plot showing the "best fit" approximation

using the natural log or polynomial fit based on the slope and intercept of the measured times and rates.

Maximum Percolation Rates:

Infiltration velocities are one of the variables used in calculating soil loading and maximum percolation rates. Note: the nitrogen balance was not considered in these calculations. The United States Environmental Protection Agency (USEPA) standard method (Land Treatment of Municipal Wastewater Effluents 1981/2006) considers the maximum percolation rate to be between 4% and 10% of the infiltration rates observed during testing. Using the most conservative value of 4%, the maximum weekly percolation rates are calculated according to the following formula:

Max Percolation Rate (inches/week) = I_V x 0.04 (4%) x 24 (hrs.) x 7 (days)

Where:

I_V = Infiltration Velocity (in./hr.)

Similar to the infiltration velocity calculations described above, the geometric mean of the calculated maximum percolation rates was determined for each individual spray field. These data are presented in Table 2 and summarized below:

Spray Field I.D.	Area Designation	Max. Percolation Rate (in/wk.)
WHBJ-1	North	1.51
WHBJ-2	North	3.88
WHBJ-3	North	1.59
WHBJ-4	North	4.17
WHBJ-5	North	1.56
WHBJ-6	North	24.05
WHBJ-7	North	3.87
CB-3	South	2.30
CB-3A	South	16.09
CB-3B	South	31.80
CB-3C	South	2.26
CB-3DE	South	6.04
CB-3DW	South	10.55

CONCLUSIONS AND RECOMMENDATIONS

Conclusions:

1. A total of 47 test pits and 46 double-ring infiltrometer tests were completed at the Mountaire Farms of Delaware spray field sites in September and October 2019.
2. Soil classifications at each test pit were performed by Bruce Bagley, a Delaware certified (D-3) soil scientist with assistance from an Earth Data geologist.
3. Double ring infiltrometer tests were performed in accordance with ASTM standard D3385-18.
4. Based on soil descriptions and infiltrometer testing the Mountaire spray site was judged to consist of two areas (north and south areas), characterized by similar soil types but distinct average infiltration rates.
5. The north area is dominated by Arenic Hapludalt soils with inclusions of Aquic Hapludalt. The south area is also mapped as predominately Arenic Hapludalt soils, but only contains minor Aquic Hapludalt inclusions. This is an important distinction.
6. Testing within the seven spray fields located in north area showed a maximum percolation rate (geometric mean) of approximately 3.44 inches per week based on EPA 1981/2006 methodology.
7. The six spray fields located within the south area had a geometric mean maximum percolation rate of 7.44 inches per week.
8. These recent soil percolation rate data support continuance of Mountaire's current permitted wastewater application rate of 2.5 inches per week across the spray sites.
9. Based on visual observations made within the test pits, evidence of soil compaction likely due to agricultural activity was noted in spray fields WHBJ-3, WHBJ-4, WHBJ-5, WHBJ-6, and WHBJ-7.

Recommendations:

1. To mitigate soil compaction as noted in test pits located in 5 different spray fields, it is recommended that Mountaire implement a plan to initiate subsoil mechanical ripping to an approximate depth of 18 inches bls across the entire spray site.

LIMITATIONS

This summary report has been prepared in accordance with generally accepted soil and hydrogeologic practices for this area and is for the exclusive use of Mountaire Farms of Delaware. No other warranty, expressed or implied, is made. The findings and conclusions presented in this report are the result of field work and analysis using available data. There may be sub-surface or groundwater conditions not disclosed by these field investigations.

J.P. Stokes, P.G.
Senior Hydrogeologist

Jeff Chipman
Geologist

FIGURES

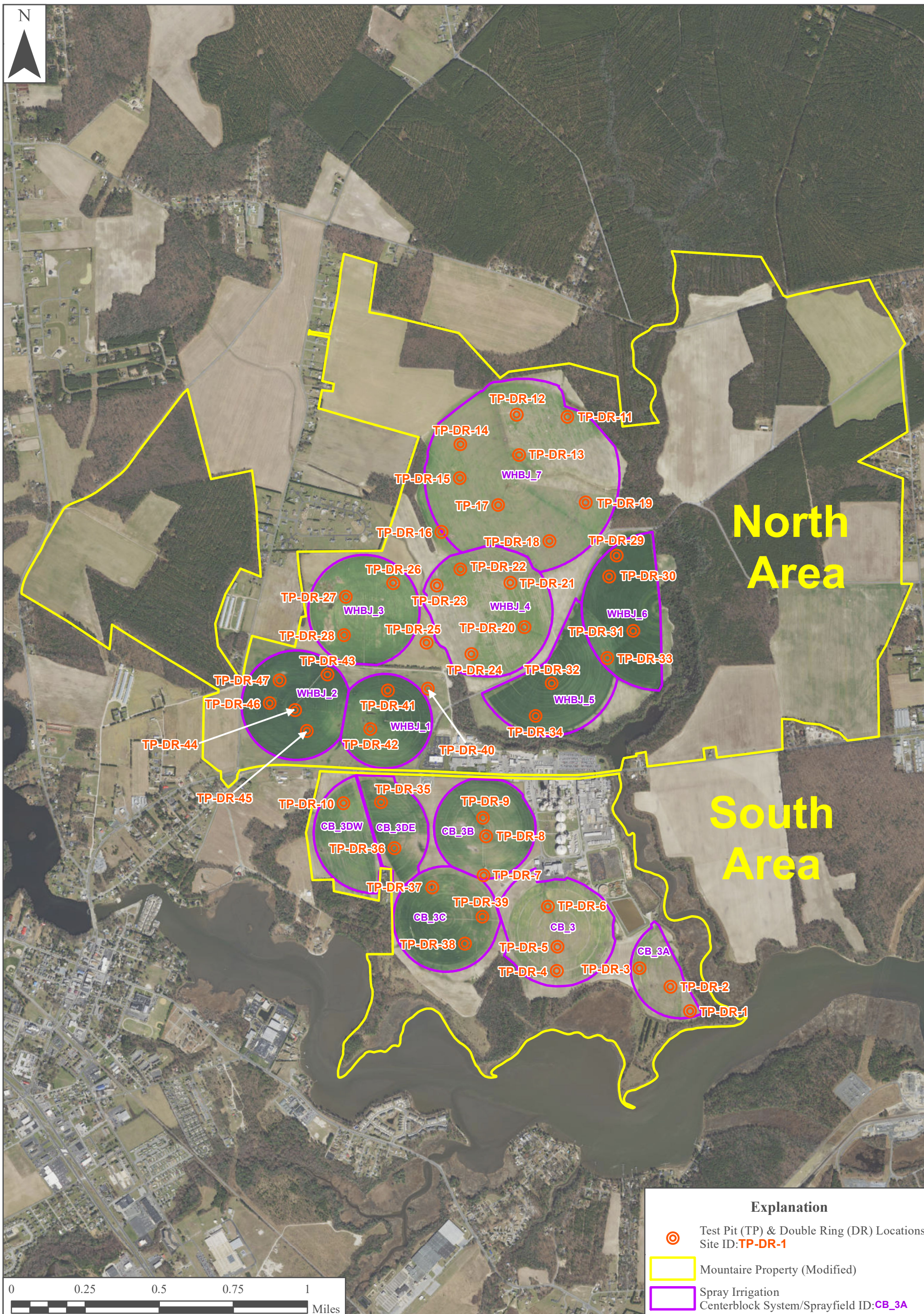

Figure 1

Test Pit and Double Ring Testing Locations

Millsboro, Delaware

Date: 12/09/2019	Project Number: 4940D	Drawn By: Shawn Stabile
Scale: As Shown	Original Print Size: 11"x17"	Source: Earth Data Inc., Bad Elf GNSS

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Rev. #	Date	Description
	10/10/2019	TP-DR 1-18
1	10/17/2019	Adding TP-DR 19-31
2	10/30/2019	Adding TP-DR 32-47
3	12/04/2019	Figure 1
4	12/09/2019	Division of North & South Areas

TABLES

TABLE 1_MOUNTAIRE FARMS OF DELAWARE
Summary of Double Ring Infiltrometer Test Data

Test No.	Date Tested	Spray Field ID	Lat.	Long.	Test Depth (in. bls)	Total Time (min.)	Final Rate (in./hr)	Limiting Rate* (in./hr)	Best Fit Final Rate** (in./hr)	Maximum Design Percolation Rate*** (in./wk)
DR-1	9/17/2019	CB-3A	38.5895756	-75.2536904	27	218.99	3.17	2.79	3.1	18.75
DR-2	9/17/2019		38.5907793	-75.2549038	31	223.67	1.19	0.86	1.11	5.78
DR-3	9/18/2019		38.591673	-75.2568333	64	190.42	5.72	5.72	5.88	38.44
DR-4	9/18/2019	CB-3	38.5915565	-75.2620067	38	203.58				-
DR-5	9/18/2019		38.5927307	-75.2619642	52	1360	0.02	0.02	0.02	0.13
DR-6	9/18/2019		38.5947066	-75.2625443	41	210.89	5.93	5.85	6	39.31
DR-7	9/19/2019	CB-3B	38.5962357	-75.2665537	62	237.18	2.15	2.14	2.14	14.38
DR-8	9/19/2019		38.5981618	-75.2664053	60	207.72	8.83	8.57	8.59	57.59
DR-9	9/19/2019		38.5990647	-75.266586	42	202.01	5.95	5.78	5.71	38.84
DR-10	9/19/2019	CB-3DW	38.5997935	-75.2752935	45	213.7	1.66	1.57	1.56	10.55
DR-11	10/3/2019	WHBJ-7	38.6186945	-75.2612756	38	222.24	0.96	0.77	0.92	5.17
DR-12	10/3/2019		38.6188003	-75.2644486	37	238.53	0.14	0.11	0.12	0.74
DR-13	10/3/2019		38.6168174	-75.2643071	28	201.95	0.28	0.28	0.27	1.88
DR-14	10/3/2019		38.6173604	-75.2679661	60	216.46	2.43	1.34	1.38	9.00
DR-15	10/4/2019		38.6157094	-75.2680121	47	192	3.52	2.9	3.58	19.49
DR-16	10/4/2019		38.6130687	-75.2691611	50	440.63	0.002	0.002	0.02	0.01
DR-17	10/4/2019		38.6143805	-75.2656042	40	231.17	0.58	0.52	0.55	3.49
DR-18	10/4/2019		38.6126104	-75.2624307	34	214.01	0.51	0.44	0.52	2.96
DR-19	10/10/2019		38.6145041	-75.2601570	12	1510	0.02	0.01	0.01	0.07
DR-20	10/10/2019	WHBJ-4	38.6084051	-75.2639856	45	198.31	31.91	27.66	32.35	185.88
DR-21	10/10/2019		38.6105702	-75.2648627	36	209.72	0.33	0.3	0.31	2.02
DR-22	10/10/2019		38.6112406	-75.2679703	24	220.19	0.63	0.54	0.57	3.63
DR-23	10/11/2019		38.61044238	-75.26945494	24	1480	0.003	0.003	0.001	0.02
DR-24	10/11/2019		38.6070789	-75.2673001	10	190.38	1.78	1.47	1.22	9.88
DR-25	10/11/2019	WHBJ-3	38.6076359	-75.2701107	40	206.89	0.55	0.51	0.55	3.43
DR-26	10/11/2019		38.6105671	-75.2721791	40	232.51	0.14	0.11	0.16	0.74
DR-27			38.6099041	-75.2751306						-
DR-28	10/16/2019		38.6080299	-75.2752404	58	247.61	0.0007	0.0007	na	0.01
DR-29	10/16/2019	WHBJ-6	38.611.898	-75.2582230	40	199.08	18.68	14.93	16.95	100.33
DR-30	10/16/2019		38.6108791	-75.2586976	36	212.09	0.86	0.34	0.67	2.28
DR-31	10/16/2019		38.6082000	-75.2571960	11	199.44	9.29	9.03	9.58	60.68
DR-32	10/17/2019	WHBJ-5	38.6056410	-75.2622920	50	198.99	18.38	14.24	17.63	95.69
DR-33	10/17/2019		38.6068820	-75.2588210	26	201.87	0.36	0.36	0.38	2.42
DR-34	10/17/2019		38.6040511	-75.2632903	58	275.05	0.18	0.15	0.19	1.01
DR-35	10/17/2019	CB-3DE	38.5998290	-75.2729650	30	230.36	0.04	0.03	0.03	0.20
DR-36	10/18/2019		38.5975828	-75.2721295	44	195.82	29.01	26.97	28.95	181.24
DR-37	10/18/2019	CB-3C	38.5956660	-75.2697730	47	193.47	9.92	9.92	10.8	66.66
DR-38	10/18/2019		38.5928980	-75.2677390	54	210.13	0.59	0.54	0.67	3.63
DR-39	10/18/2019		38.5942130	-75.2666450	48	197.3	0.28	0.21	0.27	1.41
DR-40	10/23/2019	WHBJ-1	38.6053937	-75.2700085	60	239.39	0.22	0.22	0.2	1.48
DR-41	10/23/2019		38.6053070	-75.2725291	58	1483	0.02	0.01	0.01	0.07
DR-42	10/23/2019		38.6034138	-75.2736128	20	209.97	0.24	0.23	0.19	1.55
DR-43	10/23/2019	WHBJ-2	38.6060922	-75.2762824	56	1255	0.05	0.04	0.05	0.27
DR-44	10/24/2019		38.6043474	-75.2783096	13	265.33	0.19	0.19	0.19	1.28
DR-45	10/24/2019		38.6033271	-75.2775836	22	202.79	3.62	3.43	3.38	23.05
DR-46	10/24/2019		38.6046884	-75.2798960	34	200.33	9.83	9.45	9.72	63.50
DR-47	10/24/2019		38.6058190	-75.2792803	17	234.85	0.32	0.26	0.33	1.75

All rates are corrected to the viscosity of water at 60°F
*Lowest measured rate over last 30 to 60 minutes of test.
** Based on emperical equation determined from log-log plot of data.
*** Based on assumption that long term rate is equal to 4% of limiting rate *Modified from EPA (1981/2006).*
Not reporting due to abnormal test results. (See data plot for DR-4)
Test pit for soil profiling purposes only

TABLE 2_MOUNTAIRE FARMS OF DELAWARE
Summary of Iniltration Rates and Geometric Means

Test No.	Spray Field ID	Limiting Rate* (in./hr)	Maximum Design Percolation Rate*** (in./wk)	Limiting Rate Field Geometric Mean (in./hr)	Max Perc Rate Field Geometric Mean (in./wk)
DR-40	WHBJ-1	0.22	1.48	0.22	1.51
DR-41		0.01	0.07		
DR-42		0.23	1.55		
DR-43	WHBJ-2	0.04	0.27	0.58	3.88
DR-44		0.19	1.28		
DR-45		3.43	23.05		
DR-46		9.45	63.50		
DR-47		0.26	1.75		
DR-25	WHBJ-3	0.51	3.43	0.24	1.59
DR-26		0.11	0.74		
DR-27			-		
DR-28		0.0007	0.01		
DR-20	WHBJ-4	27.66	185.88	0.62	4.17
DR-21		0.3	2.02		
DR-22		0.54	3.63		
DR-23		0.003	0.02		
DR-24		1.47	9.88		
DR-32	WHBJ-5	14.24	95.69	0.23	1.56
DR-33		0.36	2.42		
DR-34		0.15	1.01		
DR-29	WHBJ-6	14.93	100.33	3.58	24.05
DR-30		0.34	2.28		
DR-31		9.03	60.68		
DR-11	WHBJ-7	0.77	5.17	0.58	3.87
DR-12		0.11	0.74		
DR-13		0.28	1.88		
DR-14		1.34	9.00		
DR-15		2.9	19.49		
DR-16		0.002	0.01		
DR-17		0.52	3.49		
DR-18		0.44	2.96		
DR-19		0.01	0.07		
DR-4	CB-3		-	0.34	2.30
DR-5		0.02	0.13		
DR-6		5.85	39.31		
DR-1	CB-3A	2.79	18.75	2.39	16.09
DR-2		0.86	5.78		
DR-3		5.72	38.44		
DR-7	CB-3B	2.14	14.38	4.73	31.80
DR-8		8.57	57.59		
DR-9		5.78	38.84		
DR-37	CB-3C	9.92	66.66	0.34	2.26
DR-38		0.54	3.63		
DR-39		0.21	1.41		
DR-35	CB-3DE	0.03	0.20	0.90	6.04
DR-36		26.97	181.24		
DR-10	CB-3DW	1.57	10.55	1.57	10.55

*Lowest measured rate over last 30 to 60 minutes of test.

*** Based on assumption that long term rate is equal to 4% of limiting rate *Modified from EPA (1981/2006).*

Not reporting due to abnormal test results. (See data plot for DR-4)

Test pit for soil profiling purposes only

Not used in Geometric Mean calculations, considered outliers

TABLE 3_MOUNTAIRE FARMS OF DELAWARE
Summary of Infiltrometer Test Data By Area*

North Area

Spray Field ID	Limiting Rate Area Geometric Mean (in./hr)	Max Perc Rate Area Geometric Mean (in./wk)
WHBJ-1	0.22	1.51
WHBJ-2	0.58	3.88
WHBJ-3	0.24	1.59
WHBJ-4	0.62	4.17
WHBJ-5	0.23	1.56
WHBJ-6	3.58	24.05
WHBJ-7	0.58	3.87
Mean	0.51	3.44

South Area

Spray Field ID	Limiting Rate Area Geometric Mean (in./hr)	Max Perc Rate Area Geometric Mean (in./wk)
CB-3	0.34	2.30
CB-3A	2.39	16.09
CB-3B	4.73	31.80
CB-3C	0.34	2.26
CB-3DE	0.90	6.04
CB-3DW	1.57	10.55
Mean	1.11	7.44

*Route 24 used as boundry between North and South area

APPENDICES

APPENDIX A

Test Pit Profiles and Descriptions

Mountaire Farms of Delaware

ONSITE WASTEWATER DISPOSAL **SOIL AND SITE EVALUATION DATA**	**WO: 4940D** **DATE: 9/11/19**
PROJECT: Mountaire Farms Double Ring Infiltrometer Testing	
LOCATION: Mountaire Farms, Millsboro DE — **COUNTY: Sussex**	
SOIL SURVEY MAP UNIT:	**SPRAY FIELD ID: CB-3A**
FIELD CLASSIFICATION:* **Arenic Typic Hapludalt**	
	Evalulator: Bruce B. Bagley
PARENT MATERIAL: Eolian Sands/Coastal Plain Sediments	**License No: D2464**
LANDSCAPE POSITION: — **SLOPE%**	**LAT : 38.5895756**
DEPTH TO LIMITING ZONE: 27" (in. bls) — **ELEV.**	**LON: 75.2536904**

HORIZON	DEPTH (in)		USDA TEXTURE	MATRIX COLOR	REDOXIMORPHIC FEATURES (AMOUNT SIZE TYPE LOCATION COLOR)	REMARKS (%RF,Struct,Consist,Biopores,Seepage,Misc.)
HOLE NO. TP-1						
A_p	0	16.0	SL-	10YR 4/3	-	2 MGR
B_{T1}	16.0	26.0	SL-	10YR 5/6	-	2 MSBK
B_{T2}	26.0	34.0	SL	10YR 6/6	-	5% gravel, 1 MSBK
B_{T3}	34.0	42.0	GrSL	7.5YR 5/6	-	3-5% gravel, 2 MSBK
B_{C1}	42.0	58.0	LS	7.5YR 5/8	-	1 MSBK
B_{C2}	58.0	70.0	LS	7.5YR 6/6	-	1 MSBK
C_1	70.0	87.0	LFS	2.5YR 6/4	-	Massive, Friable
C_2	87.0	87+	LS	2.5Y 7/2	-	SGR, Loose

COMMENTS

* Additional data may change field classification.

BY: Jeff Chipman

Earth Data Incorporated

Mountaire Farms of Delaware

ONSITE WASTEWATER DISPOSAL **SOIL AND SITE EVALUATION DATA**	**WO: 4940D** **DATE: 9/11/19**
PROJECT: Mountaire Farms Double Ring Infiltrometer Testing	
LOCATION: Mountaire Farms, Millsboro DE — **COUNTY: Sussex**	
SOIL SURVEY MAP UNIT:	**SPRAY FIELD ID: CB-3A**
FIELD CLASSIFICATION:* **Arenic Hapludalt-Fort Mott**	
	Evalulator: Bruce B. Bagley
PARENT MATERIAL: Eolian Sands/Coastal Plain Sediments	**License No: D2464**
LANDSCAPE POSITION: — **SLOPE%**	**LAT : 38.5907793**
DEPTH TO LIMITING ZONE: 31" (in. bls) — **ELEV.**	**LON: 75.2549038**

HORIZON	DEPTH (in)		USDA TEXTURE	MATRIX COLOR	REDOXIMORPHIC FEATURES (AMOUNT SIZE TYPE LOCATION COLOR)	REMARKS (%RF,Struct,Consist,Biopores,Seepage,Misc.)
HOLE NO. TP-2						
A_p	0	12.0	LS	10YR 4/3	-	2 MGR, Friable
E_1	12.0	30.0	LS	10YR 6/4	-	1 MSBK, Friable
E_2	30.0	36.0	LS	10YR 6/4	c2P 10YR 5/4	1 MSBK, Friable
B_T	36.0	47.0	SL	10YR 5/8	-	3% gravel, 2 MSBK, Friable, wetting front
B_{C1}	47.0	59.0	LS	7.5YR 5/6	c2B 10YR 7/3, c3D 7.5YR 4/6	Massive, Friable
B_{C2}	59.0	67.0	LS	10YR 7/6	f2P 7.5YR 4/6	1 MSBK, Friable
B_{C3}	67.0	73.0	LS / SL	2.5Y 7/6	Lamellae 7.5YR 5/6	1 MSBK, Friable
C	73.0	73+	LS / CoS	2.5Y 7/3	Stratified, Mn Layers	SGR, Loose

COMMENTS

* Additional data may change field classification.

BY: Jeff Chipman

Earth Data Incorporated

Mountaire Farms of Delaware

ONSITE WASTEWATER DISPOSAL **SOIL AND SITE EVALUATION DATA**	**WO: 4940D** **DATE: 9/11/19**
PROJECT: Mountaire Farms Double Ring Infiltrometer Testing	
LOCATION: Mountaire Farms, Millsboro DE — **COUNTY: Sussex**	
SOIL SURVEY MAP UNIT:	**SPRAY FIELD ID: CB-3A**
FIELD CLASSIFICATION:* Arenic Hapludult	
	Evalulator: Bruce B. Bagley
PARENT MATERIAL: Eolian Sands/Coastal Plain Sediments	**License No: D2464**
LANDSCAPE POSITION: — **SLOPE%**	**LAT : 38.5916730**
DEPTH TO LIMITING ZONE: 65" (in. bls) — **ELEV.**	**LON: 75.2568333**

HORIZON	DEPTH (in)		USDA TEXTURE	MATRIX COLOR	REDOXIMORPHIC FEATURES (AMOUNT SIZE TYPE LOCATION COLOR)	REMARKS (%RF,Struct,Consist,Biopores,Seepage,Misc.)
HOLE NO. TP-3						
A_p	0	13.0	LS	10YR 4/3	-	3 MGR, Friable
E	13.0	22.0	LS	10YR 6/4	c3D 10YR 6/3	1 MSBK, Friable
E & B_{T1}	22.0	43.0	LS / SL	10YR 7/4	Lamellae 7.5YR 4/6	1 MSBK, Massive, Loose-Friable
E & B_{T2}	43.0	65.0	LS	10YR 6/4	Lamellae (1/2" thick) 10YR 6/4	2 MSBK, Friable
B_T	65.0	85.0	SL / LS	7.5YR 4/6	Stratified 10YR 7/4	2 MSBK, Friable
C	85.0	85+	SL / LS	7.5YR 4/6	c1P 2.5Y 6/4, c2D 10YR 6/8	1 MSBK, Massive, Friable

COMMENTS

* Additional data may change field classification.

BY: Jeff Chipman

Mountaire Farms of Delaware

ONSITE WASTEWATER DISPOSAL SOIL AND SITE EVALUATION DATA	**WO: 4940D**
	DATE: 9/11/19
PROJECT: Mountaire Farms Double Ring Infiltrometer Testing	
LOCATION: Mountaire Farms, Millsboro DE — **COUNTY: Sussex**	
SOIL SURVEY MAP UNIT:	**SPRAY FIELD ID: CB-3**
FIELD CLASSIFICATION:* Oxyaquic Hapludult	
	Evalulator: Bruce B. Bagley
PARENT MATERIAL: Eolian Sands/Coastal Plain Sediments	**License No: D2464**
LANDSCAPE POSITION: — **SLOPE%**	**LAT : 38.5915565**
DEPTH TO LIMITING ZONE: 38" (in. bls) — **ELEV.**	**LON: 75.2620067**

HORIZON	DEPTH (in)		USDA TEXTURE	MATRIX COLOR	REDOXIMORPHIC FEATURES (AMOUNT SIZE TYPE LOCATION COLOR)	REMARKS (%RF,Struct,Consist,Biopores,Seepage,Misc.)
HOLE NO. TP-4						
A_p	0	9.0	SL	10YR 3/2	-	2 MGR, Friable
E_1	9.0	19.0	SL-	10YR 6/4	-	1 MSBK, Friable
E_2	19.0	37.0	SCL	7.5YR 5/3	-	1 MSBK, Friable-Firm
B_c	37.0	48.0	SCL+	2.5Y 5/6	c3P 2.5Y 7/2, c3P 7.5YR 5/8	Ex. Firm
C_1	48.0	62.0	LS+	10YR 5/6	-	Massive, Friable
C_2	62.0	71.0	LS	10YR 7/4	m3P 10YR 5/6	Massive, Friable
C_3	71.0	71+	LS	2.5YR 7/6	-	Massive, Friable

COMMENTS

* Additional data may change field classification.

BY: Jeff Chipman

Mountaire Farms of Delaware

ONSITE WASTEWATER DISPOSAL **SOIL AND SITE EVALUATION DATA**	**WO: 4940D** **DATE: 9/11/19**
PROJECT: Mountaire Farms Double Ring Infiltrometer Testing	
LOCATION: Mountaire Farms, Millsboro DE — **COUNTY: Sussex**	
SOIL SURVEY MAP UNIT:	**SPRAY FIELD ID: CB-3**
FIELD CLASSIFICATION:* **Aquic Typic Paleadult**	
	Evalulator: Bruce B. Bagley
PARENT MATERIAL: Eolian Sands/Coastal Plain Sediments	**License No: D2464**
LANDSCAPE POSITION: — **SLOPE%**	**LAT : 38.5927307**
DEPTH TO LIMITING ZONE: 52" (in. bls) — **ELEV.**	**LON: 75.2619642**

HORIZON	DEPTH (in)		USDA TEXTURE	MATRIX COLOR	REDOXIMORPHIC FEATURES (AMOUNT SIZE TYPE LOCATION COLOR)	REMARKS (%RF,Struct,Consist,Biopores,Seepage,Misc.)
HOLE NO. TP-5						
A_p	0	12.0	SL-	10YR 3/2	-	2 MGR, Very Friable
E	12.0	24.0	LS	2.5Y 6/4	-	1 MSBK, Very Friable
B_T	24.0	38.0	SL	10YR 5/6	c3D 7.5YR 4/6, c2D 2.5YR 7/2	1 MSBK, Friable
B_{TG}	38.0	54.0	SL	2.5Y 8/1	c3D 2.5Y 6/2, c3D 10YR 5/6	2 MSBK, Friable
C_1	54.0	76.0	SiCL	5Y 5/8	c3P 5YR 5/8	Massive, Ex. Firm
C_2	76.0	76+	LS	2.5Y 7/3	-	Massive, Friable

COMMENTS

* Additional data may change field classification.

BY: Jeff Chipman

Earth Data Incorporated

Mountaire Farms of Delaware

ONSITE WASTEWATER DISPOSAL **SOIL AND SITE EVALUATION DATA**	**WO: 4940D** **DATE: 9/11/19**
PROJECT: Mountaire Farms Double Ring Infiltrometer Testing	
LOCATION: Mountaire Farms, Millsboro DE — **COUNTY: Sussex**	
SOIL SURVEY MAP UNIT:	**SPRAY FIELD ID: CB-3**
FIELD CLASSIFICATION:* Typic Hapludult	
	Evalulator: Bruce B. Bagley
PARENT MATERIAL: Eolian Sands/Coastal Plain Sediments	**License No: D2464**
LANDSCAPE POSITION: — **SLOPE%**	**LAT : 38.5947066**
DEPTH TO LIMITING ZONE: 41" (in. bls) — **ELEV.**	**LON: 75.2625443**

HORIZON	DEPTH (in)		USDA TEXTURE	MATRIX COLOR	REDOXIMORPHIC FEATURES (AMOUNT SIZE TYPE LOCATION COLOR)	REMARKS (%RF,Struct,Consist,Biopores,Seepage,Misc.)
HOLE NO. TP-6						
A_p	0	10.0	SL	10YR 4/3	-	2 MGR, Friable
E & B_{T1}	10.0	43.0	LS / SL-	10YR 6/3	Lamellae 7.5YR 4/6	1 MSBK, Friable
B_{T2}	43.0	71.0	SL / LS	10YR 4/6	Lamellae 10YR 6/3	1 MSBK, Friable
C	71.0	71+	LS	10YR 7/6	-	Massive, Friable

COMMENTS

* Additional data may change field classification.

BY: Jeff Chipman

Mountaire Farms of Delaware

ONSITE WASTEWATER DISPOSAL **SOIL AND SITE EVALUATION DATA**	**WO: 4940D** **DATE: 9/17/19**
PROJECT: Mountaire Farms Double Ring Infiltrometer Testing	
LOCATION: Mountaire Farms, Millsboro DE — **COUNTY: Sussex**	
SOIL SURVEY MAP UNIT:	**SPRAY FIELD ID: CB-3B**
FIELD CLASSIFICATION:* Arenic Hapludult	
	Evalulator: Bruce B. Bagley
PARENT MATERIAL: Eolian Sands/Coastal Plain Sediments	**License No: D2464**
LANDSCAPE POSITION: — **SLOPE%**	**LAT : 38.5962357**
DEPTH TO LIMITING ZONE: 62" (in. bls) — **ELEV.**	**LON: 75.2665537**

HORIZON	DEPTH (in)		USDA TEXTURE	MATRIX COLOR	REDOXIMORPHIC FEATURES (AMOUNT SIZE TYPE LOCATION COLOR)	REMARKS (%RF,Struct,Consist,Biopores,Seepage,Misc.)
HOLE NO. TP-7						
A_p	0	12.0	LS	10YR 3/3	-	2 MSBK, Friable
E & B_{T1}	12.0	22.0	LS	10YR 5/4	f2P 7.5YR 5/6, Lamellae	1 MSBK / 2 SBK, Friable
E & B_{T2}	22.0	32.0	LS / SL	10YR 6/4	C2D 10YR 4/4, Lamellae	2 MSBK, Friable
E & B_{T3}	32.0	43.0	LS / SL	10YR 7/3	7.5YR 4/6, Lamellae	2 MSBK, Friable
C_1	43.0	61.0	LS / SL+	2.5Y 7/3	f2D 7.5YR 4/6, Lamellae	Massive, Friable
C_2	61.0	74.0	LS / SL+	7.5YR 5/6	c2P 2.5Y 7/3	Massive, Friable-Firm
C_3	74.0	74+	FSL-	2.5Y 7/2	-	Massive, Ex. Firm

COMMENTS

* Additional data may change field classification.

BY: Jeff Chipman

Mountaire Farms of Delaware

ONSITE WASTEWATER DISPOSAL **SOIL AND SITE EVALUATION DATA**	**WO: 4940D** **DATE: 9/17/19**
PROJECT: Mountaire Farms Double Ring Infiltrometer Testing	
LOCATION: Mountaire Farms, Millsboro DE — **COUNTY: Sussex**	
SOIL SURVEY MAP UNIT:	**SPRAY FIELD ID: CB-3B**
FIELD CLASSIFICATION:* Aquic Hapludult	
	Evalulator: Bruce B. Bagley
PARENT MATERIAL: Eolian Sands/Coastal Plain Sediments	**License No: D2464**
LANDSCAPE POSITION: Upland Depression — **SLOPE%**	**LAT : 38.5981618**
DEPTH TO LIMITING ZONE: 60" (in. bls) — **ELEV.**	**LON: 75.2664053**

HORIZON	DEPTH (in)		USDA TEXTURE	MATRIX COLOR	REDOXIMORPHIC FEATURES (AMOUNT SIZE TYPE LOCATION COLOR)	REMARKS (%RF,Struct,Consist,Biopores,Seepage,Misc.)
HOLE NO. TP-8						
A_p	0	13.0	LS	10YR 3/3	-	2 MGR, Friable
E	13.0	21.0	SL	10YR 6/4	c2D 10YR 4/6	1 MSBK, Friable
B_{T1}	21.0	31.0	SL	10YR 4/6	32P, CMP, 10YR 6/4	MSBK
B_{T2}	31.0	37.0	SL	7.5YR 5/6	c2D 10YR 6/4	MSBK
B_{T3}	37.0	44.0	SL	7.5YR 5/4	f3D 2.5Y 6/2, m3P 10YR 6/3	2 MSBK, Friable
B & C	44.0	61.0	SL-	10YR 5/4	c3D 10YR 6/2	Water Saturated
C_G	61.0	72+	SCL	10YR 6/2	F1D 7.5YR 4/6, CP 7.5YR 5/6	Massive, Firm

COMMENTS

* Additional data may change field classification.

BY: Jeff Chipman

Mountaire Farms of Delaware

ONSITE WASTEWATER DISPOSAL **SOIL AND SITE EVALUATION DATA**	**WO: 4940D** **DATE: 9/17/19**
PROJECT: Mountaire Farms Double Ring Infiltrometer Testing	
LOCATION: Mountaire Farms, Millsboro DE — **COUNTY: Sussex**	
SOIL SURVEY MAP UNIT:	**SPRAY FIELD ID: CB-3B**
FIELD CLASSIFICATION:* Arenic Hapludult	
	Evalulator: Bruce B. Bagley
PARENT MATERIAL: Eolian Sands/Coastal Plain Sediments	**License No: D2464**
LANDSCAPE POSITION: — **SLOPE%**	**LAT : 38.5990647**
DEPTH TO LIMITING ZONE: 42" (in. bls) — **ELEV.**	**LON: 75.2665860**

HORIZON	DEPTH (in)		USDA TEXTURE	MATRIX COLOR	REDOXIMORPHIC FEATURES (AMOUNT SIZE TYPE LOCATION COLOR)	REMARKS (%RF,Struct,Consist,Biopores,Seepage,Misc.)
HOLE NO. TP-9						
A_p	0	13.0	LS	10YR 4/3	-	2 MGR, Friable
E_1 & B_T	13.0	26.0	LS / SL-	10YR 5/4	f3D, Lamellae, 7.5YR 5/6	2 MSBK, Friable
B_{T1} & E	26.0	42.0	SL / LS	7.5YR 4/6	10YR 6/4	1 MSBK, Friable
C_G	42.0	72+	SL	2.5Y 6/1	C3P 2.5Y 6/3, F3P 7.5YR 5/6	Massive, Friable-Firm

COMMENTS

* Additional data may change field classification.

BY: Jeff Chipman

Mountaire Farms of Delaware

ONSITE WASTEWATER DISPOSAL SOIL AND SITE EVALUATION DATA	**WO: 4940D**
	DATE: 9/17/19
PROJECT: Mountaire Farms Double Ring Infiltrometer Testing	
LOCATION: Mountaire Farms, Millsboro DE — **COUNTY: Sussex**	
SOIL SURVEY MAP UNIT:	**SPRAY FIELD ID: CB-3DE**
FIELD CLASSIFICATION:* Arenic Hapludult	
	Evalulator: Bruce B. Bagley
PARENT MATERIAL: Eolian Sands/Coastal Plain Sediments	**License No: D2464**
LANDSCAPE POSITION: — **SLOPE%**	**LAT : 38.5997935**
DEPTH TO LIMITING ZONE: 45" (in. bls) — **ELEV.**	**LON: 75.2752935**

HORIZON	DEPTH (in)		USDA TEXTURE	MATRIX COLOR	REDOXIMORPHIC FEATURES (AMOUNT SIZE TYPE LOCATION COLOR)	REMARKS (%RF,Struct,Consist,Biopores,Seepage,Misc.)
HOLE NO. TP-10						
A_p	0	12.0	LS	10YR 3/3	-	2 MGR, Very Friable
E	12.0	22.0	LS	10YR 6/4	-	1 MSBK, Friable
E & B_T	22.0	41.0	LS	10YR 5/4	f3P 10YR 6/4	1 MSBK, Friable
B_{T2}	41.0	55.0	LS	10YR 5/4	m3P 7.5YR 4/6	2 MSBK, Friable
B_{T3}	55.0	66.0	SL	10YR 4/6	c3D 10YR 6/2	1 MSBK, Friable-Firm
C	66.0	72+	LS	10YR 4/6	c3D 10YR 6/2	1 MSBK, Friable

COMMENTS

* Additional data may change field classification.

BY: Jeff Chipman

Earth Data Incorporated

Mountaire Farms of Delaware

ONSITE WASTEWATER DISPOSAL **SOIL AND SITE EVALUATION DATA**	**WO: 4940D** **DATE: 9/26/19**
PROJECT: Mountaire Farms Double Ring Infiltrometer Testing	
LOCATION: Mountaire Farms, Millsboro DE — **COUNTY: Sussex**	
SOIL SURVEY MAP UNIT:	**SPRAY FIELD ID: WHBJ-7**
FIELD CLASSIFICATION:* Arenic Hapludalt-Fort Mott	
	Evalulator: Bruce B. Bagley
PARENT MATERIAL: Eolian Sands/Coastal Plain Sediments	**License No: D2464**
LANDSCAPE POSITION: — **SLOPE%**	**LAT : 38.6186945**
DEPTH TO LIMITING ZONE: 38" (in. bls) — **ELEV.**	**LON: 75.2612756**

HORIZON	DEPTH (in)		USDA TEXTURE	MATRIX COLOR	REDOXIMORPHIC FEATURES (AMOUNT SIZE TYPE LOCATION COLOR)	REMARKS (%RF,Struct,Consist,Biopores,Seepage,Misc.)
HOLE NO. TP-11						
A_p	0	9.0	LS	10YR 3/4	-	2 MGR, Friable
E	9.0	14.0	LS	10YR 5/4	-	1 MSBK, Friable
E & B_T	14.0	38.0	SL / LS	7.5YR 6/6	Lamallae 10YR 4/6	1 MSBK, Friable
B_{T2}	38.0	55.0	SL	10YR 5/8	-	2 MSBK, Friable
BC	55.0	61.0	SL-	7.5YR 4/6	-	1 MSBK, Friable
C	61.0	72+	LS / SL	10YR 4/3	Lamallae 7.5YR 5/6	1 MSBK, Friable

COMMENTS

* Additional data may change field classification.

BY: Avery Dunn

Mountaire Farms of Delaware

ONSITE WASTEWATER DISPOSAL **SOIL AND SITE EVALUATION DATA**	**WO: 4940D** **DATE: 9/26/19**
PROJECT: Mountaire Farms Double Ring Infiltrometer Testing	
LOCATION: Mountaire Farms, Millsboro DE — **COUNTY: Sussex**	
SOIL SURVEY MAP UNIT:	**SPRAY FIELD ID: WHBJ-7**
FIELD CLASSIFICATION:* Aquic Arenic Hapludalt-Rockawalkin	
	Evalulator: Bruce B. Bagley
PARENT MATERIAL: Eolian Sands/Coastal Plain Sediments	**License No: D2464**
LANDSCAPE POSITION: — **SLOPE%**	**LAT : 38.6188003**
DEPTH TO LIMITING ZONE: 37" (in. bls) — **ELEV.**	**LON: 75.2644486**

HORIZON	DEPTH (in)		USDA TEXTURE	MATRIX COLOR	REDOXIMORPHIC FEATURES (AMOUNT SIZE TYPE LOCATION COLOR)	REMARKS (%RF,Struct,Consist,Biopores,Seepage,Misc.)
HOLE NO. TP-12						
A_p	0	12.0	LS	10YR 3/3	-	2 MGR, Friable
E	12.0	21.0	LS	10YR 6/4	c2D 10YR 5/6	1 MSBK, Friable
B_T	21.0	37.0	SL	10YR 5/4	-	2 MSBK, Friable
B_{T2}	37.0	62.0	SCL	10YR 5/6	c3D 7.5YR 5/6, c3D 2.5Y 6/1	1 MSBK, Friable-Firm
B_C	62.0	69.0	LFS+	7.5YR 5/6	c2D 2.5YR 7/2, c2D 10YR 6/6	Massive, Friable
C_G	69.0	72+	FSL+	2.5Y 7/2	c2D 2.5Y 8/1, 7.5YR 5/6	Massive, Friable

COMMENTS

* Additional data may change field classification.

BY: Avery Dunn

Mountaire Farms of Delaware

ONSITE WASTEWATER DISPOSAL **SOIL AND SITE EVALUATION DATA**	**WO: 4940D** **DATE: 9/26/19**
PROJECT: Mountaire Farms Double Ring Infiltrometer Testing	
LOCATION: Mountaire Farms, Millsboro DE — **COUNTY: Sussex**	
SOIL SURVEY MAP UNIT:	**SPRAY FIELD ID: WHBJ-7**
FIELD CLASSIFICATION:* Arenic Hapludalt-Fort Mott	
	Evalulator: Bruce B. Bagley
PARENT MATERIAL: Eolian Sands/Coastal Plain Sediments	**License No: D2464**
LANDSCAPE POSITION: — **SLOPE%**	**LAT : 38.6168174**
DEPTH TO LIMITING ZONE: 28 " (in. bls) — **ELEV.**	**LON: 75.2643671**

HORIZON	DEPTH (in)		USDA TEXTURE	MATRIX COLOR	REDOXIMORPHIC FEATURES (AMOUNT SIZE TYPE LOCATION COLOR)	REMARKS (%RF,Struct,Consist,Biopores,Seepage,Misc.)
HOLE NO. TP-13						
A_p	0	12.0	LS	10YR 3/3	-	2 MGR, Friable
E	12.0	28.0	LS	10YR 5/4	-	1 MSBK, Friable
B_T	28.0	44.0	SL	7.5YR 5/8	c3P 10YR 7/4	2 MSBK, Friable
B_{T2}	44.0	58.0	SL	10YR 5/8	c2D 10YR 7/3, c2D 7.5YR 7/4	2 MSBK, Friable
C	58.0	72+	LS+	10YR 7/3	c3P 10YR 7/3	Massive, Friable

COMMENTS

* Additional data may change field classification.

BY: Avery Dunn

Mountaire Farms of Delaware

ONSITE WASTEWATER DISPOSAL **SOIL AND SITE EVALUATION DATA**	**WO: 4940D** **DATE: 9/26/19**
PROJECT: Mountaire Farms Double Ring Infiltrometer Testing	
LOCATION: Mountaire Farms, Millsboro DE — **COUNTY: Sussex**	
SOIL SURVEY MAP UNIT:	**SPRAY FIELD ID: WHBJ-7**
FIELD CLASSIFICATION:* Arenic Hapludalt-Fort Mott	
	Evalulator: Bruce B. Bagley
PARENT MATERIAL: Eolian Sands/Coastal Plain Sediments	**License No: D2464**
LANDSCAPE POSITION: — **SLOPE%**	**LAT :38.6173604**
DEPTH TO LIMITING ZONE: 60" (in. bls) — **ELEV.**	**LON: 75.2679661**

HORIZON	DEPTH (in)		USDA TEXTURE	MATRIX COLOR	REDOXIMORPHIC FEATURES (AMOUNT SIZE TYPE LOCATION COLOR)	REMARKS (%RF,Struct,Consist,Biopores,Seepage,Misc.)
HOLE NO. TP-14						
A_p	0	9.0	LS	10YR 4/4	-	2 MGR, Friable
E & B_T	9.0	28.0	LS / SL	10YR 6/6	Lamallae 7.5YR 4/6	1 MSBK, Friable
B_T & E	28.0	57.0	SL / LS	7.5YR 4/6	Lamallae 10YR 6/6	2 MSBK, Friable
B_T	57.0	72+	SL	7YR 5/8	-	1 MSBK, Friable

COMMENTS

* Additional data may change field classification.

BY: Avery Dunn

Mountaire Farms of Delaware

ONSITE WASTEWATER DISPOSAL **SOIL AND SITE EVALUATION DATA**	**WO: 4940D** **DATE: 9/26/19**
PROJECT: Mountaire Farms Double Ring Infiltrometer Testing	
LOCATION: Mountaire Farms, Millsboro DE — **COUNTY: Sussex**	
SOIL SURVEY MAP UNIT:	**SPRAY FIELD ID: WHBJ- 7**
FIELD CLASSIFICATION:* **Arenic Hapludalt-Fort Mott**	
	Evalulator: Bruce B. Bagley
PARENT MATERIAL: Eolian Sands/Coastal Plain Sediments	**License No: D2464**
LANDSCAPE POSITION: — **SLOPE%**	**LAT : 38.6157094**
DEPTH TO LIMITING ZONE: 47" (in. bls) — **ELEV.**	**LON: 75.2680121**

HORIZON	DEPTH (in)		USDA TEXTURE	MATRIX COLOR	REDOXIMORPHIC FEATURES (AMOUNT SIZE TYPE LOCATION COLOR)	REMARKS (%RF,Struct,Consist,Biopores,Seepage,Misc.)
HOLE NO. TP- 15						
A_p	0	9.0	LS	10YR 4/3	-	2 MGR, Friable
E	9.0	26.0	LS	10YR 6/6	c2D 10YR 5/8	1 MSBK, Friable
B_T & E	26.0	47.0	SL / LS	7.5YR 5/8	Lamellae 10YR 6/6	2 MSBK, Friable
B_T	47.0	59.0	SL	7.5YR 4/6	c2D 10YR 7/3	2 MSBK, Friable
C	59.0	72+	LS	10YR 7/3	m3P 7.5YR 4/6	Massive, Friable

COMMENTS

* Additional data may change field classification.

BY: Avery Dunn

Mountaire Farms of Delaware

ONSITE WASTEWATER DISPOSAL **SOIL AND SITE EVALUATION DATA**	**WO: 4940D** **DATE: 9/26/19**
PROJECT: Mountaire Farms Double Ring Infiltrometer Testing	
LOCATION: Mountaire Farms, Millsboro DE — **COUNTY: Sussex**	
SOIL SURVEY MAP UNIT:	**SPRAY FIELD ID: WHBJ-7**
FIELD CLASSIFICATION:* **Aquic Arenic Paleadult**	
	Evalulator: Bruce B. Bagley
PARENT MATERIAL: Eolian Sands/Coastal Plain Sediments	**License No: D2464**
LANDSCAPE POSITION: — **SLOPE%**	**LAT : 38.6130687**
DEPTH TO LIMITING ZONE: 50" (in. bls) — **ELEV.**	**LON: 75.2691611**

HORIZON	DEPTH (in)		USDA TEXTURE	MATRIX COLOR	REDOXIMORPHIC FEATURES (AMOUNT SIZE TYPE LOCATION COLOR)	REMARKS (%RF,Struct,Consist,Biopores,Seepage,Misc.)
HOLE NO. TP-16						
A_p	0	13.0	LS+	10YR 3/3	-	2 MGR, Friable
E	13.0	25.0	LS+	10YR 6/3	f3D 10YR 5/8	1 MSBK, Friable-Firm
B_{T1}	25.0	36.0	SCL	10YR 5/4	c3P 2.5Y 7/3	1 MSBK, Friable
B_{T2}	36.0	50.0	SCL	2.5Y 6/6	c3P 2.5Y 7/2, c3P 10YR 6/6	1 MSBK, Firm
B_{T3}	50.0	72+	CL	2.5Y 6/6	m3P 2.5Y 7/2, m3P 10YR 6/6	1 MSBK, Ex. Firm

COMMENTS

* Additional data may change field classification.

BY: Avery Dunn

Mountaire Farms of Delaware

ONSITE WASTEWATER DISPOSAL **SOIL AND SITE EVALUATION DATA**	**WO: 4940D** **DATE: 9/26/19**
PROJECT: Mountaire Farms Double Ring Infiltrometer Testing	
LOCATION: Mountaire Farms, Millsboro DE — **COUNTY: Sussex**	
SOIL SURVEY MAP UNIT:	**SPRAY FIELD ID: WHBJ-7**
FIELD CLASSIFICATION:* **Arenic Hapludalt**	
	Evalulator: Bruce B. Bagley
PARENT MATERIAL: Eolian Sands/Coastal Plain Sediments	**License No: D2464**
LANDSCAPE POSITION: **Depression** — **SLOPE%**	**LAT : 38.6143805**
DEPTH TO LIMITING ZONE: 40" (in. bls) — **ELEV.**	**LON: 75.2656042**

HORIZON	DEPTH (in)		USDA TEXTURE	MATRIX COLOR	REDOXIMORPHIC FEATURES (AMOUNT SIZE TYPE LOCATION COLOR)	REMARKS (%RF,Struct,Consist,Biopores,Seepage,Misc.)
HOLE NO. TP-17						
A_p	0	14.0	SL-	10YR 2/2	-	1 MGR, Friable
E_1	14.0	23.0	LS	10YR 5/4	c3D 5YR 4/6	Platy, Ex. Firm, Compacted plowpan
E_2	23.0	30.0	LS	10YR 5/6	-	1 MSBK, Friable
B_{T1}	30.0	40.0	SL+	7.5YR 5/8	-	2 MSBK, Friable, 5% Gravel
B_{T2}	40.0	49.0	SCL	10YR 5/6	f3P 2.5Y 7/3	1 MSBK, Firm
B_{T3}	49.0	72+	FSL+	2.5Y 7/3	c3D 2.5Y 7/6	1 MSBK, Friable-Firm

COMMENTS

Compacted plowplan layer at 14" - 23", recommend subsoil ripping

* Additional data may change field classification.

BY: Avery Dunn

Earth Data Incorporated

Mountaire Farms of Delaware

ONSITE WASTEWATER DISPOSAL SOIL AND SITE EVALUATION DATA	**WO: 4940D** **DATE: 9/26/19**
PROJECT: Mountaire Farms Double Ring Infiltrometer Testing	
LOCATION: Mountaire Farms, Millsboro DE — **COUNTY: Sussex**	
SOIL SURVEY MAP UNIT:	**SPRAY FIELD ID: WHBJ-7**
FIELD CLASSIFICATION:* **Aquic Arenic Hapludalt**	
	Evalulator: Bruce B. Bagley
PARENT MATERIAL: Eolian Sands/Coastal Plain Sediments	**License No: D2464**
LANDSCAPE POSITION: — **SLOPE%**	**LAT : 38.6126104**
DEPTH TO LIMITING ZONE: 34" (in. bls) — **ELEV.**	**LON: 75.2624307**

HORIZON	DEPTH (in)		USDA TEXTURE	MATRIX COLOR	REDOXIMORPHIC FEATURES (AMOUNT SIZE TYPE LOCATION COLOR)	REMARKS (%RF,Struct,Consist,Biopores,Seepage,Misc.)
HOLE NO. TP-18						
A_p	0	11.0	LS	10YR 4/3	-	2 MGR, Friable
E	11.0	24.0	LS	2.5Y 6/3	-	1 MSBK, Friable
EB	24.0	34.0	LS / SL	2.5Y 6/3	Stratified 10YR 5/8	1 MSBK, Friable
B_T	34.0	51.0	SCL+	2.5Y 6/3	c3P 2.5Y 7/2, c3D 7.5YR 5/8	1 MSBK, Ex. Firm
BC	51.0	57.0	SL	10YR 5/6	c3D 10YR 7/2, f3P 7.5YR 5/8	Massive, Friable-Firm
C_G	57.0	72+	LS	2.5Y 7/2	m3P 10YR 7/4	Massive, Friable-Firm

COMMENTS

* Additional data may change field classification.

BY: Avery Dunn

Earth Data Incorporated

Mountaire Farms of Delaware

ONSITE WASTEWATER DISPOSAL **SOIL AND SITE EVALUATION DATA**	**WO: 4940D** **DATE: 9/26/19**
PROJECT: Mountaire Farms Double Ring Infiltrometer Testing	
LOCATION: Mountaire Farms, Millsboro DE — **COUNTY: Sussex**	
SOIL SURVEY MAP UNIT:	**SPRAY FIELD ID: WHBJ-7**
FIELD CLASSIFICATION:* **Arenic Hapludalt**	
	Evalulator: Bruce B. Bagley
PARENT MATERIAL: Eolian Sands/Coastal Plain Sediments	**License No: D2464**
LANDSCAPE POSITION: — **SLOPE%**	**LAT : 38.6144532**
DEPTH TO LIMITING ZONE: 12" (in. bls) — **ELEV.**	**LON: 75.2601069**

HORIZON	DEPTH (in)		USDA TEXTURE	MATRIX COLOR	REDOXIMORPHIC FEATURES (AMOUNT SIZE TYPE LOCATION COLOR)	REMARKS (%RF,Struct,Consist,Biopores,Seepage,Misc.)
HOLE NO. TP-19						
A_{p1}	0	10.0	LS	10YR 4/3	-	2 MGR, Friable
A_{p2}	10.0	20.0	LS	10YR 4/3	f2D 10YR 0/0 (charcoal), f3P 7.5YR 4/6	Platy, Firm, Disturbed surface
B_T	20.0	33.0	SL	10YR 5/6	-	2 MSBK, Friable
C_1	33.0	48.0	GLCoS	10YR 6/6	-	SGR, Loose
C_2	48.0	72+	GS	10YR 6/6	Stratified 10YR 7/4	SGR, Loose

COMMENTS

A_{P2} horizon is disturbed surface from clearing of forest 25+ years ago

Recommend subsoil ripping

* Additional data may change field classification.

BY: Avery Dunn

Earth Data Incorporated

Mountaire Farms of Delaware

ONSITE WASTEWATER DISPOSAL **SOIL AND SITE EVALUATION DATA**	**WO: 4940D** **DATE: 10/1/19**
PROJECT: Mountaire Farms Double Ring Infiltrometer Testing	
LOCATION: Mountaire Farms, Millsboro DE — **COUNTY: Sussex**	
SOIL SURVEY MAP UNIT:	**SPRAY FIELD ID: WHBJ-4**
FIELD CLASSIFICATION:* **Arenic Hapludalt**	
	Evalulator: Bruce B. Bagley
PARENT MATERIAL: Eolian Sands/Coastal Plain Sediments	**License No: D2464**
LANDSCAPE POSITION: — **SLOPE%**	**LAT : 38.6084580**
DEPTH TO LIMITING ZONE: 45" (in. bls) — **ELEV.**	**LON: 75.2639316**

HORIZON	DEPTH (in)		USDA TEXTURE	MATRIX COLOR	REDOXIMORPHIC FEATURES (AMOUNT SIZE TYPE LOCATION COLOR)	REMARKS (%RF,Struct,Consist,Biopores,Seepage,Misc.)
HOLE NO. TP-20						
A_p	0	12.0	LS	10YR 3/4	-	2 MGR, Friable
E	12.0	24.0	LS	10YR 5/4	-	1 MSBK, Friable
B_T & E	24.0	38.0	LS / SL	10YR 6/6	Lamellae 7.5YR 4/6	2 MSBK, Friable
B_T & E	38.0	58.0	LS / SL	10YR 6/4	Lamellae 7.5YR 4/6	2 MSBK, Friable
B_C	58.0	73.0	LS	7.5YR 4/6	c3P 10YR 6/4	Massive, Friable
C_G	73.0	73+	LCoS	2.5Y 7/3	-	SGR, Friable-Loose

COMMENTS

* Additional data may change field classification.

BY: Avery Dunn

Mountaire Farms of Delaware

ONSITE WASTEWATER DISPOSAL **SOIL AND SITE EVALUATION DATA**	**WO: 4940D** **DATE: 10/1/19**
PROJECT: Mountaire Farms Double Ring Infiltrometer Testing	
LOCATION: Mountaire Farms, Millsboro DE — **COUNTY: Sussex**	
SOIL SURVEY MAP UNIT:	**SPRAY FIELD ID: WHBJ-4**
FIELD CLASSIFICATION:* **Aquic Arenic Hapludalt**	
	Evalulator: Bruce B. Bagley
PARENT MATERIAL: Eolian Sands/Coastal Plain Sediments	**License No: D2464**
LANDSCAPE POSITION: **Upland Depression** — **SLOPE%**	**LAT : 38.6106002**
DEPTH TO LIMITING ZONE: 36" (in. bls) — **ELEV.**	**LON: 75.2649724**

HORIZON	DEPTH (in)		USDA TEXTURE	MATRIX COLOR	REDOXIMORPHIC FEATURES (AMOUNT SIZE TYPE LOCATION COLOR)	REMARKS (%RF,Struct,Consist,Biopores,Seepage,Misc.)
HOLE NO. TP-21						
A_p	0	14.0	LS	10YR 4/3	-	2 MGR, Friable
E	14.0	24.0	LS	10YR 5/4	f3D 5YR 4/6	1 MSBK, Friable-Firm, Compaction
B_{T1}	24.0	37.0	GSL+	7.5YR 6/6	c3D 7.5YR 4/6	2 MSBK, Friable
B_{T2}	37.0	52.0	GSL+	7.5YR 6/6	c3D 2.5Y 8/2, c3P 10YR 7/3	1 MSBK, Friable-Firm
C_1	52.0	68.0	CoSL	2.5Y 7/3	c3P 2.5Y 6/6	Massive, Friable-Firm
C_2	68.0	85+	LFS+	2.5Y 8/3	-	Massive, Friable-Firm

COMMENTS

E horizon is slightly compacted, recommend subsoil ripping

* Additional data may change field classification.

BY: Avery Dunn

Earth Data Incorporated

Mountaire Farms of Delaware

ONSITE WASTEWATER DISPOSAL SOIL AND SITE EVALUATION DATA	**WO: 4940D**
	DATE: 10/1/19
PROJECT: Mountaire Farms Double Ring Infiltrometer Testing	
LOCATION: Mountaire Farms, Millsboro DE — **COUNTY: Sussex**	
SOIL SURVEY MAP UNIT:	**SPRAY FIELD ID: WHBJ-4**
FIELD CLASSIFICATION:* **Arenic Hapludalt**	
	Evalulator: Bruce B. Bagley
PARENT MATERIAL: Eolian Sands/Coastal Plain Sediments	**License No: D2464**
LANDSCAPE POSITION: — **SLOPE%**	**LAT : 38.6112374**
DEPTH TO LIMITING ZONE: 24" (in. bls) — **ELEV.**	**LON: 75.2680091**

HORIZON	DEPTH (in)		USDA TEXTURE	MATRIX COLOR	REDOXIMORPHIC FEATURES (AMOUNT SIZE TYPE LOCATION COLOR)	REMARKS (%RF,Struct,Consist,Biopores,Seepage,Misc.)
HOLE NO. TP-22						
A_p	0	11.0	LS	10YR 3/3	-	1 MGR, Friable-Firm
E	11.0	23.0	LS	10YR 6/4	c3D 7.5YR 5/8	Platy, Firm, Compaction
B_T	23.0	39.0	SL+	7.5YR 4/6	-	2 MSBK, Friable
B_C	39.0	59.0	LS+	7.5YR 4/6	c3P 2.5Y 7/3	Massive, Friable
C_1	59.0	66.0	LS	2.5Y 7/3	m3P 10YR 6/6, m3P 7.5YR 4/6	Massive, Friable-Loose
C_2	66.0	72+	FS	10Y 7/3	-	SGR, Loose

COMMENTS

E horizon is compacted, recommend subsoil ripping

* Additional data may change field classification.

BY: Avery Dunn

Earth Data Incorporated

Mountaire Farms of Delaware

ONSITE WASTEWATER DISPOSAL **SOIL AND SITE EVALUATION DATA**	**WO: 4940D** **DATE: 10/1/19**
PROJECT: Mountaire Farms Double Ring Infiltrometer Testing	
LOCATION: Mountaire Farms, Millsboro DE — **COUNTY: Sussex**	
SOIL SURVEY MAP UNIT:	**SPRAY FIELD ID: WHBJ-4**
FIELD CLASSIFICATION:* **Arenic Hapludalt-Rosedale**	
	Evalulator: Bruce B. Bagley
PARENT MATERIAL: Eolian Sands/Coastal Plain Sediments	**License No: D2464**
LANDSCAPE POSITION: — **SLOPE%**	**LAT : 38.6103768**
DEPTH TO LIMITING ZONE: 24" (in. bls) — **ELEV.**	**LON: 75.2694871**

HORIZON	DEPTH (in)		USDA TEXTURE	MATRIX COLOR	REDOXIMORPHIC FEATURES (AMOUNT SIZE TYPE LOCATION COLOR)	REMARKS (%RF,Struct,Consist,Biopores,Seepage,Misc.)
HOLE NO. TP-23						
A_p	0	9.0	LS	10YR 4/3	-	2 MGR, Friable
E	9.0	22.0	LS	10YR 5/4	-	2 MSBK, Friable
B_T	22.0	37.0	SL	7.5YR 6/6	-	2 MSBK, Friable
B_C	37.0	44.0	LS	7.5YR 6/6	c3P 7.5YR 7/4	SGR, Loose
C_1	44.0	55.0	LS	7.5YR 7/3	Lamellae 7.5YR 5/6	SGR, Loose
C_2	55.0	64.0	LS	2.5Y 7/3	c3P 7.5YR 6/6	SGR, Loose
C_G	64.0	72+	LCS	2.5Y 8/2	-	SGR, Loose

COMMENTS

* Additional data may change field classification.

BY: Avery Dunn

Mountaire Farms of Delaware

ONSITE WASTEWATER DISPOSAL SOIL AND SITE EVALUATION DATA	**WO: 4940D**
	DATE: 10/1/19
PROJECT: Mountaire Farms Double Ring Infiltrometer Testing	
LOCATION: Mountaire Farms, Millsboro DE — **COUNTY: Sussex**	
SOIL SURVEY MAP UNIT:	**SPRAY FIELD ID: WHBJ-4**
FIELD CLASSIFICATION:* Arenic Hapludalt	
	Evalulator: Bruce B. Bagley
PARENT MATERIAL: Eolian Sands/Coastal Plain Sediments	**License No: D2464**
LANDSCAPE POSITION: — **SLOPE%**	**LAT : 38.6070705**
DEPTH TO LIMITING ZONE: 10" (in. bls) — **ELEV.**	**LON: 75.2673366**

HOLE NO. TP-24

HORIZON	DEPTH (in)		USDA TEXTURE	MATRIX COLOR	REDOXIMORPHIC FEATURES (AMOUNT SIZE TYPE LOCATION COLOR)	REMARKS (%RF,Struct,Consist,Biopores,Seepage,Misc.)
A_{p1}	0	11.0	LS	10YR 3/3	-	2 MGR, Friable
A_{P2}	11.0	14.0	LS	10YR 2/2	Stratified 10YR 4/5	Platy, Ex. Firm, Compaction
E_1	14.0	24.0	LS	10YR 5/4	-	Platy, Firm, Compaction
E_2	24.0	37.0	LS	10YR 6/4	-	1 MSBK, Friable
E & B_T	37.0	44.0	LS / SL	10YR 6/4	Lamellae 7.5YR 4/6	2 MSBK, Friable
B_T	44.0	57.0	SL / LS	7.5YR 4/6	Stratified 10YR 7/3	1 MSBK, Friable
C_1	57.0	72+	GrS	10YR 7/3	c3P 7.5YR 5/8	SGR, Loose

COMMENTS

A_{P2} & E horizon compaction due to clearing of forest 25+ years ago

Run test at 10" on platey compacted layer A_{P2}

* Additional data may change field classification.

BY: Avery Dunn

Earth Data Incorporated

Mountaire Farms of Delaware

ONSITE WASTEWATER DISPOSAL **SOIL AND SITE EVALUATION DATA**	**WO: 4940D** **DATE: 10/1/19**
PROJECT: Mountaire Farms Double Ring Infiltrometer Testing	
LOCATION: Mountaire Farms, Millsboro DE — **COUNTY: Sussex**	
SOIL SURVEY MAP UNIT:	**SPRAY FIELD ID: WHBJ-3**
FIELD CLASSIFICATION:* Arenic Hapludalt-Rosedale (Paleadult?)	
	Evalulator: Bruce B. Bagley
PARENT MATERIAL: Eolian Sands/Coastal Plain Sediments	**License No: D2464**
LANDSCAPE POSITION: — **SLOPE%**	**LAT : 38.6075920**
DEPTH TO LIMITING ZONE: 40" (in. bls) — **ELEV.**	**LON: 75.2701243**

HORIZON	DEPTH (in)		USDA TEXTURE	MATRIX COLOR	REDOXIMORPHIC FEATURES (AMOUNT SIZE TYPE LOCATION COLOR)	REMARKS (%RF,Struct,Consist,Biopores,Seepage,Misc.)
HOLE NO. TP-25						
A_P	0	10.0	LS	10YR 4/3	-	2 MGR, Friable
E_1	10.0	24.0	LS	10YR 5/4	-	Platy, Ex. Friable
E_2	24.0	34.0	GrLS	10YR 5/4	c3P 10YR 5/6	1 MSBK, Friable
E_3	34.0	40.0	GrS	10YR 7/3	-	SGR, Loose
B_{T1}	40.0	55.0	SCL / CL	2.5Y 4/6	c3P 5YR 5/6, c3P 2.5Y 7/2	1 MSBK / Massive, Ex. Firm
B_{T2}	55.0	72+	SL	7.5YR 6/6	c3D 10YR 8/2, c3P (Mn Stains)	Massive, Firm

COMMENTS

* Additional data may change field classification.

BY: Avery Dunn

Mountaire Farms of Delaware

ONSITE WASTEWATER DISPOSAL **SOIL AND SITE EVALUATION DATA**	**WO: 4940D** **DATE: 10/1/19**
PROJECT: Mountaire Farms Double Ring Infiltrometer Testing	
LOCATION: Mountaire Farms, Millsboro DE — **COUNTY: Sussex**	
SOIL SURVEY MAP UNIT:	**SPRAY FIELD ID: WHBJ-3**
FIELD CLASSIFICATION:* **Arenic Hapludalt / Paleadult**	
	Evalulator: Bruce B. Bagley
PARENT MATERIAL: Eolian Sands/Coastal Plain Sediments	**License No: D2464**
LANDSCAPE POSITION: — **SLOPE%**	**LAT : 38.6104119**
DEPTH TO LIMITING ZONE: 40" (in. bls) — **ELEV.**	**LON: 75.2721261**

HORIZON	DEPTH (in)		USDA TEXTURE	MATRIX COLOR	REDOXIMORPHIC FEATURES (AMOUNT SIZE TYPE LOCATION COLOR)	REMARKS (%RF,Struct,Consist,Biopores,Seepage,Misc.)
HOLE NO. TP-26						
A_{P1}	0	13.0	LS	10YR 3/1	f3F 7.5YR 5/8 (root channels)	Platy, Firm, Compaction
A_{P2}	13.0	18.0	LS	10YR 3/1	c3P 10YR 5/4	Platy, Firm, Compaction
E	18.0	34.0	LS	10YR 5/4	-	1 MSBK, Friable
B_{T1}	34.0	44.0	CL	10YR 4/6	-	1 MSBK, Friable-Firm, water perching
B_{T2}	44.0	55.0	CL	10YR 6/6	c3P 5YR 6/6, c3P 2.5Y 7/2	1 MSBK, Friable
B_C	55.0	64.0	CoSL+	10YR 5/6	m3P 5YR 6/8, m3P 10YR 8/2	Massive, Firm, water perching
C	64.0	72+	GrLS	5YR 4/6	m3P 10YR 3/3 (Iron concentration)	Massive, Firm

COMMENTS

A_{P1} & A_{P2} horizon compaction, recommend subsurface ripping

Water perching at 37" & 60" from irrigation 2 days prior

* Additional data may change field classification.

BY: Avery Dunn

Earth Data Incorporated

Mountaire Farms of Delaware

ONSITE WASTEWATER DISPOSAL **SOIL AND SITE EVALUATION DATA**	**WO: 4940D** **DATE: 10/1/19**
PROJECT: Mountaire Farms Double Ring Infiltrometer Testing	
LOCATION: Mountaire Farms, Millsboro DE — **COUNTY: Sussex**	
SOIL SURVEY MAP UNIT:	**SPRAY FIELD ID: WHBJ-3**
FIELD CLASSIFICATION:* **Aquic Arenic Hapludalt**	
	Evalulator: Bruce B. Bagley
PARENT MATERIAL: Eolian Sands/Coastal Plain Sediments	**License No: D2464**
LANDSCAPE POSITION: — **SLOPE%**	**LAT : 38.6099041**
DEPTH TO LIMITING ZONE: 24" (in. bls) — **ELEV.**	**LON: 75.2751306**

HORIZON	DEPTH (in)		USDA TEXTURE	MATRIX COLOR	REDOXIMORPHIC FEATURES (AMOUNT SIZE TYPE LOCATION COLOR)	REMARKS (%RF,Struct,Consist,Biopores,Seepage,Misc.)
HOLE NO. TP-27						
A_P	0	10.0	LS	10YR 4/3	-	1 MGR, Friable
E	10.0	21.0	LS	10YR 5/6	f3P 7.5YR 5/6	Platy-1 MSBK, Friable-Firm
B_{T1}	21.0	47.0	CL	2.5Y 5/4	c3P 7.5YR 5/6, m3P 2.5Y 7/2	Massive, Ex. Firm
B_{T2}	47.0	51.0	SL+	2.5Y 5/4	c3P 2.5Y 7/3, c3P 2.5Y 8/2	Massive, Friable-Firm
C	51.0	72+	LS	7.5YR 6/6	m3P 7.5YR 7/3 (Mn Stains)	Massive, Friable-Firm

COMMENTS

* Additional data may change field classification.

BY: Avery Dunn

Mountaire Farms of Delaware

ONSITE WASTEWATER DISPOSAL **SOIL AND SITE EVALUATION DATA**	**WO: 4940D** **DATE: 10/1/19**
PROJECT: Mountaire Farms Double Ring Infiltrometer Testing	
LOCATION: Mountaire Farms, Millsboro DE — **COUNTY: Sussex**	
SOIL SURVEY MAP UNIT:	**SPRAY FIELD ID: WHBJ-3**
FIELD CLASSIFICATION:* **Arenic Hapludalt-Rosedale**	
	Evalulator: Bruce B. Bagley
PARENT MATERIAL: Eolian Sands/Coastal Plain Sediments	**License No: D2464**
LANDSCAPE POSITION: — **SLOPE%**	**LAT : 38.6080299**
DEPTH TO LIMITING ZONE: 58" (in. bls) — **ELEV.**	**LON: 75.2752404**

HORIZON	DEPTH (in)		USDA TEXTURE	MATRIX COLOR	REDOXIMORPHIC FEATURES (AMOUNT SIZE TYPE LOCATION COLOR)	REMARKS (%RF,Struct,Consist,Biopores,Seepage,Misc.)
HOLE NO. TP-28						
A_P	0	11.0	LS+	10YR 2/1	f3F 7.5YR 5/8 (Oxidized root zone)	Platy-1 MSBK, Friable-Firm
E	11.0	22.0	LS	10YR 5/4	-	1 MSBK, Friable
B_T	22.0	31.0	SL	10YR 6/6	-	2 MSBK, Friable
B_C	31.0	55.0	LS+	10YR 5/6	m3P 10YR 6/6	Massive, Friable
C	55.0	72+	SL-	10YR 6/6	c3P 10YR 8/1, c3D 5.5YR 4/6	Massive, Ex. Firm

COMMENTS

* Additional data may change field classification.

BY: Avery Dunn

Mountaire Farms of Delaware

ONSITE WASTEWATER DISPOSAL **SOIL AND SITE EVALUATION DATA**	**WO: 4940D** **DATE: 10/10/2019**
PROJECT: Mountaire Farms Double Ring Infiltrometer Testing	
LOCATION: Mountaire Farms, Millsboro DE — **COUNTY: Sussex**	
SOIL SURVEY MAP UNIT:	**SPRAY FIELD ID: WHBJ-6**
FIELD CLASSIFICATION:* Lamellic Quartzipsamment	
	Evalulator: Bruce B. Bagley
PARENT MATERIAL: Eolian Sands/Coastal Plain Sediments	**License No: D2464**
LANDSCAPE POSITION: — **SLOPE%**	**LAT : 38.611898**
DEPTH TO LIMITING ZONE: 40" (in. bls) — **ELEV.**	**LON: 75.258223**

HORIZON	DEPTH (in)		USDA TEXTURE	MATRIX COLOR	REDOXIMORPHIC FEATURES (AMOUNT SIZE TYPE LOCATION COLOR)	REMARKS (%RF,Struct,Consist,Biopores,Seepage,Misc.)
HOLE NO. TP-29						
A_P	0	10.0	LS	10YR 3/4	-	2 MGR, Friable
C_1	10.0	24.0	LS	10YR 5/4	c3D 10YR 7/4	1 MSBK, Friable-Loose
C_2	24.0	37.0	LCoS	10YR 7/4	-	SGR, Loose
C_3	37.0	55.0	LS	10YR 7/3	Lamellae 7.5YR 4/6	1 MSBK, Friable-Loose
C_4	55.0	72+	LCoS	10YR 7/3	c3P 7.5YR 4/6	SGR, Loose

COMMENTS

* Additional data may change field classification.

BY: Jeff Chipman

Mountaire Farms of Delaware

ONSITE WASTEWATER DISPOSAL **SOIL AND SITE EVALUATION DATA**	**WO: 4940D** **DATE: 10/10/19**
PROJECT: Mountaire Farms Double Ring Infiltrometer Testing	
LOCATION: Mountaire Farms, Millsboro DE — **COUNTY: Sussex**	
SOIL SURVEY MAP UNIT:	**SPRAY FIELD ID: WHBJ-6**
FIELD CLASSIFICATION:* Fort Mott	
	Evalulator: Bruce B. Bagley
PARENT MATERIAL: Eolian Sands/Coastal Plain Sediments	**License No: D2464**
LANDSCAPE POSITION: — **SLOPE%**	**LAT : 38.6108791**
DEPTH TO LIMITING ZONE: 36" (in. bls) — **ELEV.**	**LON: 75.2586976**

HORIZON	DEPTH (in)		USDA TEXTURE	MATRIX COLOR	REDOXIMORPHIC FEATURES (AMOUNT SIZE TYPE LOCATION COLOR)	REMARKS (%RF,Struct,Consist,Biopores,Seepage,Misc.)
HOLE NO. TP-30						
A_p	0	12.0	LS	10YR 3/4	-	2 MGR, Friable
E_1	12.0	20.0	LS	10YR 4/6	c3P 10YR 5/4	Platy, Firm, Compacted plowpan
E_2	20.0	36.0	LS	10YR 4/6	-	1 MSBK, Friable
B_T	38.0	48.0	SL-	7.5YR 6/6	-	1 MSBK, Friable
C_1	48.0	65.0	LS	7.5YR 7/3	c3P 10YR 7/4	SGR, Loose
C_2	65.0	72+	LS	2.5Y 7/3	c3P 10YR 5/4	SGR, Loose

COMMENTS

E_1 horizon has a compacted plowpan, recommend subsoil ripping

* Additional data may change field classification.

BY: Jeff Chipman

Earth Data Incorporated

Mountaire Farms of Delaware

ONSITE WASTEWATER DISPOSAL **SOIL AND SITE EVALUATION DATA**	**WO: 4940D** **DATE: 10/10/19**
PROJECT: Mountaire Farms Double Ring Infiltrometer Testing	
LOCATION: Mountaire Farms, Millsboro DE — **COUNTY: Sussex**	
SOIL SURVEY MAP UNIT:	**SPRAY FIELD ID: WHBJ-6**
FIELD CLASSIFICATION:* Lamellic Quartzipsamment	
	Evalulator: Bruce B. Bagley
PARENT MATERIAL: Eolian Sands/Coastal Plain Sediments	**License No: D2464**
LANDSCAPE POSITION: — **SLOPE%**	**LAT : 38.608200**
DEPTH TO LIMITING ZONE: 11" (in. bls) — **ELEV.**	**LON: 75.257196**

HORIZON	DEPTH (in)		USDA TEXTURE	MATRIX COLOR	REDOXIMORPHIC FEATURES (AMOUNT SIZE TYPE LOCATION COLOR)	REMARKS (%RF,Struct,Consist,Biopores,Seepage,Misc.)
HOLE NO. TP-31						
A_P	0	11.0	LS	10YR 3/4	-	2 MGR, Friable
C_1	11.0	30.0	S	10YR 7/3	-	SGR, Loose
C_2	30.0	43.0	LS / S	10YR 7/3	Lamellae 7.5YR 6/6	SGR, Loose
C_3	43.0	72+	LS	2.5Y 7/3	Lamellae 7.5YR 6/6, c3D Mn Stains	SGR, Loose

COMMENTS

* Additional data may change field classification.

BY: Jeff Chipman

Mountaire Farms of Delaware

ONSITE WASTEWATER DISPOSAL **SOIL AND SITE EVALUATION DATA**	**WO: 4940D** **DATE: 10/10/19**
PROJECT: Mountaire Farms Double Ring Infiltrometer Testing	
LOCATION: Mountaire Farms, Millsboro DE — **COUNTY: Sussex**	
SOIL SURVEY MAP UNIT:	**SPRAY FIELD ID: WHBJ-5**
FIELD CLASSIFICATION:* Rosedale	
	Evalulator: Bruce B. Bagley
PARENT MATERIAL: Eolian Sands/Coastal Plain Sediments	**License No: D2464**
LANDSCAPE POSITION: — **SLOPE%**	**LAT : 38.605641**
DEPTH TO LIMITING ZONE: 50" (in. bls) — **ELEV.**	**LON: 75.262292**

HORIZON	DEPTH (in)		USDA TEXTURE	MATRIX COLOR	REDOXIMORPHIC FEATURES (AMOUNT SIZE TYPE LOCATION COLOR)	REMARKS (%RF,Struct,Consist,Biopores,Seepage,Misc.)
HOLE NO. TP-32						
A_p	0	10.0	LS	10YR 4/3	-	2 MGR, Friable
B_1	10.0	22.0	LS	10YR 5/4	-	1 MFGK, Friable
E & B_T	22.0	49.0	LS / SL-	10YR 7/3	Lamellae 7.5YR 4/6	1 MFGK, Friable
B_T	49.0	72+	SCL	10YR 6/4	f2D 2.5Y 7/2, c3P 7.5YR 7/6	1 MSBK-Platy, Firm

COMMENTS

* Additional data may change field classification.

BY: Jeff Chipman

Mountaire Farms of Delaware

ONSITE WASTEWATER DISPOSAL **SOIL AND SITE EVALUATION DATA**	**WO: 4940D** **DATE: 10/10/19**
PROJECT: Mountaire Farms Double Ring Infiltrometer Testing	
LOCATION: Mountaire Farms, Millsboro DE — **COUNTY: Sussex**	
SOIL SURVEY MAP UNIT:	**SPRAY FIELD ID: WHBJ-5**
FIELD CLASSIFICATION:* Arenic Hapludult	
	Evalulator: Bruce B. Bagley
PARENT MATERIAL: Eolian Sands/Coastal Plain Sediments	**License No: D2464**
LANDSCAPE POSITION: Upland Depression — **SLOPE%**	**LAT : 38.606882.**
DEPTH TO LIMITING ZONE: 26" (in. bls) — **ELEV.**	**LON: 75.258821**

HORIZON	DEPTH (in)		USDA TEXTURE	MATRIX COLOR	REDOXIMORPHIC FEATURES (AMOUNT SIZE TYPE LOCATION COLOR)	REMARKS (%RF,Struct,Consist,Biopores,Seepage,Misc.)
HOLE NO. TP-33						
A_p	0	11.0	LS+	10YR 3/3	-	2 MGK, Friable
E	11.0	26.0	LS	10YR 5/4	-	1 MFBK, Friable
B_T	26.0	46.0	SL+	7.5YR 4/6	c3D 10YR 6/6	2 MSBK, Friable
B_C	46.0	64.0	LS	10YR 7/3	c3P 10YR 7/4	Massive, Friable
C	64.0	72+	LS	2.5Y 7/3	-	Massive, Friable

COMMENTS

* Additional data may change field classification.

BY: Jeff Chipman

Mountaire Farms of Delaware

ONSITE WASTEWATER DISPOSAL **SOIL AND SITE EVALUATION DATA**	**WO: 4940D** **DATE: 10/10/19**
PROJECT: Mountaire Farms Double Ring Infiltrometer Testing	
LOCATION: Mountaire Farms, Millsboro DE — **COUNTY: Sussex**	
SOIL SURVEY MAP UNIT:	**SPRAY FIELD ID: WHBJ-5**
FIELD CLASSIFICATION:* Rosedale	
	Evalulator: Bruce B. Bagley
PARENT MATERIAL: Eolian Sands/Coastal Plain Sediments	**License No: D2464**
LANDSCAPE POSITION: — **SLOPE%**	**LAT : 38.6040511**
DEPTH TO LIMITING ZONE: 58" (in. bls) — **ELEV.**	**LON: 75.2632903**

HORIZON	DEPTH (in)		USDA TEXTURE	MATRIX COLOR	REDOXIMORPHIC FEATURES (AMOUNT SIZE TYPE LOCATION COLOR)	REMARKS (%RF,Struct,Consist,Biopores,Seepage,Misc.)
HOLE NO. TP-34						
A_p	0	11.0	LS	10YR 4/3	-	2 MGR, Friable
E_1	11.0	23.0	LS	10YR 5/4	-	Platy, Firm, Compaction
E_2	23.0	43.0	LS	10YR 7/3	c2D 10YR 6/6	1 MSBK, Friable
B_{T1}	43.0	58.0	GrSL	7.5YR 6/6	c3P 10YR 7/6	1 MSBK, Friable
B_{T2}	58.0	68.0	GrSCL	7.5YR 6/6	c3D 5Y 6/2, c3D 5Y 4/6	1 MSBK, Friable-Firm
C	68.0	72+	GrLS+	2.5Y 6/2	c3P 5Y 4/6	Massive, Friable-Firm

COMMENTS

Compaction area between 14" - 18"

* Additional data may change field classification.

BY: Jeff Chipman

Mountaire Farms of Delaware

ONSITE WASTEWATER DISPOSAL **SOIL AND SITE EVALUATION DATA**	**WO: 4940D** **DATE: 10/10/19**
PROJECT: Mountaire Farms Double Ring Infiltrometer Testing	
LOCATION: Mountaire Farms, Millsboro DE — **COUNTY: Sussex**	
SOIL SURVEY MAP UNIT:	**SPRAY FIELD ID: CB-3DE**
FIELD CLASSIFICATION:* Fort Mott	
	Evalulator: Bruce B. Bagley
PARENT MATERIAL: Eolian Sands/Coastal Plain Sediments	**License No: D2464**
LANDSCAPE POSITION: — **SLOPE%**	**LAT : 38.599829**
DEPTH TO LIMITING ZONE: 30" (in. bls) — **ELEV.**	**LON: 75.272965**

HORIZON	DEPTH (in)		USDA TEXTURE	MATRIX COLOR	REDOXIMORPHIC FEATURES (AMOUNT SIZE TYPE LOCATION COLOR)	REMARKS (%RF,Struct,Consist,Biopores,Seepage,Misc.)
HOLE NO. TP-35						
A_p	0	12.0	LS	10YR 3/4	-	1 MGR, Friable
E_1	12.0	21.0	LS	10YR 5/4	-	1 MSBK, Friable
E_2	21.0	30.0	LS	10YR 5/4	c3D 10YR 6/6	1 MSBK, Friable
B_{T1}	30.0	56.0	SGrL	10YR 5/6	-	1 MSBK, Friable
B_{T2}	56.0	66.0	SL	10YR 4/6	-	1 MSBK, Friable-Firm
C_1	66.0	70.0	LFS	10YR 7/6	-	Massive, Firm
C_2	70.0	80+	LFS	2.5Y 7/3	-	Massive, Firm

COMMENTS

* Additional data may change field classification.

BY: Jeff Chipman

Mountaire Farms of Delaware

ONSITE WASTEWATER DISPOSAL **SOIL AND SITE EVALUATION DATA**	**WO: 4940D** **DATE: 10/10/19**
PROJECT: Mountaire Farms Double Ring Infiltrometer Testing	
LOCATION: Mountaire Farms, Millsboro DE — **COUNTY: Sussex**	
SOIL SURVEY MAP UNIT:	**SPRAY FIELD ID: CB-3DE**
FIELD CLASSIFICATION:* Fort Mott	
	Evalulator: Bruce B. Bagley
PARENT MATERIAL: Eolian Sands/Coastal Plain Sediments	**License No: D2464**
LANDSCAPE POSITION: — **SLOPE%**	**LAT : 38.5975828**
DEPTH TO LIMITING ZONE: 44" (in. bls) — **ELEV.**	**LON: 75.2721295**

HORIZON	DEPTH (in)		USDA TEXTURE	MATRIX COLOR	REDOXIMORPHIC FEATURES (AMOUNT SIZE TYPE LOCATION COLOR)	REMARKS (%RF,Struct,Consist,Biopores,Seepage,Misc.)
HOLE NO. TP-36						
A_p	0	13.0	LS	10YR 4/3	-	1 MGR, Friable-Firm
E_1	13.0	25.0	LS	10YR 5/4	-	1 MSBK, Friable
E_2	25.0	44.0	LCoS	10YR 5/4	c2D 10YR 6/6	SGR, Loose
B_T	44.0	54.0	SL	7.5YR 7/3	c3P 10YR 7/3	2 MSBK, Friable
C	54.0	72+	LS-	7.5YR 6/6	c3P 7.5YR 6/6	SGR, Loose

COMMENTS

* Additional data may change field classification.

BY: Jeff Chipman

Mountaire Farms of Delaware

ONSITE WASTEWATER DISPOSAL **SOIL AND SITE EVALUATION DATA**	**WO: 4940D** **DATE: 10/10/19**
PROJECT: Mountaire Farms Double Ring Infiltrometer Testing	
LOCATION: Mountaire Farms, Millsboro DE — **COUNTY: Sussex**	
SOIL SURVEY MAP UNIT:	**SPRAY FIELD ID: CB-3C**
FIELD CLASSIFICATION:* Rosedale	
	Evalulator: Bruce B. Bagley
PARENT MATERIAL: Eolian Sands/Coastal Plain Sediments	**License No: D2464**
LANDSCAPE POSITION: Upland Depression — **SLOPE%**	**LAT : 38.595666**
DEPTH TO LIMITING ZONE: 47" (in. bls) — **ELEV.**	**LON: 75.269773**

HORIZON	DEPTH (in)		USDA TEXTURE	MATRIX COLOR	REDOXIMORPHIC FEATURES (AMOUNT SIZE TYPE LOCATION COLOR)	REMARKS (%RF,Struct,Consist,Biopores,Seepage,Misc.)
HOLE NO. TP-37						
A_p	0	10.0	LS+	2.5Y 4/3	-	Slatie, Firm
E	10.0	23.0	LS+	10YR 5/4	-	1 MSBK. Friable-Firm
B_{T1}	23.0	47.0	SL+	10YR 6/6	-	1 MSBK, Friable
B_{T2}	47.0	65.0	SL+	10YR 6/4	c3D 10YR 6/2, c3D 7.5YR 6/6	Massive-Platy, Firm
C	65.0	72+	LFS+	10YR 7/3	c3P 10YR 6/6	Massive, Friable-Firm

COMMENTS

* Additional data may change field classification.

BY: Jeff Chipman

Mountaire Farms of Delaware

ONSITE WASTEWATER DISPOSAL **SOIL AND SITE EVALUATION DATA**	**WO: 4940D** **DATE: 10/10/19**
PROJECT: Mountaire Farms Double Ring Infiltrometer Testing	
LOCATION: Mountaire Farms, Millsboro DE — **COUNTY: Sussex**	
SOIL SURVEY MAP UNIT:	**SPRAY FIELD ID: CB-3C**
FIELD CLASSIFICATION:* Woodstown	
	Evalulator: Bruce B. Bagley
PARENT MATERIAL: Eolian Sands/Coastal Plain Sediments	**License No: D2464**
LANDSCAPE POSITION: — **SLOPE%**	**LAT : 38.592898**
DEPTH TO LIMITING ZONE: 54" (in. bls) — **ELEV.**	**LON: 75.267739**

HORIZON	DEPTH (in)		USDA TEXTURE	MATRIX COLOR	REDOXIMORPHIC FEATURES AMOUNT SIZE TYPE LOCATION COLOR	REMARKS (%RF,Struct,Consist,Biopores,Seepage,Misc.)
HOLE NO. TP-38						
A_p	0	10.0	SL-	10YR 3/3	-	Platy, Firm
E	10.0	24.0	SL-	10YR 4/6	-	1 MSBK, Friable
B_{T1}	24.0	32.0	SL	10YR 5/6	-	2 MSBK, Friable
B_{T2}	32.0	54.0	SCL	10YR 5/6	m3P 10YR 6/2	1 MSBK, Firm, Perched water
C	54.0	67.0	LS / SL-	10YR 7/3	Lamellae 7.5YR 4/6	Massive, Friable
C_G	67.0	72+	SL	2.5Y 6/2	-	Massive, Friable-Firm

COMMENTS:

Perched water between 34"-54"

* Additional data may change field classification.

BY: Jeff Chipman

Earth Data Incorporated

Mountaire Farms of Delaware

ONSITE WASTEWATER DISPOSAL **SOIL AND SITE EVALUATION DATA**	**WO: 4940D** **DATE: 10/10/19**
PROJECT: Mountaire Farms Double Ring Infiltrometer Testing	
LOCATION: Mountaire Farms, Millsboro DE — **COUNTY: Sussex**	
SOIL SURVEY MAP UNIT:	**SPRAY FIELD ID: CB-3C**
FIELD CLASSIFICATION:* Fort Mott	
	Evalulator: Bruce B. Bagley
PARENT MATERIAL: Eolian Sands/Coastal Plain Sediments	**License No: D2464**
LANDSCAPE POSITION: — **SLOPE%**	**LAT : 38.594213**
DEPTH TO LIMITING ZONE: 48" (in. bls) — **ELEV.**	**LON: 75.266645**

HORIZON	DEPTH (in)		USDA TEXTURE	MATRIX COLOR	REDOXIMORPHIC FEATURES (AMOUNT SIZE TYPE LOCATION COLOR)	REMARKS (%RF,Struct,Consist,Biopores,Seepage,Misc.)
HOLE NO. TP-39						
A_p	0	12.0	LS	10YR 4/3	-	2 MGR, Friable
E_1	12.0	20.0	LS	10YR 5/4	c2D 10YR 7/3	1 MSBK, Friable-Firm
E_2	20.0	41.0	LS	10YR 7/3	Lamellae 10YR 6/6	1 MSBK, Friable
B_T	41.0	64.0	SL+	10YR 5/8	-	2 MSBK, Friable
B_C	64.0	70.0	SL-	7.5YR 5/6	c3P 2.5Y 7/3	Massive, Friable
C	70.0	74+	LFS	2.5Y 7/3	-	SGR, Friable

COMMENTS

* Additional data may change field classification.

BY: Jeff Chipman

Mountaire Farms of Delaware

ONSITE WASTEWATER DISPOSAL **SOIL AND SITE EVALUATION DATA**	**WO: 4940D** **DATE: 10/22/19**
PROJECT: Mountaire Farms Double Ring Infiltrometer Testing	
LOCATION: Mountaire Farms, Millsboro DE — **COUNTY: Sussex**	
SOIL SURVEY MAP UNIT:	**SPRAY FIELD ID: WHBJ-1**
FIELD CLASSIFICATION:* Arenic Paleadult	
	Evalulator: Bruce B. Bagley
PARENT MATERIAL: Eolian Sands/Coastal Plain Sediments	**License No: D2464**
LANDSCAPE POSITION: — **SLOPE%**	**LAT : 38.6053937**
DEPTH TO LIMITING ZONE: 60" (in. bls) — **ELEV.**	**LON: 75.2700085**

HORIZON	DEPTH (in)		USDA TEXTURE	MATRIX COLOR	REDOXIMORPHIC FEATURES (AMOUNT SIZE TYPE LOCATION COLOR)	REMARKS (%RF,Struct,Consist,Biopores,Seepage,Misc.)
HOLE NO. TP-40						
A_{P1}	0	11.0	LS+	10YR 4/3	-	2 MGR, Friable
B_{T2}	11.0	21.0	LS+	10YR 3/4	-	2 MSBK, Friable
E_1	21.0	33.0	LS	10YR 4/5	c2D 10YR 4/6, c3P 10YR 5/6	1 MSBK, Friable
E_2	33.0	52.0	LS	2.5YR 7/3	-	1 MSBK, Friable-Loose
B_{T1}	52.0	60.0	SCL	2.5YR 6/3	f2D 7.5YR 4/6	1 MSBK, Very Firm
C_G	60.0	72+	CL	2.5YR 6/2	c3P 10YR 4/6, c3P 7.5YR 4/6	Massive, Very Firm

COMMENTS

* Additional data may change field classification.

BY: Avery Dunn

Mountaire Farms of Delaware

ONSITE WASTEWATER DISPOSAL **SOIL AND SITE EVALUATION DATA**	**WO: 4940D** **DATE: 10/22/19**
PROJECT: Mountaire Farms Double Ring Infiltrometer Testing	
LOCATION: Mountaire Farms, Millsboro DE — **COUNTY: Sussex**	
SOIL SURVEY MAP UNIT:	**SPRAY FIELD ID: WHBJ-1**
FIELD CLASSIFICATION:* Arenic Paleadult - Pepperbox	
	Evalulator: Bruce B. Bagley
PARENT MATERIAL: Eolian Sands/Coastal Plain Sediments	**License No: D2464**
LANDSCAPE POSITION: — **SLOPE%**	**LAT : 38.6053070**
DEPTH TO LIMITING ZONE: 58" (in. bls) — **ELEV.**	**LON: 75.2725291**

HORIZON	DEPTH (in)		USDA TEXTURE	MATRIX COLOR	REDOXIMORPHIC FEATURES (AMOUNT SIZE TYPE LOCATION COLOR)	REMARKS (%RF,Struct,Consist,Biopores,Seepage,Misc.)
HOLE NO. TP-41						
A_P	0	9.0	LS	10YR 4/3	-	2 MGR, Friable
E	9.0	24.0	LS	10YR 4/5	-	1 MSBK, Friable
B_{T1}	24.0	42.0	SL	10YR 6/6	c3P 7.5YR 6/6	2 MSBK, Friable
B_{T2}	42.0	58.0	CoSL+	7.5YR 6/4	m3P 10YR 8/2, m3P 7.5YR 6/8	1 MSBK, Very Firm
C_{G1}	58.0	73.0	FSL+	5Y 7/1	m3P 10YR 6/2	Massive, Ex. Firm
C_{G2}	73.0	80+	LFS+	5Y 7/1	m3P 10YR 6/2	Massive, Firm

COMMENTS

* Additional data may change field classification.

BY: Avery Dunn

Mountaire Farms of Delaware

ONSITE WASTEWATER DISPOSAL **SOIL AND SITE EVALUATION DATA**	**WO: 4940D** **DATE: 10/22/19**
PROJECT: Mountaire Farms Double Ring Infiltrometer Testing	
LOCATION: Mountaire Farms, Millsboro DE — **COUNTY: Sussex**	
SOIL SURVEY MAP UNIT:	**SPRAY FIELD ID: WHBJ-1**
FIELD CLASSIFICATION:* Aquic Arenic Hapludalt	
	Evalulator: Bruce B. Bagley
PARENT MATERIAL: Eolian Sands/Coastal Plain Sediments	**License No: D2464**
LANDSCAPE POSITION: — **SLOPE%**	**LAT : 38.6034138**
DEPTH TO LIMITING ZONE: 20" (in. bls) — **ELEV.**	**LON: 75.2736128**

HORIZON	DEPTH (in)		USDA TEXTURE	MATRIX COLOR	REDOXIMORPHIC FEATURES (AMOUNT SIZE TYPE LOCATION COLOR)	REMARKS (%RF,Struct,Consist,Biopores,Seepage,Misc.)
HOLE NO. TP-42						
A_P	0	14.0	LS	10YR 4/4	-	2 MGR, Friable
E	14.0	20.0	LS	10YR 4/5	-	2 MSBK, Friable
B_{T1}	20.0	31.0	SCL	10YR 6/6	-	1 MSBK, Friable
B_{T2}	31.0	40.0	SL+	10YR 6/6	c3P 7.5YR 6/6, f3P 10YR 6/2	1 MSBK, Friable-Firm
B_C	40.0	52.0	LS	7.5YR 6/6	c3P 7.5YR 8/2	Massive, Friable
C_G	52.0	72+	LS	2.5Y 6/2	m3P 7.5YR 4/6	Massive, Friable-Firm, Cemented, perched water

COMMENTS

Perched water at 52"

* Additional data may change field classification.

BY: Avery Dunn

Mountaire Farms of Delaware

ONSITE WASTEWATER DISPOSAL **SOIL AND SITE EVALUATION DATA**	**WO: 4940D** **DATE: 10/22/19**
PROJECT: Mountaire Farms Double Ring Infiltrometer Testing	
LOCATION: Mountaire Farms, Millsboro DE — **COUNTY: Sussex**	
SOIL SURVEY MAP UNIT:	**SPRAY FIELD ID: WHBJ-2**
FIELD CLASSIFICATION:* Arenic Hapludalt - Rosedale	
	Evalulator: Bruce B. Bagley
PARENT MATERIAL: Eolian Sands/Coastal Plain Sediments	**License No: D2464**
LANDSCAPE POSITION: — **SLOPE%**	**LAT : 38.6060922**
DEPTH TO LIMITING ZONE: 56" (in. bls) — **ELEV.**	**LON: 75.2762824**

HORIZON	DEPTH (in)		USDA TEXTURE	MATRIX COLOR	REDOXIMORPHIC FEATURES (AMOUNT SIZE TYPE LOCATION COLOR)	REMARKS (%RF,Struct,Consist,Biopores,Seepage,Misc.)
HOLE NO. TP-43						
A_P	0	12.0	LS	10YR 3/4	-	2 MGR, Friable
E	12.0	23.0	LS	10YR 4/5	c3P 10YR 6/6	1 MSBK, Friable
B_{T1}	23.0	31.0	SL	10YR 6/6	Lamellae 7.5YR 4/6	1 MSBK, Friable
B_{T2}	31.0	45.0	GrSL	7.5YR 4/6	m2P 10YR 5/6	2 MSBK, Friable
B_{T3}	45.0	56.0	SL	7.5YR 6/6	m2P 10YR 4/5	1 MSBK, Friable-Loose
B_C	56.0	66.0	FSL-	2.5Y 7/3	m3P 7.5YR 6/6	Massive, Friable-Firm
C_G	66.0	72+	LFS	2.5Y 7/2	c2D 10YR 6/6	Massive, Friable

COMMENTS

* Additional data may change field classification.

BY: Avery Dunn

Mountaire Farms of Delaware

ONSITE WASTEWATER DISPOSAL **SOIL AND SITE EVALUATION DATA**	**WO: 4940D** **DATE: 10/22/19**
PROJECT: Mountaire Farms Double Ring Infiltrometer Testing	
LOCATION: Mountaire Farms, Millsboro DE — **COUNTY: Sussex**	
SOIL SURVEY MAP UNIT:	**SPRAY FIELD ID: WHBJ-2**
FIELD CLASSIFICATION:* Typic Hapludalt	
	Evalulator: Bruce B. Bagley
PARENT MATERIAL: Eolian Sands/Coastal Plain Sediments	**License No: D2464**
LANDSCAPE POSITION: — **SLOPE%**	**LAT : 38.6043474**
DEPTH TO LIMITING ZONE: 13" (in. bls) — **ELEV.**	**LON: 75.2783096**

HORIZON	DEPTH (in)		USDA TEXTURE	MATRIX COLOR	REDOXIMORPHIC FEATURES (AMOUNT SIZE TYPE LOCATION COLOR)	REMARKS (%RF,Struct,Consist,Biopores,Seepage,Misc.)
HOLE NO. TP-44						
A_P	0	13.0	LS	10YR 4/4	c2D 10YR 4/5	2 MGR, Friable
B_E	13.0	17.0	SL	7.5YR 6/6	-	2 MSBK, Friable
B_T	17.0	23.0	SL	7.5YR 4/6	-	2 MSBK, Friable
B_C	23.0	35.0	LS	7.5YR 4/6	-	Massive, Friable-Loose
C	35.0	72+	S	7.5YR 6/8	-	SGR, Loose

COMMENTS

* Additional data may change field classification.

BY: Avery Dunn

Earth Data Incorporated

Mountaire Farms of Delaware

ONSITE WASTEWATER DISPOSAL **SOIL AND SITE EVALUATION DATA**	**WO: 4940D** **DATE: 10/22/19**
PROJECT: Mountaire Farms Double Ring Infiltrometer Testing	
LOCATION: Mountaire Farms, Millsboro DE — **COUNTY: Sussex**	
SOIL SURVEY MAP UNIT:	**SPRAY FIELD ID: WHBJ-2**
FIELD CLASSIFICATION:* Arenic Hapludalt	
	Evalulator: Bruce B. Bagley
PARENT MATERIAL: Eolian Sands/Coastal Plain Sediments	**License No: D2464**
LANDSCAPE POSITION: — **SLOPE%**	**LAT : 38.6033271**
DEPTH TO LIMITING ZONE: 22" (in. bls) — **ELEV.**	**LON: 75.2775836**

HORIZON	DEPTH (in)		USDA TEXTURE	MATRIX COLOR	REDOXIMORPHIC FEATURES (AMOUNT SIZE TYPE LOCATION COLOR)	REMARKS (%RF,Struct,Consist,Biopores,Seepage,Misc.)
HOLE NO. TP-45						
A_P	0	14.0	LS	10YR 3/4	-	2 MGR, Friable
E	14.0	22.0	LS	10YR 4/5	-	2 MSBK, Friable
B_{T1}	22.0	32.0	SL	10YR 6/6	-	2 MSBK, Friable
B_{T2}	32.0	43.0	GrSL	10 YR 5/6	-	2 MSBK, Friable
B_C	43.0	56.0	LFS	7.5YR 6/6	c2D 10YR 7/4, c2P 10YR 7/6	Massive, Friable-Loose
C	56.0	72+	LS	7.5YR 6/8	-	Massive, Friable-Loose

COMMENTS

* Additional data may change field classification.

BY: Avery Dunn

Mountaire Farms of Delaware

ONSITE WASTEWATER DISPOSAL **SOIL AND SITE EVALUATION DATA**	**WO: 4940D** **DATE: 10/22/19**
PROJECT: Mountaire Farms Double Ring Infiltrometer Testing	
LOCATION: Mountaire Farms, Millsboro DE — **COUNTY: Sussex**	
SOIL SURVEY MAP UNIT:	**SPRAY FIELD ID: WHBJ-2**
FIELD CLASSIFICATION:* Aquic Arenic Hapludalt	
	Evalulator: Bruce B. Bagley
PARENT MATERIAL: Eolian Sands/Coastal Plain Sediments	**License No: D2464**
LANDSCAPE POSITION: — **SLOPE%**	**LAT : 38.6046884**
DEPTH TO LIMITING ZONE: 34" (in. bls) — **ELEV.**	**LON: 75.2798960**

HORIZON	DEPTH (in)		USDA TEXTURE	MATRIX COLOR	REDOXIMORPHIC FEATURES (AMOUNT SIZE TYPE LOCATION COLOR)	REMARKS (%RF,Struct,Consist,Biopores,Seepage,Misc.)
HOLE NO. TP-46						
A_{P1}	0	6.0	LS	10YR 3/4	-	2 MGR, Friable
A_{P2}	6.0	12.0	LS	10YR 4/4	-	1 MSBK, Friable-Firm, Compaction
E	12.0	22.0	LS	10YR 4/5	-	1 MSBK, Friable
B_T	22.0	34.0	CoSL+	7.5YR 5/8	-	1 MSBK, Friable
C_1	34.0	52.0	SiCL	7.5YR 5/8	c2P 10YR 6/2, c3P 7.5YR 7/4, f3P 7.5YR 6/8	Massive, Ex. Firm
C_2	52.0	72+	FSL	7.5YR 5/8	c2P 10YR 6/2, c3P 7.5YR 7/4, f3P 7.5YR 6/8	Platy, Ex. Firm

COMMENTS

* Additional data may change field classification.

BY: Avery Dunn

Earth Data Incorporated

ONSITE WASTEWATER DISPOSAL **SOIL AND SITE EVALUATION DATA**		**WO: 4940D** **DATE: 10/22/19**
PROJECT: Mountaire Farms Double Ring Infiltrometer Testing		
LOCATION: Mountaire Farms, Millsboro DE	**COUNTY: Sussex**	
SOIL SURVEY MAP UNIT:		**SPRAY FIELD ID: WHBJ-2**
FIELD CLASSIFICATION:* Aquic Hapludalt		
		Evalulator: Bruce B. Bagley
PARENT MATERIAL: Eolian Sands/Coastal Plain Sediments		**License No: D2464**
LANDSCAPE POSITION:	**SLOPE%**	**LAT : 38.6058190**
DEPTH TO LIMITING ZONE: 17" (in. bls)	**ELEV.**	**LON: 75.2792803**

HORIZON	DEPTH (in)		USDA TEXTURE	MATRIX COLOR	REDOXIMORPHIC FEATURES (AMOUNT SIZE TYPE LOCATION COLOR)	REMARKS (%RF,Struct,Consist,Biopores,Seepage,Misc.)
HOLE NO. TP-47						
A_P	0	11.0	SL	10YR 3/2	-	1 MSBK, Friable-Firm
B_{T1}	11.0	17.0	SL+	2.5Y 6/3	f3P 10YR 5/6	1 MSBK, Friable-Firm
B_{T2}	17.0	23.0	CL	2.5Y 6/4	f3P 10YR 5/6, f3P 10YR 7/2, f3P 7.5Y 6/8	1 MSBK, Ex. Firm
B_{T3}	23.0	43.0	SiCL	2.5Y 6/4	c3D 7.5YR 6/8, c3D 10YR 7/2	Platy, Ex. Firm
B_C	43.0	48.0	LFS+	2.5Y 7/3	m3P 10YR 4/6	Massive, Friable-Firm
C	48.0	63.0	LFS	2.5Y 7/3	m3P 10YR 7/3	Massive, Firm
C_G	63.0	70.0	LFS	2.5Y 8/2	-	Massive, Friable
C	70.0	72+	S	7.5YR 6/8	-	Massive, Friable-Loose

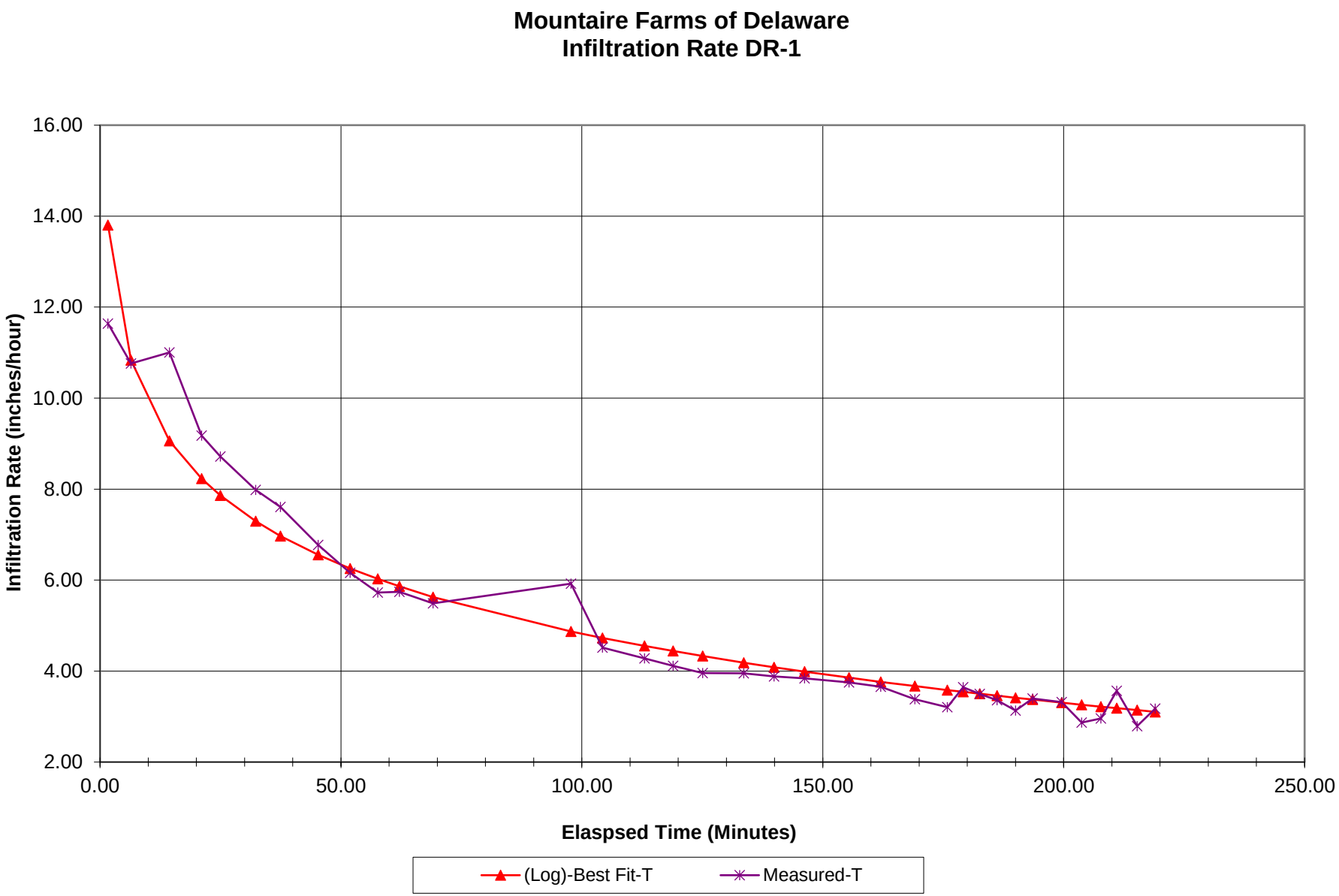
COMMENTS

* Additional data may change field classification.

BY: Avery Dunn

APPENDIX B

Infiltrometer Test Plots



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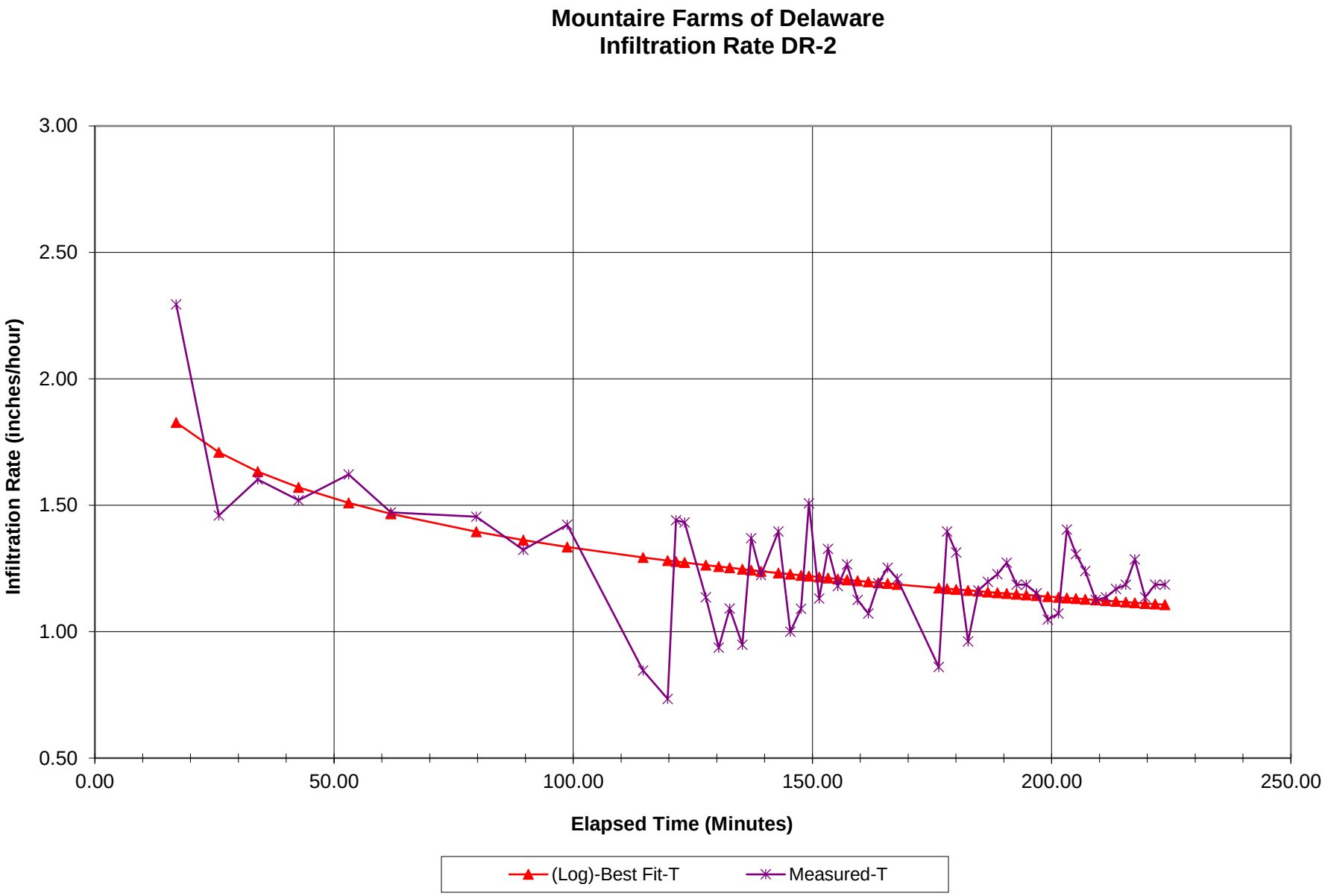

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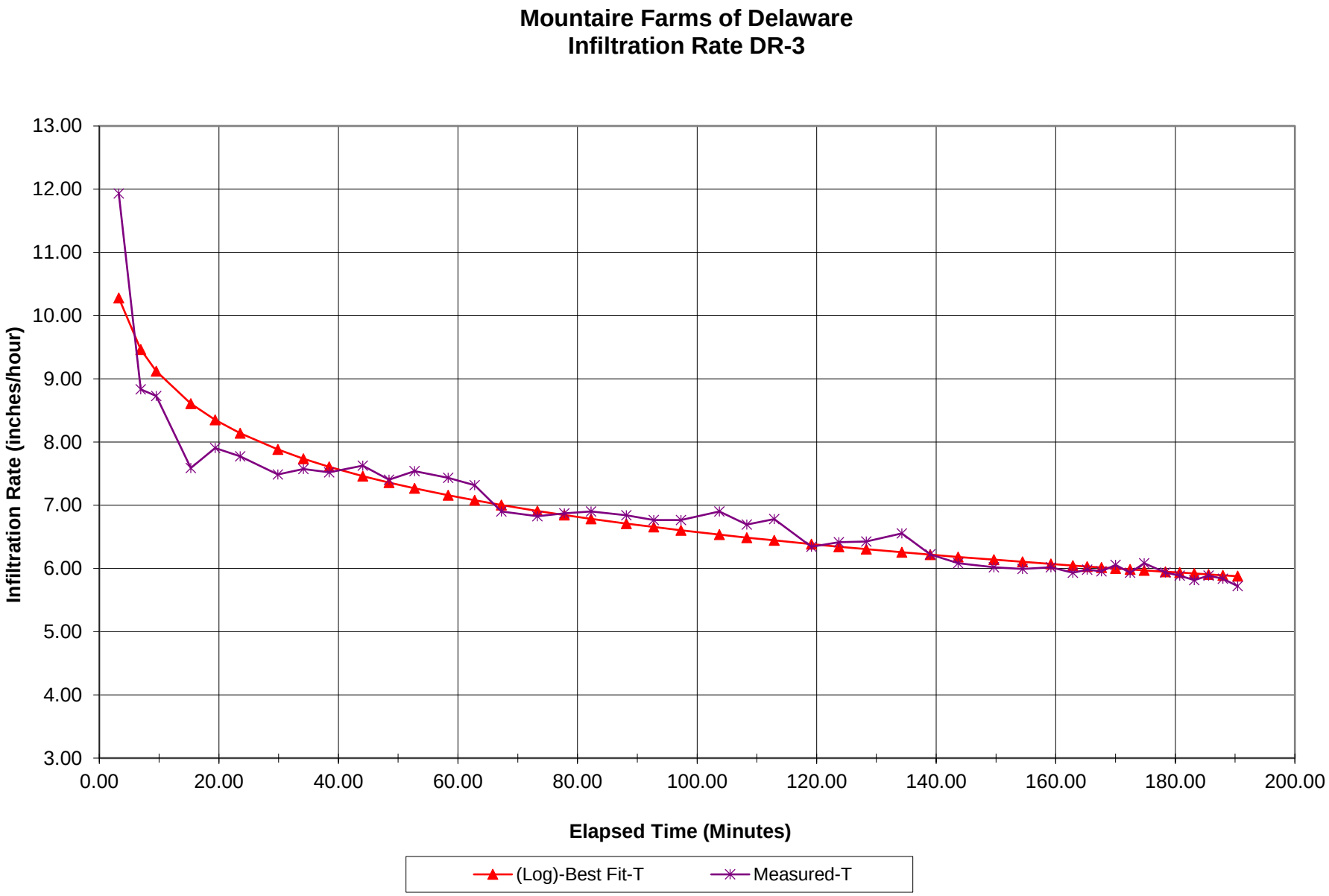

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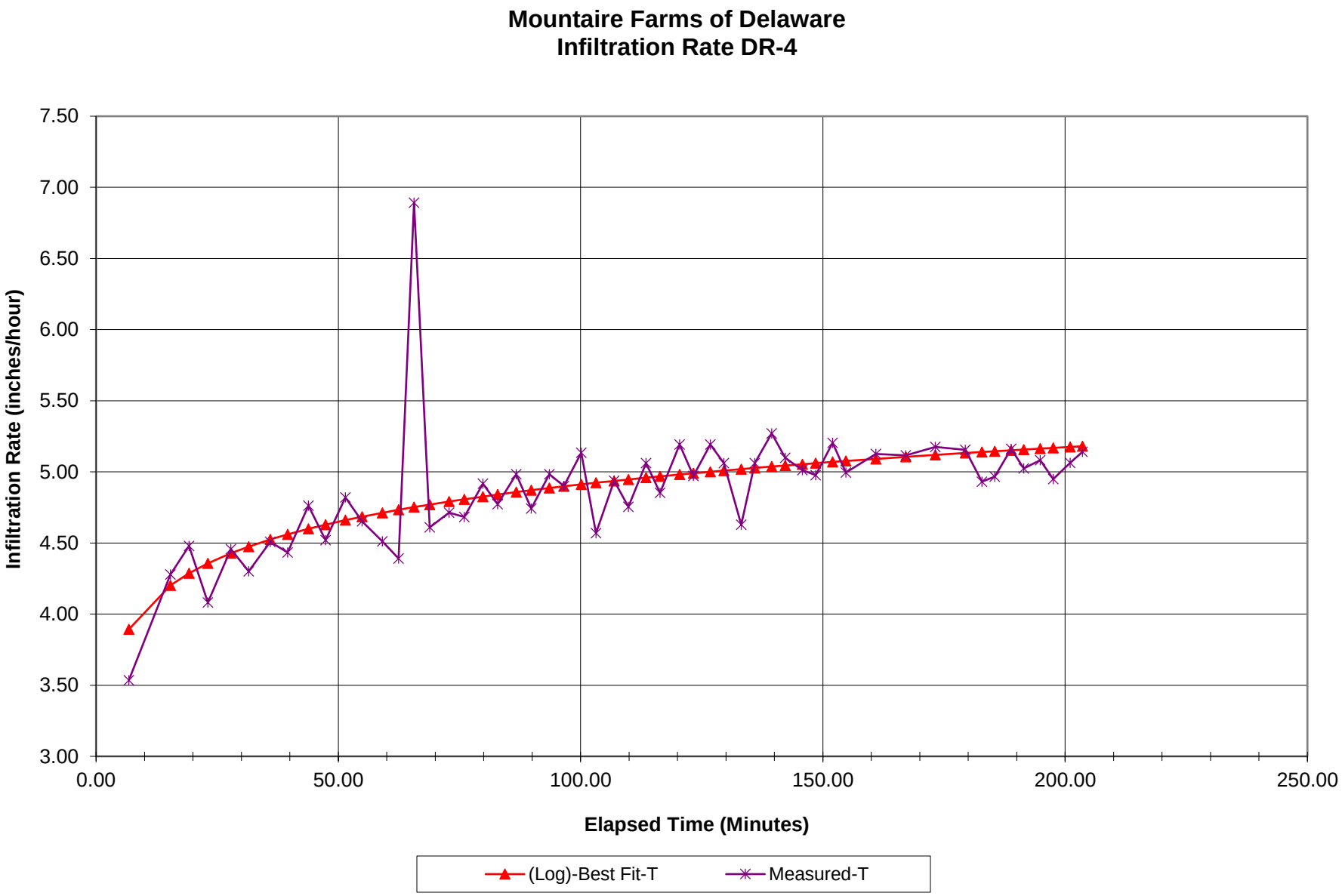

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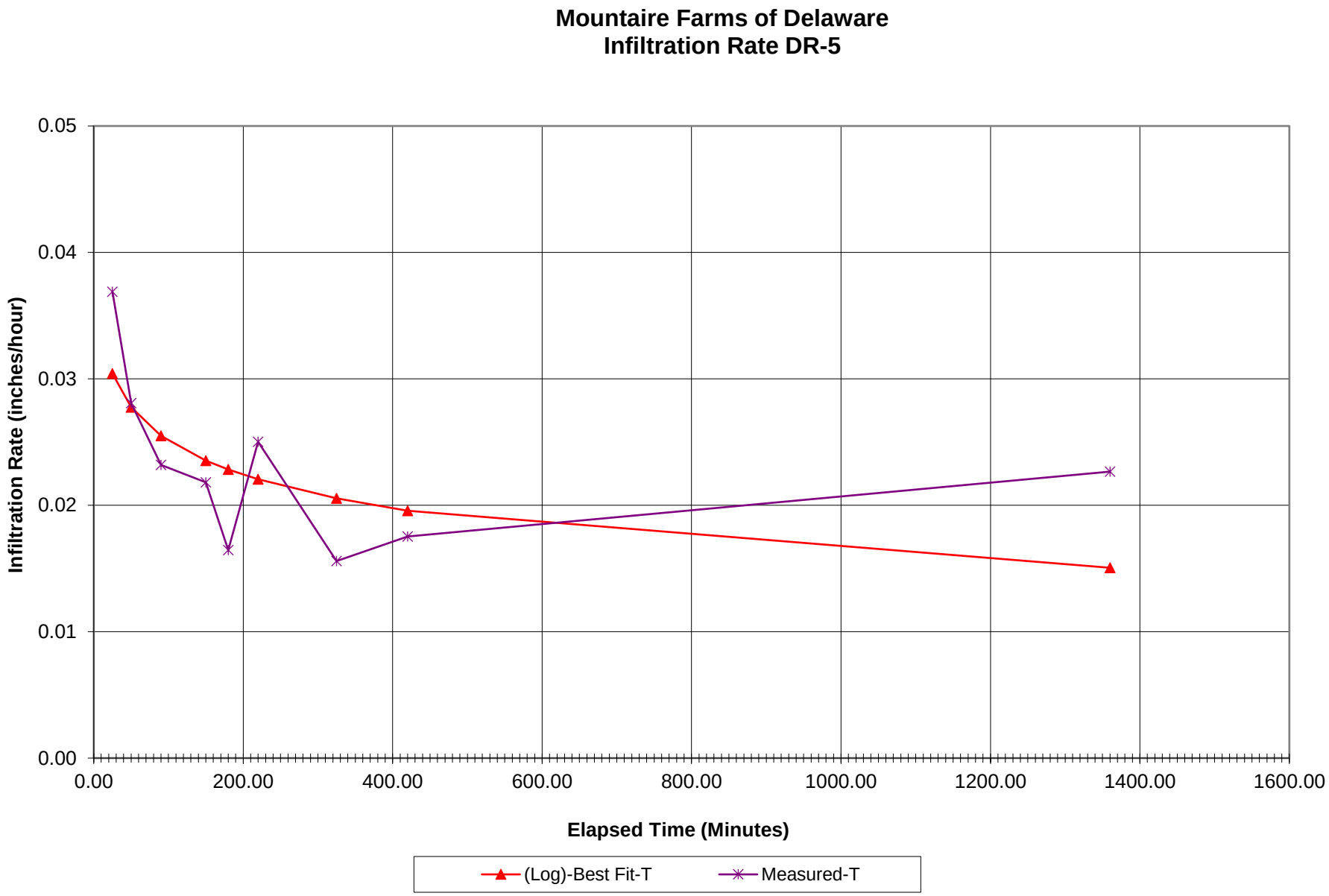

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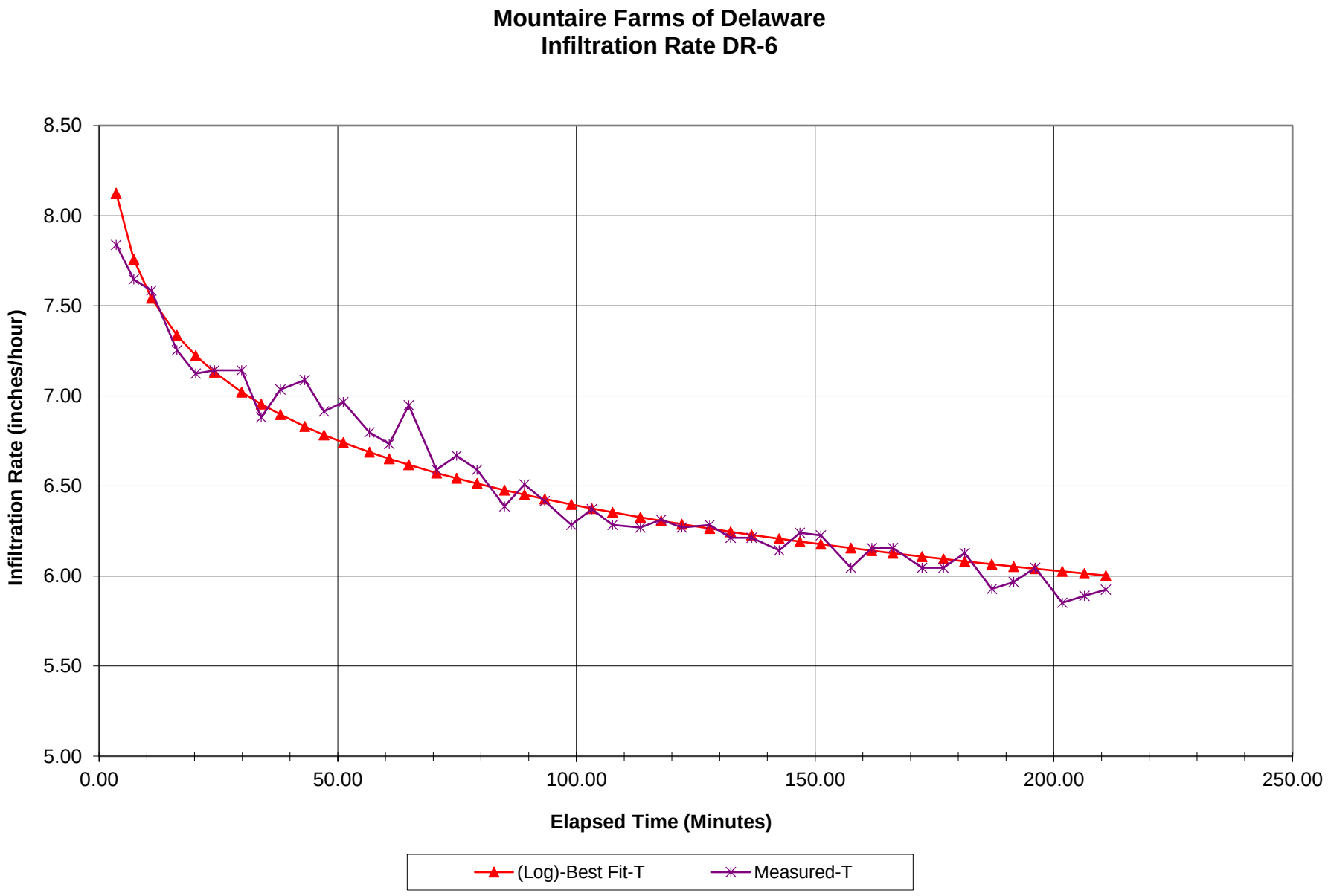

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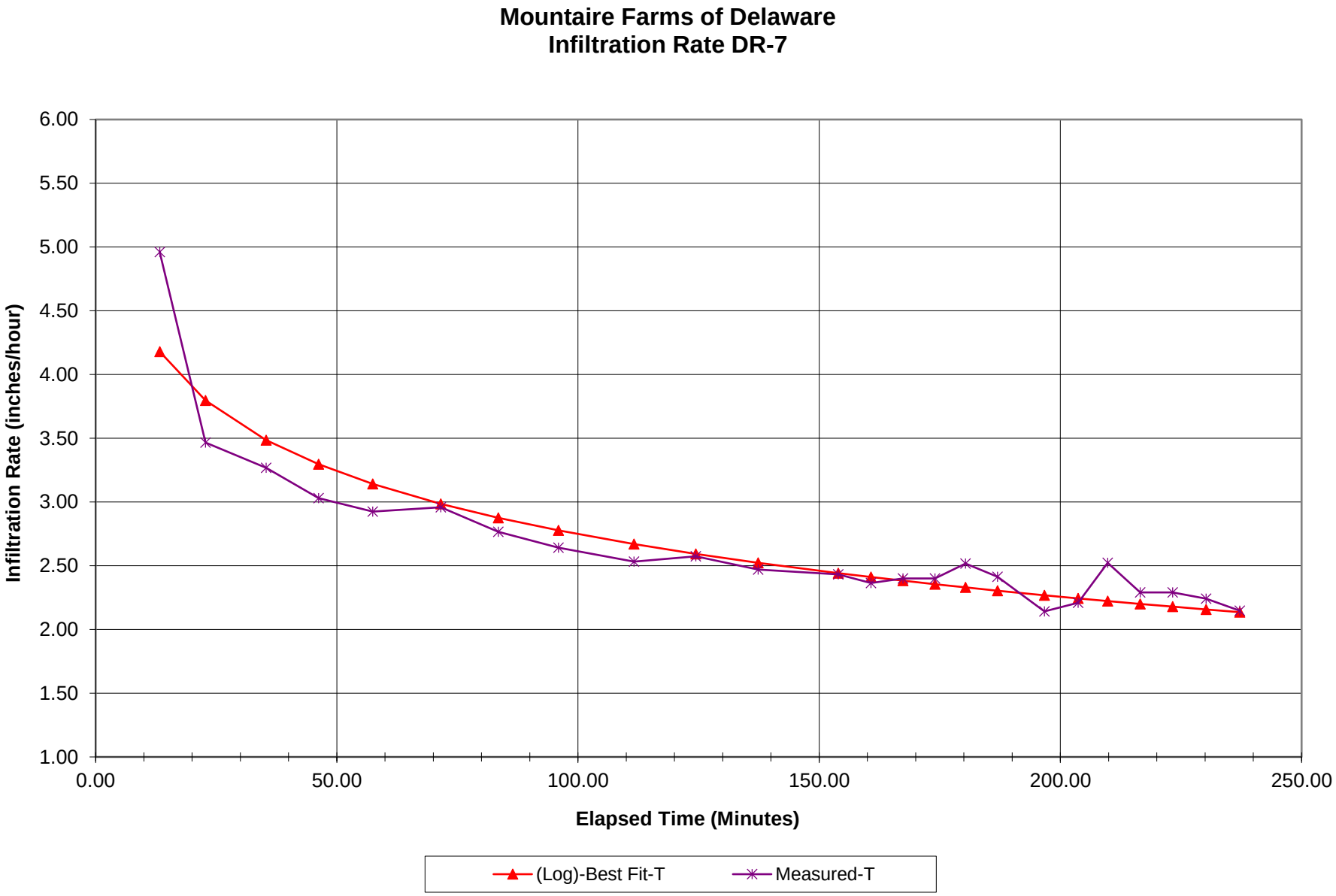
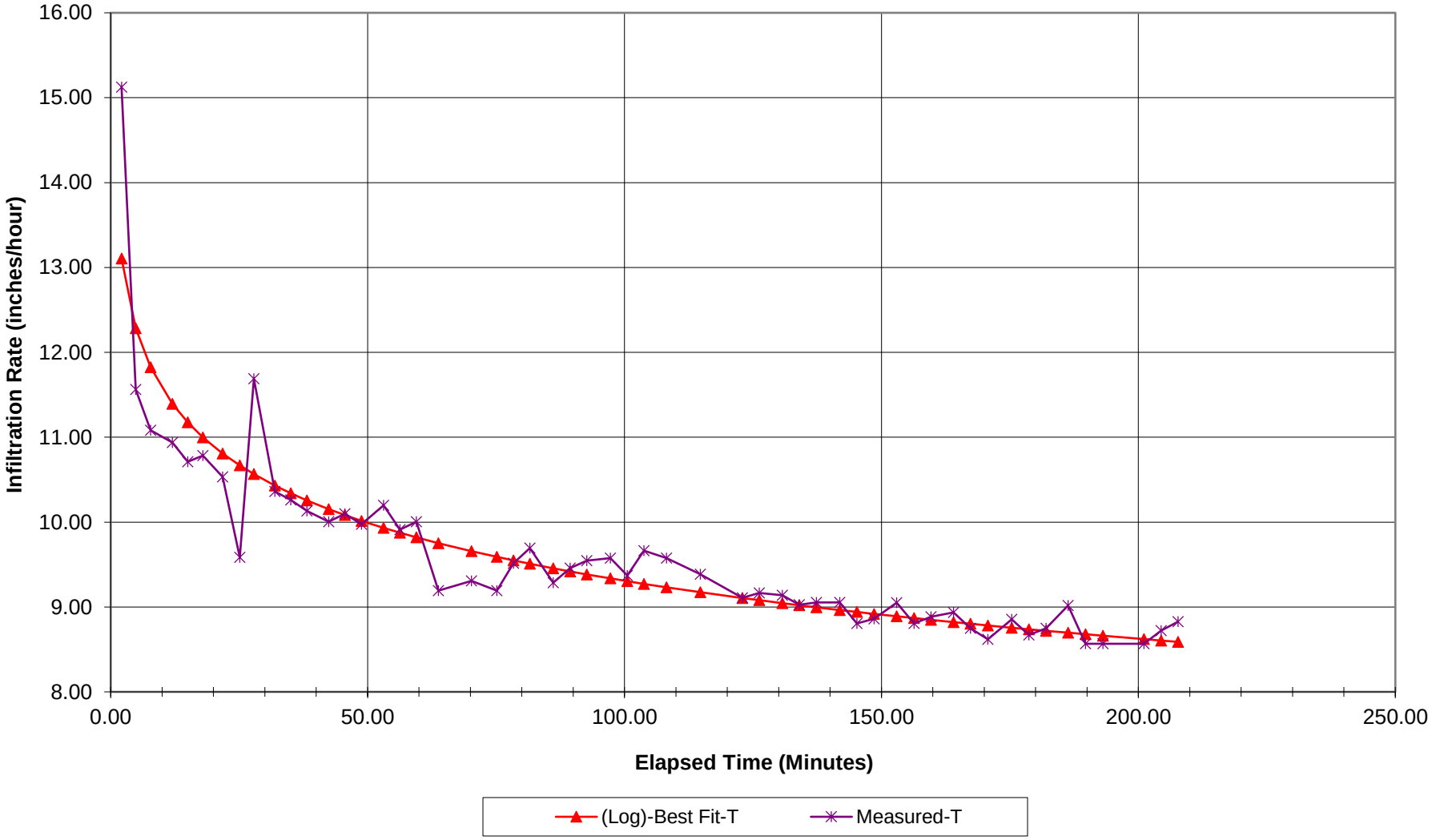


EARTH DATA INCORPORATED

Mountaire Farms of Delaware
Infiltration Rate DR-8



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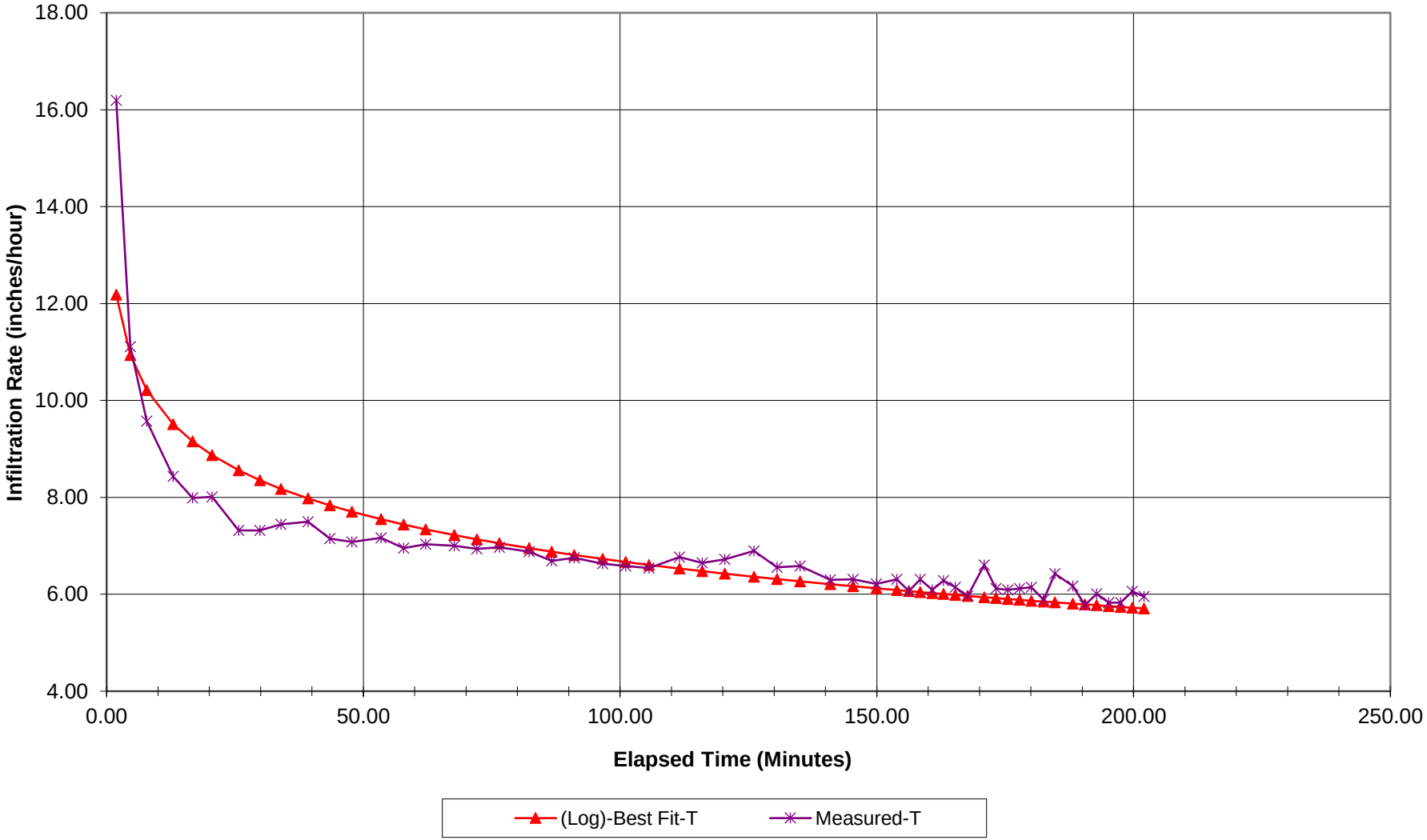
Mountaire Farms of Delaware
Infiltration Rate DR-9



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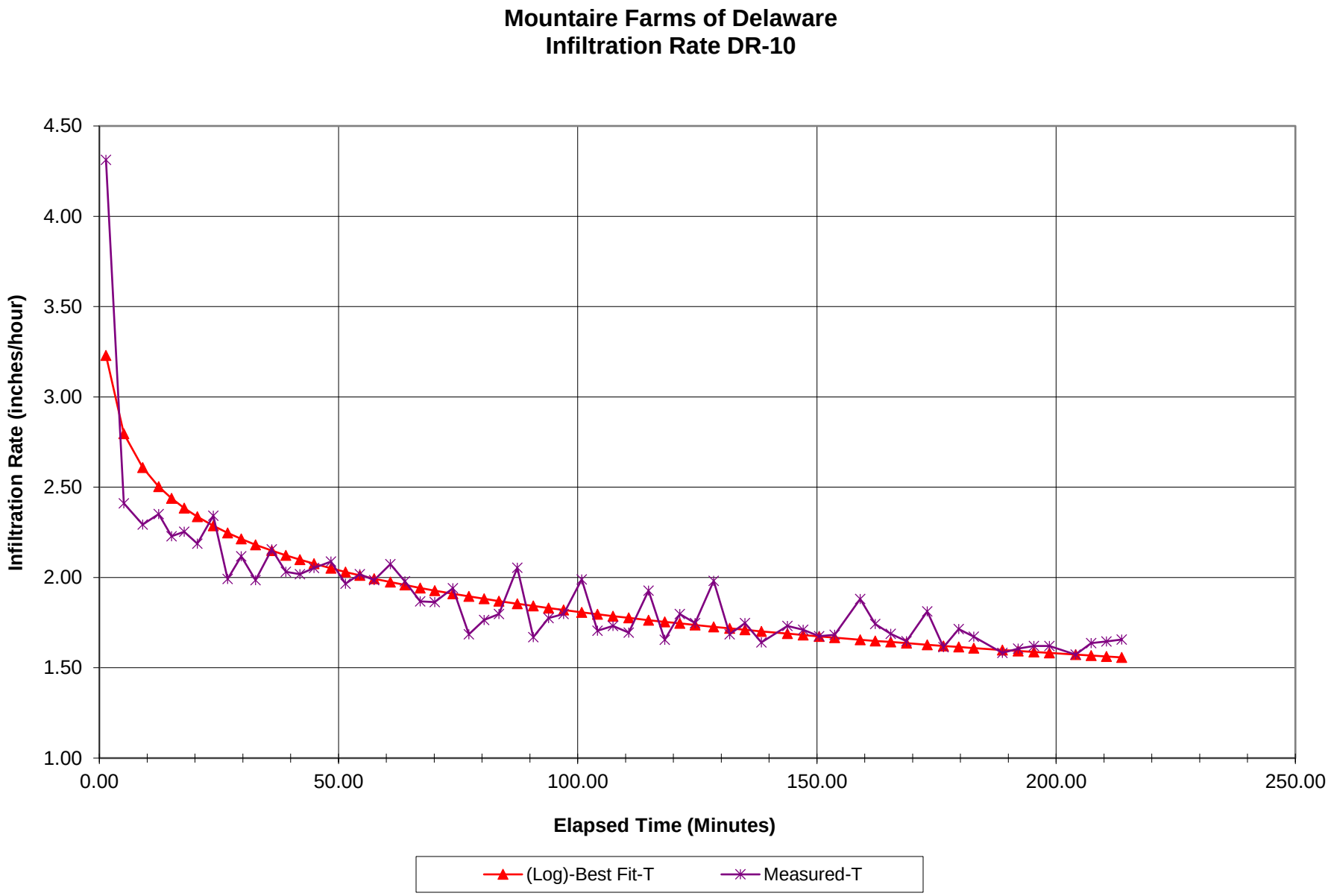

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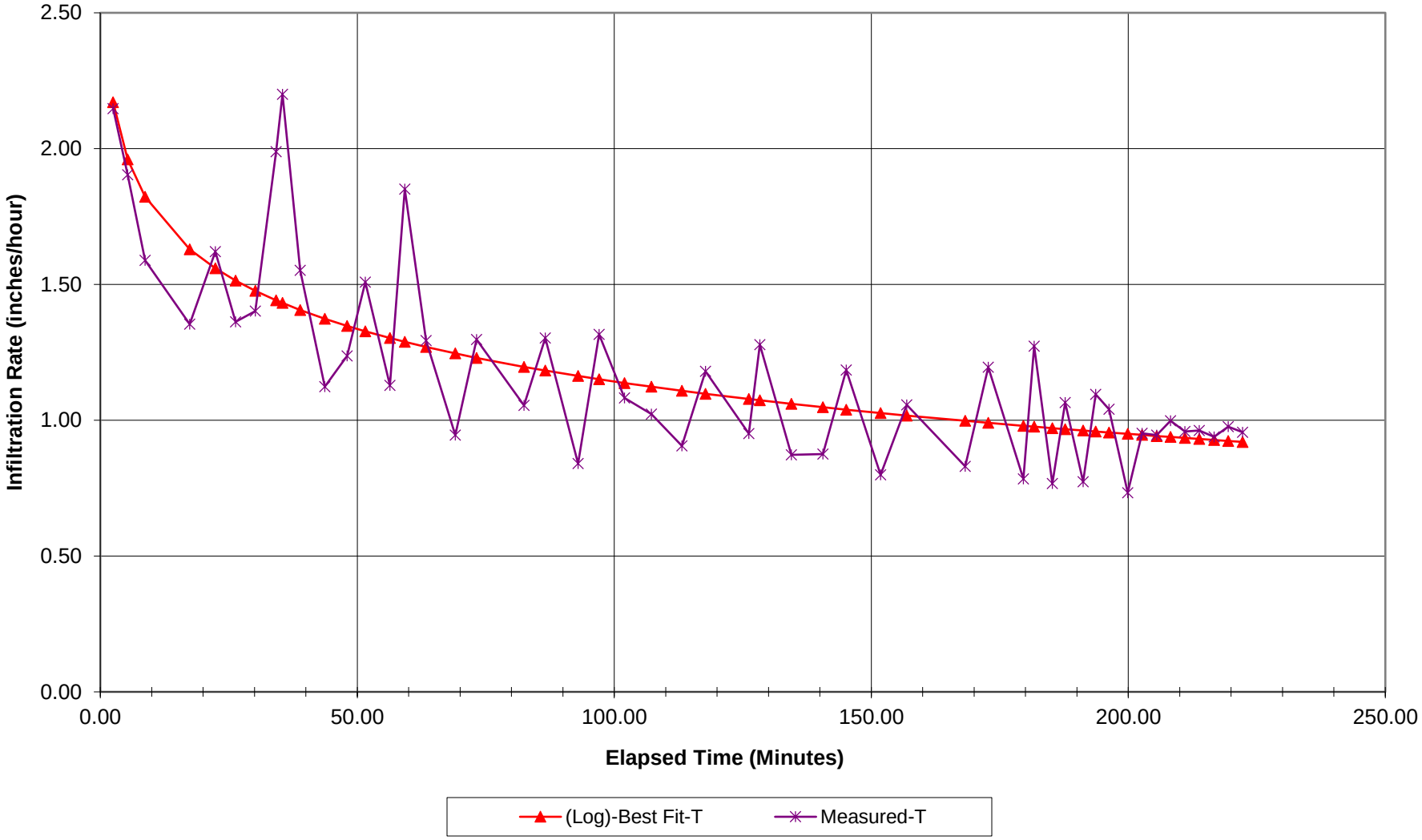
Mountaire Farms of Delaware
Infiltration Rate DR-11



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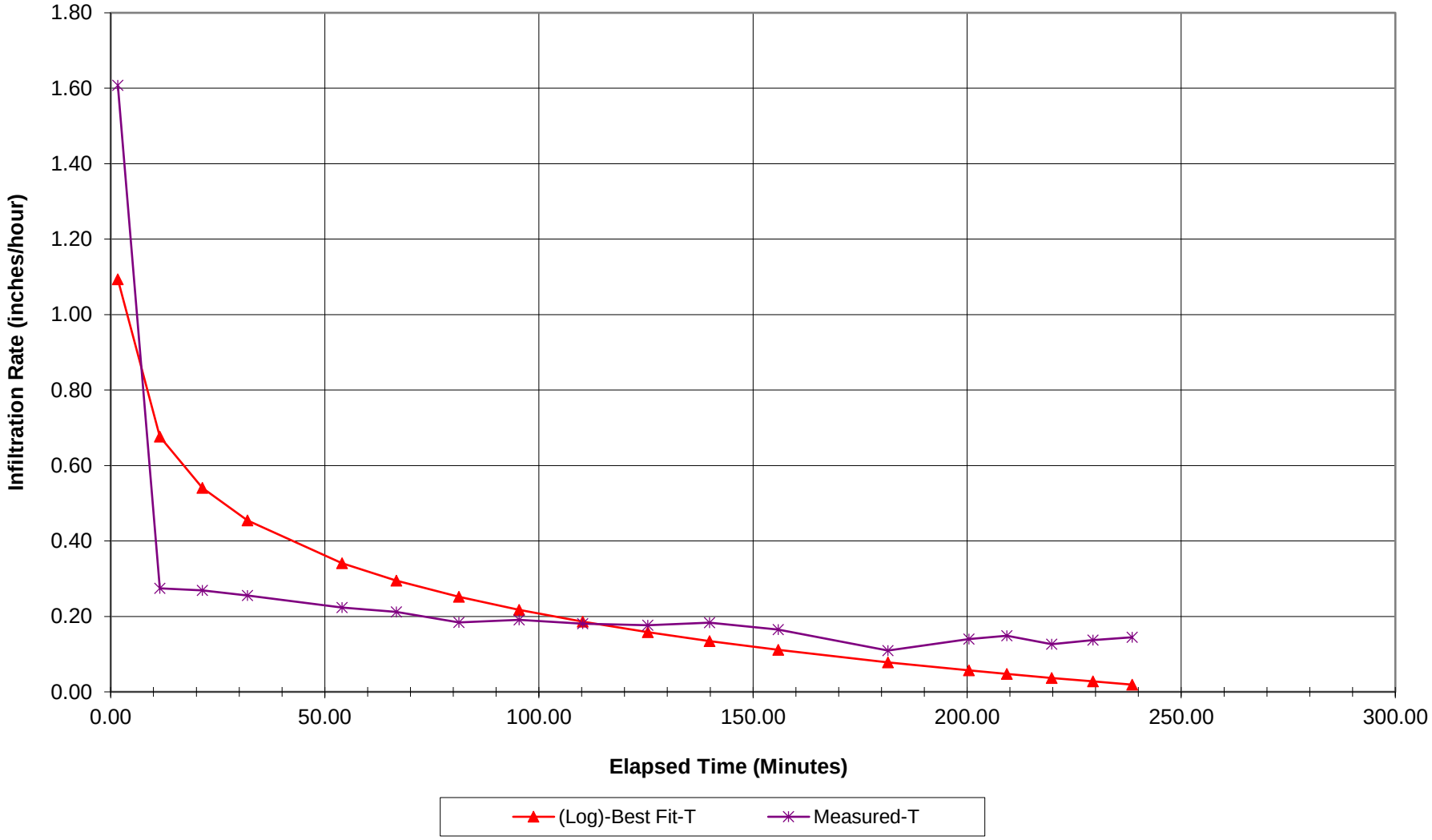
Mountaire Farms of Delaware
Infiltration Rate DR-12



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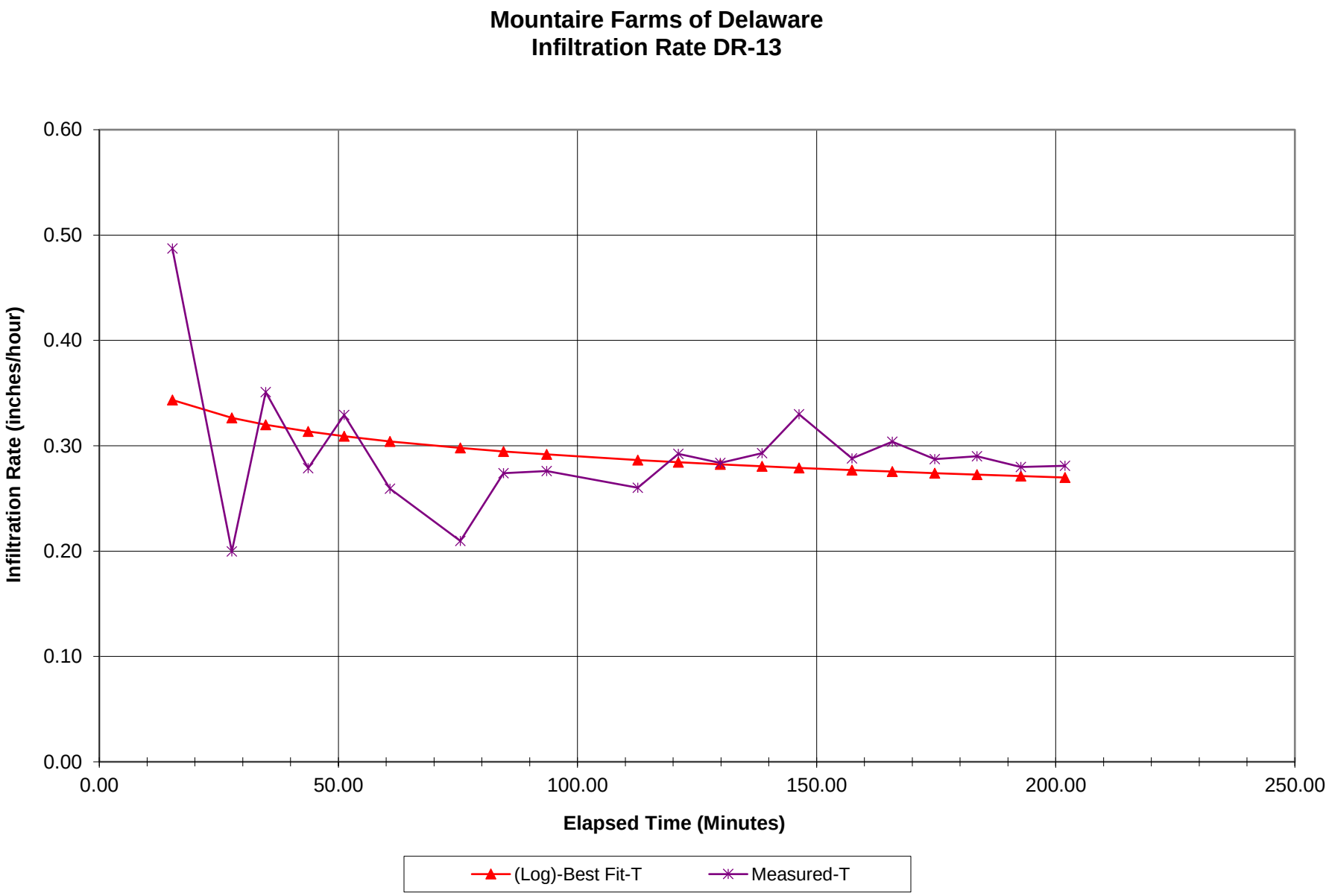

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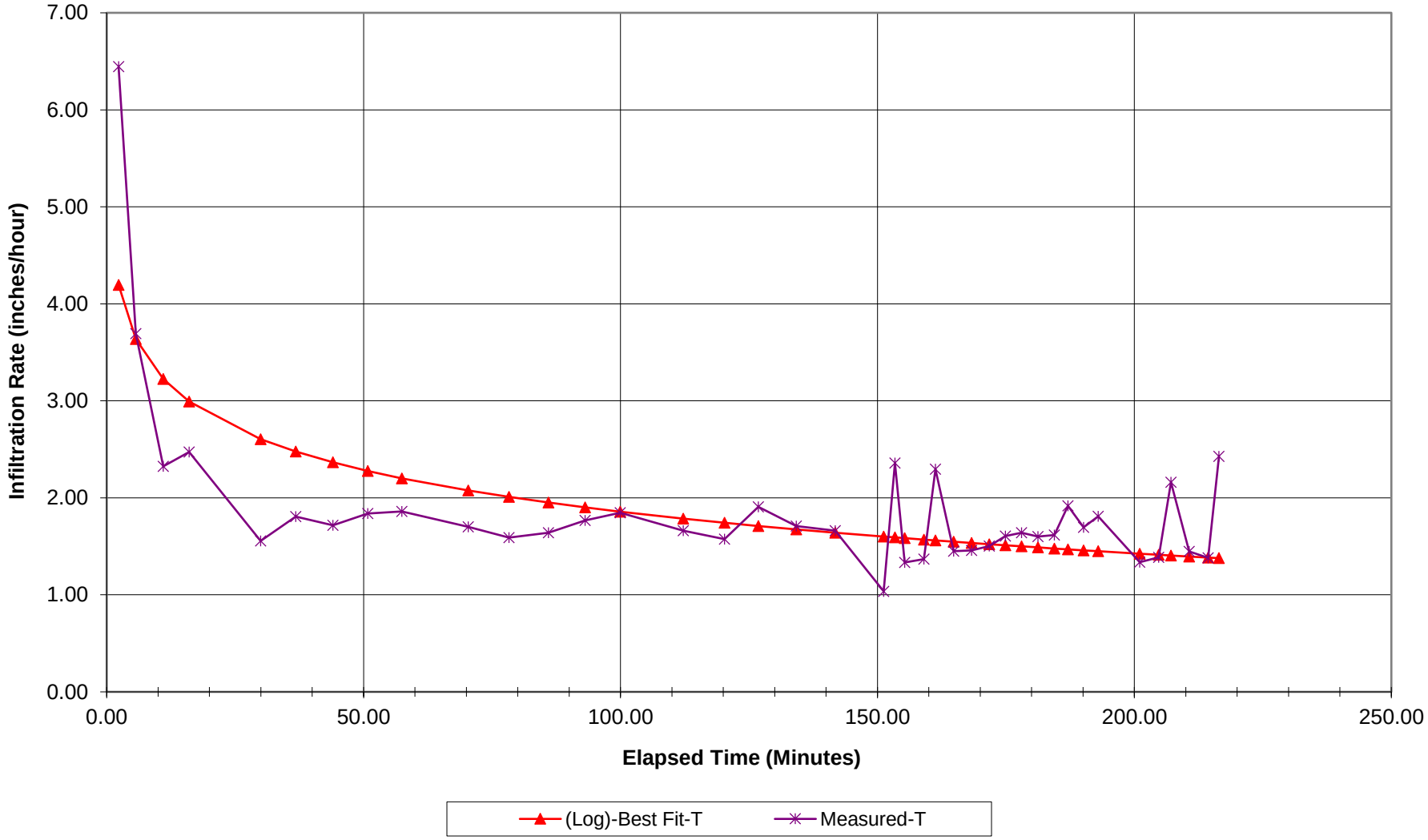
Mountaire Farms of Delaware
Infiltration Rate DR-14



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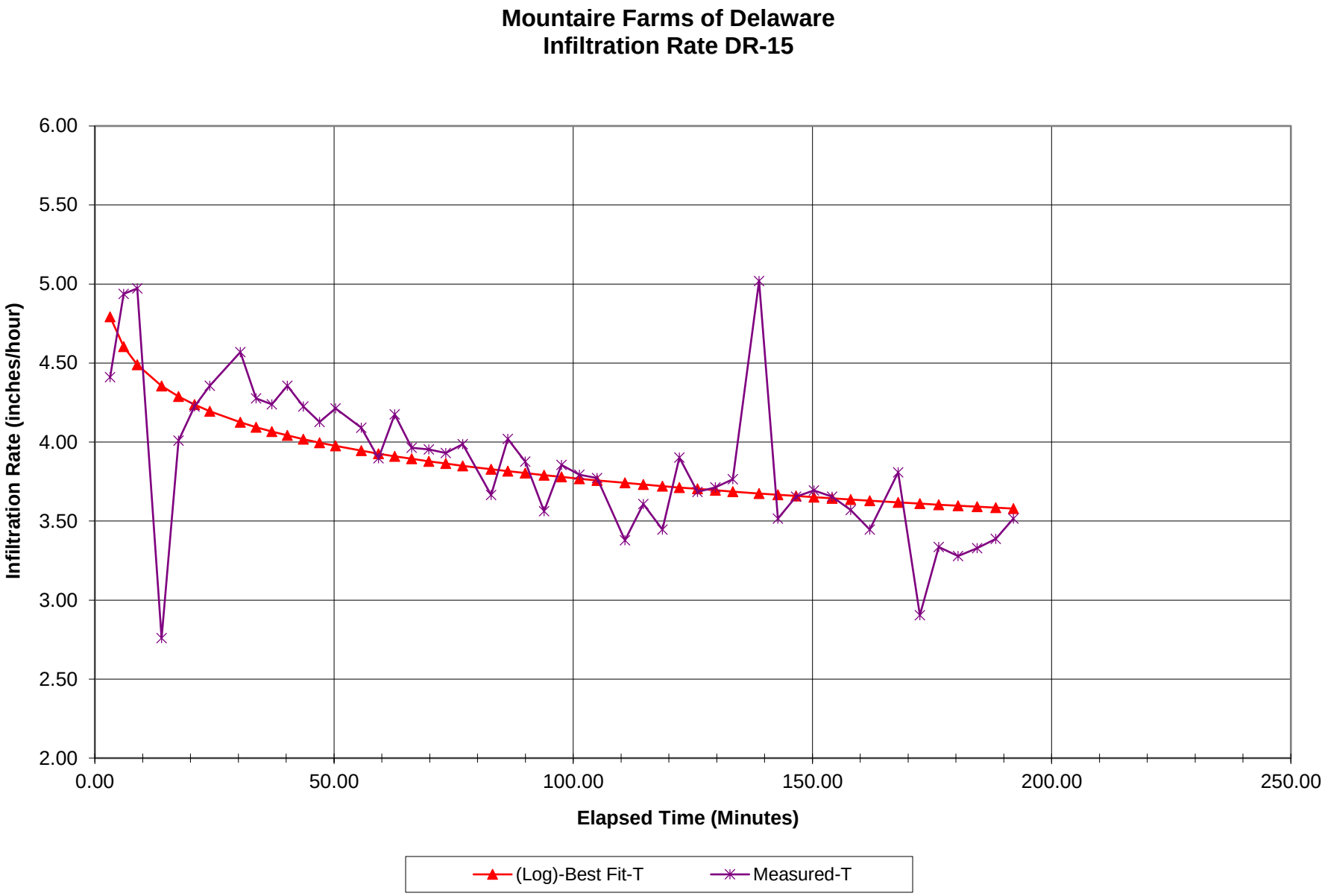

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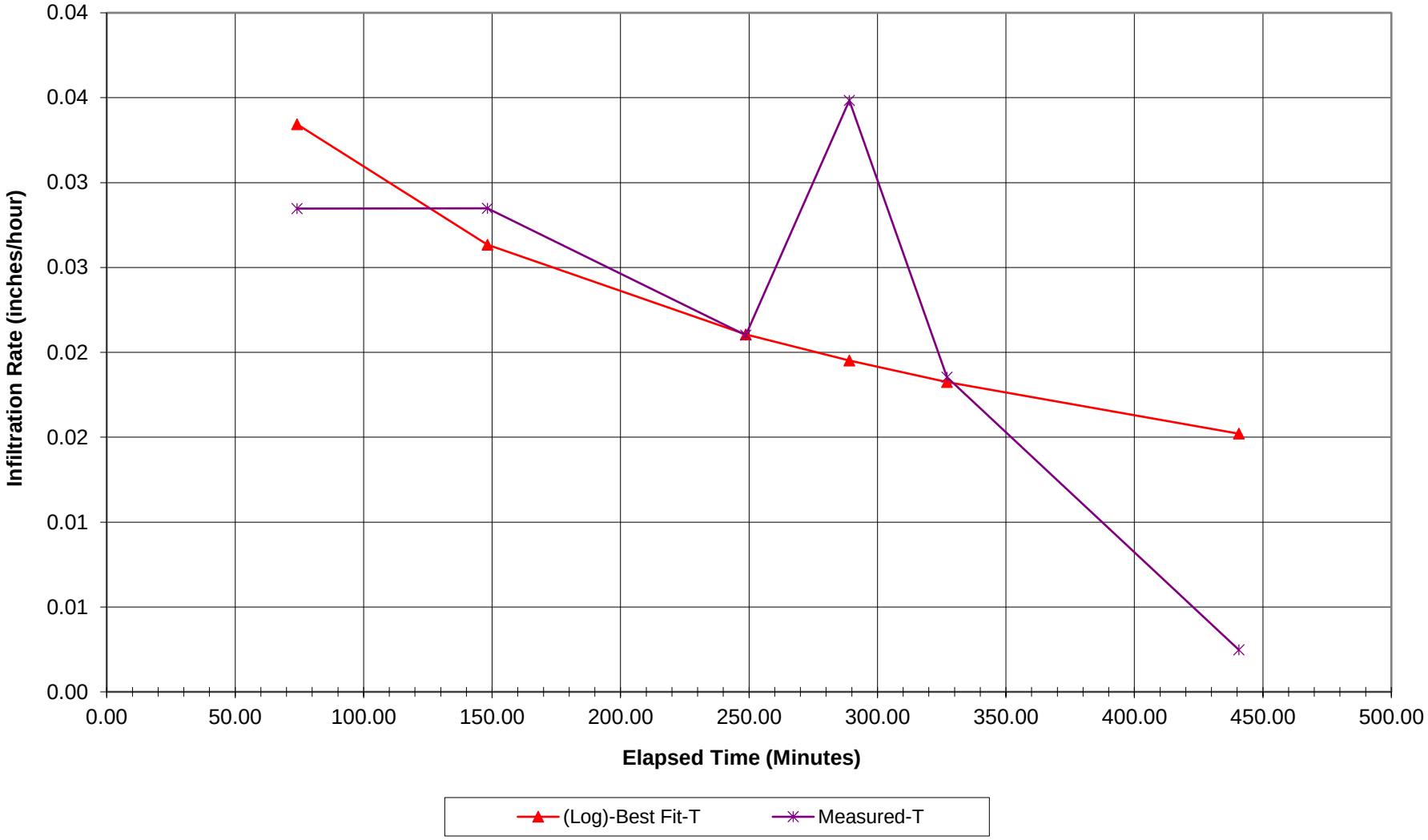
Mountaire Farms of Delaware
Infiltration Rate DR-16



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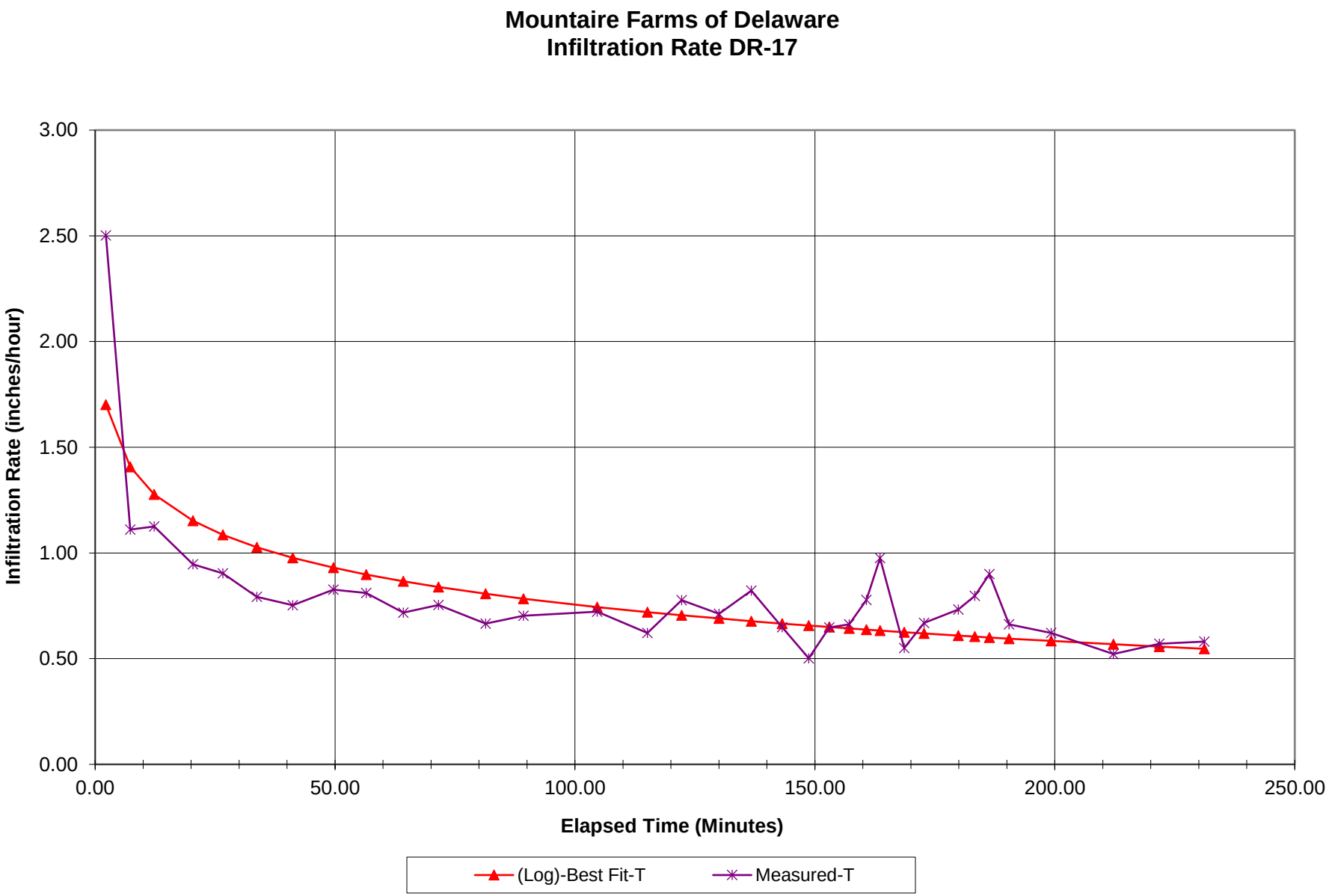

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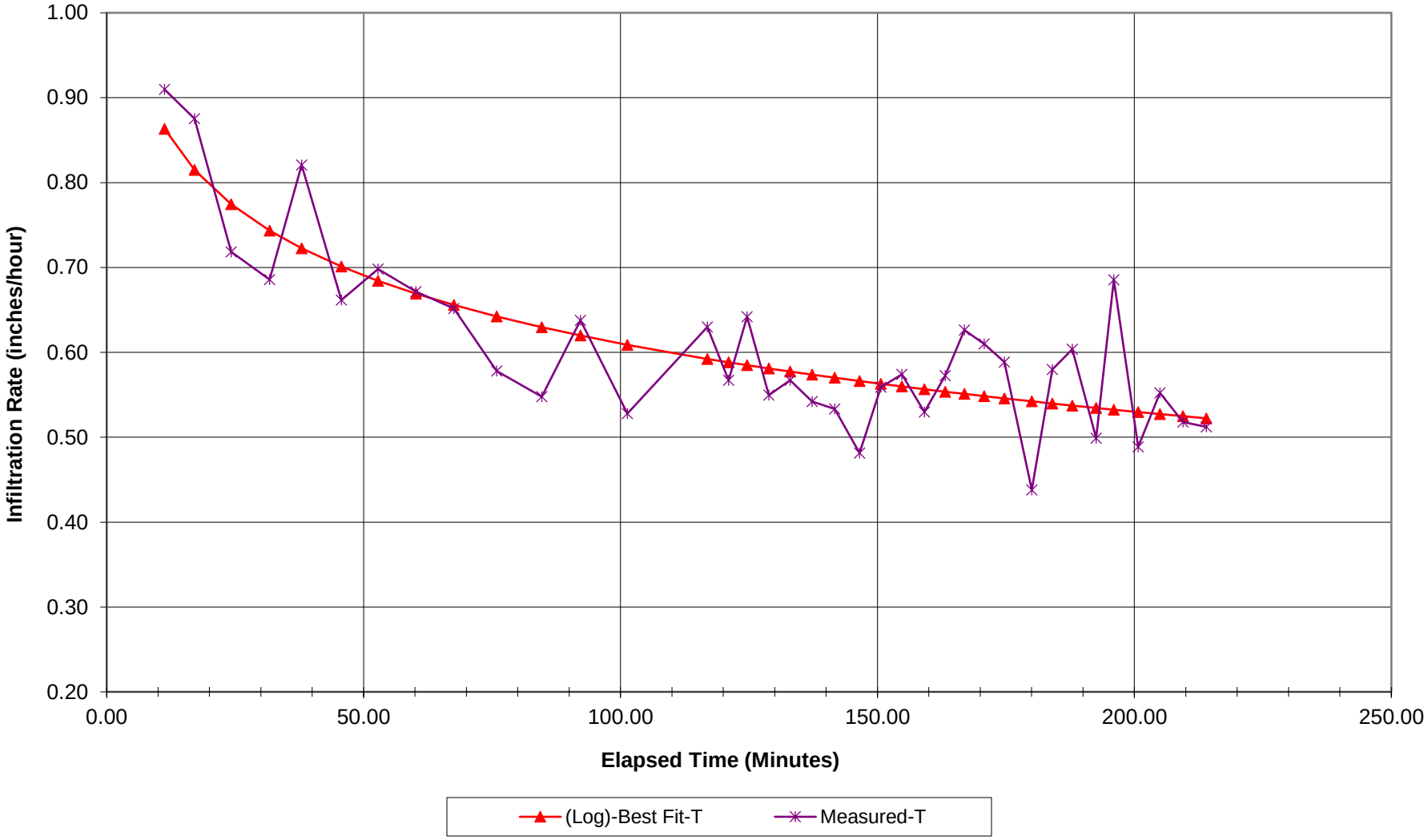
Mountaire Farms of Delaware
Infiltration Rate DR-18



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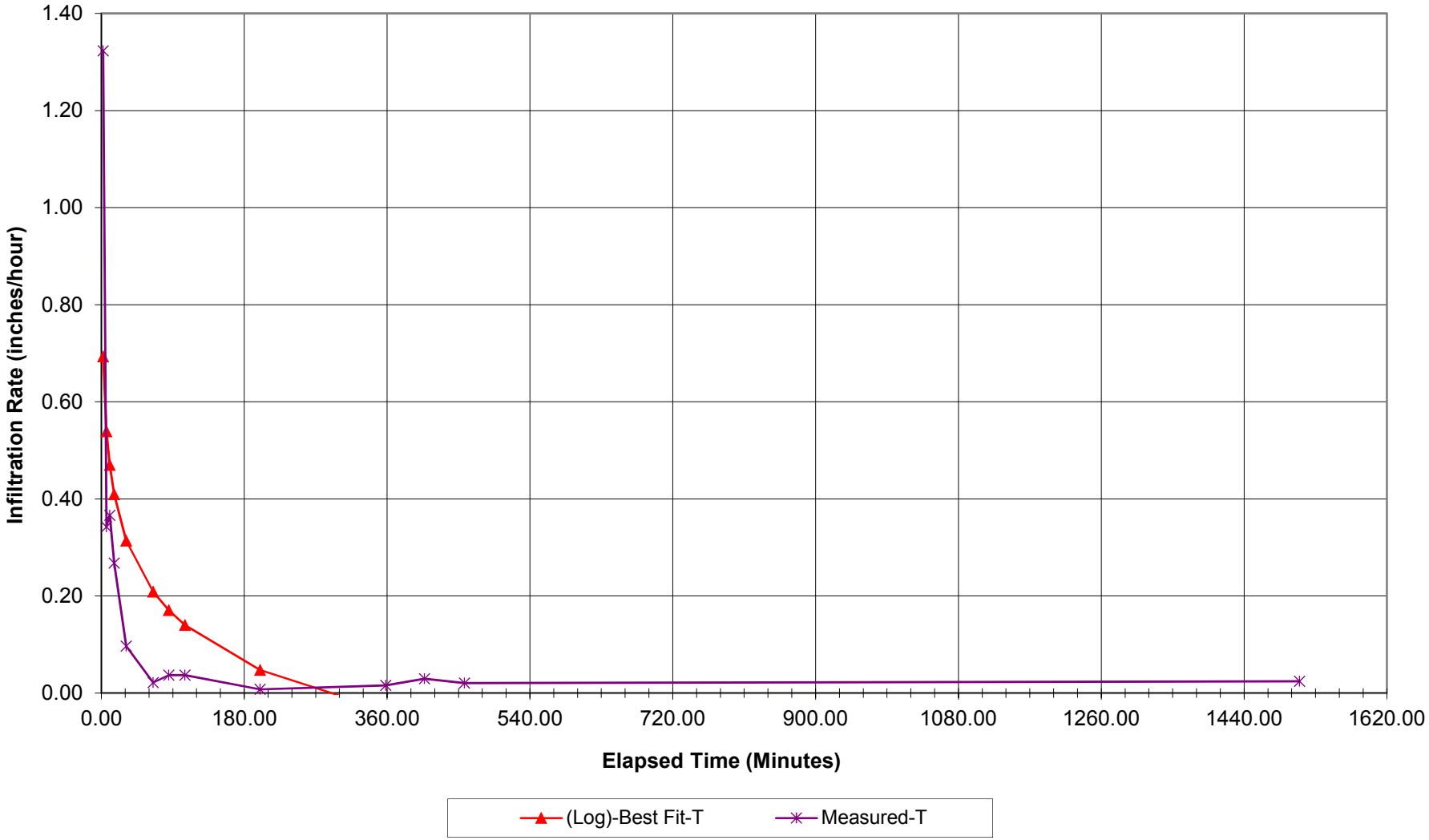
Mountaire Farms of Delaware
Infiltration Rate DR-19



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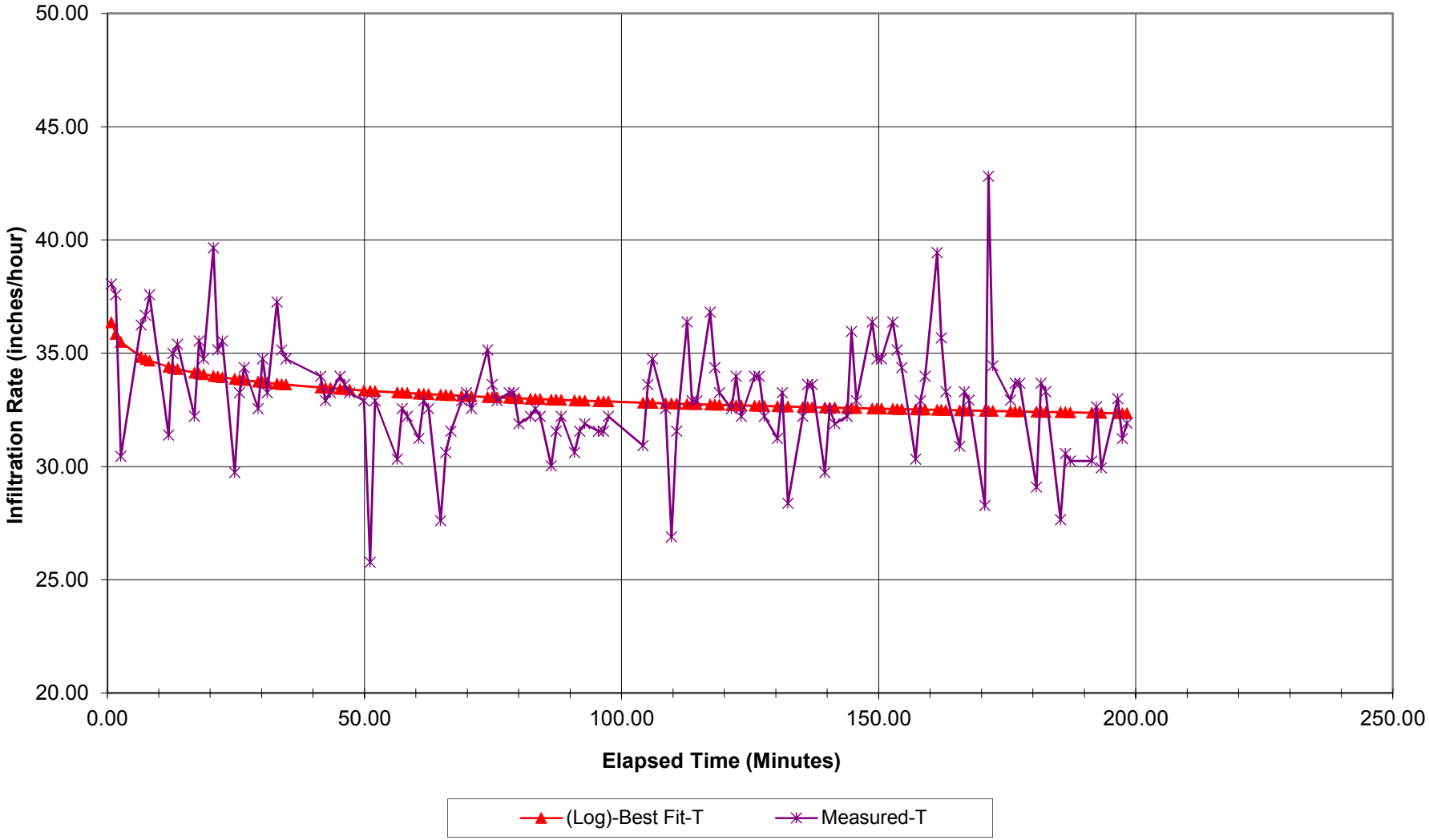
Mountaire Farms of Delaware
Infiltration Rate DR-20



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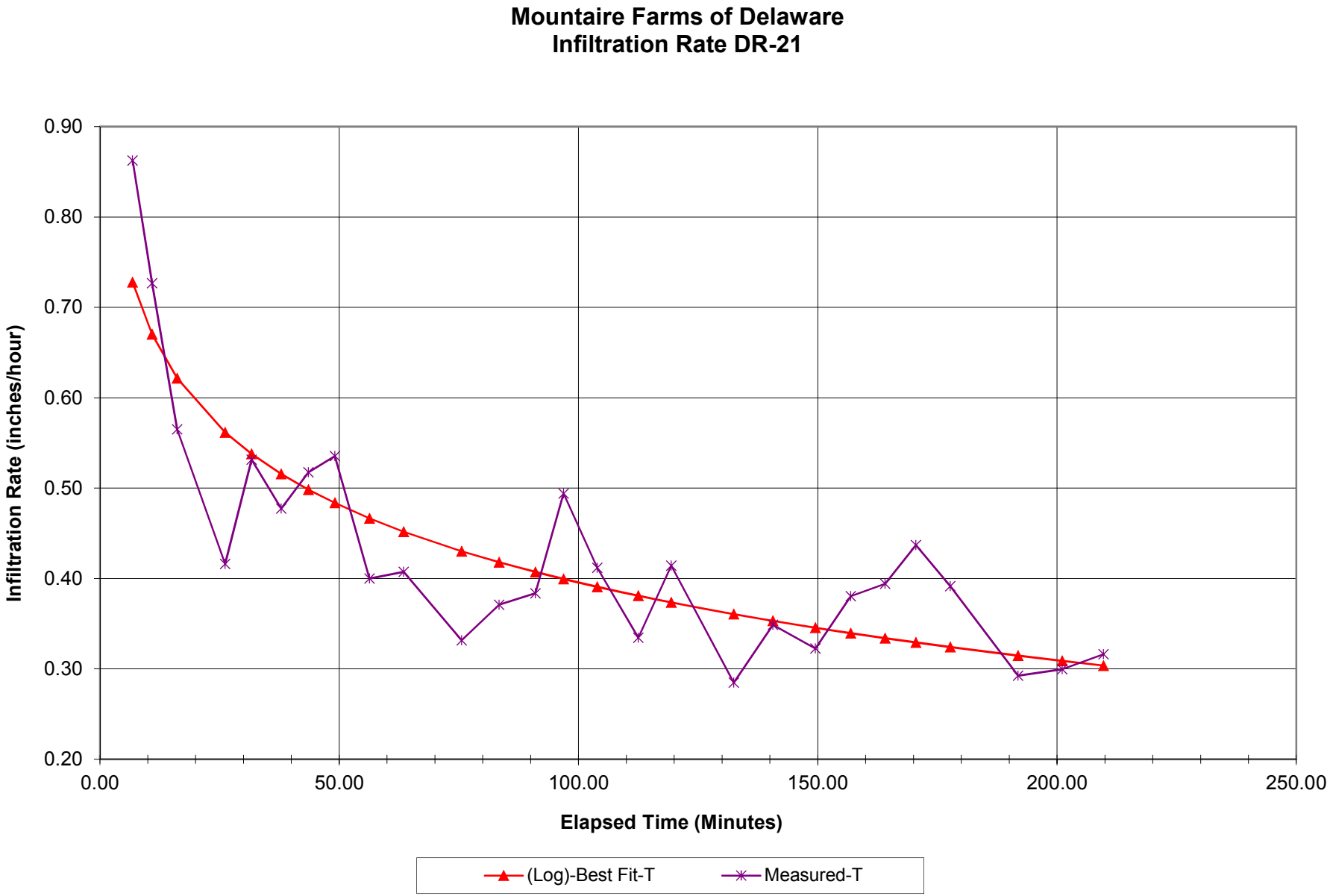

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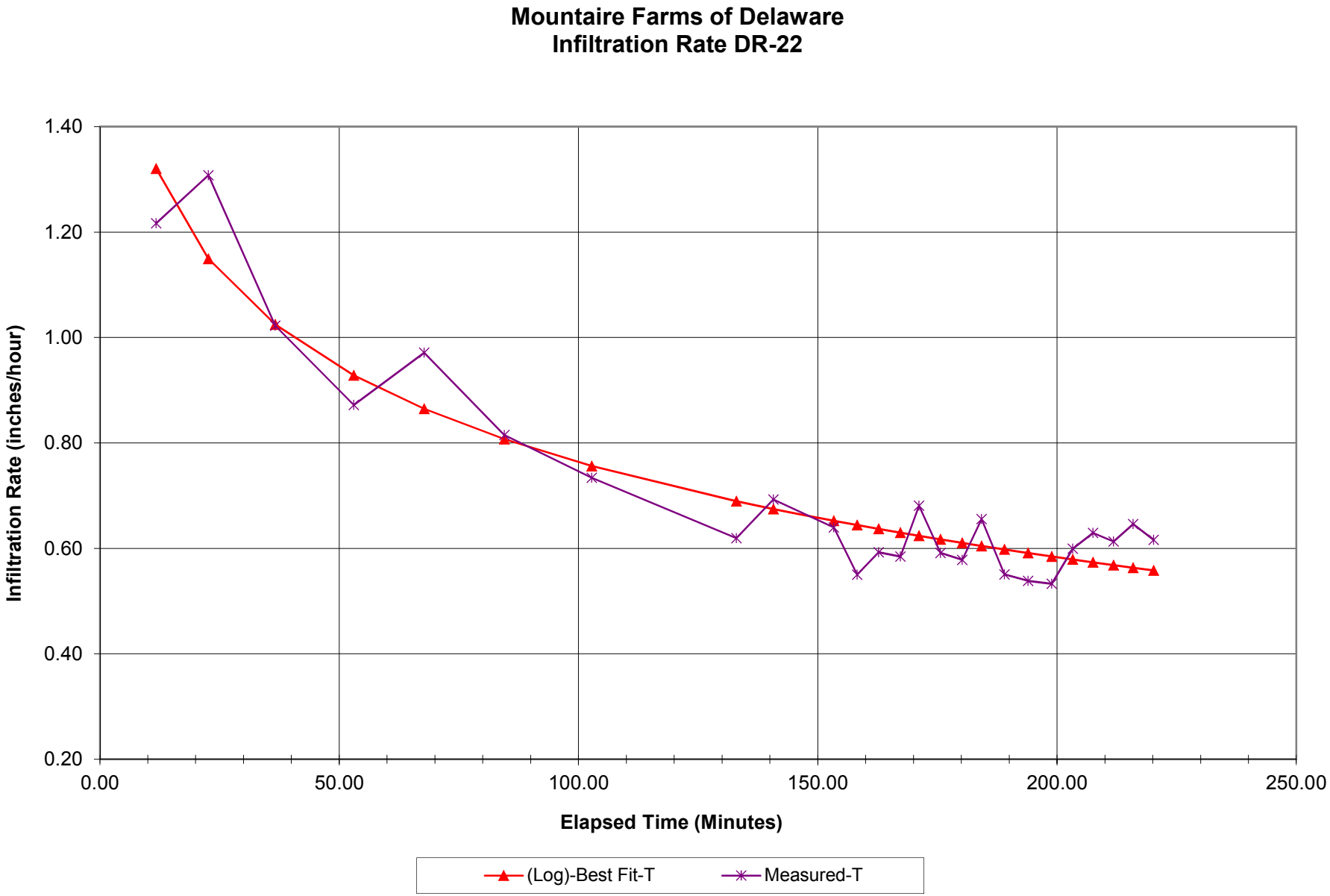

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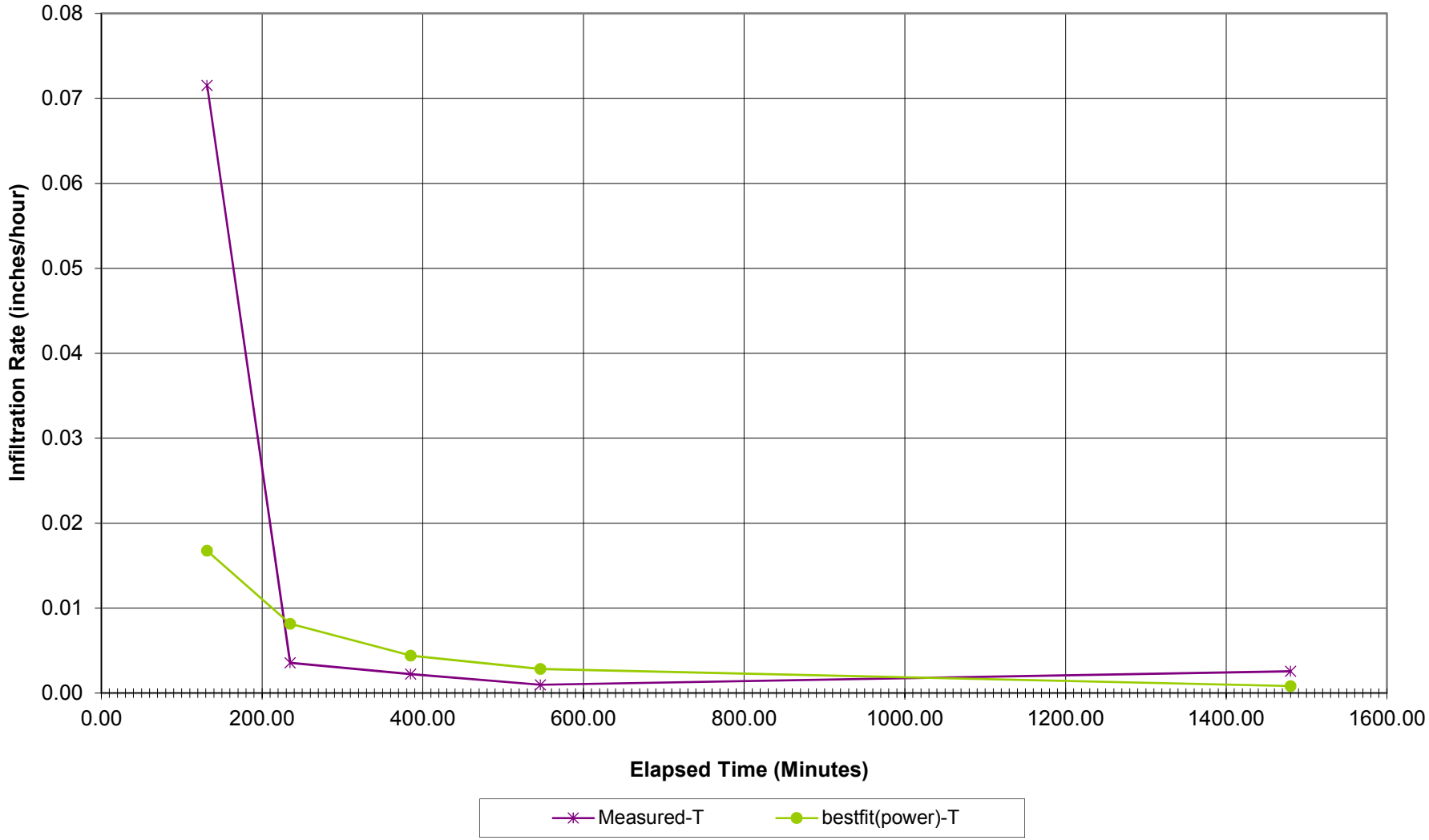
Mountaire Farms of Delaware
Infiltration Rate DR-23



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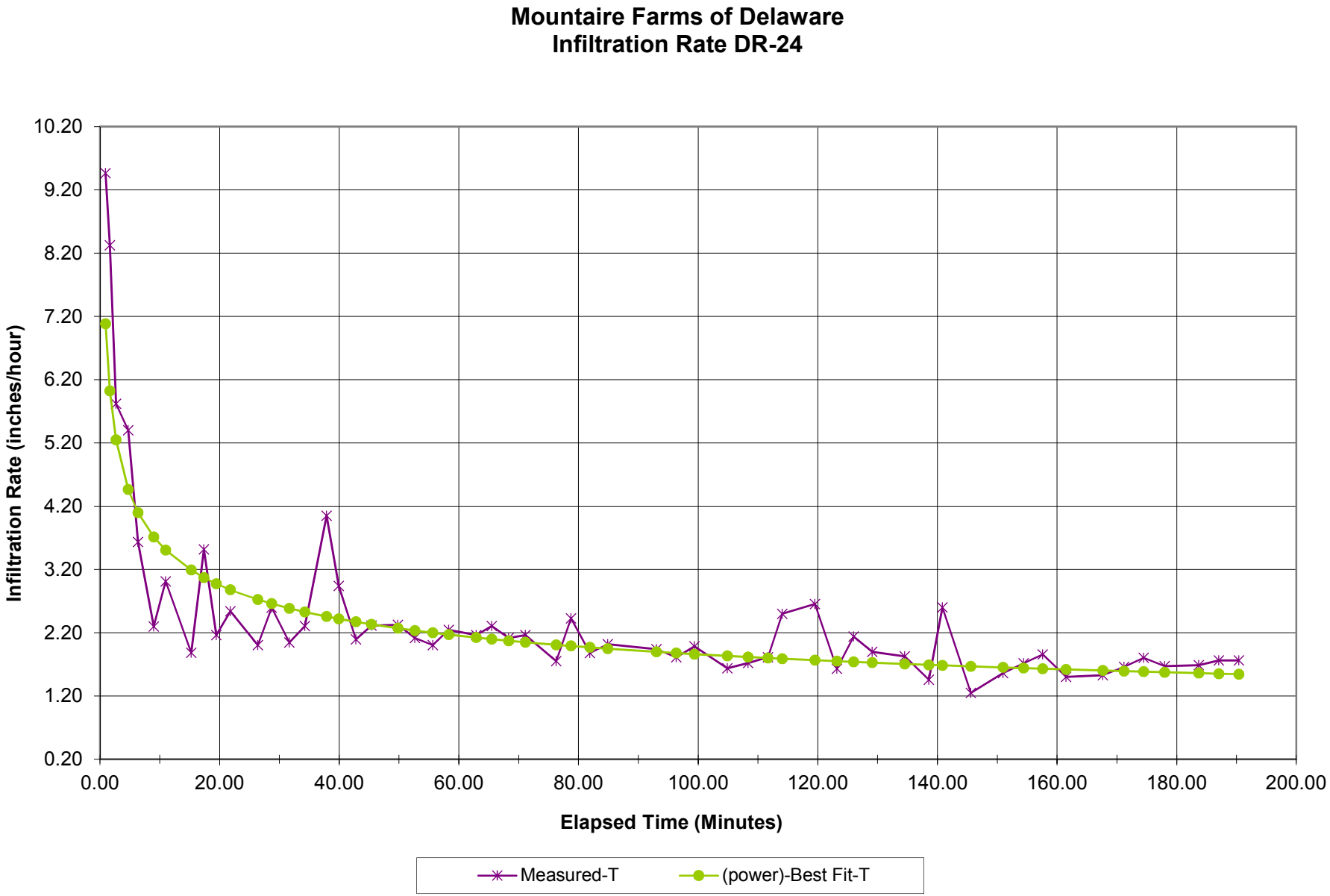

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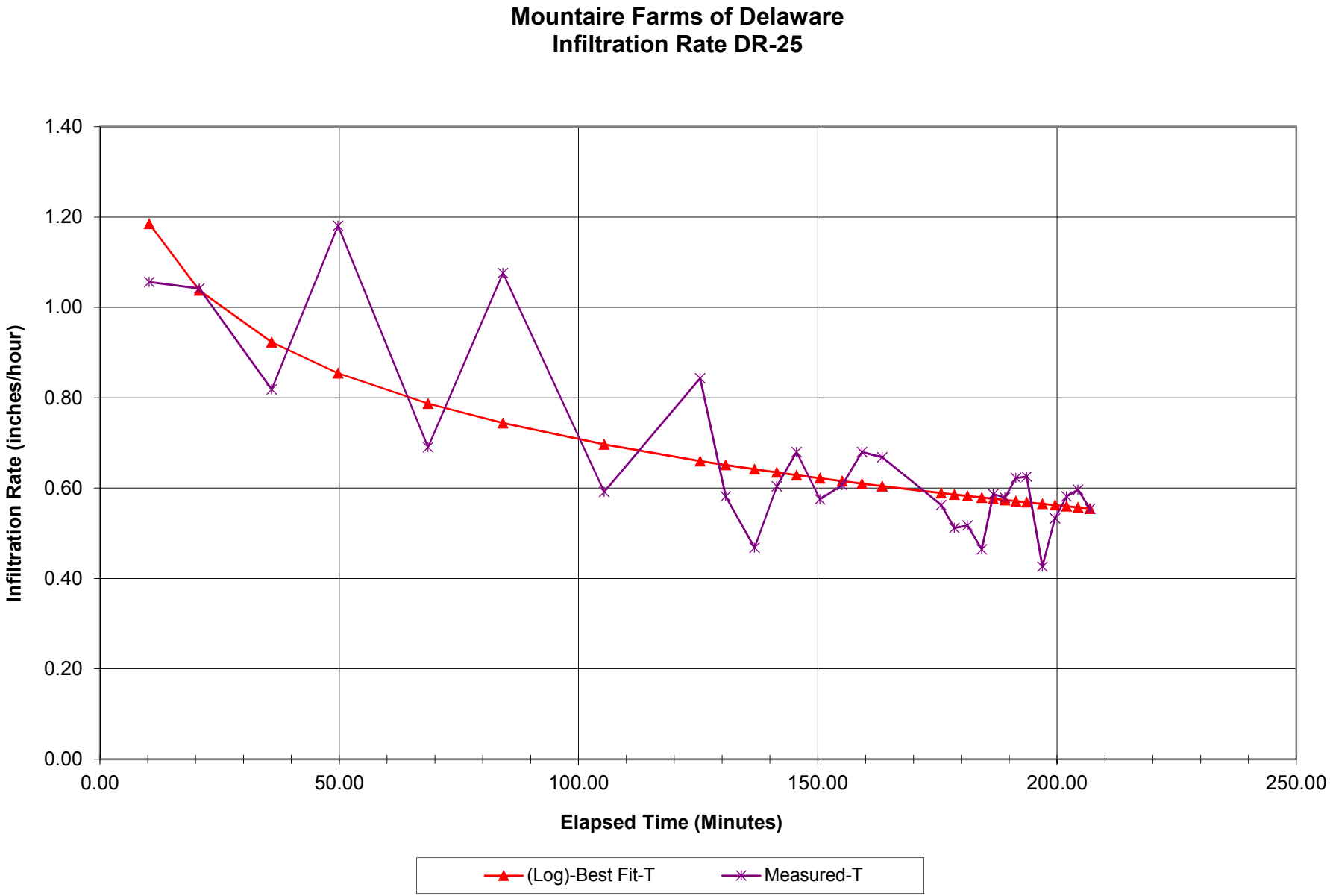

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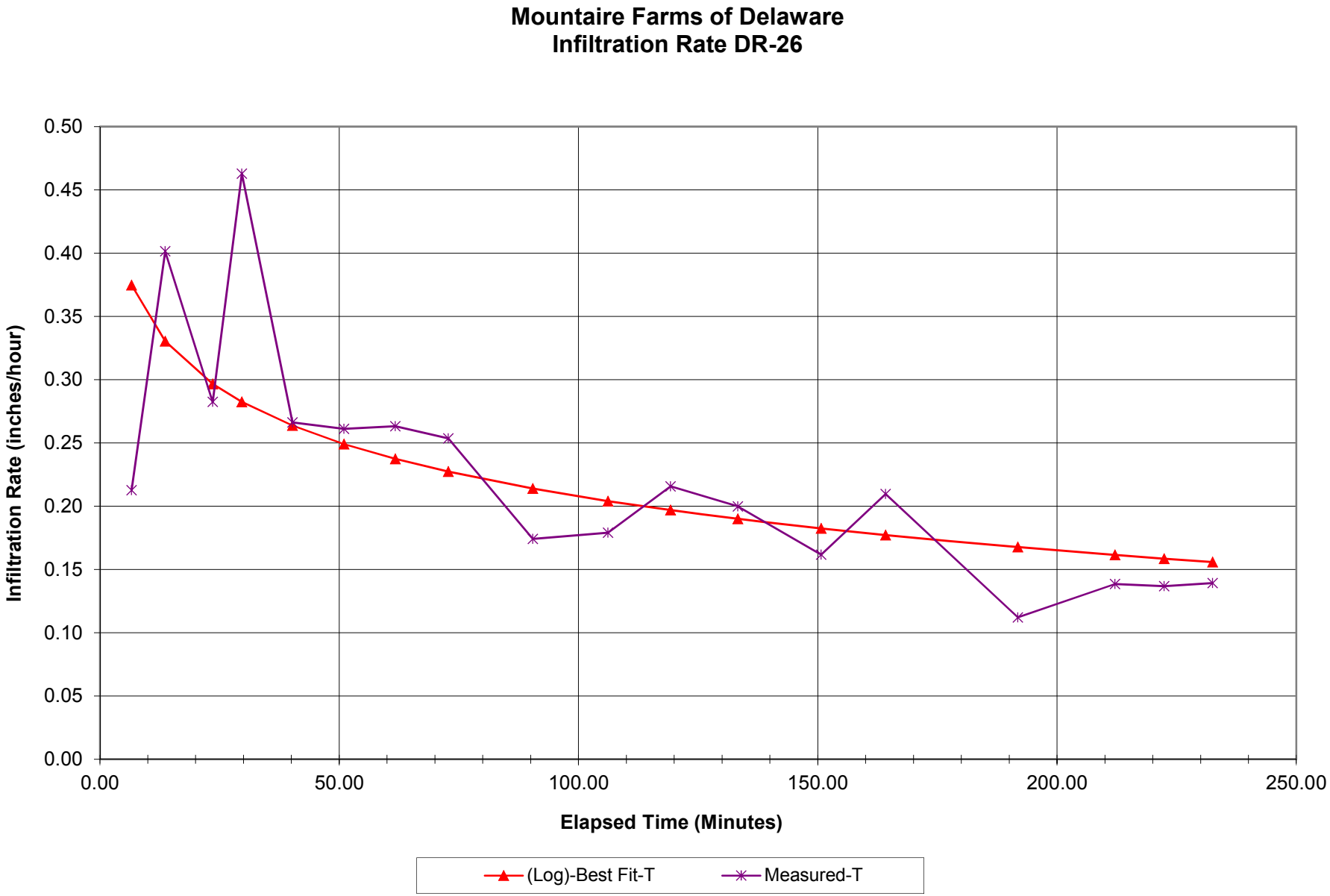

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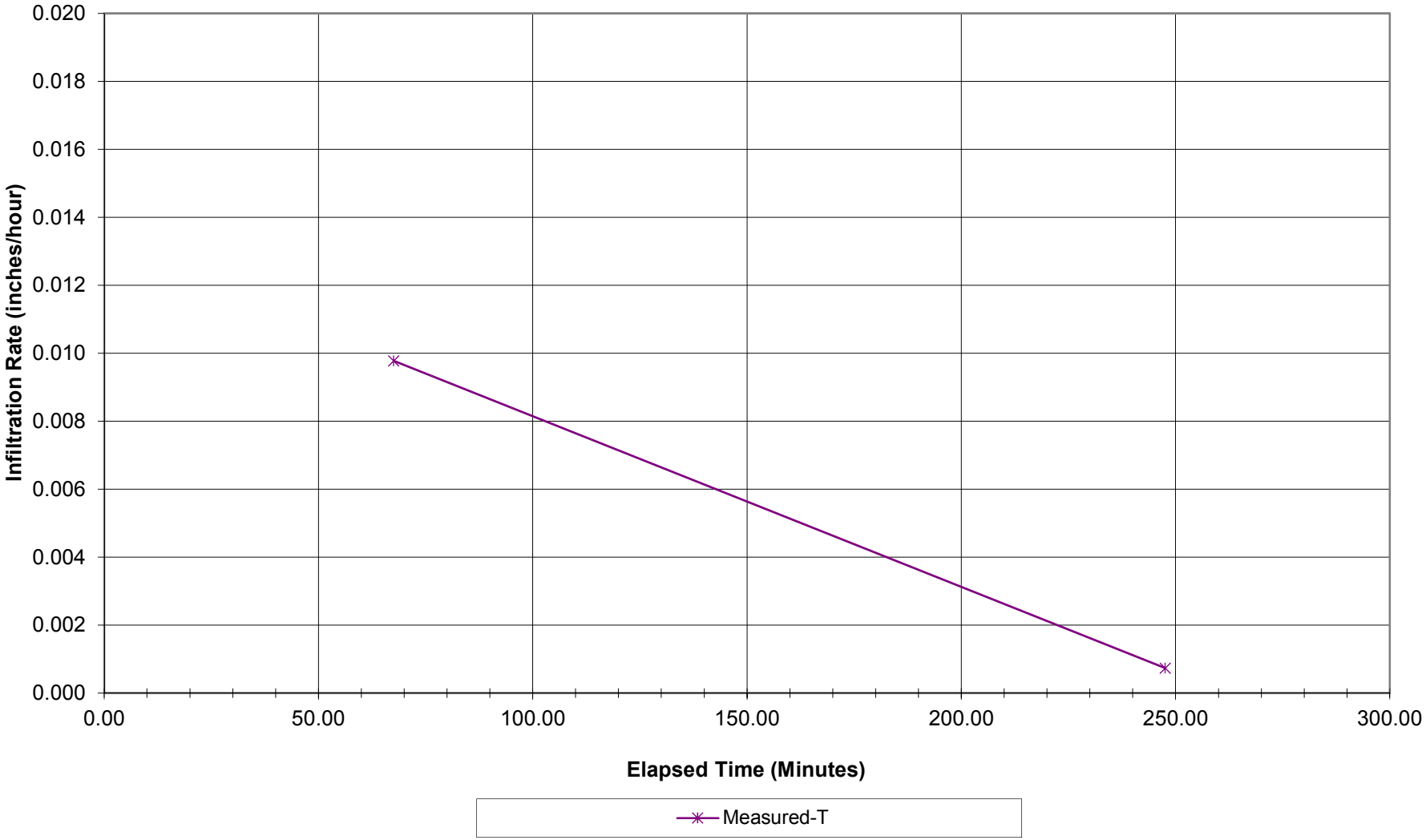
Mountaire Farms of Delaware
Infiltration Rate DR-28



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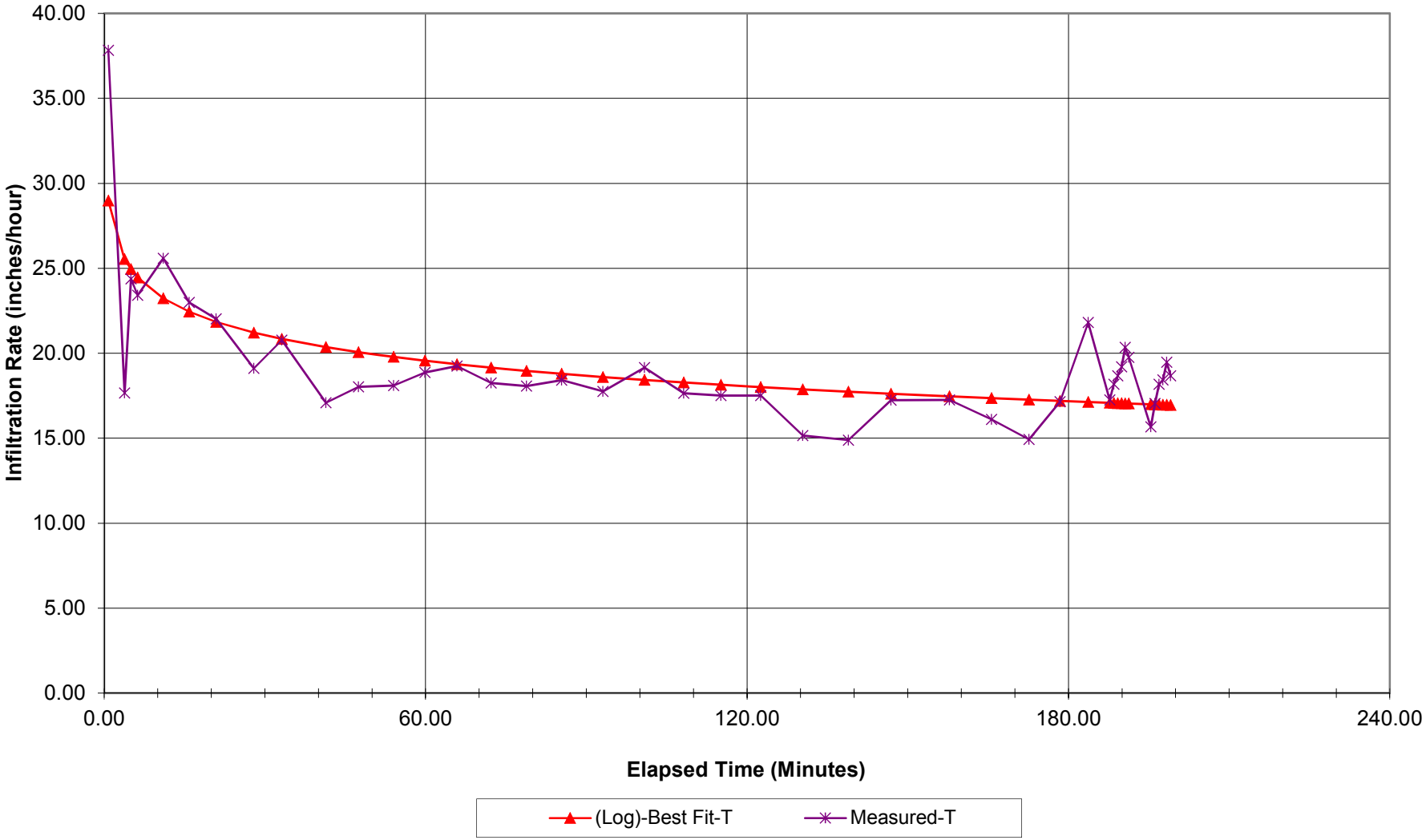
Mountaire Farms of Delaware
Infiltration Rate DR-29



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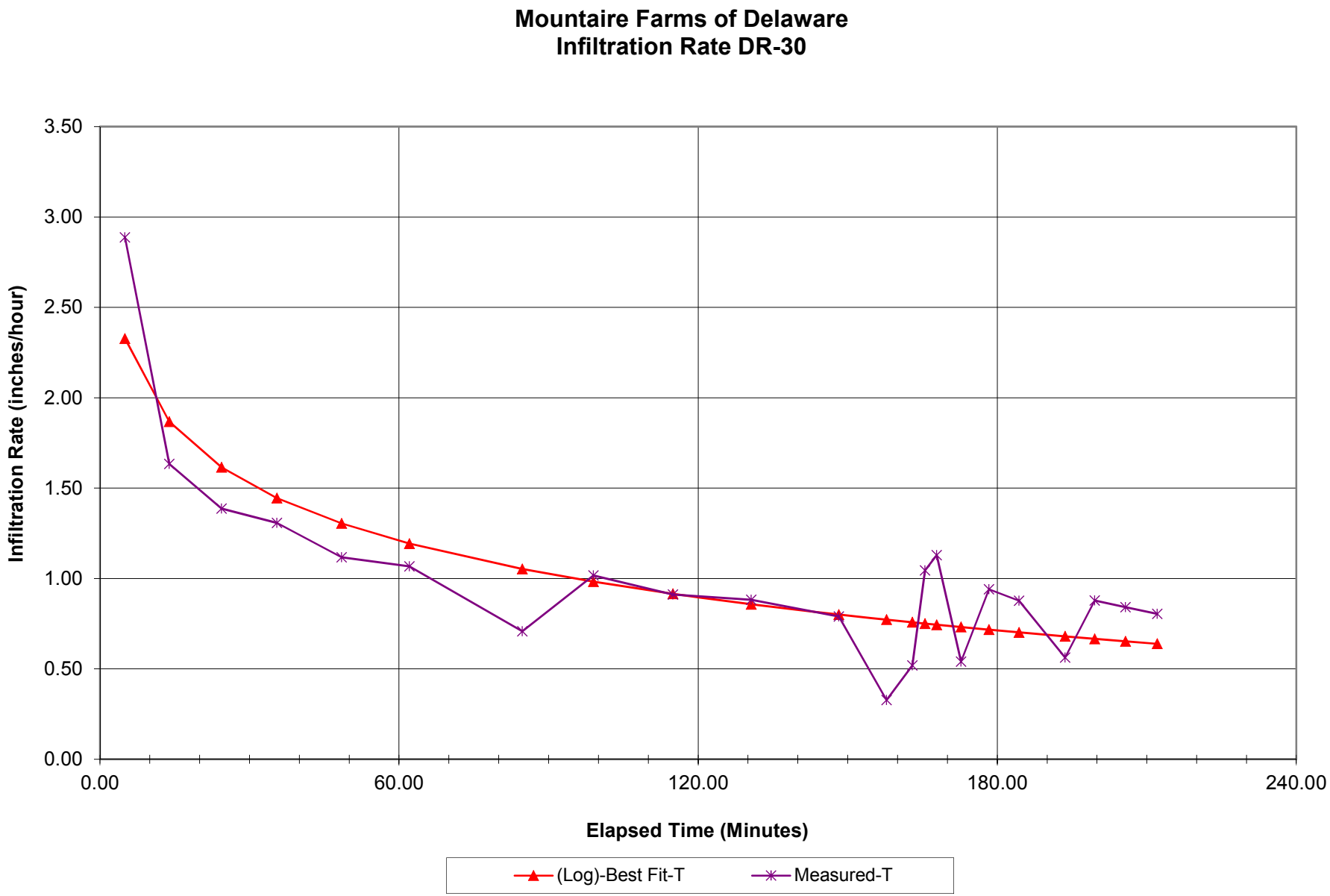

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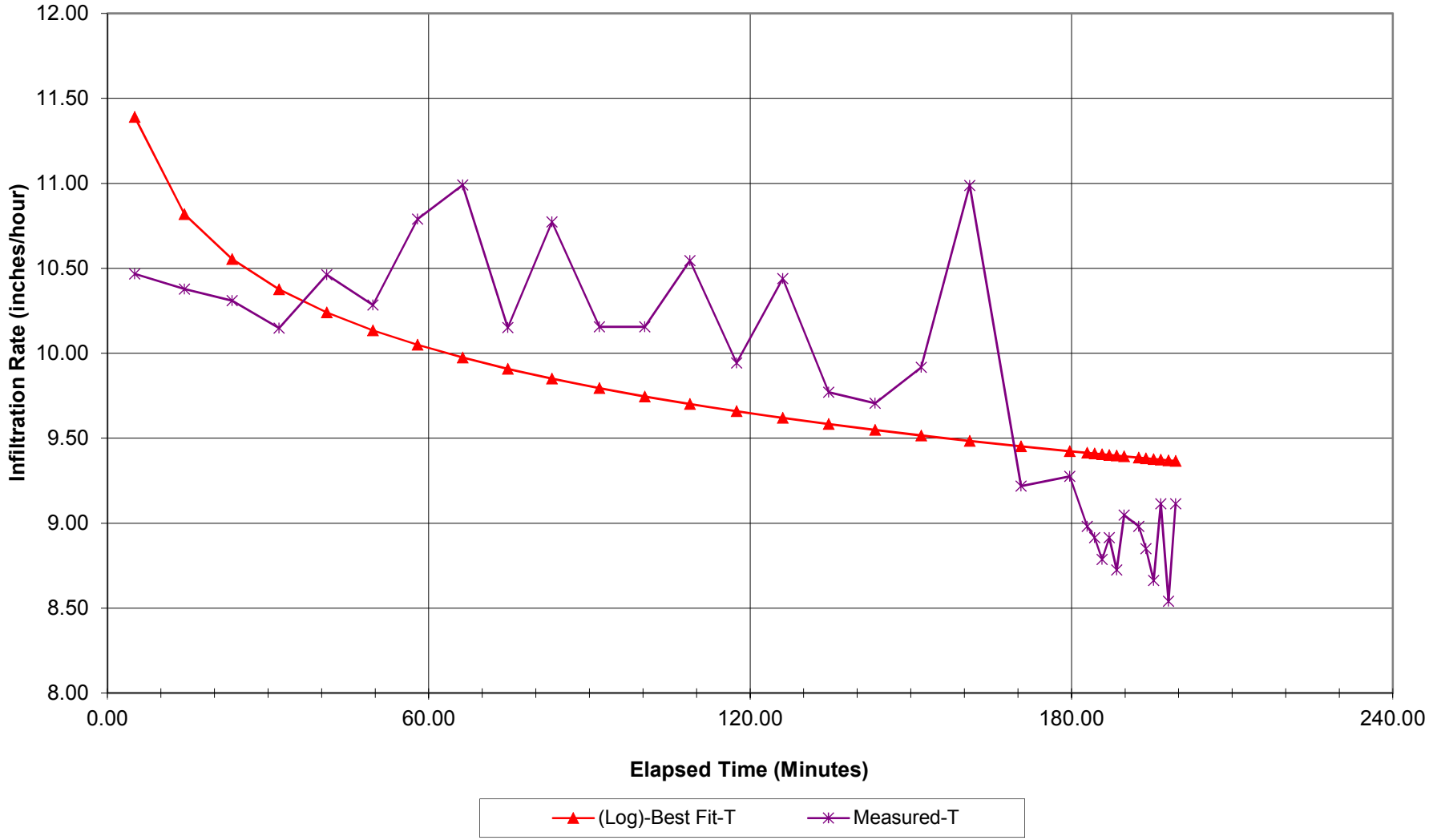
Mountaire Farms of Delaware
Infiltration Rate DR-31



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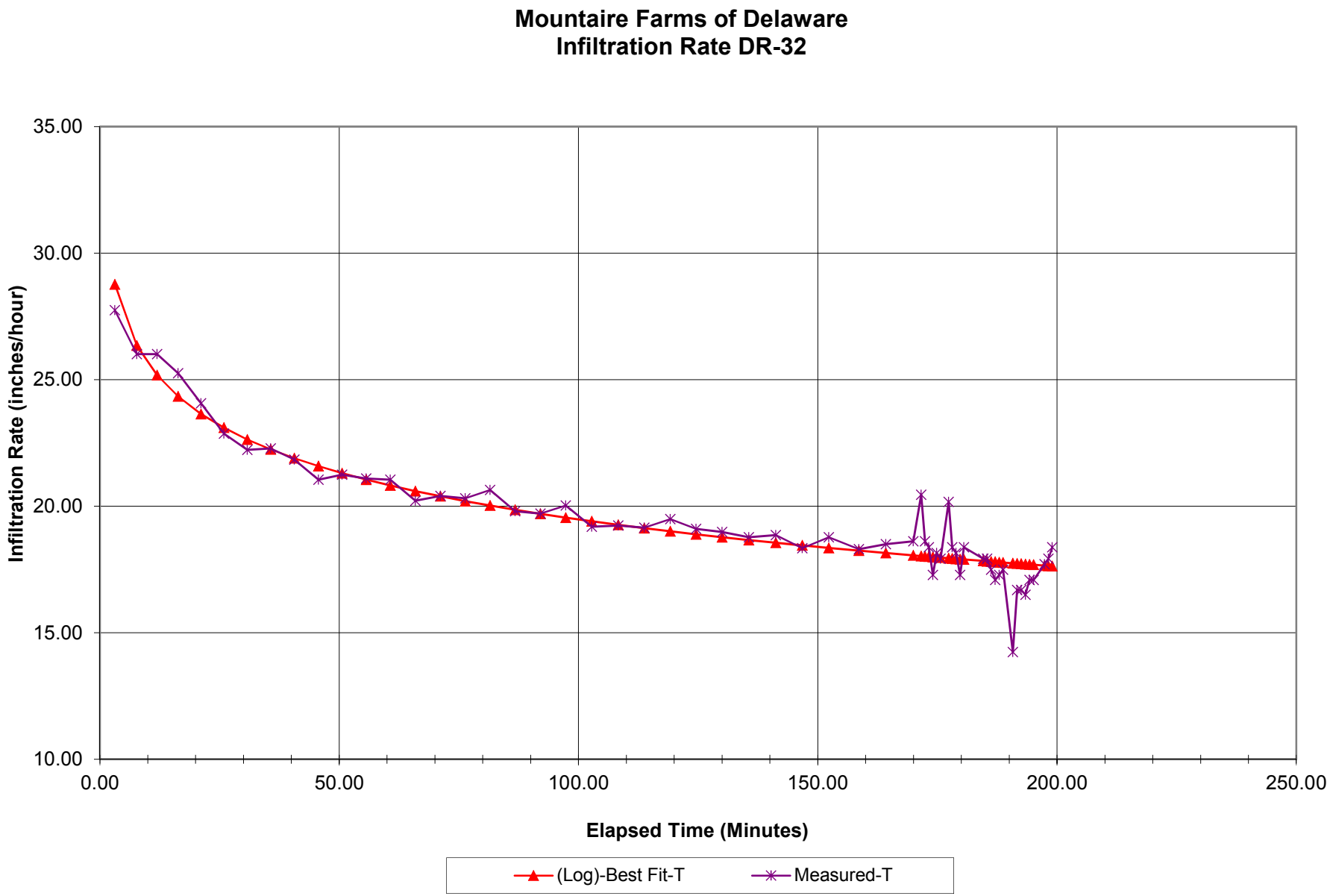

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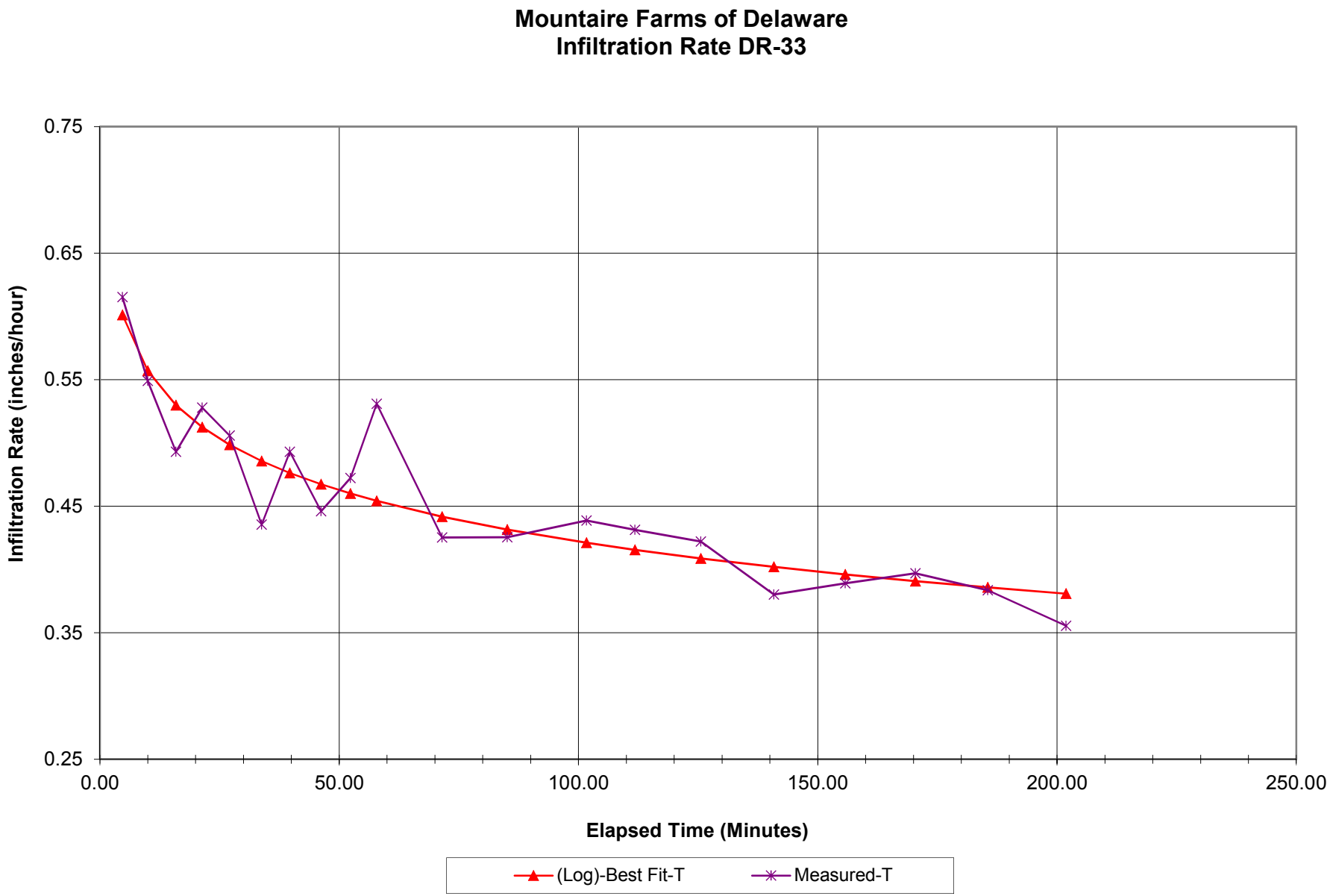

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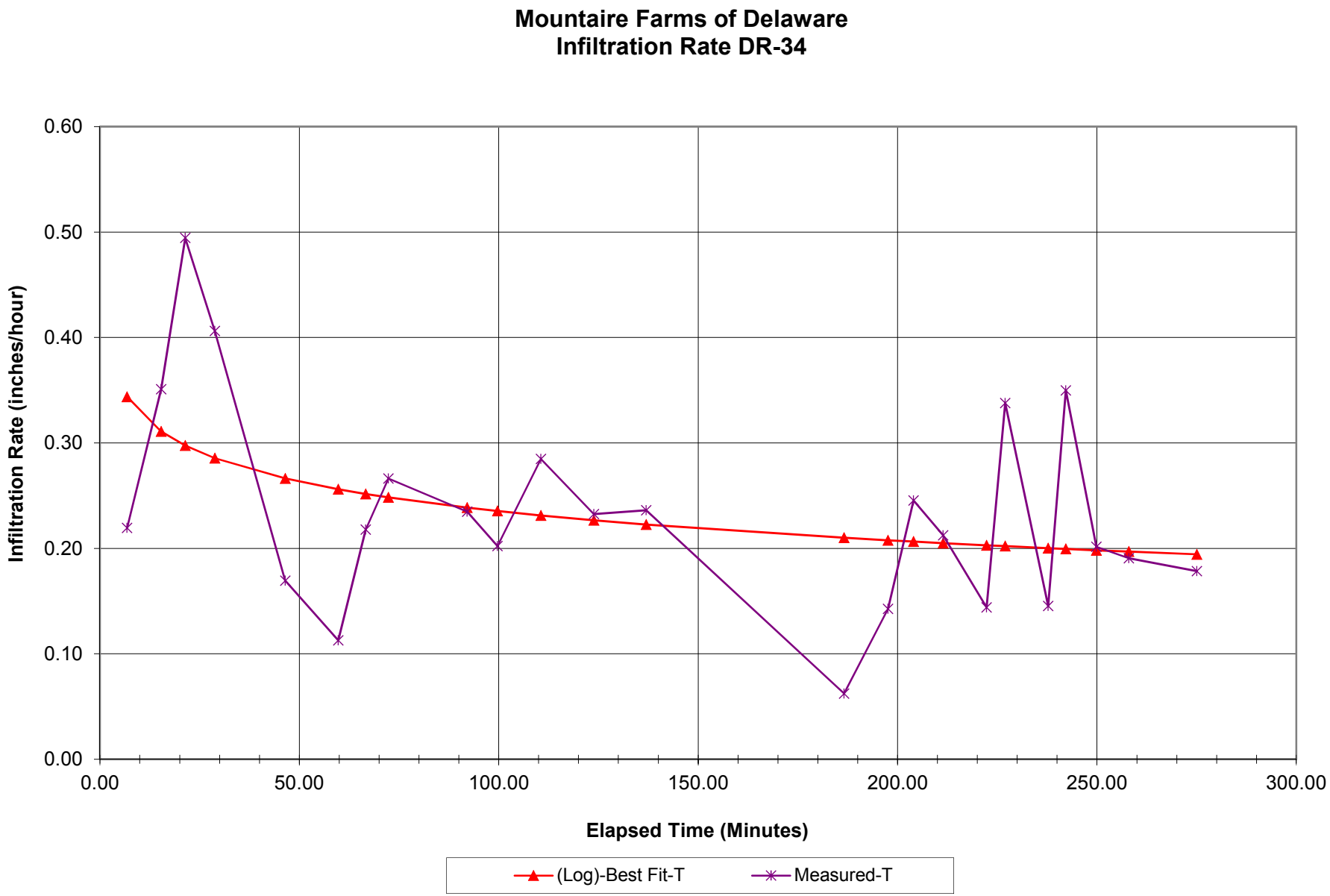

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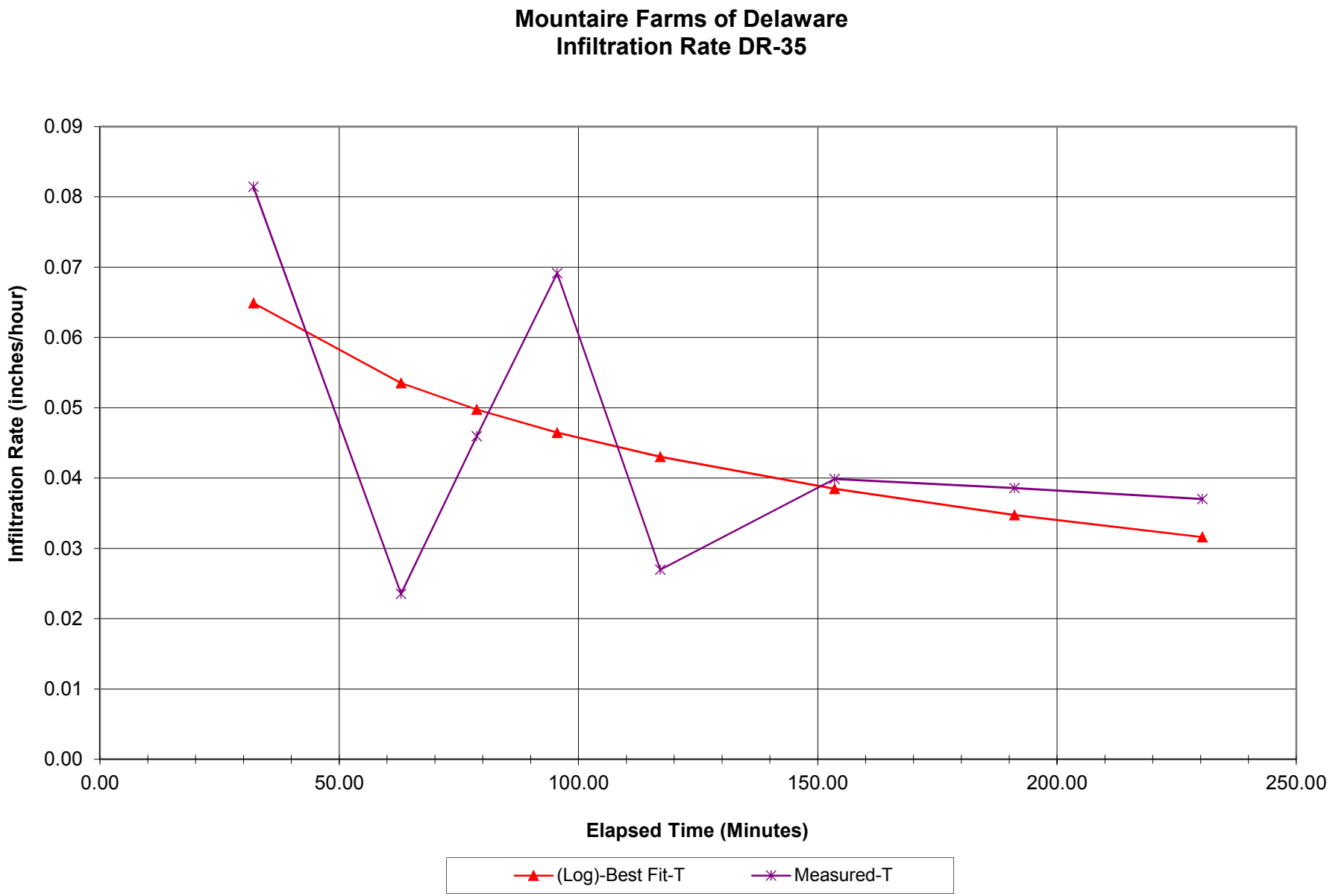
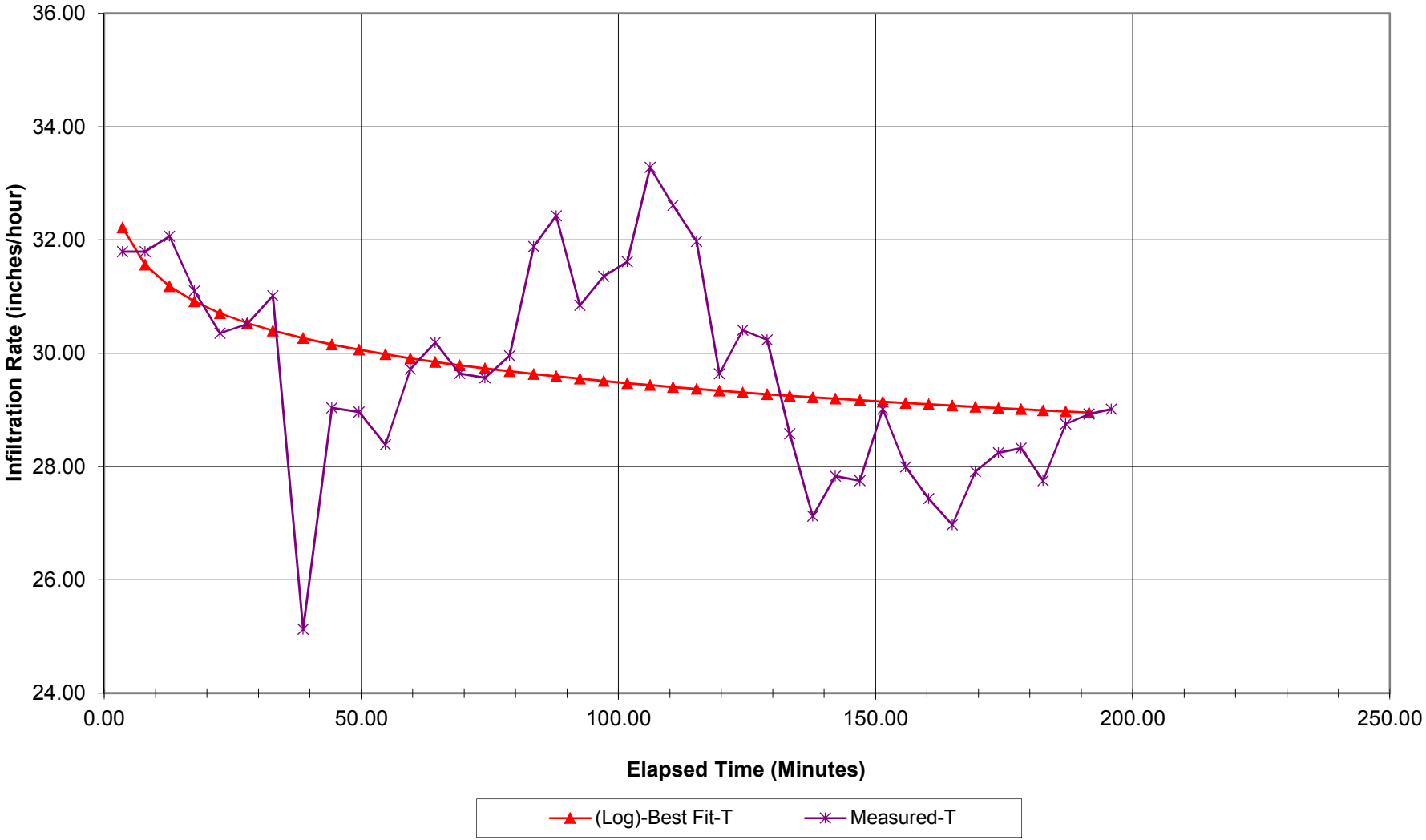


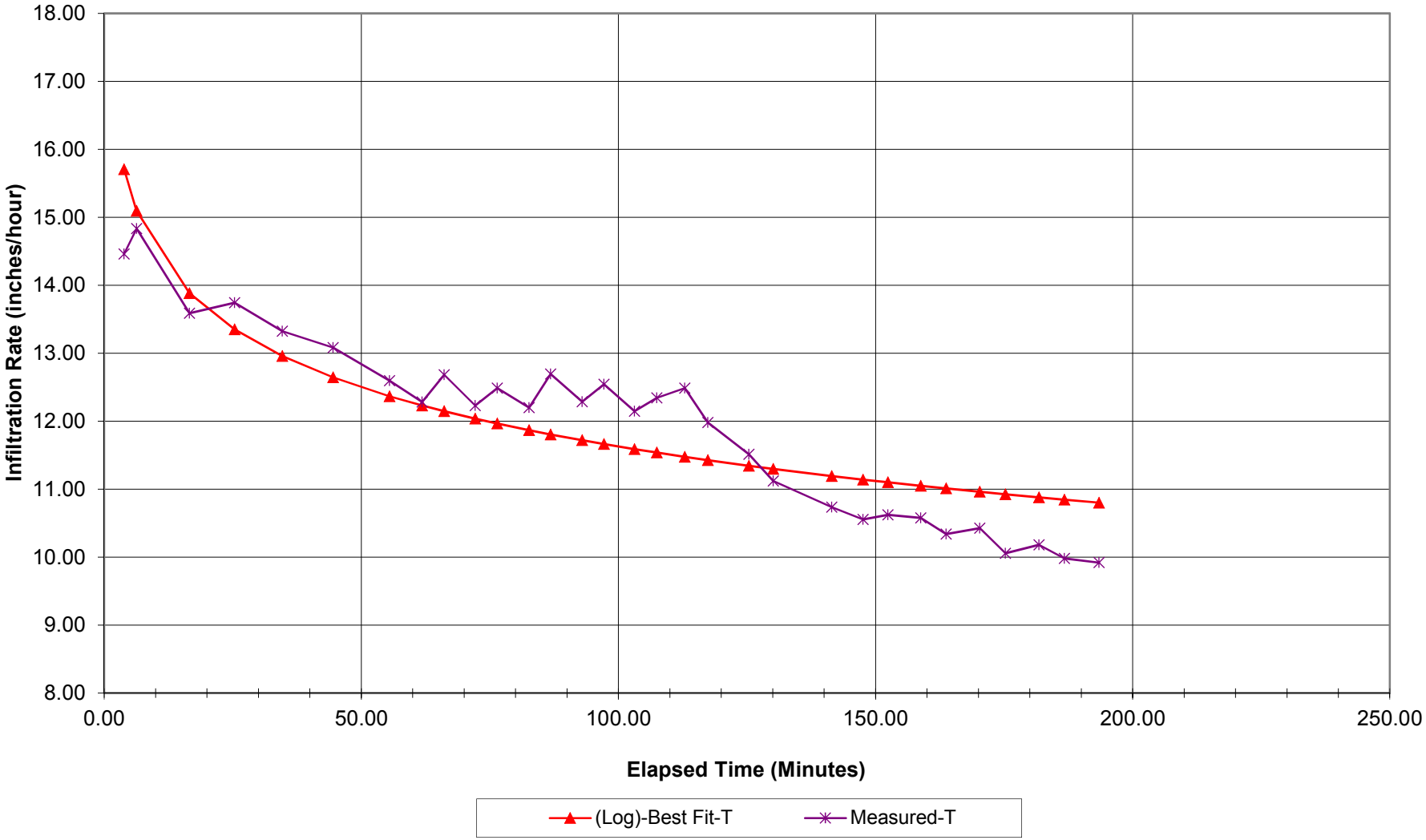
EARTH DATA INCORPORATED

Mountaire Farms of Delaware
Infiltration Rate DR-36



EARTH DATA INCORPORATED

Mountaire Farms of Delaware
Infiltration Rate DR-37



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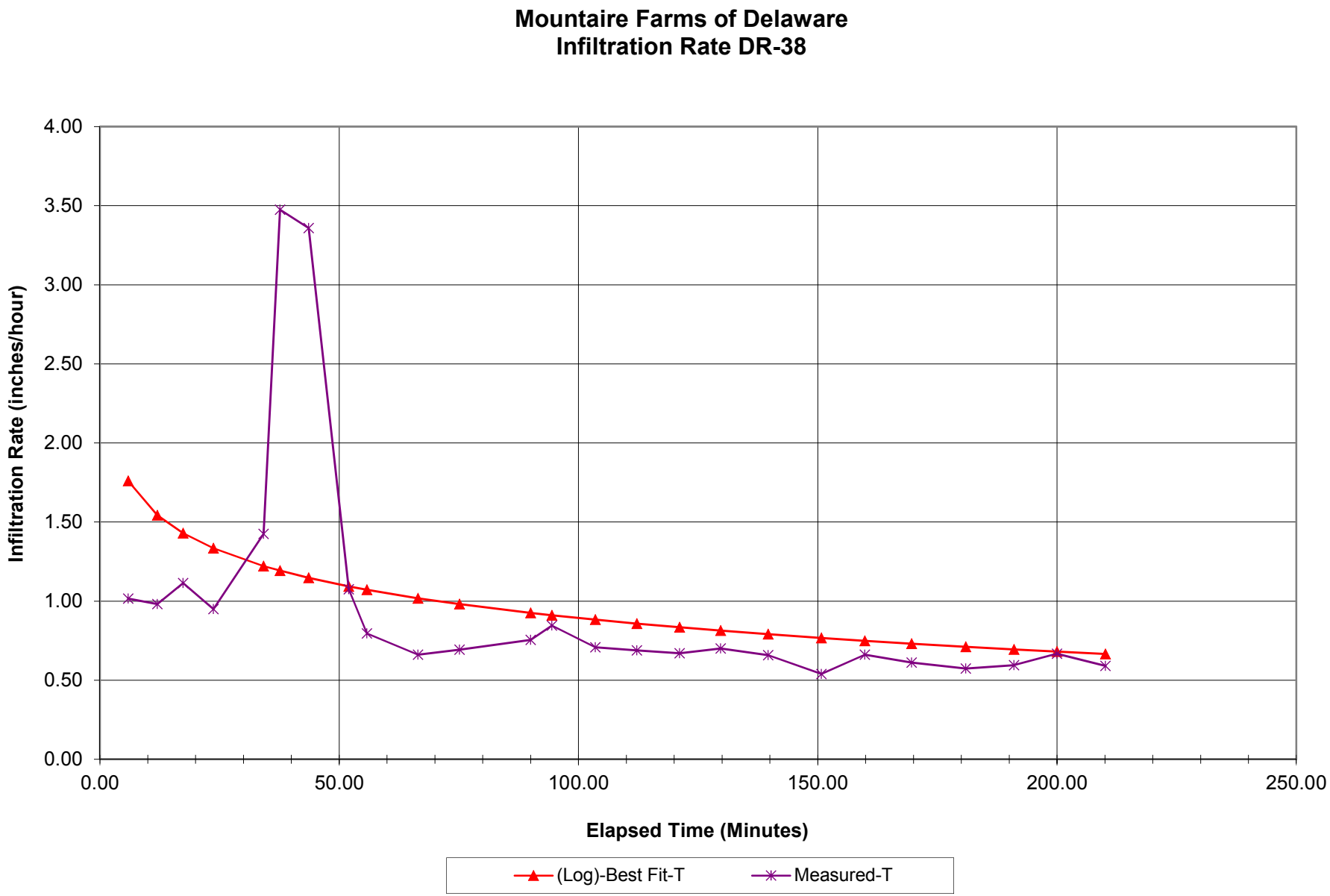

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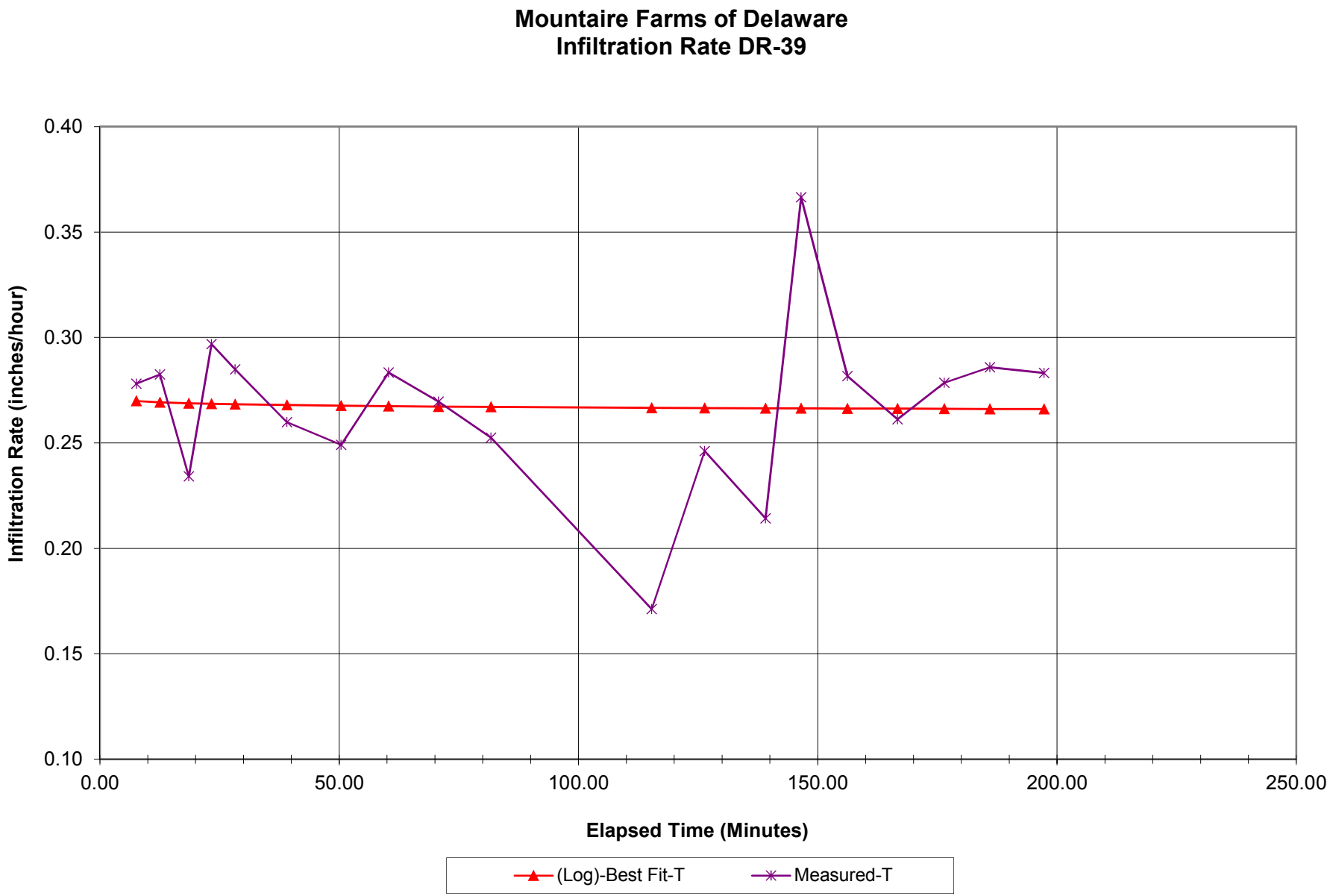

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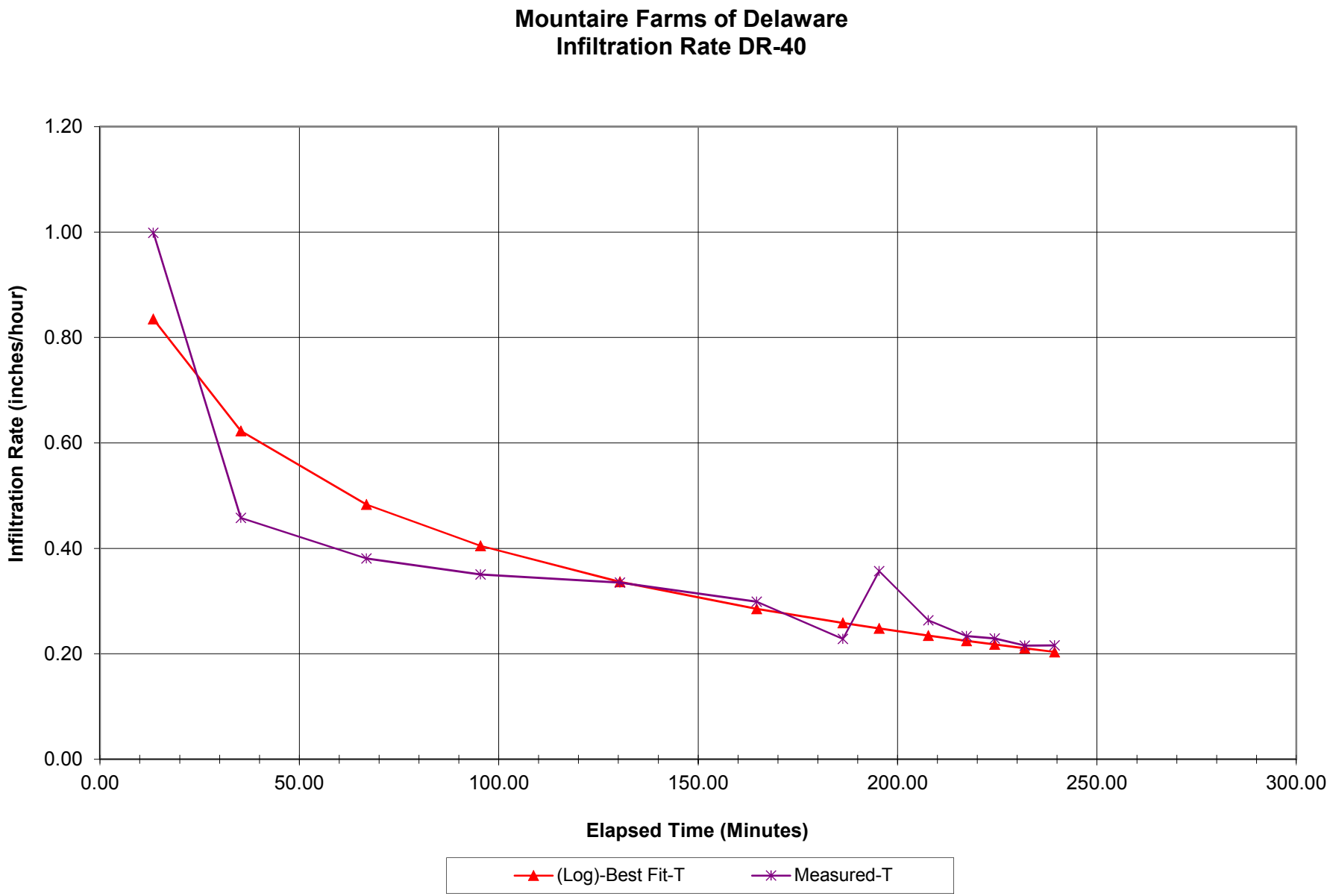

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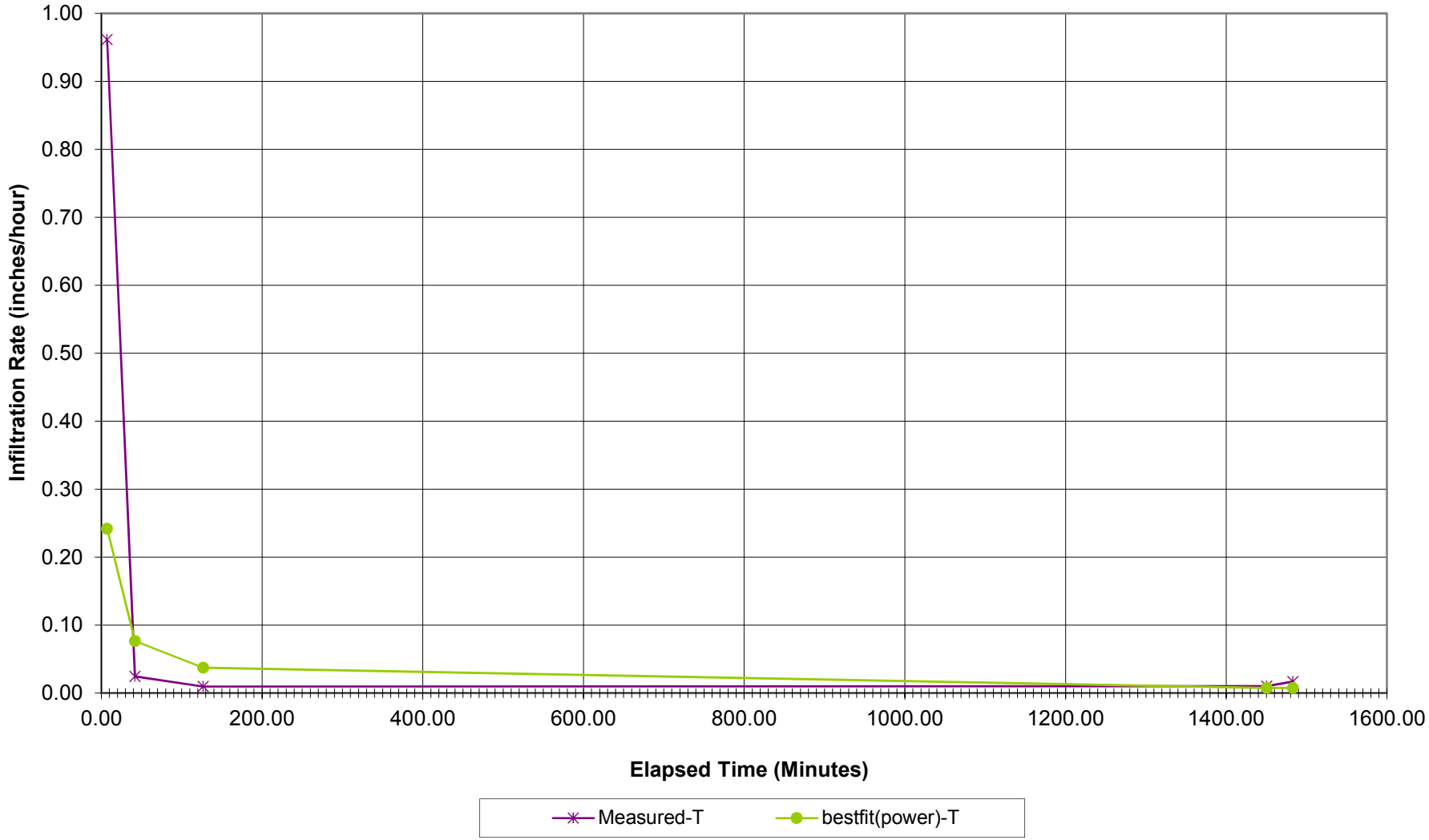
Mountaire Farms of Delaware
Infiltration Rate DR-41



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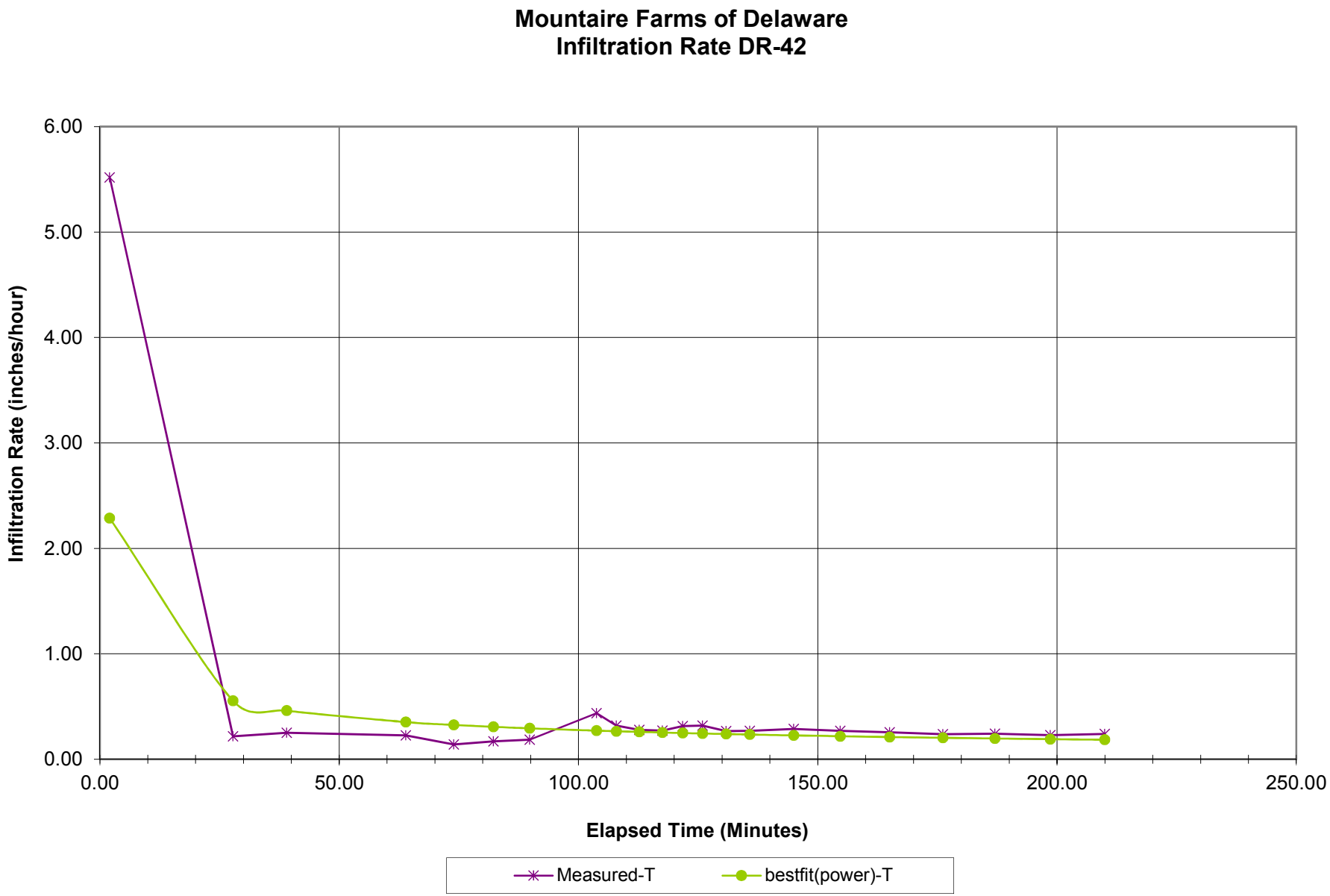

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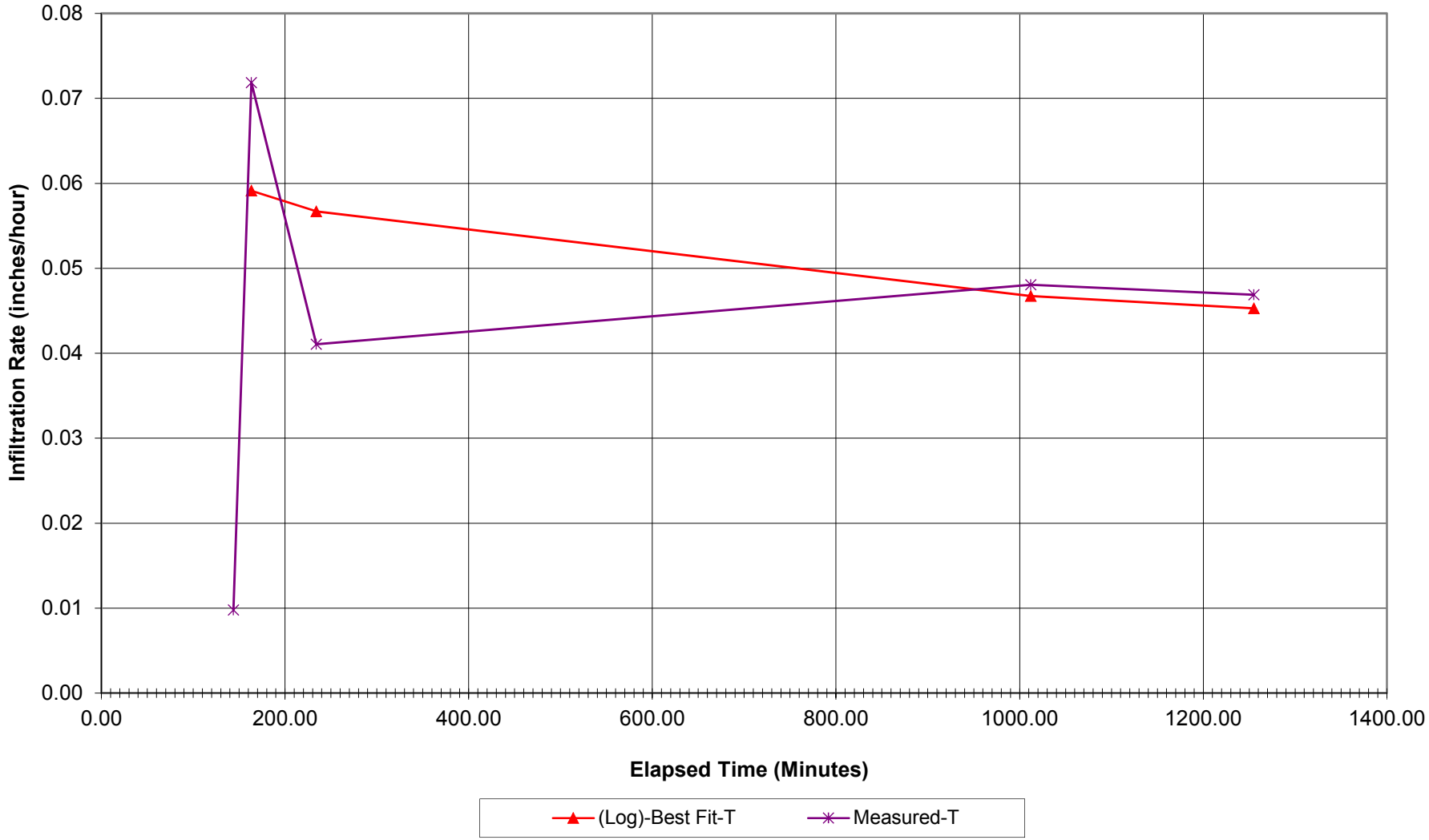
Mountaire Farms of Delaware
Infiltration Rate DR-43



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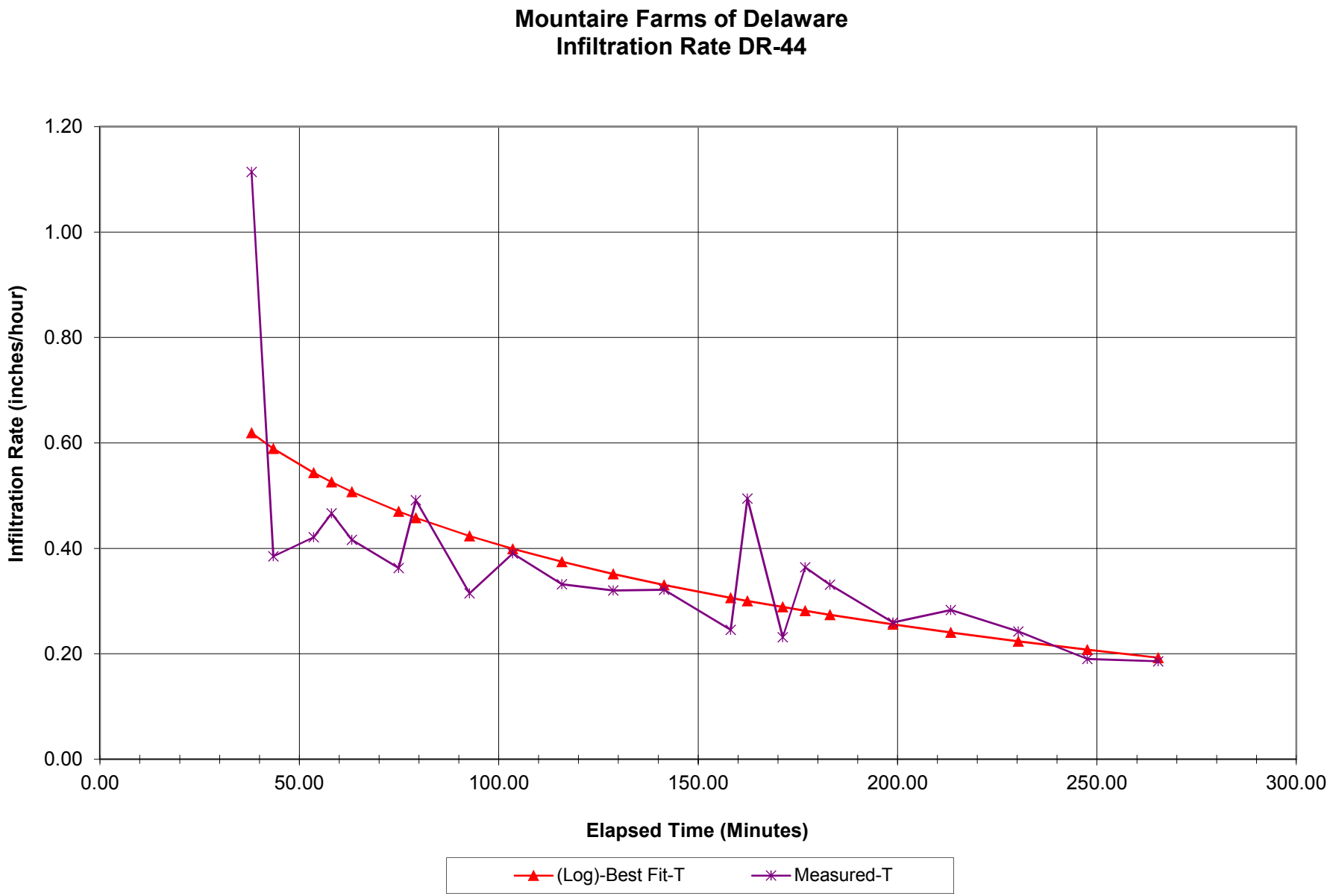

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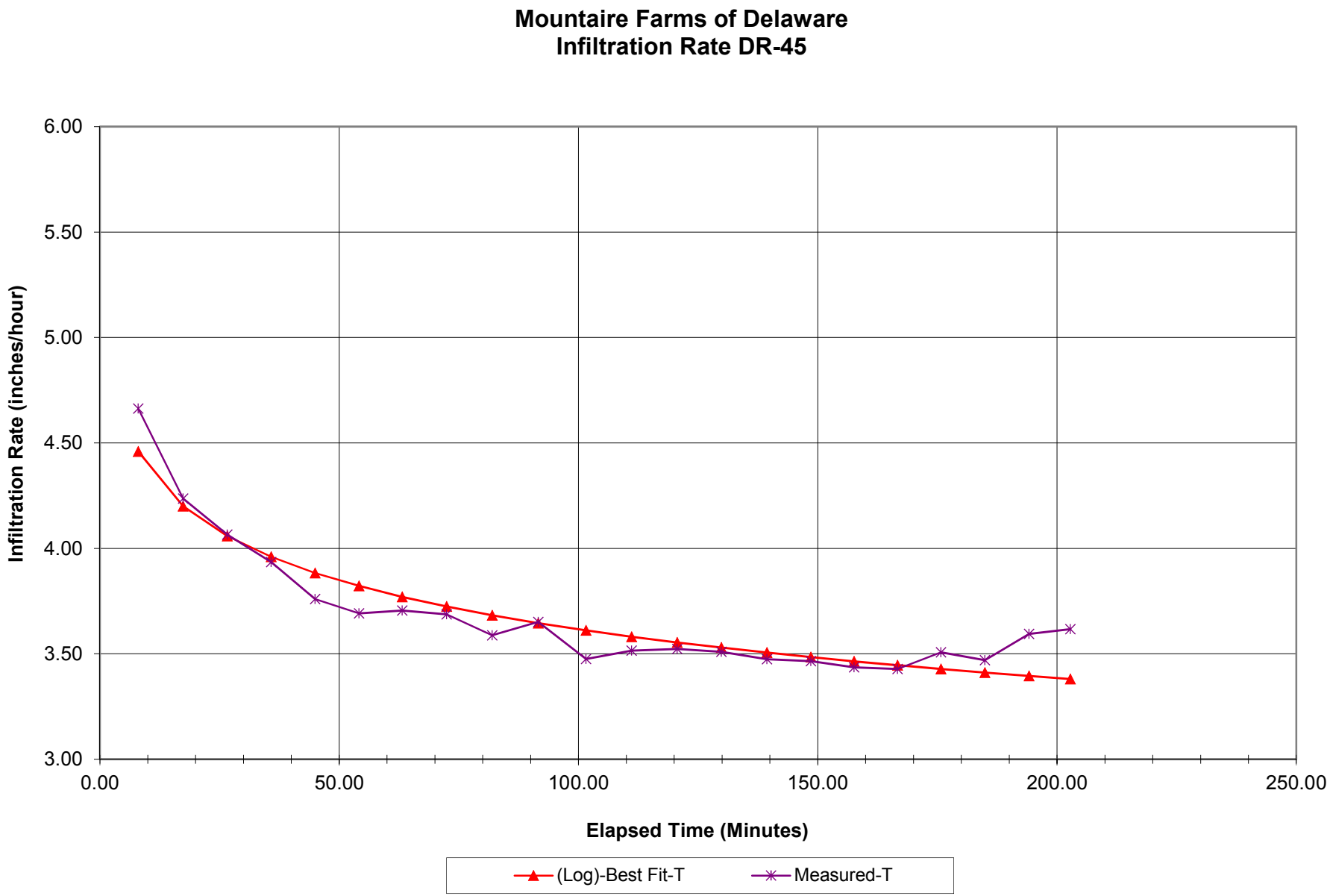

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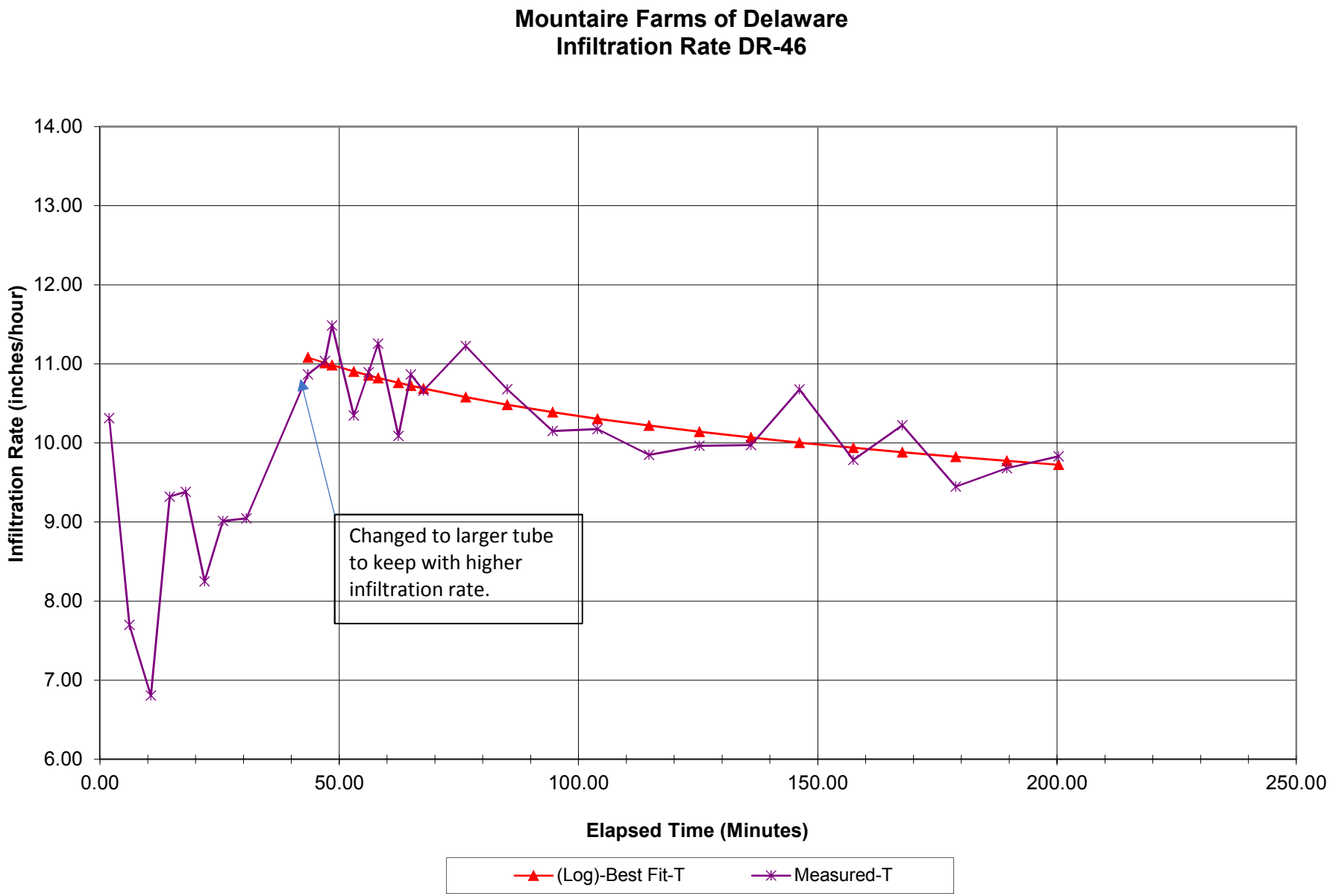

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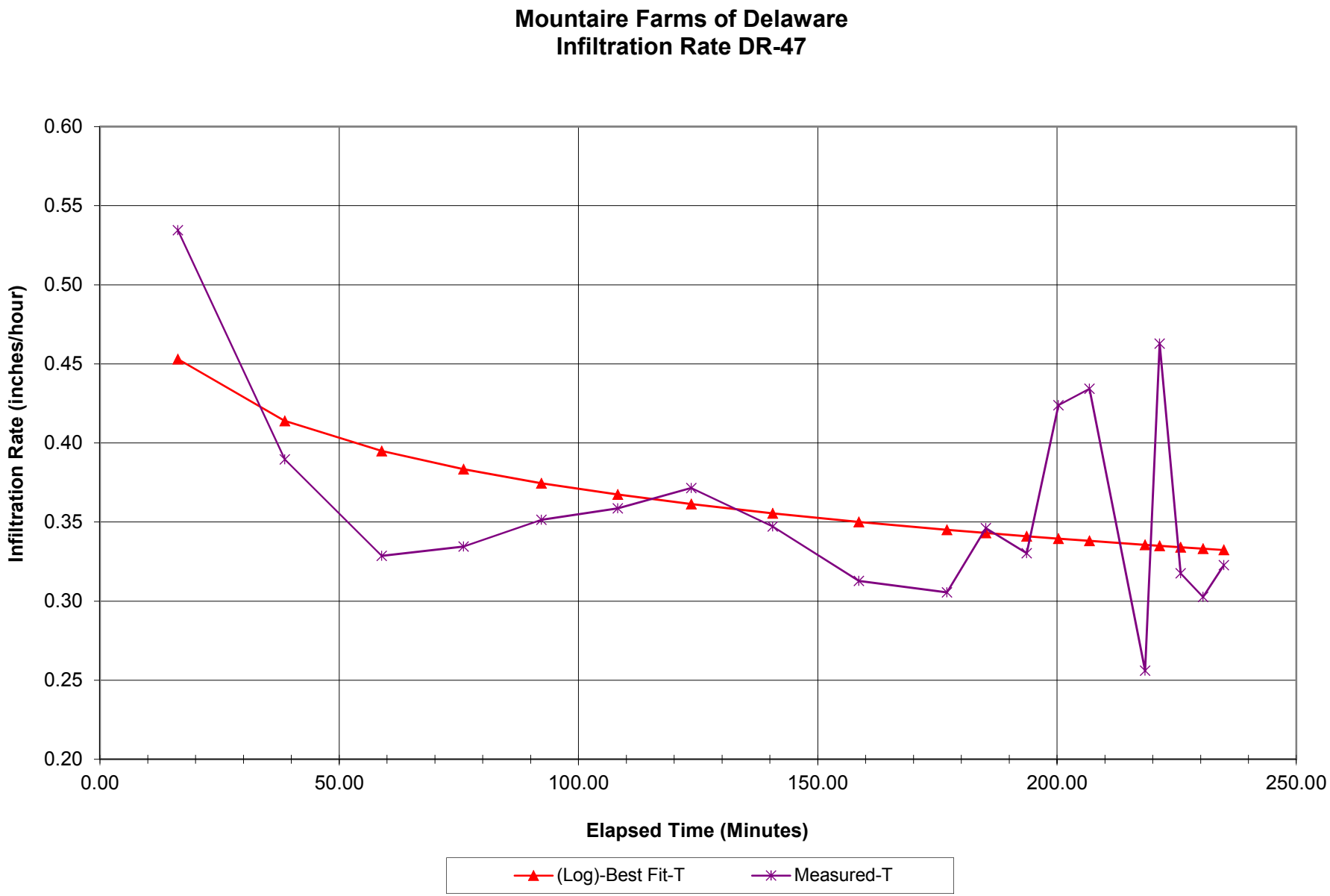

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