

Interim Site Characterization Report

Public Comment Meeting

September 15, 2025

Agenda

- Welcome/Meeting Overview
- Interim Site Characterization Report Summary
 - Purpose & Objectives (Section 1)
 - Project Background (Section 2)
 - Characterization (Section 3)
 - Findings & Recommendations (Section 4)
 - Overview of Interim Remedial Progress (Section 5)
- Public Comment
- Conclusion

Meeting Overview

- Written public comments will be accepted through **Oct. 17, 2025** and can be sent via email or in writing:
 - *Email:* uppermakefieldact2@energytransfer.com
 - *Mail:* SPLP, 525 Fritztown Road, Sinking Spring, PA 19608
- Please direct written comments to **Attention: ISCR Public Comment**

Verdantas Introduction



- Environmental consultants specializing in environmental assessment & remediation
- Neil Ketchum: 25+ years of broad technical and management experience in environmental site assessments, soil and groundwater contamination investigations, soil and groundwater remediation, and post-remediation/post-closure maintenance and monitoring
- Appointed to PADEP Cleanup Standards Scientific Advisory Board
 - Involved on subcommittees and working groups for the development of guidance for Act 2 regulations and Land Recycling Program Technical Guidance Manual

Investigation & Remediation Update

Completed and Ongoing

- Ongoing water testing
- Supplying bottled water
- Installation of POET systems
- Daily reporting to DEP
- Performing site characterization activities (e.g., ground penetrating radar; downhole geophysics; electric resistivity imaging; passive soil gas sampling; indoor air sampling; sub-slab soil gas sampling; packer testing; recovery well installation; monitoring well installation)
- Performing interim remedial activities (e.g., soil excavation; LNAPL removal)
- Submitted and implemented Public Involvement Plan
- Submitted Interim Remedial Action Plan
- Submitted Remedial Action Progress Reports
- Submitted Vapor Intrusion Investigation Progress Report
- Submitted Site Characterization Work Plan
- Submitted Interim Site Characterization Report

Future

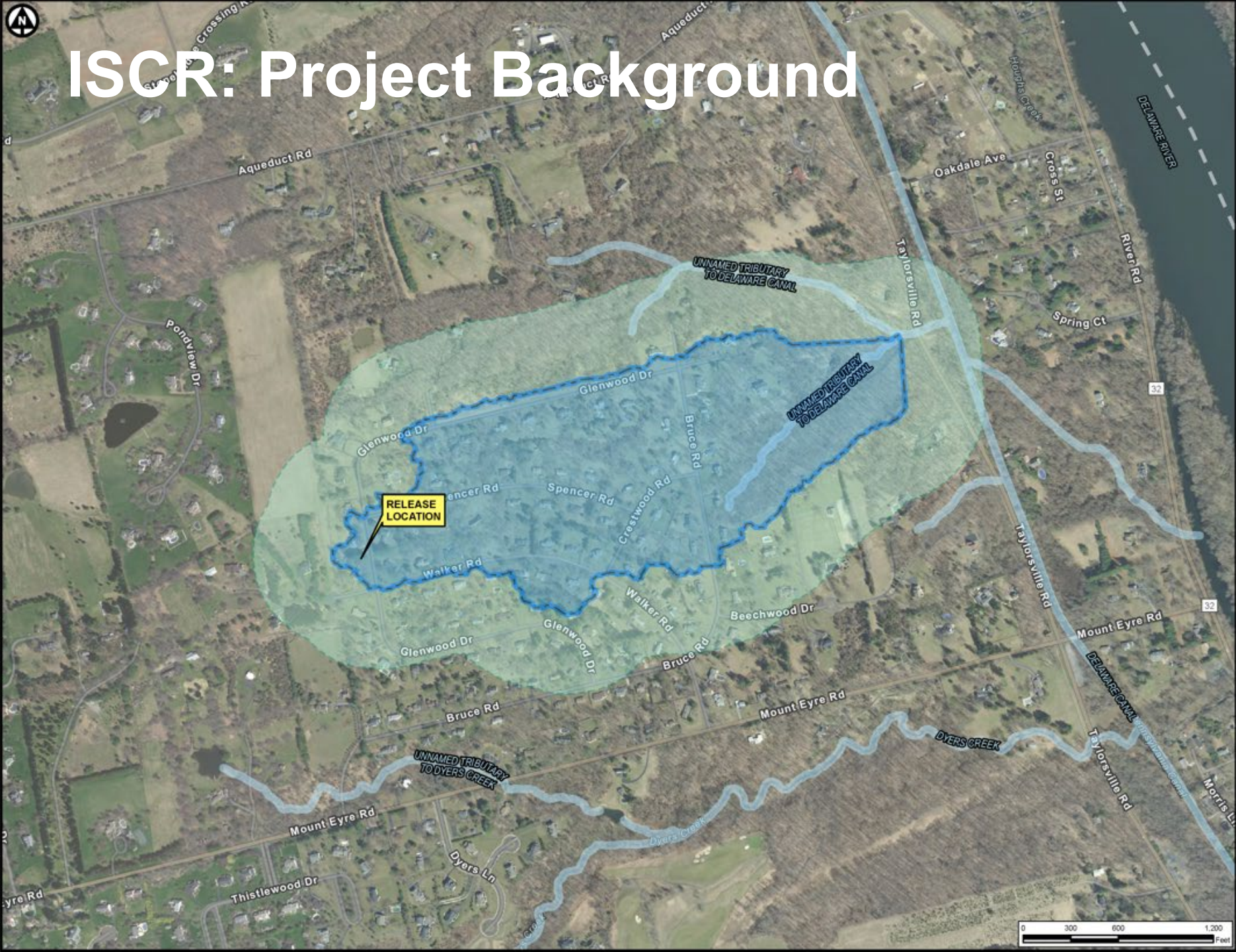
- Complete site characterization activity
- Submit additional Remedial Action Progress Reports
- Submit Remedial Action Plan
- Submit Act 2 Final Report

ISCR: Purpose & Objectives

- Provides current status of the ongoing characterization of soil and groundwater impacts from the pipeline release
- Goal of the characterization process:
 - Define the nature and extent of impacts from the pipeline release
 - Gather necessary information to develop any required remedial actions
- Additional report required by DEP Administrative Order
 - Not required by Act 2



ISCR: Project Background



LEGEND

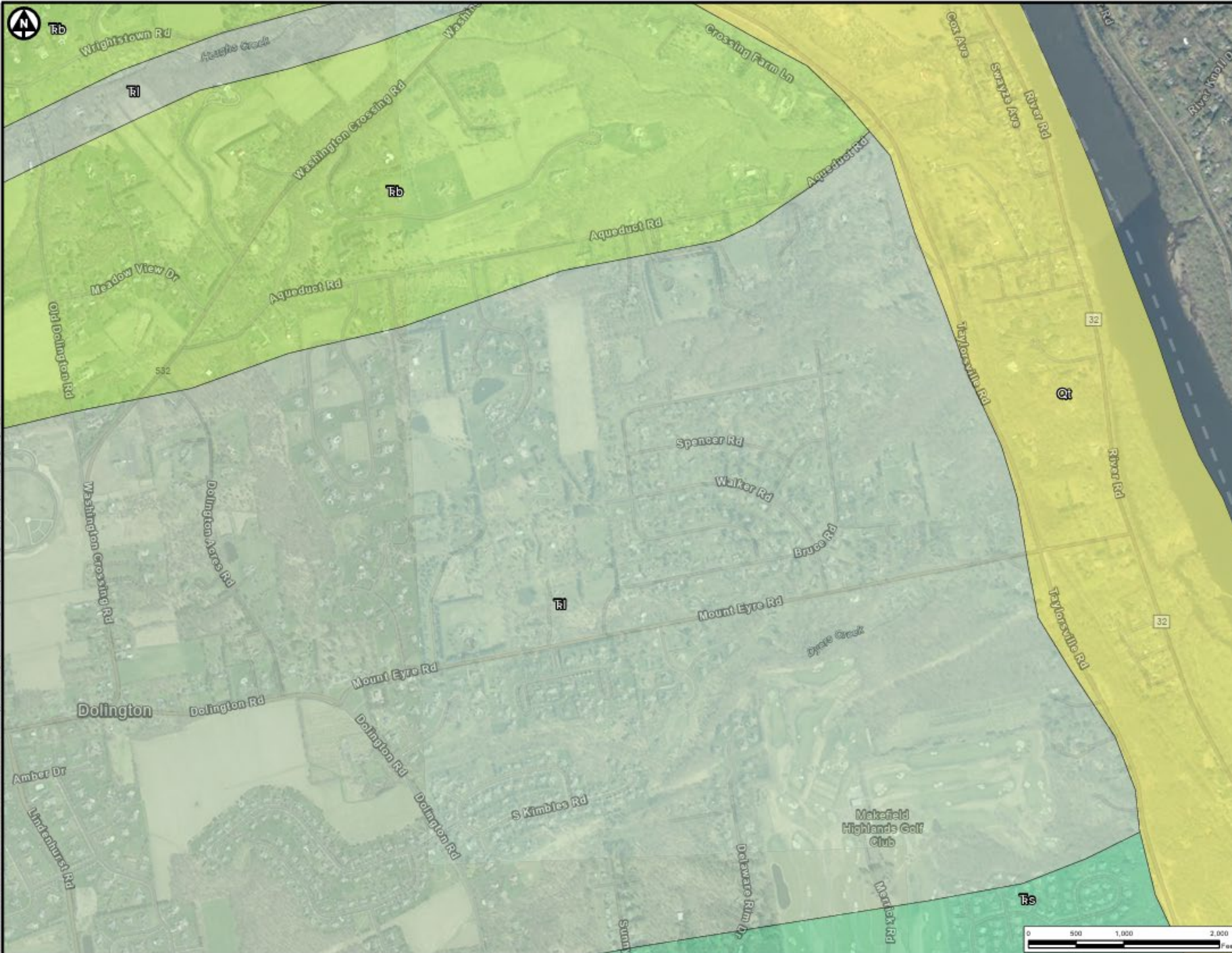
- Catchment/Drainage Area
- Catchment/Drainage 500' Buffer

Note:
The aerial photo was acquired from the Pennsylvania Spatial Data Access (PASDA) web service. Aerial photography dated 2018.

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Twin Oaks - Newark 14" Diameter Pipeline LNAPL Incident: Site Characterization Work Plan	
Project Number 001.0000034328	Date 06/2025
Author JPB	Scale 1 in = 600 ft
Investigation Area Map	
Upper Makefield Township Bucks County, Pennsylvania	
Figure 2-1	

**GEOLOGIC FORMATION**

- Qt Trenton Gravel
- Tb Brunswick Formation
- Tl Lockatong Formation
- Ts Stockton Formation

NOTE: Bedrock geology provided by the Pennsylvania Department of Conservation and Natural Resources (PA DCNR) web service, last accessed August 2025.

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Twin Oaks - Newark 14" Diameter Pipeline
LNAPL Incident: Site Characterization Work Plan

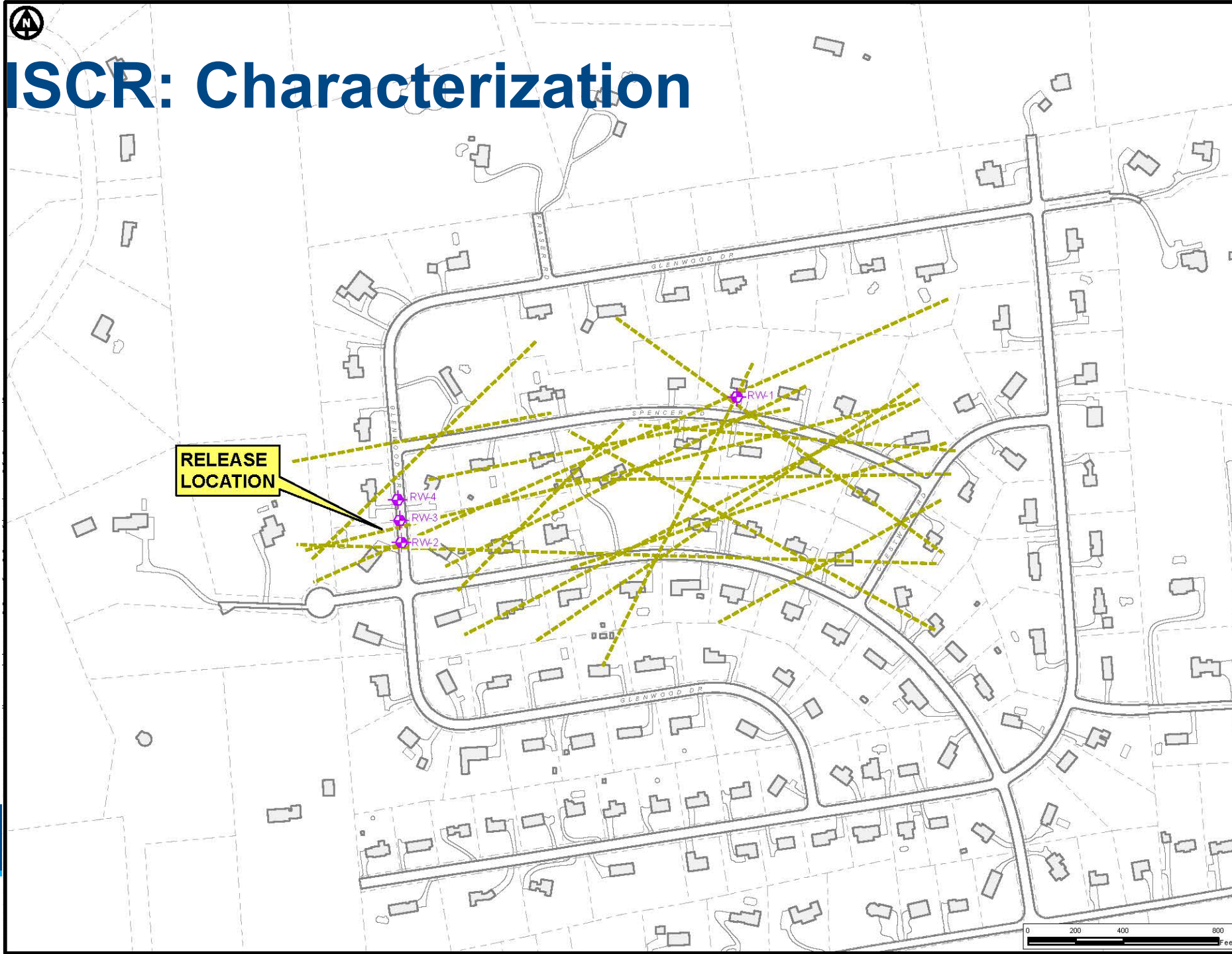
Regional Geologic Map

Upper Makefield Township
Bucks County, Pennsylvania

Project Number
006.0000034328
Date
08/2025
Author
JPH
Scale
1 in = 1,000 ft
Figure
2-3



ISCR: Characterization



LEGEND

- Recovery Well
- ERI Anomaly Location and Inferred Alignment
- Parcel Boundary (approx.)
- Existing Building
- Edge of Roadway (approx.)

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Twin Oaks - Newark 14" Diameter Pipeline
LNAPL Incident: Site Characterization Work Plan

**Recovery Well
Location Map**

Upper Makefield Township
Bucks County, Pennsylvania

Project Number
000.0000034328

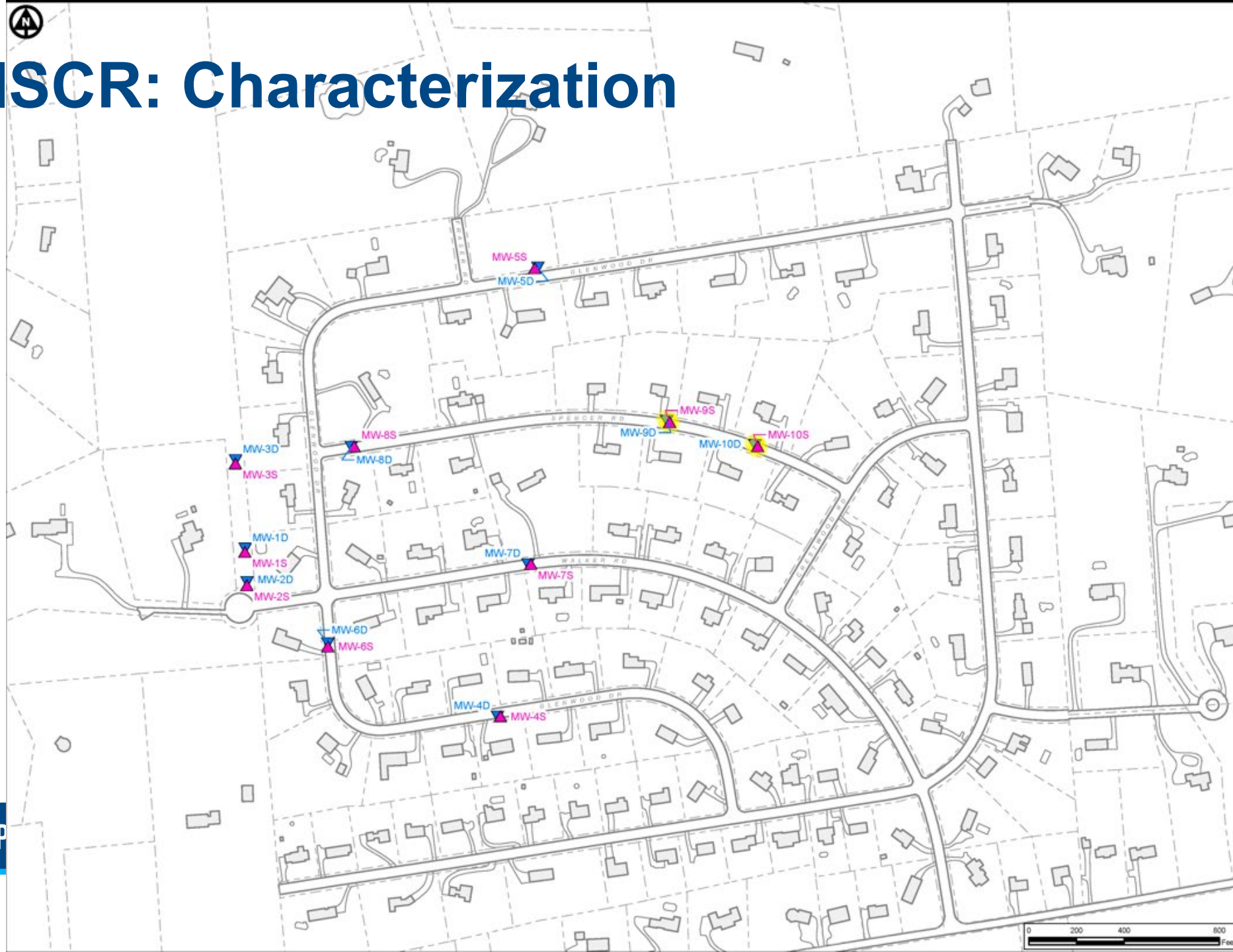
Date
08/20/25

Author
JPB

Scale
1 in = 400 ft

Figure
3-1

ISCR: Characterization



LEGEND

- ▲ Shallow Monitoring Well
- ▲ Shallow Monitoring Well Installed (Survey Data Not Yet Received)
- ▼ Deep Monitoring Well
- ▼ Deep Monitoring Well Installed (Survey Data Not Yet Received)
- Parcel Boundary (approx.)
- Existing Building
- Edge of Roadway (approx.)

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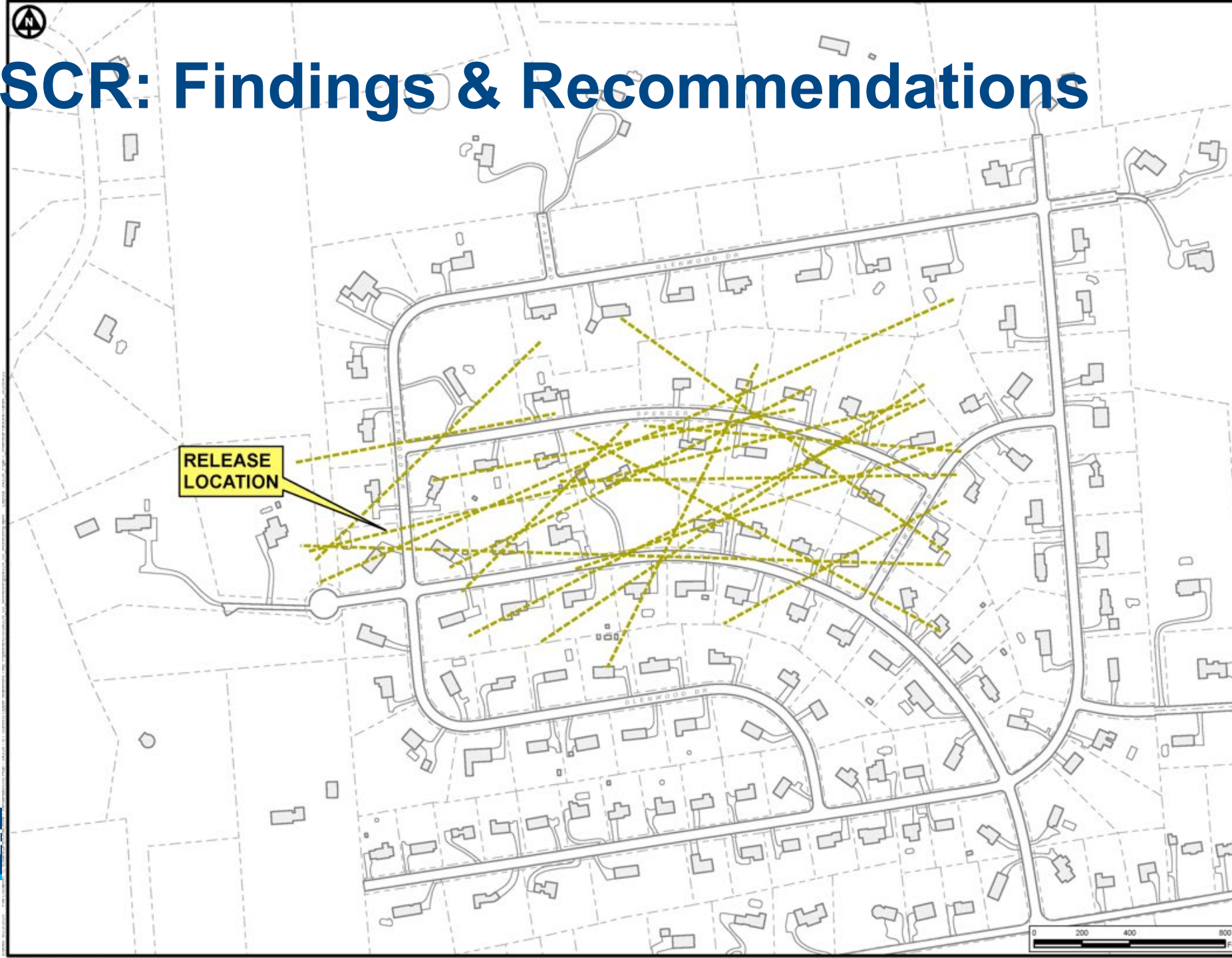
Twin Oaks - Newark 14" Diameter Pipeline
LNAPL Incident: Site Characterization Work Plan

**Locations of
Monitoring Wells**

Upper Makefield Township
Bucks County, Pennsylvania

Project Number
0001000024028
Date
09/2025
Author
JPB
Scale
1 in = 400 ft
Figure
3-7

ISCR: Findings & Recommendations



LEGEND

- ERI Anomaly Location and Inferred Alignment
- - - Parcel Boundary (approx.)
- Existing Building
- Edge of Roadway (approx.)

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Twin Oaks - Newark 14" Diameter Pipeline
LNAPL Incident: Site Characterization Work Plan

**Inferred Fracture Traces
from ERI**

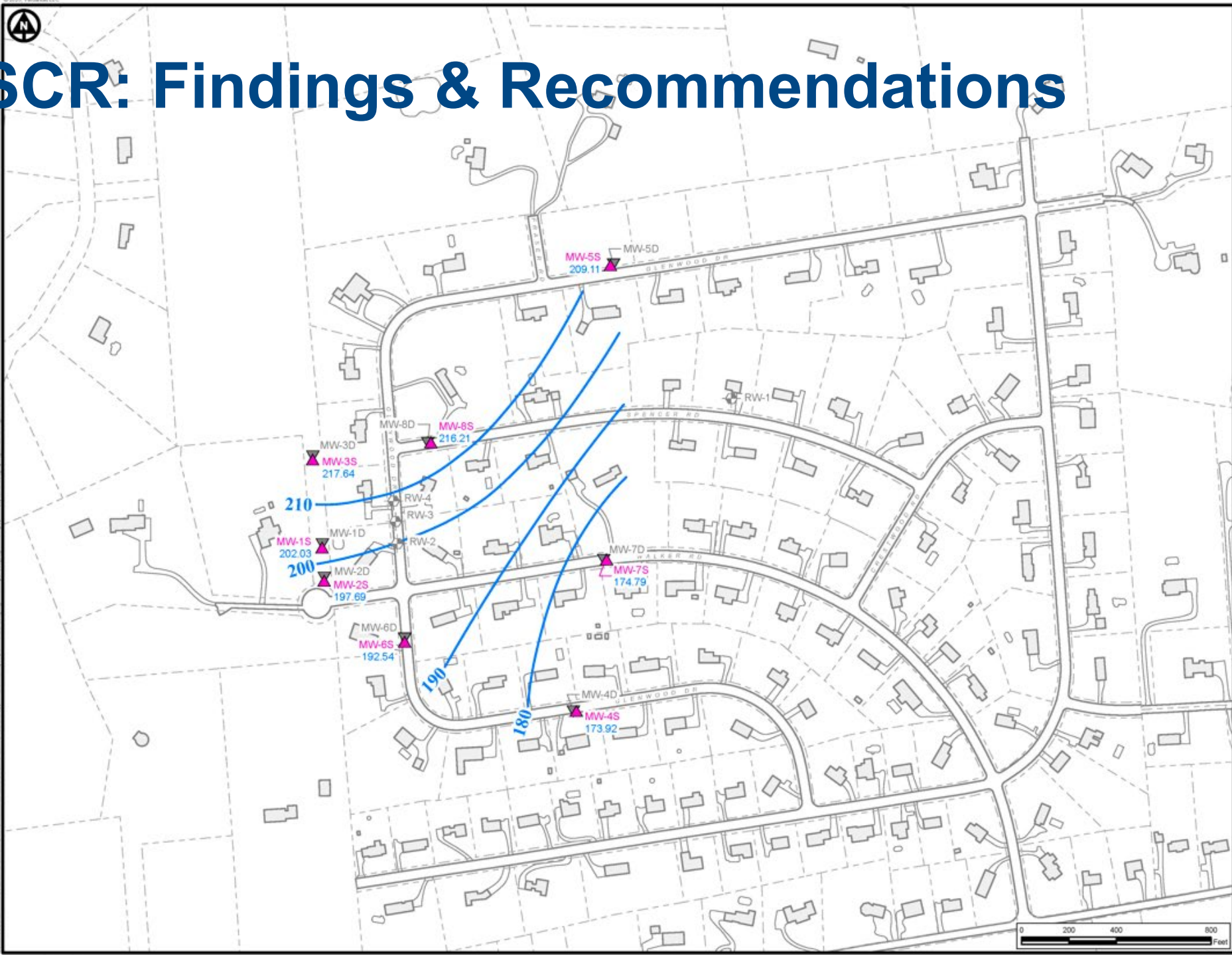
Upper Makefield Township
Bucks County, Pennsylvania

Project Number	001.0000034328
Date	06/2025
Author	JPB
Scale	1 in = 400 ft
Figure	4-1

ISCR: Findings & Recommendations



ISCR: Findings & Recommendations



- LEGEND**
- ▲ Shallow Monitoring Well
 - ▼ Deep Monitoring Well
 - ⊕ Recovery Well
 - Groundwater Elevation Contour (feet amsl)
 - 209.11 Groundwater Elevation (feet amsl)
 - - - Parcel Boundary (approx.)
 - Existing Building
 - Edge of Roadway (approx.)

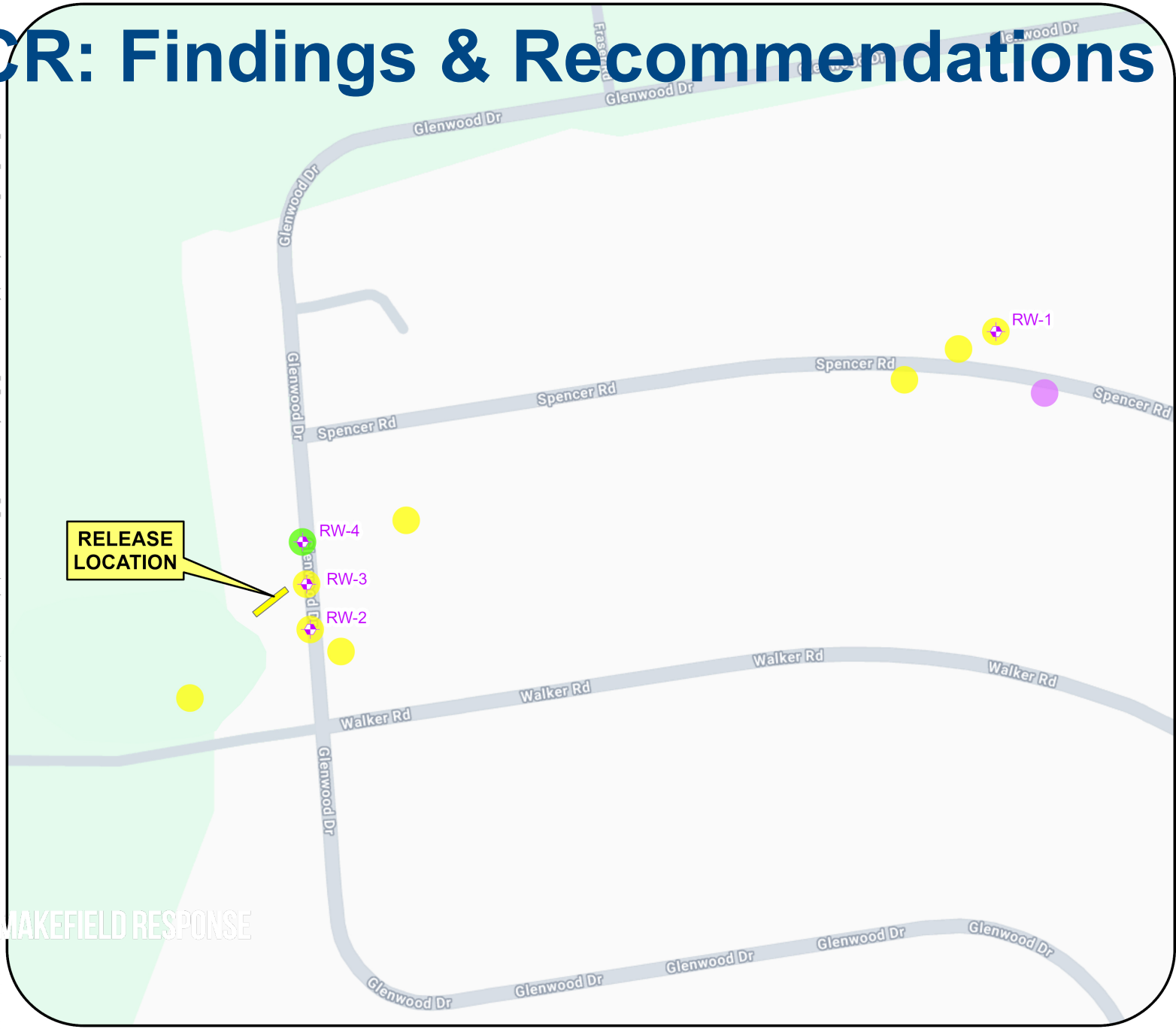
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Twin Oaks - Newark 14" Diameter Pipeline LNAPL Incident: Site Characterization Work Plan	
Project Number 000.0000034328	Date 08/2025
Groundwater Elevation Contour Map Shallow Monitoring Wells August 13, 2025	Author JPB
Upper Makefield Township Bucks County, Pennsylvania	Scale 1 in = 400 ft
	Figure 4-3

ISCR: Findings & Recommendations

Edited: 9/12/2025 File Location: C:\Users\UPB\OneDrive - Verantias\GIS\34328_04_PotableWellChemistry\34328_04_PotableWellChemistry.aprx Layout: slide34328_LNAPL_historic_20250912



LNAPL Historical Results (February - August 2025)

LEGEND

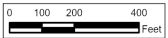
- ▲ Shallow Monitoring Well
- ▼ Deep Monitoring Well
- ★ Recovery Well

LNAPL (Light Non-Aqueous Phase Liquid) RESULTS

- No LNAPL Detected
- LNAPL Detected
- LNAPL Does Not Appear to be Jet Fuel Based on Visual Appearances and Odor

NOTE:

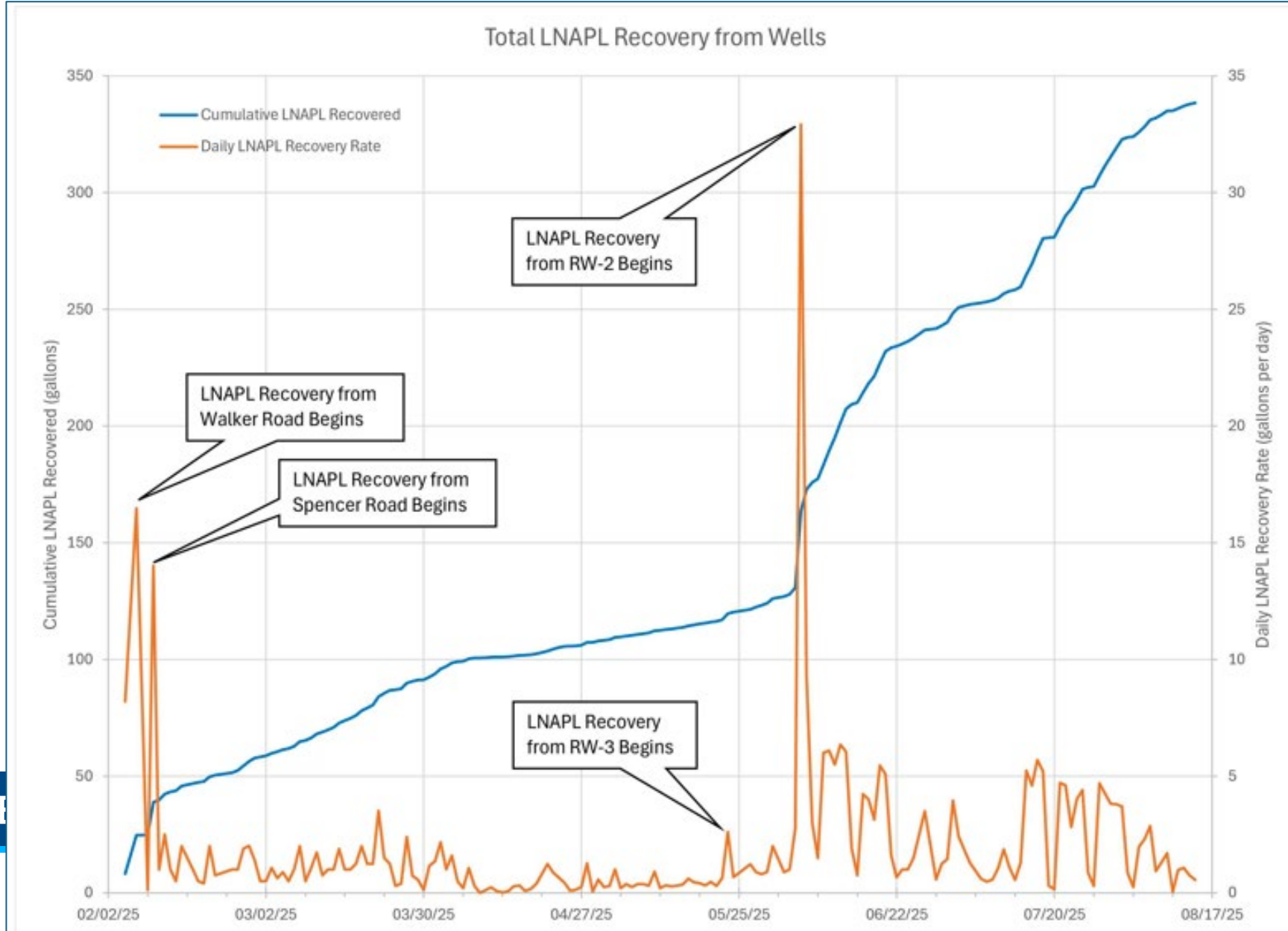
1) The well at 108 Spencer Road is no longer used as a domestic water supply.



UPPER MAKE



ISCR: Overview of Interim Remedial Progress



References & Appendices

- Examples of references included in the report:

Boggs, Jr S., 2009. Petrology of Sedimentary Rocks. 2nd ed. Cambridge University Press.

Pennsylvania Department of Conservation and Natural Resources (DCNR). 2025. Bedrock Geology of Pennsylvania – Geologic Units. Bureau of Topographic and Geologic Survey. Retrieved from <https://www.dcnr.pa.gov>

- Full ISCR references and all 43 appendices can be found:
<https://uppermakefield.incidentupdates.com/act-2-remediation-documents/>

Public Comment

- Written public comments will be accepted through **Oct. 17, 2025** and can be sent via email or in writing:
 - *Email:* uppermakefieldact2@energytransfer.com
 - *Mail:* SPLP, 525 Fritztown Road, Sinking Spring, PA 19608
- Please direct written comments to **Attention: ISCR**
Public Comment

**For information shared at this meeting, or to
view documents related to Act 2 and our
Public Involvement Plan, please visit:**

uppermakefield.incidentupdates.com

