# APPROVED JURISDICTIONAL DETERMINATION FORM U.S. Army Corps of Engineers

This form should be completed by following the instructions provided in Section IV of the JD Form Instructional Guidebook.

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В.	DISTRICT	OFFICE,	, FILE NAME.	, AND NUMBER:	CENAP-OPR-2021-00949-95

В.	DISTRICT OFFICE, FILE NAME, AND NUMBER: CENAP-OPR-2021-00949-95
c.	PROJECT LOCATION AND BACKGROUND INFORMATION:  State: Pennsylvania County/parish/borough: Montgomery County City: Zieglerville/Lower Frederick Township Center coordinates of site (lat/long in degree decimal format): Lat. 40.280690° N, Long75.487050° W.  Universal Transverse Mercator:  Name of nearest waterbody: Scioto Creek  Name of nearest Traditional Navigable Water (TNW) into which the aquatic resource flows: Schuylkill River  Name of watershed or Hydrologic Unit Code (HUC): 020402030805.  Check if map/diagram of review area and/or potential jurisdictional areas is/are available upon request.  Check if other sites (e.g., offsite mitigation sites, disposal sites, etc) are associated with this action and are recorded on a different JD form.
D.	REVIEW PERFORMED FOR SITE EVALUATION (CHECK ALL THAT APPLY):  ☐ Office (Desk) Determination. Date: 12 November 2021 by Robert Youhas, Biologist, USACE-Philadelphia District. ☐ Field Determination. Date(s): 22 October 2021 by Robert Youhas, Biologist, USACE-Philadelphia District.
	CTION II: SUMMARY OF FINDINGS RHA SECTION 10 DETERMINATION OF JURISDICTION.
	re Are no "navigable waters of the U.S." within Rivers and Harbors Act (RHA) jurisdiction (as defined by 33 CFR part 329) in the lew area. [Required]  Waters subject to the ebb and flow of the tide.  Waters are presently used, or have been used in the past, or may be susceptible for use to transport interstate or foreign commerce. Explain:
В.	CWA SECTION 404 DETERMINATION OF JURISDICTION.
The	ere Are "waters of the U.S." within Clean Water Act (CWA) jurisdiction (as defined by 33 CFR part 328) in the review area. [Required]
	1. Waters of the U.S.  a. Indicate presence of waters of U.S. in review area (check all that apply):  TNWs, including territorial seas  Wetlands adjacent to TNWs  Relatively permanent waters <sup>2</sup> (RPWs) that flow directly or indirectly into TNWs  Non-RPWs that flow directly or indirectly into TNWs  Wetlands directly abutting RPWs that flow directly or indirectly into TNWs  Wetlands adjacent to but not directly abutting RPWs that flow directly or indirectly into TNWs  Wetlands adjacent to non-RPWs that flow directly or indirectly into TNWs  Impoundments of jurisdictional waters  Isolated (interstate or intrastate) waters, including isolated wetlands
	b. Identify (estimate) size of waters of the U.S. in the review area:  Non-wetland waters: linear feet: width (ft) and/or 0.90 acres.  Wetlands: 0.0 acres.
	c. Limits (boundaries) of jurisdiction based on: Established by OHWM.  Elevation of established OHWM (if known): approximately 270.0-feet above sea level.
	2. Non-regulated waters/wetlands (check if applicable):  Potentially jurisdictional waters and/or wetlands were assessed within the review area and determined to be not jurisdictional Explain:  Explain:

Boxes checked below shall be supported by completing the appropriate sections in Section III below.
 For purposes of this form, an RPW is defined as a tributary that is not a TNW and that typically flows year-round or has continuous flow at least "seasonally" (e.g., typically 3 months).
 Supporting documentation is presented in Section III.F.

### **SECTION III: CWA ANALYSIS**

### A. TNWs AND WETLANDS ADJACENT TO TNWs

The agencies will assert jurisdiction over TNWs and wetlands adjacent to TNWs. If the aquatic resource is a TNW, complete Section III.A.1 and Section III.D.1. only; if the aquatic resource is a wetland adjacent to a TNW, complete Sections III.A.1 and 2 and Section III.D.1.; otherwise, see Section III.B below.

1.	TNW Identify TNW:
	Summarize rationale supporting determination: .
2.	Wetland adjacent to TNW

Summarize rationale supporting conclusion that wetland is "adjacent":

# B. CHARACTERISTICS OF TRIBUTARY (THAT IS NOT A TNW) AND ITS ADJACENT WETLANDS (IF ANY):

This section summarizes information regarding characteristics of the tributary and its adjacent wetlands, if any, and it helps determine whether or not the standards for jurisdiction established under *Rapanos* have been met.

The agencies will assert jurisdiction over non-navigable tributaries of TNWs where the tributaries are "relatively permanent waters" (RPWs), i.e. tributaries that typically flow year-round or have continuous flow at least seasonally (e.g., typically 3 months). A wetland that directly abuts an RPW is also jurisdictional. If the aquatic resource is not a TNW, but has year-round (perennial) flow, skip to Section III.D.2. If the aquatic resource is a wetland directly abutting a tributary with perennial flow, skip to Section III.D.4.

A wetland that is adjacent to but that does not directly abut an RPW requires a significant nexus evaluation. Corps districts and EPA regions will include in the record any available information that documents the existence of a significant nexus between a relatively permanent tributary that is not perennial (and its adjacent wetlands if any) and a traditional navigable water, even though a significant nexus finding is not required as a matter of law.

If the waterbody is not an RPW, or a wetland directly abutting an RPW, a JD will require additional data to determine if the waterbody has a significant nexus with a TNW. If the tributary has adjacent wetlands, the significant nexus evaluation must consider the tributary in combination with all of its adjacent wetlands. This significant nexus evaluation that combines, for analytical purposes, the tributary and all of its adjacent wetlands is used whether the review area identified in the JD request is the tributary, or its adjacent wetlands, or both. If the JD covers a tributary with adjacent wetlands, complete Section III.B.1 for the tributary, Section III.B.2 for any onsite wetlands, and Section III.B.3 for all wetlands adjacent to that tributary, both onsite and offsite. The determination whether a significant nexus exists is determined in Section III.C below.

### 1. Characteristics of non-TNWs that flow directly or indirectly into TNW

(i) General Area Conditions:

Watershed size: 35,476,44 acres

# Drainage area: 55.52 square miles Average annual rainfall: 46.9 inches Average annual snowfall: 20.9 inches (ii) Physical Characteristics: (a) Relationship with TNW: ☐ Tributary flows directly into TNW. ☐ Tributary flows through 3 tributaries before entering TNW. Project waters are S-10 aerial (straight) miles from TNW. Project waters are 1 (or less) aerial (straight) miles from RPW. Project waters cross or serve as state boundaries. Explain: N/A.

<sup>&</sup>lt;sup>4</sup> Note that the Instructional Guidebook contains additional information regarding swales, ditches, washes, and erosional features generally and in the arid West.

(Feature A on enclosed drawing E-1); Scioto Creek flows to Swamp Creek; Swamp Creek flows to Perkiomen Creek; and Perkiomen Creek flows to the Schuylkill River (TNW). Tributary stream order, if known: N/A. (b) General Tributary Characteristics (check all that apply): Tributary is: ■ Natural ☐ Artificial (man-made). Explain: ☐ Manipulated (man-altered). Explain: **Tributary** properties with respect to top of bank (estimate): Average width: ranges from approximately 2.0-10.0 feet Average depth: ranges from approximately 0.5-3.0 feet Average side slopes: 3:1. Primary tributary substrate composition (check all that apply): ■ Sands ☐ Concrete **⊠** Gravel ☐ Muck ■ Bedrock ☐ Vegetation. Type/% cover: ☑ Other. Explain: Penn Series Silty Loam. Tributary condition/stability [e.g., highly eroding, sloughing banks]. Explain: Stable banks, stepped/terraced in certain portions, large cobbles present within naturally carved bed and bank, steep and relatively straight with minor meanders. Presence of run/riffle/pool complexes. Explain: N/A. Tributary geometry: Relatively straight Tributary gradient (approximate average slope): 33 % Tributary provides for: Intermittent but not seasonal flow Estimate average number of flow events in review area/year: 20 (or greater) Describe flow regime: Intermittent flow based on volume of overland sheet flow and existing natural topography. Other information on duration and volume: Well drained soils present; runoff is medium to very rapid and saturated hydraulic conductivity is moderately high to high. Surface flow is: Overland sheetflow. Characteristics: Overland sheetflow that follows the natural topography of the landscape where it drains via Feature B (UNT to Scioto Creek) to Feature A (Scioto Creek). Subsurface flow: Unknown. Explain findings: Presence of relatively shallow bedrock at 20-40 inches below surface. Dye (or other) test performed: Tributary has (check all that apply): Bed and banks ☑ OHWM<sup>6</sup> (check all indicators that apply): ☐ clear, natural line impressed on the bank ☒ the presence of litter and debris ☐ changes in the character of soil destruction of terrestrial vegetation П ■ shelving the presence of wrack line □ vegetation matted down, bent, or absent □ sediment sorting  $\boxtimes$ leaf litter disturbed or washed away scour □ sediment deposition multiple observed or predicted flow events ☐ water staining abrupt change in plant community other (list): ☐ Discontinuous OHWM. 7 Explain: If factors other than the OHWM were used to determine lateral extent of CWA jurisdiction (check all that apply): Mean High Water Mark indicated by: High Tide Line indicated by: oil or scum line along shore objects ☐ survey to available datum; ine shell or debris deposits (foreshore) physical markings; physical markings/characteristics vegetation lines/changes in vegetation types. ☐ tidal gauges other (list):

Identify flow route to TNW<sup>5</sup>: The UNT to Scioto Creek (Feature B on enclosed drawing E-1) flows to Scioto Creek

<sup>&</sup>lt;sup>5</sup> Flow route can be described by identifying, e.g., tributary a, which flows through the review area, to flow into tributary b, which then flows into TNW.

<sup>6</sup>A natural or man-made discontinuity in the OHWM does not necessarily sever jurisdiction (e.g., where the stream temporarily flows underground, or where the OHWM has been removed by development or agricultural practices). Where there is a break in the OHWM that is unrelated to the waterbody's flow regime (e.g., flow over a rock outcrop or through a culvert), the agencies will look for indicators of flow above and below the break.

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# (iii) Chemical Characteristics:

Characterize tributary (e.g., water color is clear, discolored, oily film; water quality; general watershed characteristics, etc.). Explain: Generally colorless water. Natural organic sheen in several portions; substantial leaf litter present at the time of the site inpsection (22 October 2021).

Identify specific pollutants, if known: No known pollutants; active crop fields present at top of natural ridge/hill as well as the area bordering the forested corridor where the UNT to Scioto Creek is sited.

(iv)		ogical Characteristics. Channel supports (check all that apply):  Riparian corridor. Characteristics (type, average width): Forested corridor surrounding the UNT to Scioto Creek, ranging between approximately 100-400-linear feet in width; sited in northern portions between active crop fields.  Wetland fringe. Characteristics:  Habitat for:  Federally Listed species. Explain findings: Potential habitat present for Indiana bat (Myotis sodalis), Northern Long-Eared Bat (Myotis septentrionalis), and Bog Turtle (Clemmys muhlenbergii).  Fish/spawn areas. Explain findings:  Other environmentally-sensitive species. Explain findings:  Aquatic/wildlife diversity. Explain findings: Usage of the UNT to Scioto Creek by macroinvertebrates, insects, deer, rodents, and avian wildlife.
Cha	racte	ristics of wetlands adjacent to non-TNW that flow directly or indirectly into TNW
(i)	(a)	sical Characteristics:  General Wetland Characteristics: Properties: Wetland size: acres Wetland type. Explain: Wetland quality. Explain: Project wetlands cross or serve as state boundaries. Explain:
		General Flow Relationship with Non-TNW: Flow is: Pick List. Explain: .
		Surface flow is: Pick List Characteristics:
		Subsurface flow: Pick List. Explain findings:  Dye (or other) test performed:
		Wetland Adjacency Determination with Non-TNW:  □ Directly abutting □ Not directly abutting □ Discrete wetland hydrologic connection. Explain: □ Ecological connection. Explain: □ Separated by berm/barrier. Explain:
		Proximity (Relationship) to TNW Project wetlands are Pick List river miles from TNW. Project waters are Pick List aerial (straight) miles from TNW. Flow is from: Pick List. Estimate approximate location of wetland as within the Pick List floodplain.
(ii)	Char	mical Characteristics: cacterize wetland system (e.g., water color is clear, brown, oil film on surface; water quality; general watershed characteristics; etc.). Explain: tify specific pollutants, if known:
(iii)		ogical Characteristics. Wetland supports (check all that apply):  Riparian buffer. Characteristics (type, average width):  Vegetation type/percent cover. Explain:  Habitat for:  Federally Listed species. Explain findings:  Fish/spawn areas. Explain findings:  Other environmentally-sensitive species. Explain findings:  Aquatic/wildlife diversity. Explain findings:
Cha	All w	veristics of all wetlands adjacent to the tributary (if any) vetland(s) being considered in the cumulative analysis: Pick List roximately ( ) acres in total are being considered in the cumulative analysis.

2.

3.

<u>Directly abuts? (Y/N)</u> <u>Size (in acres)</u> <u>Directly abuts? (Y/N)</u> <u>Size (in acres)</u>

Summarize overall biological, chemical and physical functions being performed:

### C. SIGNIFICANT NEXUS DETERMINATION

A significant nexus analysis will assess the flow characteristics and functions of the tributary itself and the functions performed by any wetlands adjacent to the tributary to determine if they significantly affect the chemical, physical, and biological integrity of a TNW. For each of the following situations, a significant nexus exists if the tributary, in combination with all of its adjacent wetlands, has more than a speculative or insubstantial effect on the chemical, physical and/or biological integrity of a TNW. Considerations when evaluating significant nexus include, but are not limited to the volume, duration, and frequency of the flow of water in the tributary and its proximity to a TNW, and the functions performed by the tributary and all its adjacent wetlands. It is not appropriate to determine significant nexus based solely on any specific threshold of distance (e.g. between a tributary and its adjacent wetland or between a tributary and the TNW). Similarly, the fact an adjacent wetland lies within or outside of a floodplain is not solely determinative of significant nexus.

Draw connections between the features documented and the effects on the TNW, as identified in the *Rapanos* Guidance and discussed in the Instructional Guidebook. Factors to consider include, for example:

- Does the tributary, in combination with its adjacent wetlands (if any), have the capacity to carry pollutants or flood waters to TNWs, or to reduce the amount of pollutants or flood waters reaching a TNW?
- Does the tributary, in combination with its adjacent wetlands (if any), provide habitat and lifecycle support functions for fish and other species, such as feeding, nesting, spawning, or rearing young for species that are present in the TNW?
- Does the tributary, in combination with its adjacent wetlands (if any), have the capacity to transfer nutrients and organic carbon that support downstream foodwebs?
- Does the tributary, in combination with its adjacent wetlands (if any), have other relationships to the physical, chemical, or biological integrity of the TNW?

Note: the above list of considerations is not inclusive and other functions observed or known to occur should be documented below:

- 1. Significant nexus findings for non-RPW that has no adjacent wetlands and flows directly or indirectly into TNWs. Explain findings of presence or absence of significant nexus below, based on the tributary itself, then go to Section III.D: The UNT to Scioto Creek (Feature B on enclosed drawing E-1) flows to Scioto Creek (Feature A on enclosed drawing E-1); Scioto Creek flows to Swamp Creek; Swamp Creek flows to Perkiomen Creek; and Perkiomen Creek flows to the Schuylkill River (TNW). The UNT to Scioto Creek provides the following functions to the TNW: runoff transport; runoff storage; sediment and pollutant trapping; nutrient transport and recycling; and export of organic material. Thus, the UNT to Scioto Creek was determined, via significant nexus evaluation, to be a jurisdictional non-RPW.
- 2. Significant nexus findings for non-RPW and its adjacent wetlands, where the non-RPW flows directly or indirectly into TNWs. Explain findings of presence or absence of significant nexus below, based on the tributary in combination with all of its adjacent wetlands, then go to Section III.D: N/A.
- 3. Significant nexus findings for wetlands adjacent to an RPW but that do not directly abut the RPW. Explain findings of presence or absence of significant nexus below, based on the tributary in combination with all of its adjacent wetlands, then go to Section III.D: N/A.

D.	DETERMINATIONS	OF JURISDICTIONAL	FINDINGS.	THE SUBJECT	WATERS/WETLANDS	ARE (CHECK	ALL
	THAT APPLY):						

1.	TNWs and Ac	ljacent Wetlands.	Check all that apply	and provide size estimates in review area:
	$\square$ TNWs:	linear feet	width (ft), Or,	acres.
	☐ Wetlands a	djacent to TNWs:	acres.	

2. RPWs that flow directly or indirectly into TNWs.

Tributaries of TNWs where tributaries typically flow year-round are jurisdictional. Provide data and rationale indicating that tributary is perennial: Approximately 0.80-acres of Scioto Creek and 0.10-acres of an unnamed tributary (UNT) to Scioto Creek were determined to be present at the subject property. The UNT to Scioto Creek (Feature B on enclosed drawing E-1)

flows to Scioto Creek (Feature A on enclosed drawing E-1); Scioto Creek flows to Swamp Creek; Swamp Creek flows to Perkiomen Creek; and Perkiomen Creek flows to the Schuylkill River (TNW). From review of all documentation submitted to this office for the jurisdictional determination request, to include site photos and aerial photography; as well as observations made during the 22 October 2021 field visit, Scioto Creek was determined to be a perennial water feature (i.e. an RPW) with established bed and bank, Ordinary High Water mark, and flowing water present. The UNT to Scioto Creek was determined, via significant nexus evaluation, to be a jurisdictional non-RPW (see Section III.B.1, Section III.C.1, and Section III.D.3).  Tributaries of TNW where tributaries have continuous flow "seasonally" (e.g., typically three months each year) are jurisdictional. Data supporting this conclusion is provided at Section III.B. Provide rationale indicating that tributary flows seasonally:
Provide estimates for jurisdictional waters in the review area (check all that apply):  Tributary waters: 0.80 acres (Scioto Creek) - Feature A on enclosed drawing E-1.  linear feet width (ft).
Other non-wetland waters: acres.  Identify type(s) of waters: .
Non-RPWs <sup>8</sup> that flow directly or indirectly into TNWs.  Waterbody that is not a TNW or an RPW, but flows directly or indirectly into a TNW, and it has a significant nexus with a TNW is jurisdictional. Data supporting this conclusion is provided at Section III.C.
Provide estimates for jurisdictional waters within the review area (check all that apply):  Tributary waters: 0.10 acres (UNT to Scioto Creek) - Feature B on enclosed drawing E-1.
linear feet width (ft).  Other non-wetland waters: acres.  Identify type(s) of waters: .
Wetlands directly abutting an RPW that flow directly or indirectly into TNWs.  Wetlands directly abut RPW and thus are jurisdictional as adjacent wetlands.  Wetlands directly abutting an RPW where tributaries typically flow year-round. Provide data and rationale indicating that tributary is perennial in Section III.D.2, above. Provide rationale indicating that wetland is directly abutting an RPW:
Wetlands directly abutting an RPW where tributaries typically flow "seasonally." Provide data indicating that tributary is seasonal in Section III.B and rationale in Section III.D.2, above. Provide rationale indicating that wetland is directly abutting an RPW:
Provide acreage estimates for jurisdictional wetlands in the review area: acres.
Wetlands adjacent to but not directly abutting an RPW that flow directly or indirectly into TNWs.  Wetlands that do not directly abut an RPW, but when considered in combination with the tributary to which they are adjacent and with similarly situated adjacent wetlands, have a significant nexus with a TNW are jurisidictional. Data supporting this conclusion is provided at Section III.C.
Provide acreage estimates for jurisdictional wetlands in the review area: acres.
Wetlands adjacent to non-RPWs that flow directly or indirectly into TNWs.  Wetlands adjacent to such waters, and have when considered in combination with the tributary to which they are adjacent and with similarly situated adjacent wetlands, have a significant nexus with a TNW are jurisdictional. Data supporting this conclusion is provided at Section III.C.
Provide estimates for jurisdictional wetlands in the review area: acres.
As a general rule, the impoundment of a jurisdictional tributary remains jurisdictional.  Demonstrate that impoundment was created from "waters of the U.S.," or  Demonstrate that water meets the criteria for one of the categories presented above (1-6), or  Demonstrate that water is isolated with a nexus to commerce (see E below).

3.

4.

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6.

7.

 $<sup>^8</sup> See\ Footnote \#\,3.$   $^9\ To\ complete the analysis\ refer\ to\ the\ key\ in\ Section\ III.D.6$  of the Instructional Guidebook.

from which fish or shellfish are or could be taken and sold in interstate or foreign commerce. which are or could be used for industrial purposes by industries in interstate commerce. Interstate isolated waters. Explain: Other factors. Explain:
Identify water body and summarize rationale supporting determination:
Provide estimates for jurisdictional waters in the review area (check all that apply):  Tributary waters: linear feet width(ft).  Other non-wetland waters: acres.  Identify type(s) of waters: .  Wetlands: acres.
NON-JURISDICTIONAL WATERS, INCLUDING WETLANDS (CHECK ALL THAT APPLY):  If potential wetlands were assessed within the review area, these areas did not meet the criteria in the 1987 Corps of Engineers Wetland Delineation Manual and/or appropriate Regional Supplements.  Review area included isolated waters with no substantial nexus to interstate (or foreign) commerce.  Prior to the Jan 2001 Supreme Court decision in "SWANCC," the review area would have been regulated based solely on the "Migratory Bird Rule" (MBR).  Waters do not meet the "Significant Nexus" standard, where such a finding is required for jurisdiction. Explain:  Other: (explain, if not covered above):  .
Provide acreage estimates for non-jurisdictional waters in the review area, where the <u>sole</u> potential basis of jurisdiction is the MBR factors (i.e., presence of migratory birds, presence of endangered species, use of water for irrigated agriculture), using best professional judgment (check all that apply):  Non-wetland waters (i.e., rivers, streams): linear feet width (ft).  Lakes/ponds: acres.  Other non-wetland waters: acres. List type of aquatic resource: .  Wetlands: acres.
Provide acreage estimates for non-jurisdictional waters in the review area that do not meet the "Significant Nexus" standard, where such a finding is required for jurisdiction (check all that apply):  Non-wetland waters (i.e., rivers, streams): linear feet, width (ft).  Lakes/ponds: acres.  Other non-wetland waters: acres. List type of aquatic resource: .  Wetlands: acres.
TION IV: DATA SOURCES.
UPPORTING DATA. Data reviewed for JD (check all that apply - checked items shall be included in case file and, where checked and requested, appropriately reference sources below):  Maps, plans, plots or plat submitted by or on behalf of the applicant/consultant: E-1 entitled "NAP-2021-00949-95" and dated 11 November 2021.  Data sheets prepared/submitted by or on behalf of the applicant/consultant.  Office concurs with data sheets/delineation report.  Office does not concur with data sheets/delineation report.  Data sheets prepared by the Corps:  Corps navigable waters' study:  U.S. Geological Survey Hydrologic Atlas:  USGS NHD data.  USGS 8 and 12 digit HUC maps.  U.S. Geological Survey map(s). Cite scale & quad name: Perkiomensville, PA Quadrangle.  USDA Natural Resources Conservation Service Soil Survey. Citation: Montgomery County, PA Soil Survey Sheet #2.

<sup>&</sup>lt;sup>10</sup> Prior to asserting or declining CWA jurisdiction based solely on this category, Corps Districts will elevate the action to Corps and EPA HQ for review consistent with the process described in the Corps/EPA Memorandum Regarding CWA Act Jurisdiction Following Rapanos.

$\boxtimes$	National wetlands inventory map(s). Cite name: Perkiomensville, PA Quadrangle.
	State/Local wetland inventory map(s): .
	FEMA/FIRM maps: .
	100-year Floodplain Elevation is: (National Geodectic Vertical Datum of 1929)
$\boxtimes$	Photographs: Acrial (Name & Date): Google Earth Acrial Photographs: 16 Oct 2020, 08 Feb 2019, 24 May 2016, 07 Oct 2011
09 N	May 2010, 11 Apr 2010, 05 Jun 2004, 31 Dec 2001, 12 Apr 1999, and 28 Mar 1992.
	or 🛮 Other (Name & Date):Site photos taken on 22 October 2021.
	Previous determination(s). File no. and date of response letter:
	Applicable/supporting case law: .
	Applicable/supporting scientific literature: .
	Other information (please specify):

# **B. ADDITIONAL COMMENTS TO SUPPORT JD:** N/A.

