Date:

May 9, 2022

**Property Owner:** 

Affordable Development Park, LLC

P.O. Box 910

Caryville, TN 37714

Purpose:

Potential Road Crossing/Fill for

Caryville Limestone, LLC

Qualified Hydrologic

Professional:

Tim K. Slone

TN QHP – 1011-TN11 (Expires 12/31/2023)

IRTEC, Inc.

P. O. Box 306 Caryville, TN 37714

This report is being submitted to the Tennessee Division of Water Resources by a Qualified Hydrologic Professional. All submitted information is true, accurate and complete.

Tim K. Slone

TN QHP 1011-TN11 (expiration date 12/31/2023)



# Tennessee Department of Environment and Conservation - Division of Water Resources 312 Rosa L. Parks Ave. 11th Floor. Nashville, TN 37243

#### **Hydrologic Determination Field Data Sheet**

Tennessee Division of Water Resources, Version 1.5 (Fillable Form)

Named Waterbody: Unnamed Trib to Right Fork of Coal Creek	Date/Time: 4/5/22				
Assessors/Affiliation: Tim K. Slone, Consulting Engineer QHD 10	011-TN11 Project ID :				
Site Name/Description: Caryville Limestone					
Site Location: 1608 TN-116, Caryville, TN 37714					
HUC (12 digit): 060102070401	Latitude: 36.2657				
Previous Rainfall (7-days): 0.40"	Longitude: -84.1845				
Precipitation this Season vs. Normal: Source of recent & seasonal precip. data:  CJUC/NOAA					
Watershed Size : ~170 acres	County: Campbell				
Soil Type(s) / Geology : Claiborne Silt Loam/Dolomite & Karst Source: WebSoil/USG					
Surrounding Land Use: Forest/Some Open Land/Active Quarry					
Degree of historical alteration to natural channel morphology & hvdrology (select one & describe fully in Notes) : Slight					

### **Primary Field Indicators Observed**

Primary Indicators	NO	YES
Hydrologic feature exists solely due to a process discharge	<b>1</b>	WWC
2. Defined bed and bank absent, vegetation composed of upland and FACU species		WWC
Watercourse dry anytime during February through April 15th, under normal precipitation / groundwater conditions		WWC
<ol> <li>Daily flow and precipitation records showing feature only flows in direct response to rainfall</li> </ol>	<b>V</b>	WWC
<ol> <li>Presence of multiple populations of obligate lotic organisms with ≥ 2 month aquatic phase</li> </ol>	V	Stream
6. Presence of fish (except Gambusia)	1	Stream
7. Presence of naturally occurring ground water table connection	<b>V</b>	Stream
8. Flowing water in channel and 7 days since last precip >0.1" in local watershed	<b>√</b>	Stream
Evidence watercourse has been used as a supply of drinking water	<b>✓</b>	Stream

NOTE: If any Primary Indicators 1-9 = "Yes", then no further investigation is necessary. However, assessors may choose to score secondary indicators as supporting evidence.

In the absence of a primary indicator, or other definitive evidence, complete the secondary indicator table on page 2 of this sheet, and provide score below.

Guidance for the interpretation and scoring of both the primary & secondary indicators is provided in TDEC-DWR Guidance For Making Hydrologic Determinations, Version 1.5

Overall Hydrologic Determination = WET WEATHER CONVEYANCE  Secondary Indicator Score (if applicable) = 0.00	

#### Justification / Notes:

Water course has been altered by anthropogenic activities including railroad construction, logging, exploration activities, downstream residential development and an active limestone quarry.

The lower reach lacked any defined bed and bank and was dry during the primary indicator season under normal precipitation conditions. At the railroad crossing, it appears that the storm runoff pools up and soaks into the ground. The downstream outlet of the railroad crossing did not indicate a discharge and had no defined channel.

**Table 1. Calculation of Normal Weather Conditions** 

	···	Long-te	erm rainfall	records					1-
	Month	Minus One Std. Dev. (Dry)	Normal (Mean inches)	Plus One Std. Dev. (Wet)	Actual Rainfall *	Condition (dry,wet normal)	Condition value	Month weight value	Product of previous two columns
1 <sup>st</sup> prior									
month*	Mar	2.76	5.48	8.20	2.80	normal	2	х 3	6
2 <sup>nd</sup> prior									
month*	Feb	3.09	5.35	7.61	8.30	wet	3	x 2	6
3rd prior									
month*	Jan	2.92	5.11	7.30	2.40	dry	1	x 1	1
								Sum =	13

<sup>\*</sup> CJUC Caryville Water Plant

### Note:

If sum is:	
6-9	Then prior period has been dryer than normal
10-14	Then prior period has been normal
15-18	Then prior period has been wetter than normal

Conditon Value:	
Dry =	1
Normal =	2
Wet =	3

Conclussions:	normal weather conditions	
		 2022



U.S. Climate Normals

**Product Information** 

Home / Access / Normals

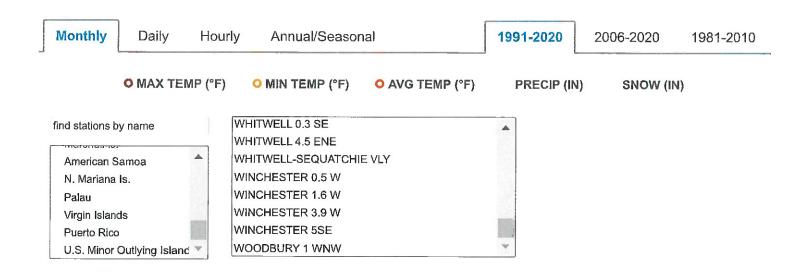
## U.S. Climate Normals Quick Access

The U.S. Climate Normals Quick Access tool provides graphs and tables of average temperature, precipitation, and snowfall at more than 15,000 U.S. observation stations. For access to other climatological statistics and variables, visit the <u>Normals Homepage</u>.

Choose from one of three averaging periods:

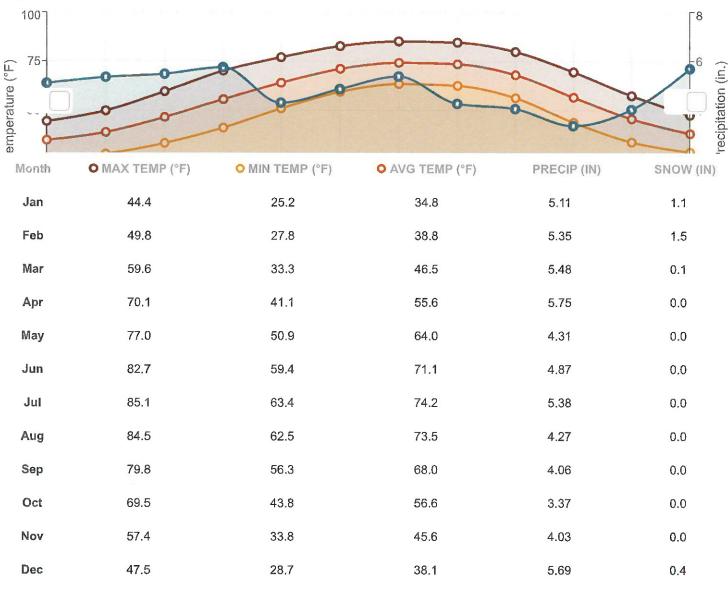
- Latest 30-year period (1991-2020): Most recent standard climatological period (2021 release); recommended for most purposes.
- Latest 15-year period (2006-2020): Non-standard shorter period intended for special applications.
- Legacy period (1981-2010): Previous standard climatological period (2011 release); calculated using 2011 versions of data and methods; use caution when comparing to periods from the 2021 release.

## Search Instructions [+]



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Get this data as <u>.csv</u> | <u>.pdf</u> Station info: <u>USC00406619</u>





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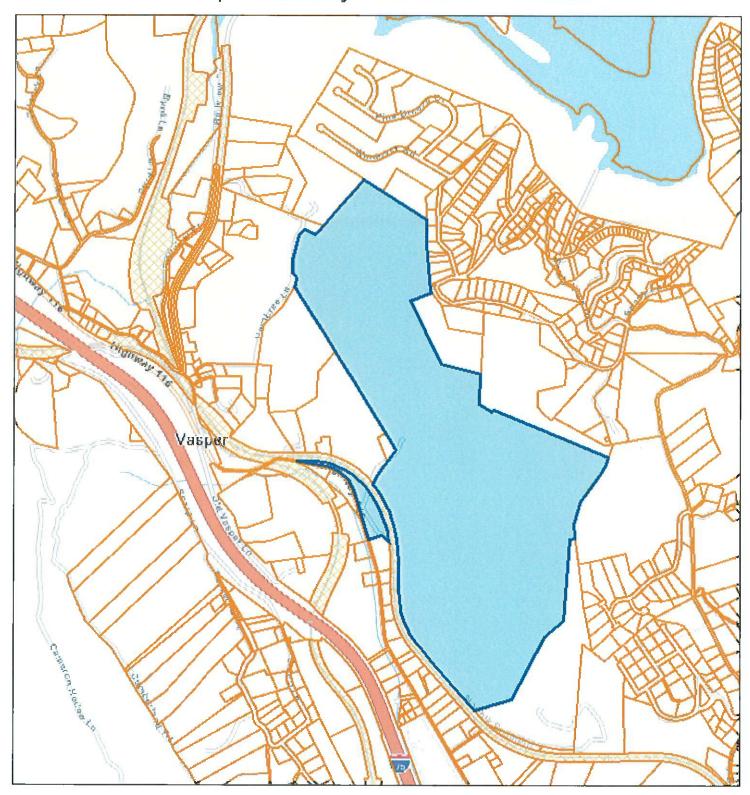
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- 1 218.620166368195
- 2 226.019580152351
- 3 271.535363202268
- 4 242.415197880136
- 5 207.675139757915
- 6 233.320573023294
- 7 235.863091557759
- 8 206.127584821852
- 9 194.505368479502
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- 21 194.505368479502
- 22 162.201457000427
- 23 207.991217436247
- 24 273.657184619512

# Campbell County - Parcel: 127 069.00



Date: May 9, 2022 County: Campbell

Owner: AFFORDABLE DEVELOPMENT

Address: HWY 116 OFF OF Parcel Number: 127 069.00 Deeded Acreage: 267.62 Calculated Acreage: 0 Date of Imagery: 2019

State of Tennessee, Comptroller of the Treasury, Department of Property Assessment (DPA) - Geographic Services



