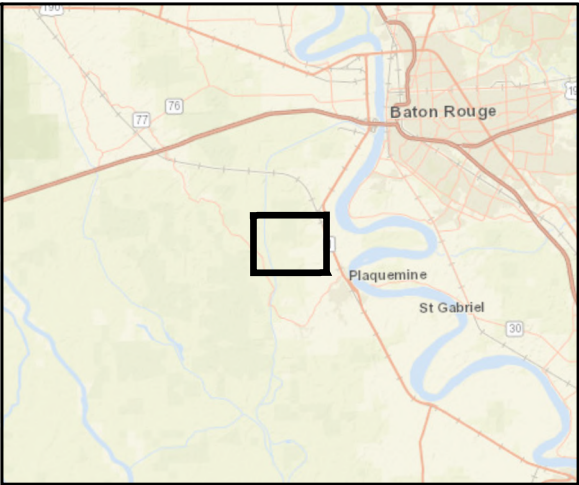


FILE: M:\US\Projects\G-L\Kean_Miller\0524933 Levert\APRX\Expert Report Figures\Base Figures\APRX Base Figures.aprx, REVISED: 02/19/2025, SCALE: 1:24,000 when printed at 11x17



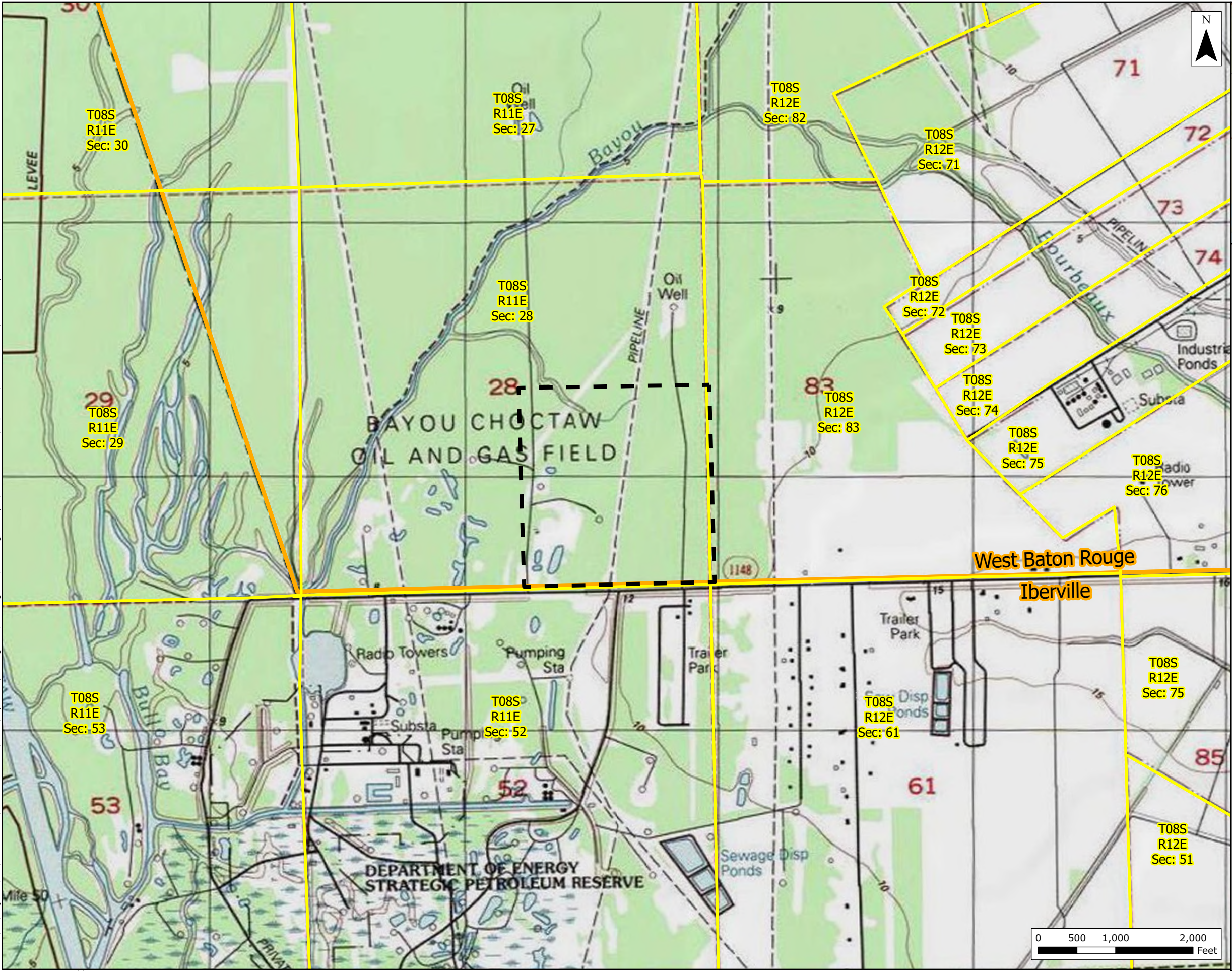
Legend

- Property
- Parish Boundary

Notes:
1. World topographic map via ESRI.

Figure 1
Site Location
Paul M. Levert, et al. v. Union Texas
International Corporation, et al.
Bayou Choctaw Oil & Gas Field
West Baton Rouge Parish, Louisiana





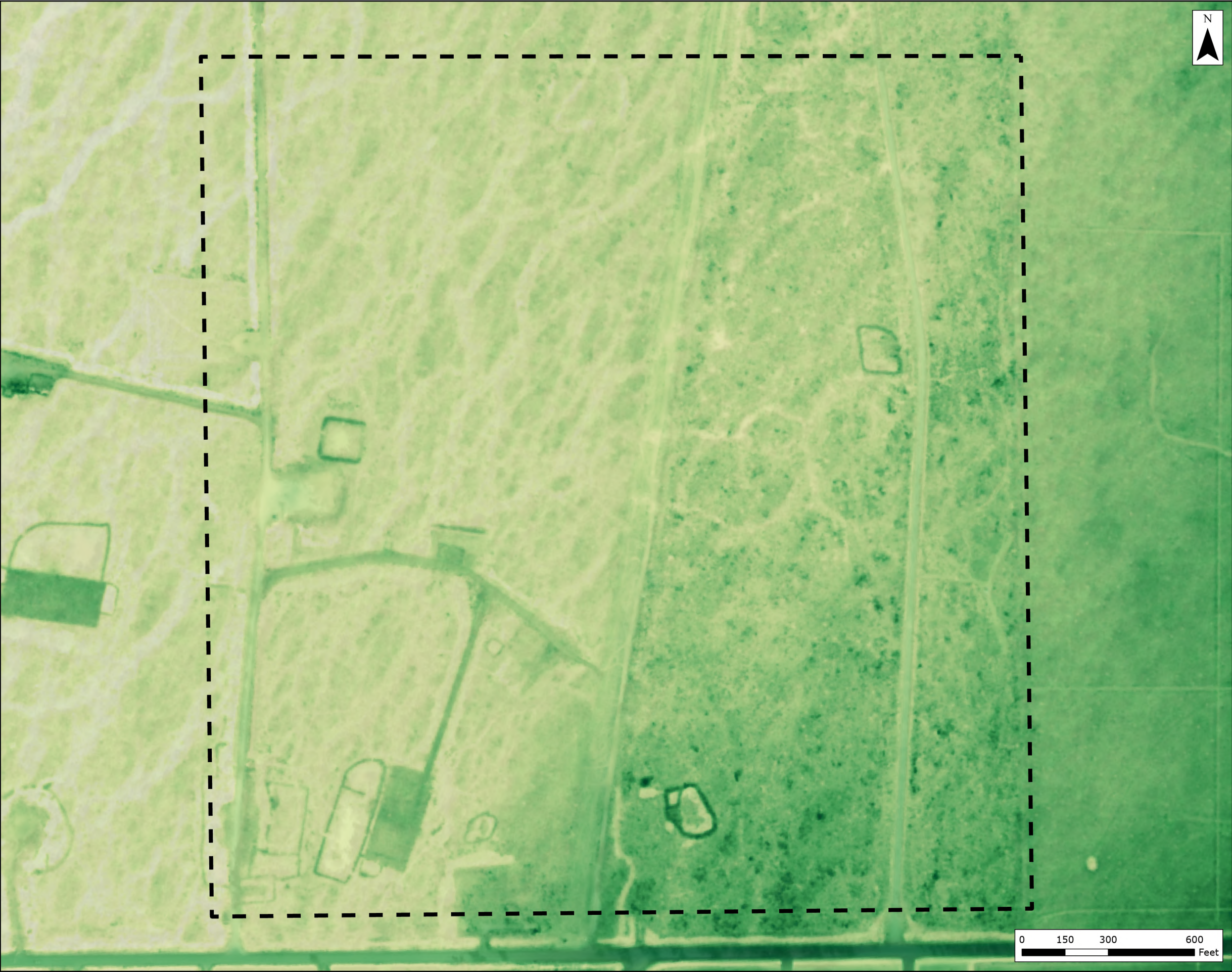
Legend

- Operational Area
- Parish Boundary
- Public Land Survey Sections

Notes:
1. Topographic map via USGS.

Figure 2
USGS Topographic Map & Public Land Survey Sections
Paul M. Levert, et al. v. Union Texas International Corporation, et al.
Bayou Choctaw Oil & Gas Field
West Baton Rouge Parish, Louisiana





Legend

Property

Elevation

13.1 ft

2.5 ft

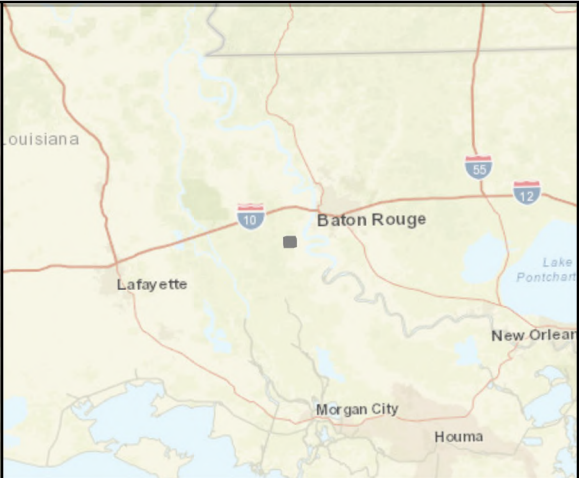
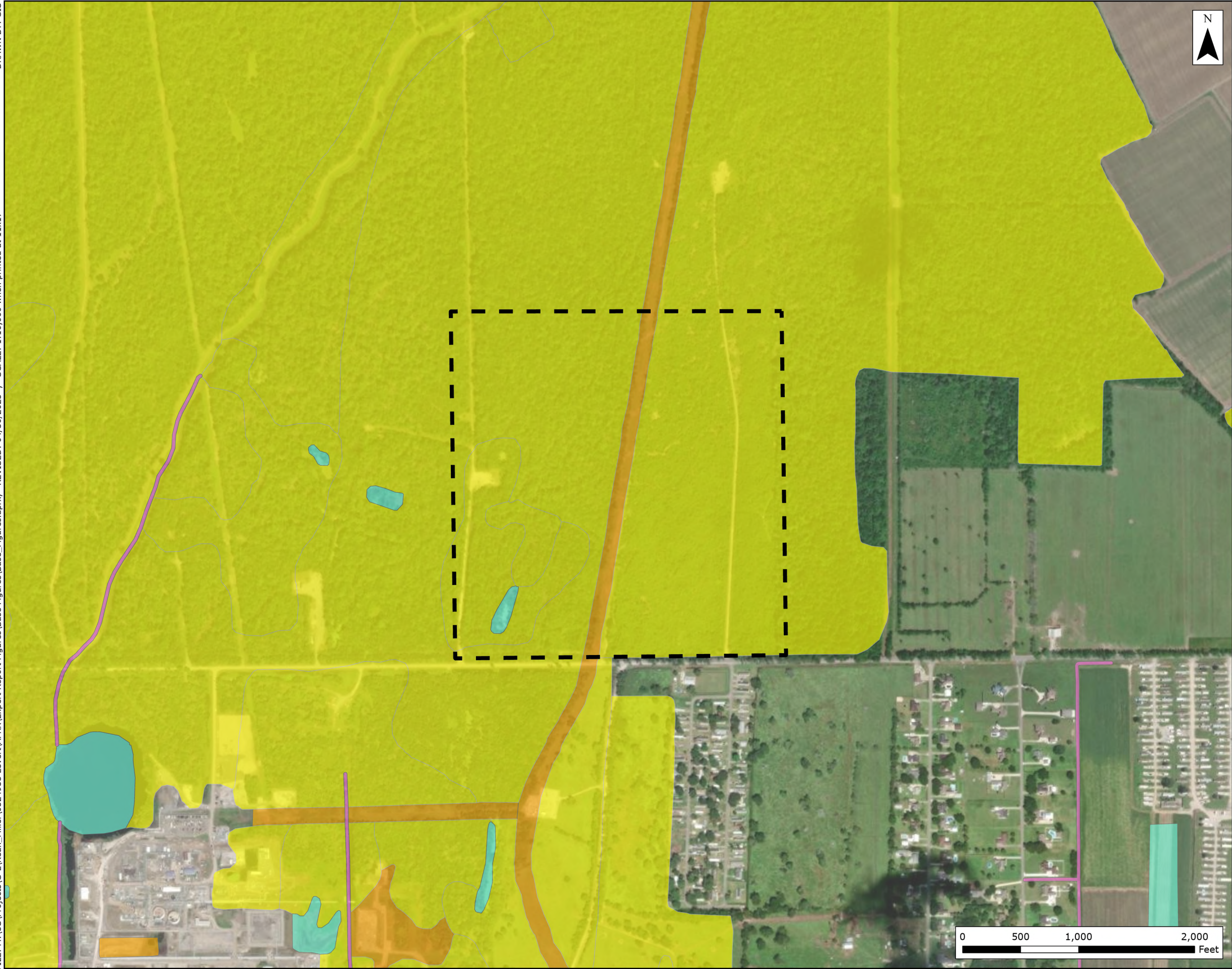
Notes:

1. Lidar elevation data via USGS.

Figure 3
Lidar Elevation Model
Paul M. Levert, et al. v. Union Texas
International Corporation, et al.
Bayou Choctaw Oil & Gas Field
West Baton Rouge Parish, Louisiana



0 150 300 600 Feet

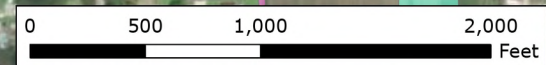


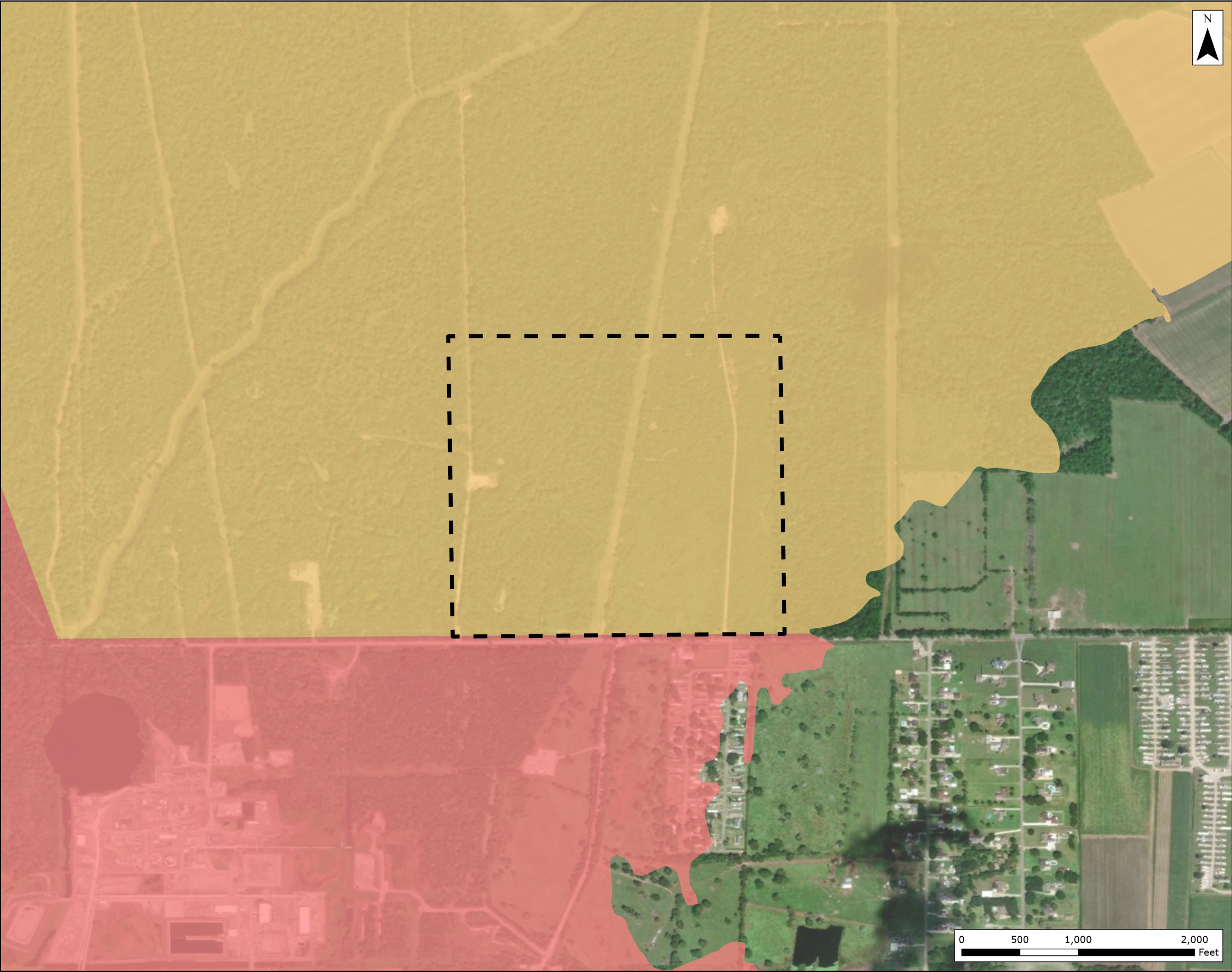
Legend

- Property
- Freshwater Emergent Wetland
- Freshwater Forested/Shrub Wetland
- Freshwater Pond
- Riverine

Notes:
1. Hydrography data from the USGS National Map Viewer.
2. Imagery Basemap via ArcGIS Online.

Figure 4
USFWS Wetlands
Paul M. Levert, et al. v. Union Texas International Corporation, et al.
Bayou Choctaw Oil & Gas Field
West Baton Rouge Parish, Louisiana





Legend

■ Property

Flood Zone

■ A - 1% annual chance of flooding

■ AE (base floodplain) - 1% annual chance of flooding

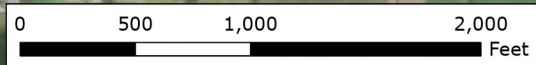
Notes:

1. Flood zone data from FEMA's National Flood Hazard Layer (NFHL).
2. Imagery basemap via ArcGIS Online.

Figure 5

FEMA Flood Zones

Paul M. Levert, et al. v. Union Texas International Corporation, et al.
Bayou Choctaw Oil & Gas Field
West Baton Rouge Parish, Louisiana





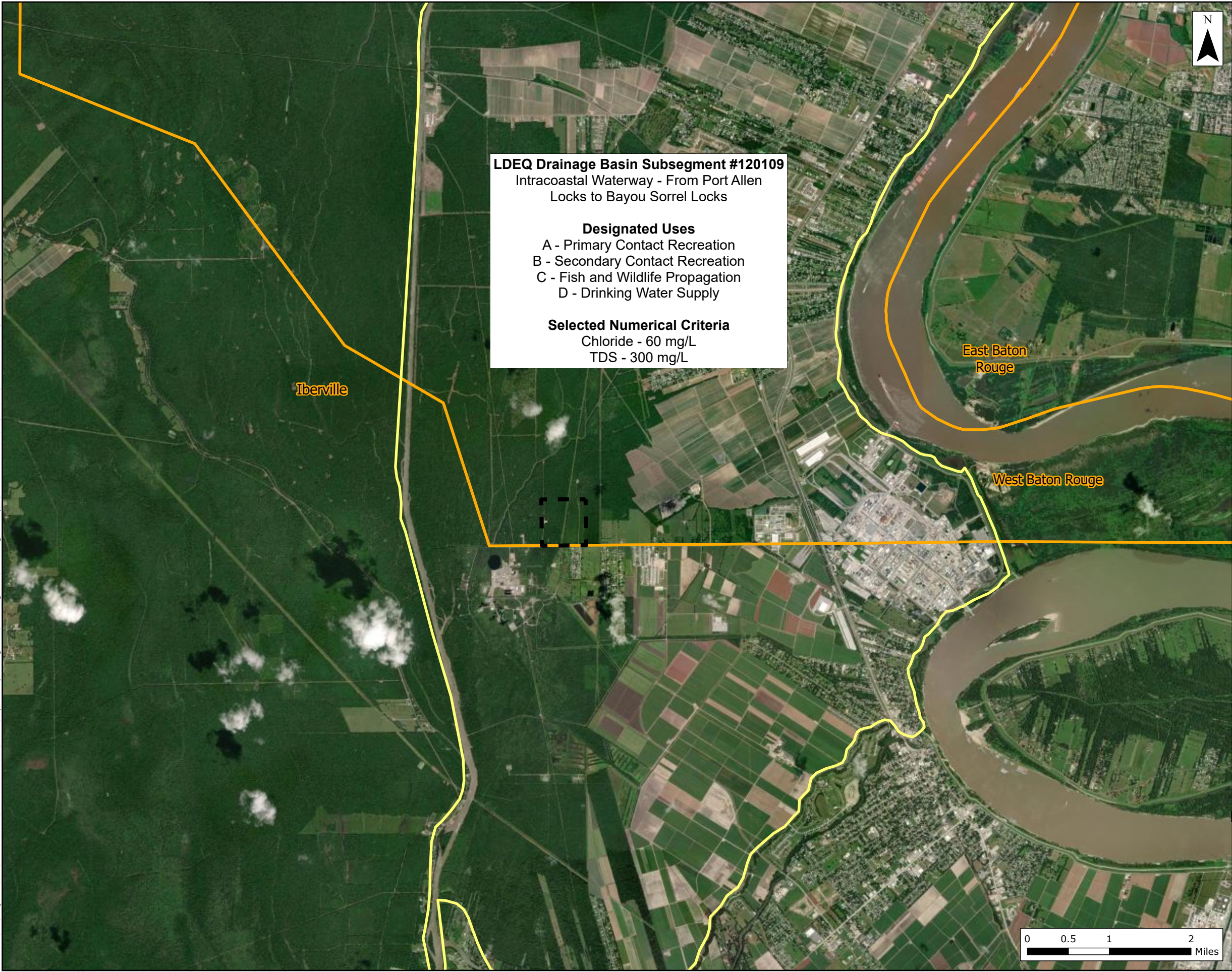
Legend

- Property
- Stream/River - Perennial
- Stream/River - Intermittent
- Canal/Ditch
- Stream/River
- Lake/Pond
- Reservoir
- Swamp/Marsh

Notes:
1. Hydrography data from the USGS National Map Viewer.
2. Imagery Basemap via ArcGIS Online.

Figure 6
Surface Water Features
Paul M. Levert, et al. v. Union Texas International Corporation, et al.
Bayou Choctaw Oil & Gas Field
West Baton Rouge Parish, Louisiana





LDEQ Drainage Basin Subsegment #120109
Intracoastal Waterway - From Port Allen
Locks to Bayou Sorrel Locks

Designated Uses
A - Primary Contact Recreation
B - Secondary Contact Recreation
C - Fish and Wildlife Propagation
D - Drinking Water Supply

Selected Numerical Criteria
Chloride - 60 mg/L
TDS - 300 mg/L



- Legend**
- Property
 - LDEQ Drainage Basin Subsegment
 - Parish Boundary

Notes:
1. Subsegment data from LDEQ (<http://www.deq.louisiana.gov/portal>).
2. Imagery Basemap via ArcGIS Online.

Figure 7
LDEQ Drainage Basin Subsegment
Paul M. Levert, et al. v. Union Texas
International Corporation, et al.
Bayou Choctaw Oil & Gas Field
West Baton Rouge Parish, Louisiana





Legend

Property

Cm: Commerce silt clay loam

Cn: Convent silt loam, 0-1% slopes

Sf: Sharkey clay, 0-1% slopes, rarely flooded, deltaic plain

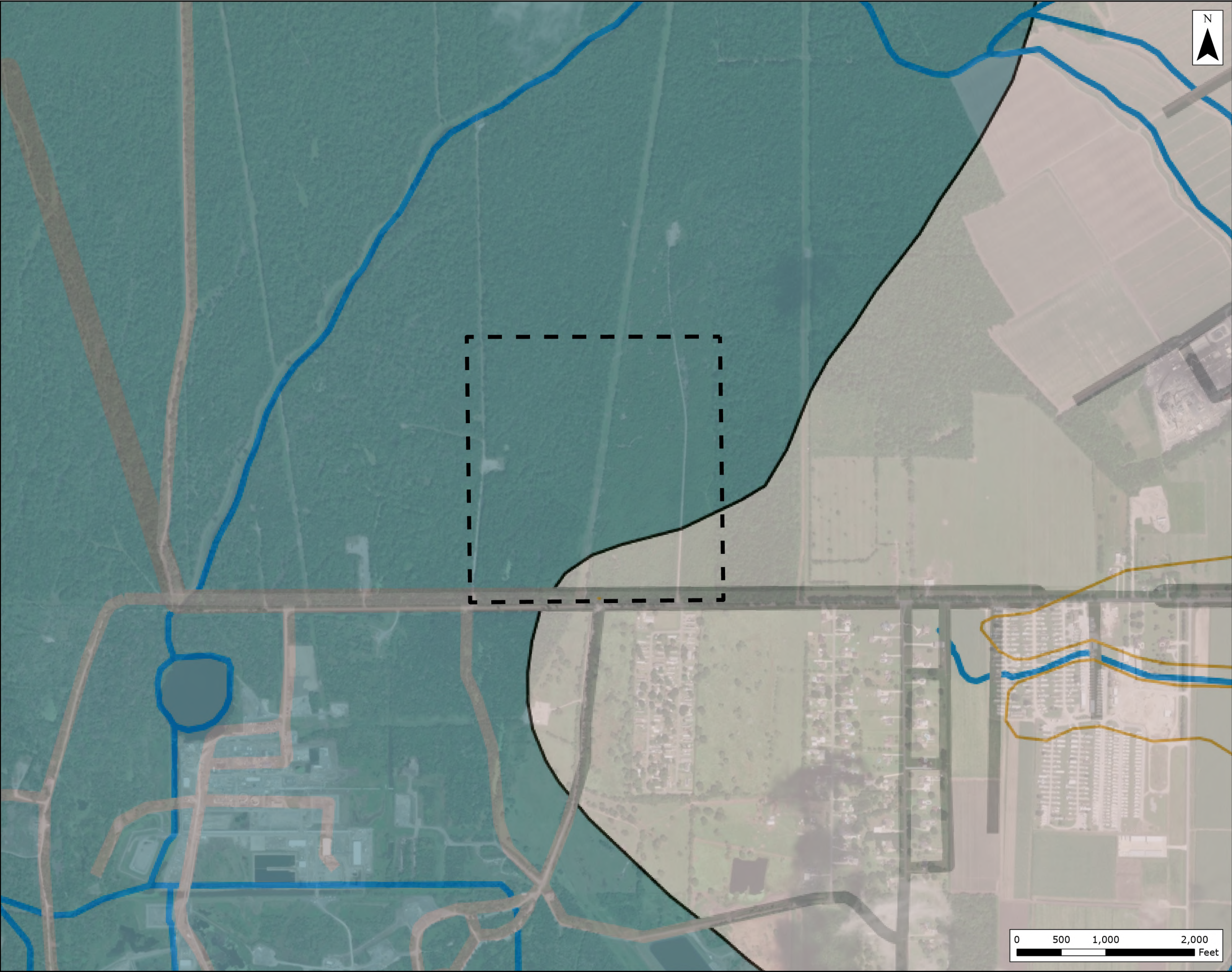
Tc: Tunica clay

Water

Notes:
1. Soil data via USDA.
2. Imagery basemap via ESRI.

Figure 8
USDA Surface Soil Types
Paul M. Levert, et al. v. Union Texas International Corporation, et al.
Bayou Choctaw Oil & Gas Field
West Baton Rouge Parish, Louisiana





Legend

Property

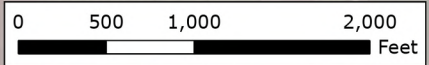
Map Unit Description

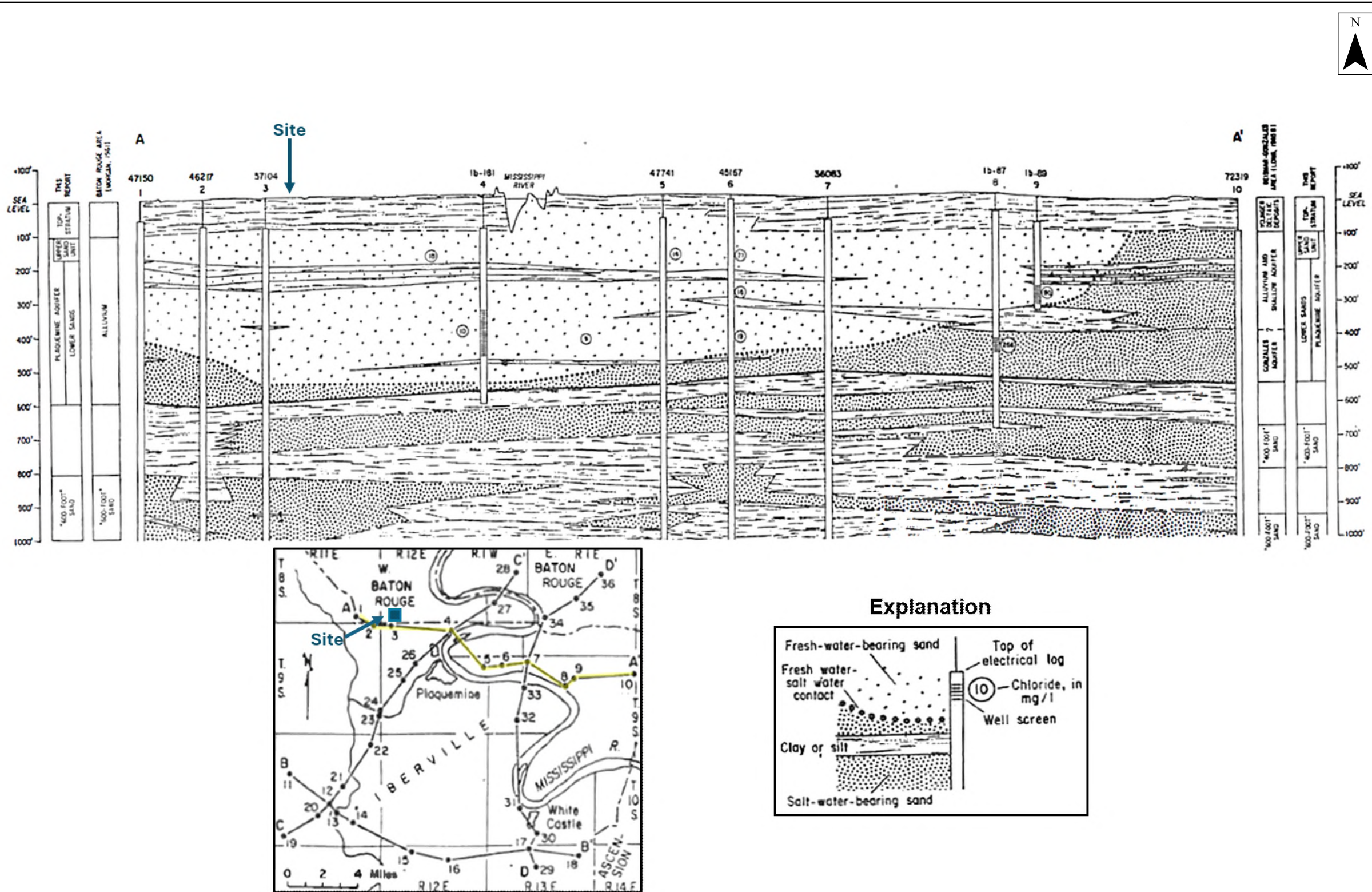
Hb	Backswamp deposits—Holocene deposits of Miss. & Atchafayala rivers
Hml1	Natural levee complex of Miss. River meander-belt No. 1

Notes:

1. Baton Rouge 1:100,000 scale Surface Geology Map from Louisiana Geological Survey.
2. Imagery basemap via ESRI.

Figure 9
Surface Geology
Paul M. Levert, et al. v. Union Texas International Corporation, et al.
Bayou Choctaw Oil & Gas Field
West Baton Rouge Parish, Louisiana





Notes:
1. Source: Louisiana Geologic Survey, Ground Water in the Plaquemine E-White Castle Area Iberville Parish, Louisiana Water Resources Bulletin No. 16, 1972

East-west geohydrologic sections showing the principal aquifer and the vertical distribution of fresh and salty water in the Plaquemine-White Castle area, Louisiana.

Figure 10
Regional Geologic Cross Section
Paul M. Levert, et al. v. Union Texas International Corporation, et al.
Bayou Choctaw Oil & Gas Field
West Baton Rouge Parish, Louisiana

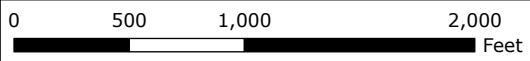


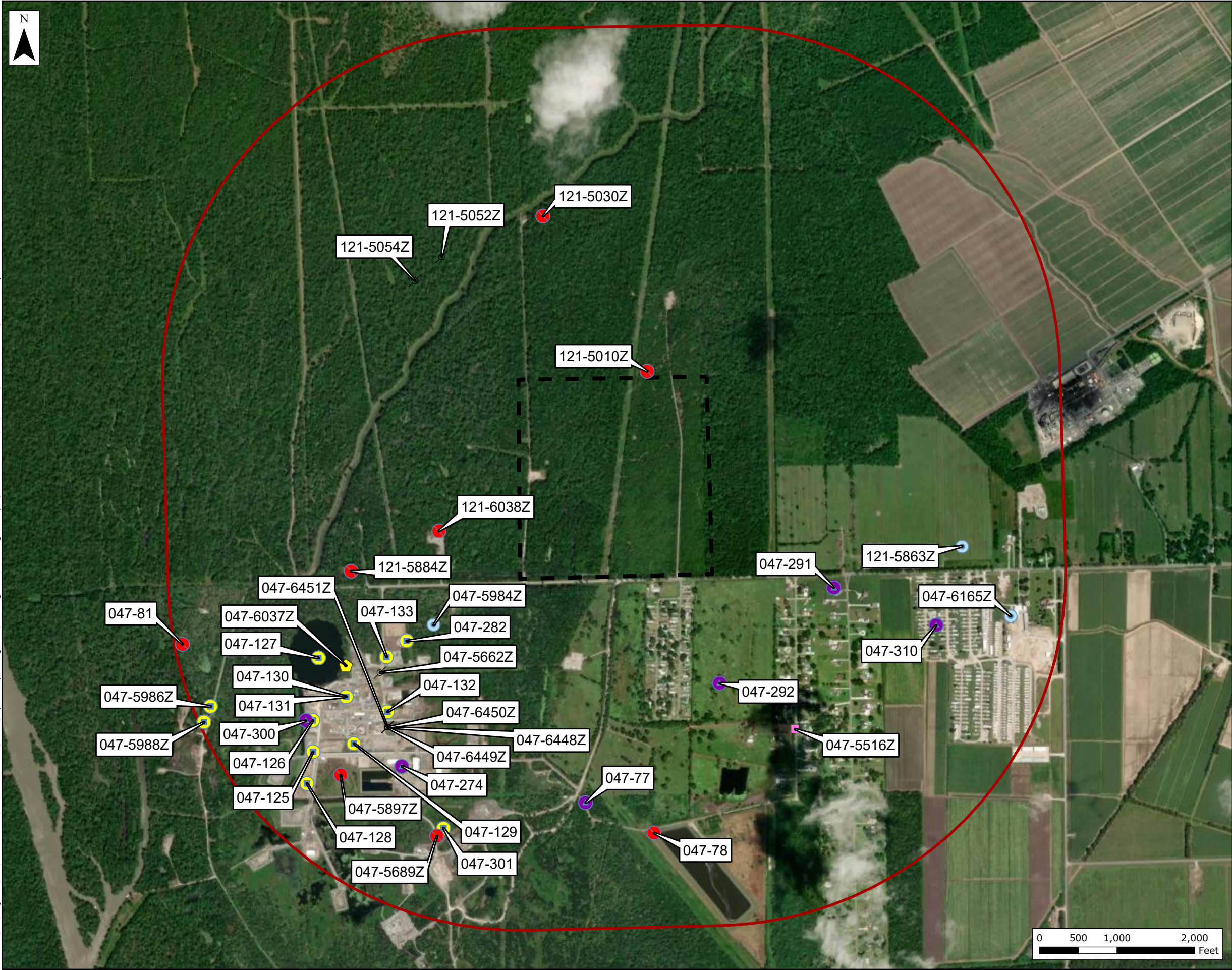


- Legend**
- Property
 - No Recharge Potential

Notes:
1. Aquifer recharge potential data via LDEQ.

Figure 11
Louisiana Aquifer Recharge Potential
Paul M. Levert, et al. v. Union Texas International Corporation, et al.
Bayou Choctaw Oil & Gas Field
West Baton Rouge Parish, Louisiana





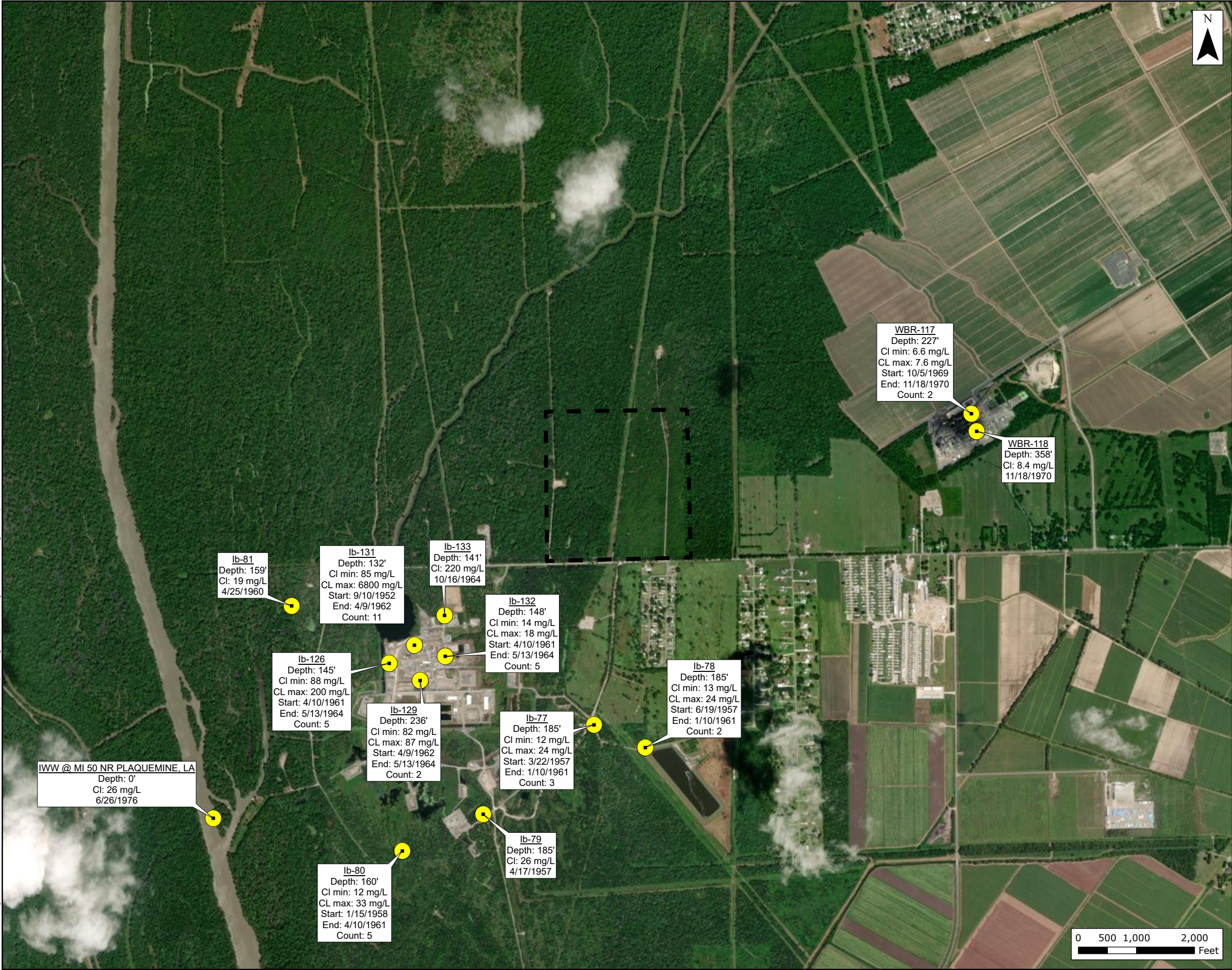
Legend

- Property
- 1-mile Buffer
- LDNR Registered Water Wells
 - Bore hole/Test Hole
 - Domestic
 - Industrial
 - Public Supply
 - Rig Supply
 - Heat Pump
 - Unknown/Other

Notes:
1. Water well data via LDNR SONRIS Data Portal.
2. Imagery basemap via ESRI.

Figure 12
LDNR Registered Water Wells
Paul M. Levert, et al. v. Union Texas International Corporation, et al.
Bayou Choctaw Oil & Gas Field
West Baton Rouge Parish, Louisiana





Legend

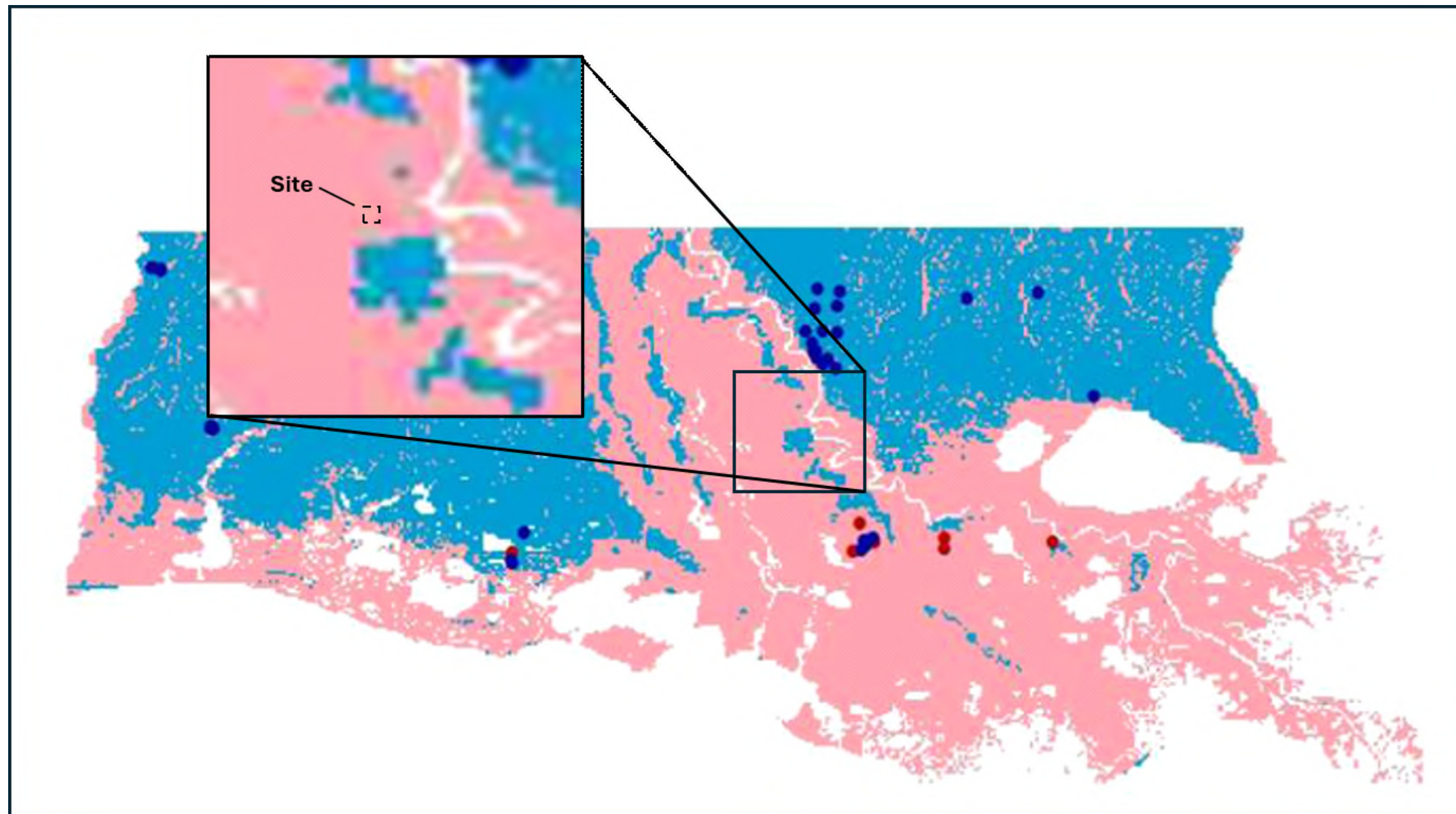
- Property
- USGS Monitoring Location

Notes:
1. Chloride data from the National Water Quality Monitoring Council (<https://www.waterqualitydata.us/portal/>).
2. Imagery basemap via ESRI.

Figure 13
USGS Chloride Data

Paul M. Levert, et al. v. Union Texas International Corporation, et al.
Bayou Choctaw Oil & Gas Field
West Baton Rouge Parish, Louisiana





Risk map

As (ug/L)

• <10

• ≥10

As ≥10 (ug/L)

■ Low risk

■ High risk

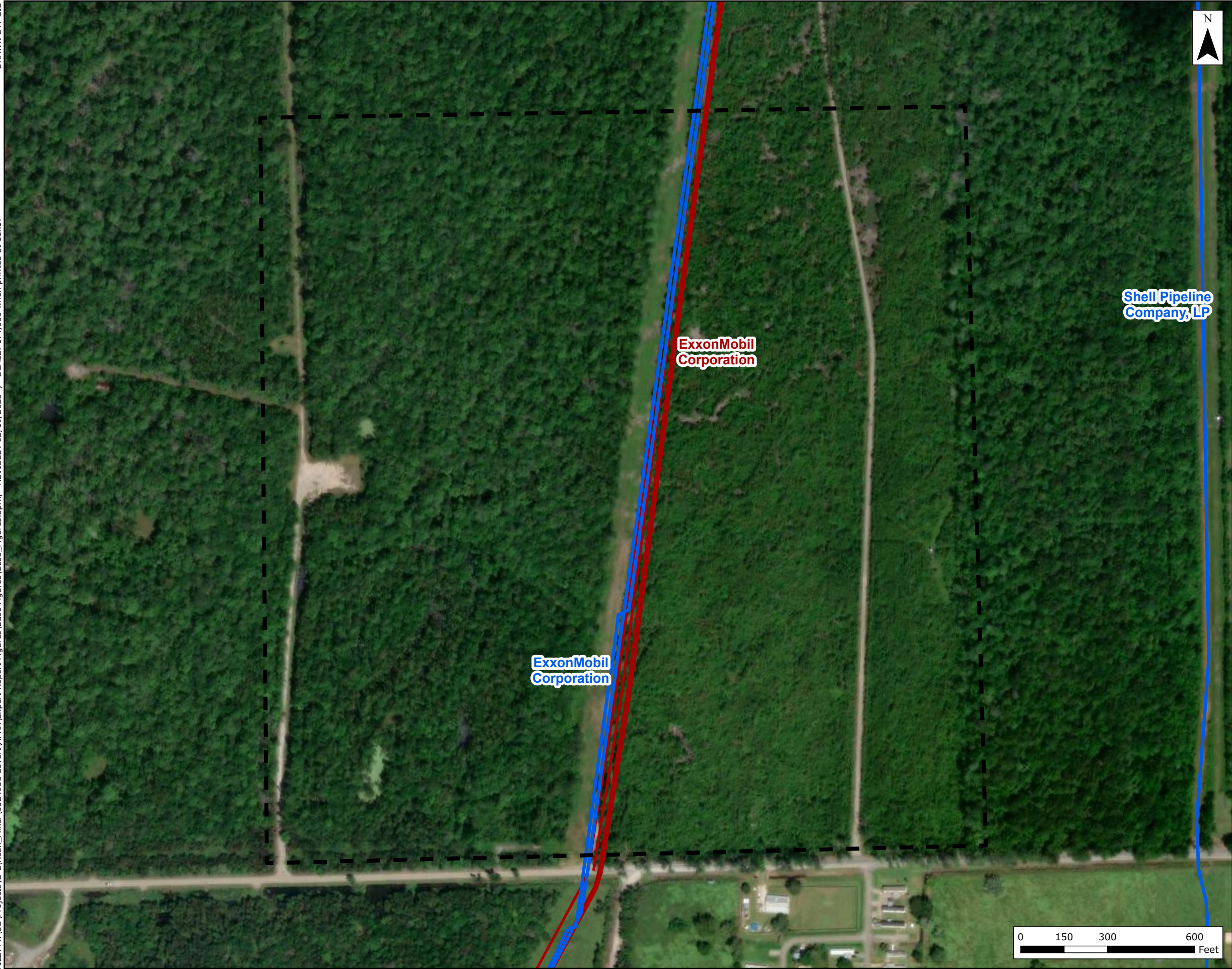
Notes:

1. Source: Yang, Winkel and Johnnesson. 2014. "Predicting Geogenic Arsenic Contamination in Shallow Groundwater of South Louisiana, United States". American Chemical Society, Environmental Science & Technology, 48, 5660-5666

Figure 14 Probability of Shallow Groundwater Arsenic Contamination

Paul M. Levert, et al. v. Union Texas International Corporation, et al.
Bayou Choctaw Oil & Gas Field
West Baton Rouge Parish, Louisiana





Legend

- Property
- Crude Oil Transmission Pipelines
- NGL-LPG-HVL Pipelines

Notes:
1. Pipeline integrated energy infrastructure data via Rextag (www.rextag.com)
2. Imagery basemap via ArcGIS Online.

Figure 15
Underground Pipelines
Paul M. Levert, et al. v. Union Texas International Corporation, et al.
Bayou Choctaw Oil & Gas Field
West Baton Rouge Parish, Louisiana





Legend

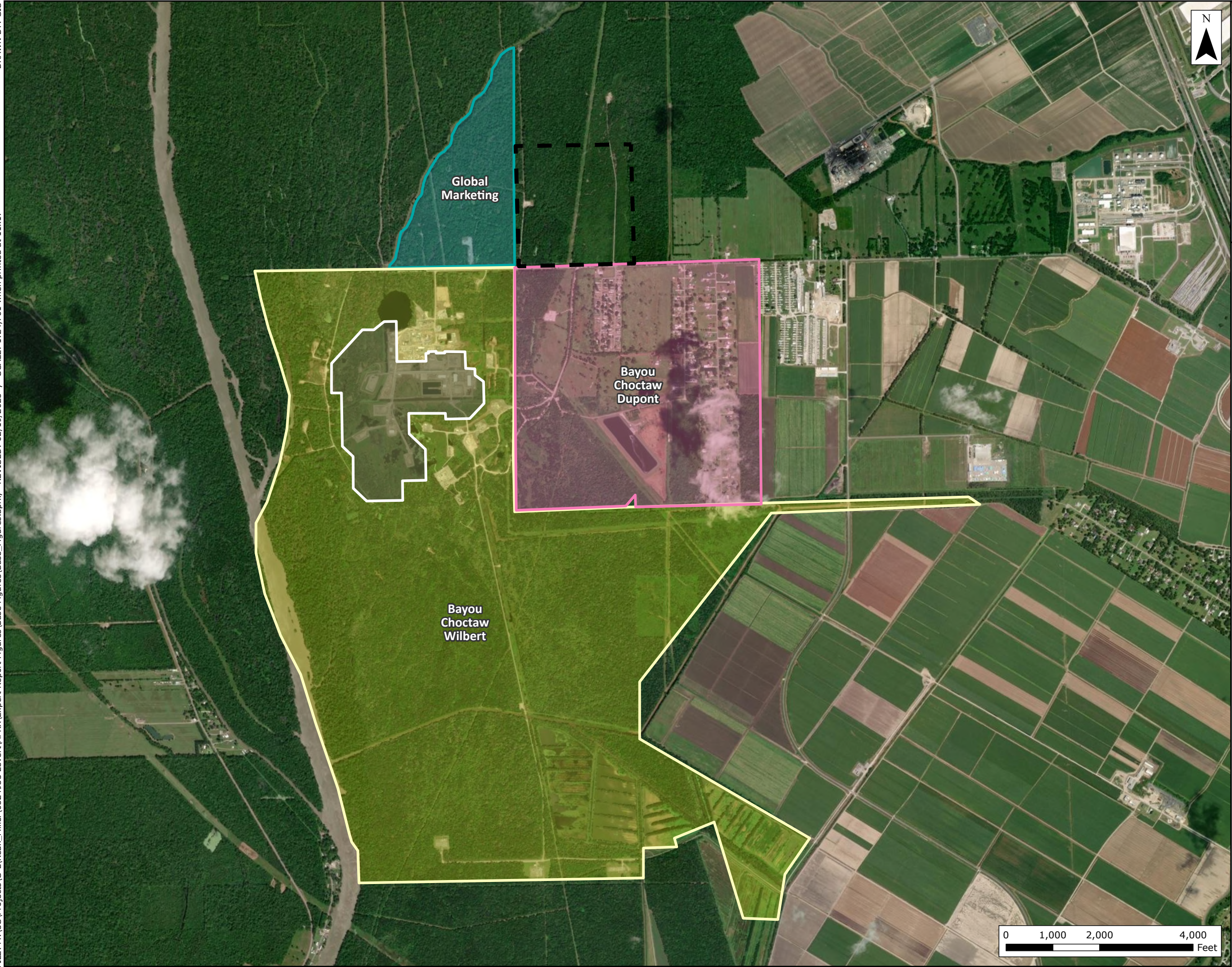
-  Property
-  Strategic Petroleum Reserve

Notes:
1. Imagery basemap via ArcGIS Online.

Figure 16
Nearby Industrial Development & Dredging

Paul M. Levert, et al. v. Union Texas
International Corporation, et al.
Bayou Choctaw Oil & Gas Field
West Baton Rouge Parish, Louisiana





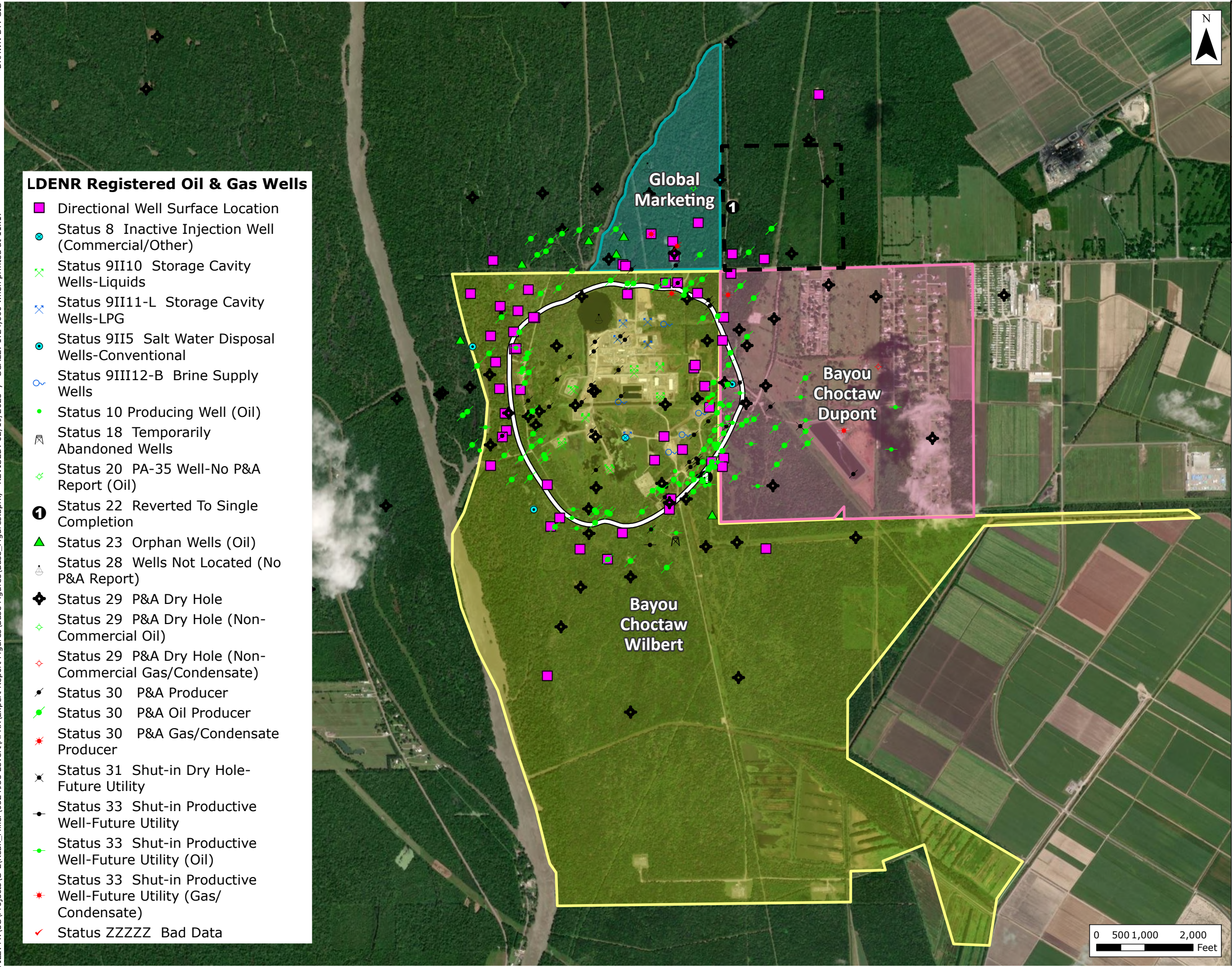
Legend

- Property
- Bayou Choctaw Dupont
- Bayou Choctaw Wilbert
- Global Marketing
- Strategic Petroleum Reserve

Notes:
1. Basemap imagery via ArcGIS Online.

Figure 17
Nearby Litigation Sites
Paul M. Levert, et al. v. Union Texas International Corporation, et al.
Bayou Choctaw Oil & Gas Field
West Baton Rouge Parish, Louisiana





LDENR Registered Oil & Gas Wells

- Directional Well Surface Location
- Status 8 Inactive Injection Well (Commercial/Other)
- Status 9II10 Storage Cavity Wells-Liquids
- Status 9II11-L Storage Cavity Wells-LPG
- Status 9II5 Salt Water Disposal Wells-Conventional
- Status 9III12-B Brine Supply Wells
- Status 10 Producing Well (Oil)
- Status 18 Temporarily Abandoned Wells
- Status 20 PA-35 Well-No P&A Report (Oil)
- Status 22 Reverted To Single Completion
- Status 23 Orphan Wells (Oil)
- Status 28 Wells Not Located (No P&A Report)
- Status 29 P&A Dry Hole
- Status 29 P&A Dry Hole (Non-Commercial Oil)
- Status 29 P&A Dry Hole (Non-Commercial Gas/Condensate)
- Status 30 P&A Producer
- Status 30 P&A Oil Producer
- Status 30 P&A Gas/Condensate Producer
- Status 31 Shut-in Dry Hole-Future Utility
- Status 33 Shut-in Productive Well-Future Utility
- Status 33 Shut-in Productive Well-Future Utility (Oil)
- Status 33 Shut-in Productive Well-Future Utility (Gas/Condensate)
- Status ZZZZZ Bad Data



Legend

- Property
- Salt Dome Extent

Notes:
1. Imagery basemap via ArcGIS Online.

Figure 18
Bayou Choctaw Field
Paul M. Levert, et al. v. Union Texas International Corporation, et al.
Bayou Choctaw Oil & Gas Field
West Baton Rouge Parish, Louisiana





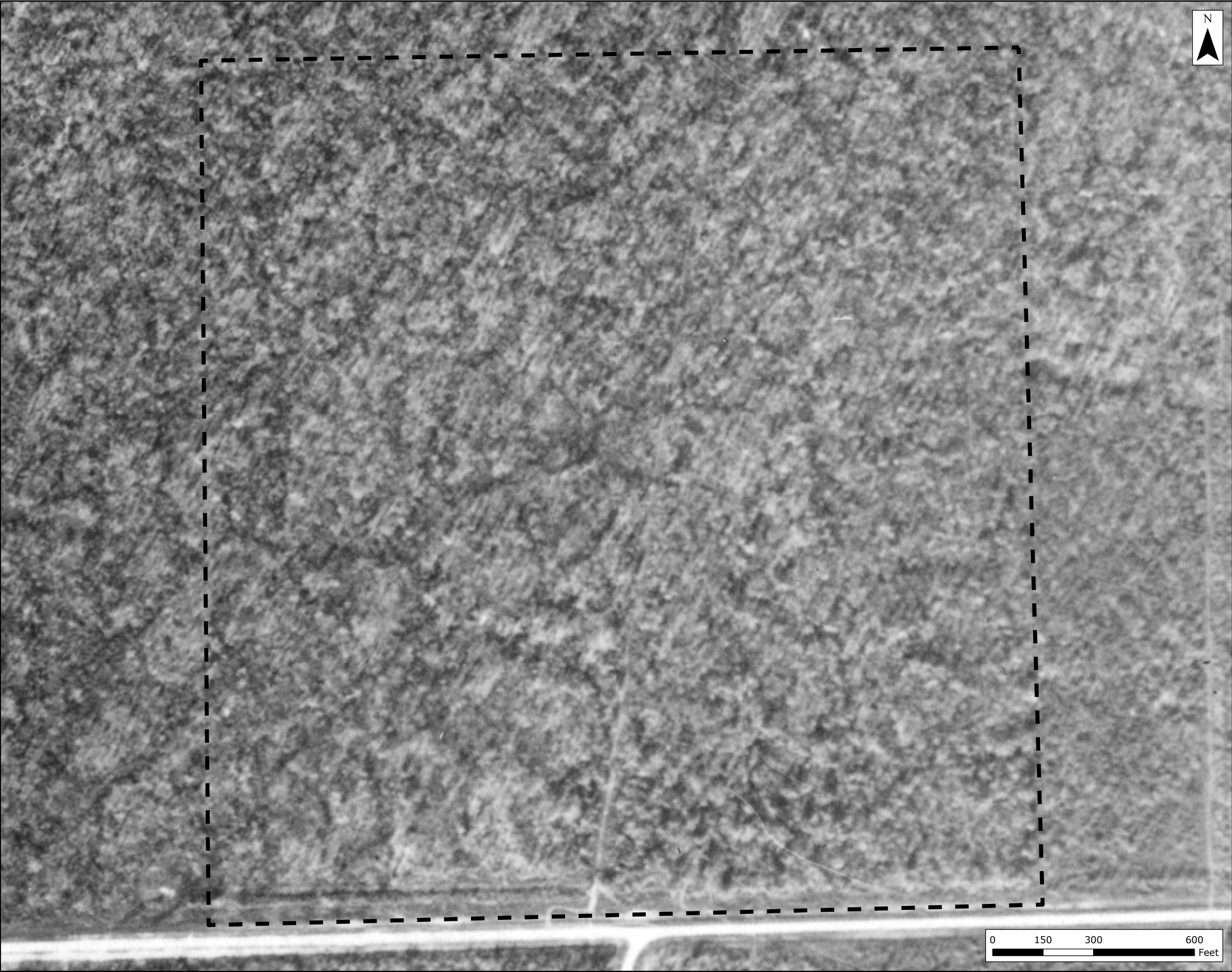
Legend

- Property
- Directional Well Surface Location
- Status 20 PA-35 Well-No P&A Report (Oil)
- Status 22 Reverted To Single Completion
- Status 29 P&A Dry Hole
- Status 30 P&A Oil Producer

Notes:
1. Well data via LDNR SONRIS Data Portal.
2. Imagery basemap via ArcGIS Online.

Figure 19
LDNR Registered Oil & Gas Wells
Paul M. Levert, et al. v. Union Texas International Corporation, et al.
Bayou Choctaw Oil & Gas Field
West Baton Rouge Parish, Louisiana



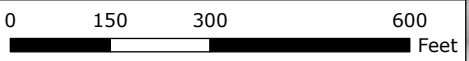


Legend

 Property

Notes:
1. 1941 aerial imagery via LSU
Cartographic Information Center.

Figure 20
1941 Aerial Photograph
Paul M. Levert, et al. v. Union Texas
International Corporation, et al.
Bayou Choctaw Oil & Gas Field
West Baton Rouge Parish, Louisiana





Legend

■ Property

Notes:
1. 1952 aerial imagery via USGS Earth Explorer.

Figure 21
1952 Aerial Photograph
Paul M. Levert, et al. v. Union Texas
International Corporation, et al.
Bayou Choctaw Oil & Gas Field
West Baton Rouge Parish, Louisiana





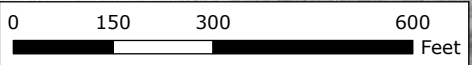
Legend

■ Property

Notes:
1. 1959 aerial imagery via LSU
Cartographic Information Center.

Figure 22
1959 Aerial Photograph
Paul M. Levert, et al. v. Union Texas
International Corporation, et al.
Bayou Choctaw Oil & Gas Field
West Baton Rouge Parish, Louisiana





Legend
■ Property

Notes:
1. 1962 aerial imagery via USGS Earth Explorer.

Figure 23
1962 Aerial Photograph
Paul M. Levert, et al. v. Union Texas
International Corporation, et al.
Bayou Choctaw Oil & Gas Field
West Baton Rouge Parish, Louisiana





Legend

 Property

Notes:
1. 1968 aerial imagery via USGS Earth Explorer.

Figure 24
1968 Aerial Photograph
Paul M. Levert, et al. v. Union Texas
International Corporation, et al.
Bayou Choctaw Oil & Gas Field
West Baton Rouge Parish, Louisiana



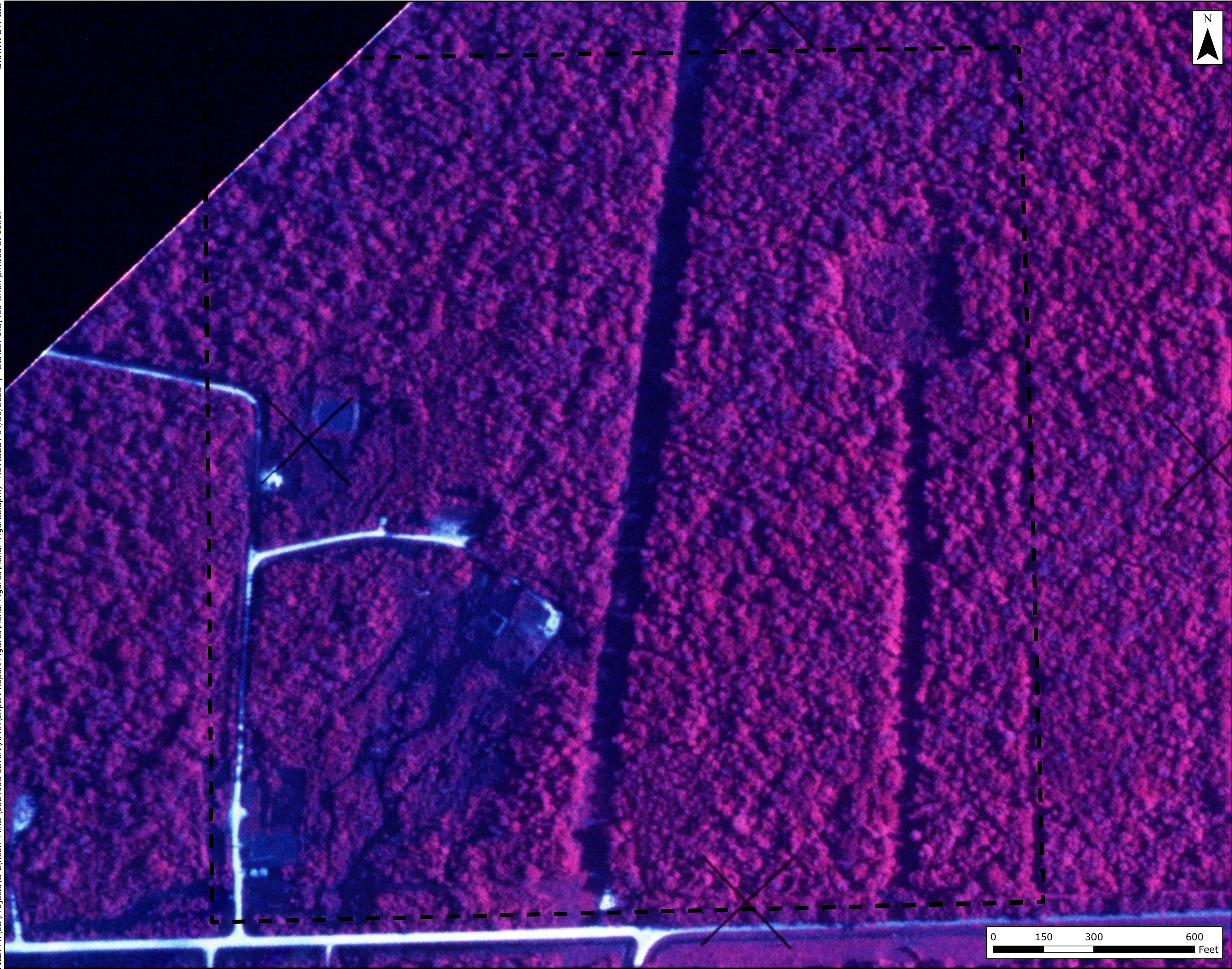


Legend
■ Property

Notes:
1. 1970 aerial imagery via USGS Earth Explorer.

Figure 25
1970 Aerial Photograph
Paul M. Levert, et al. v. Union Texas International Corporation, et al.
Bayou Choctaw Oil & Gas Field
West Baton Rouge Parish, Louisiana



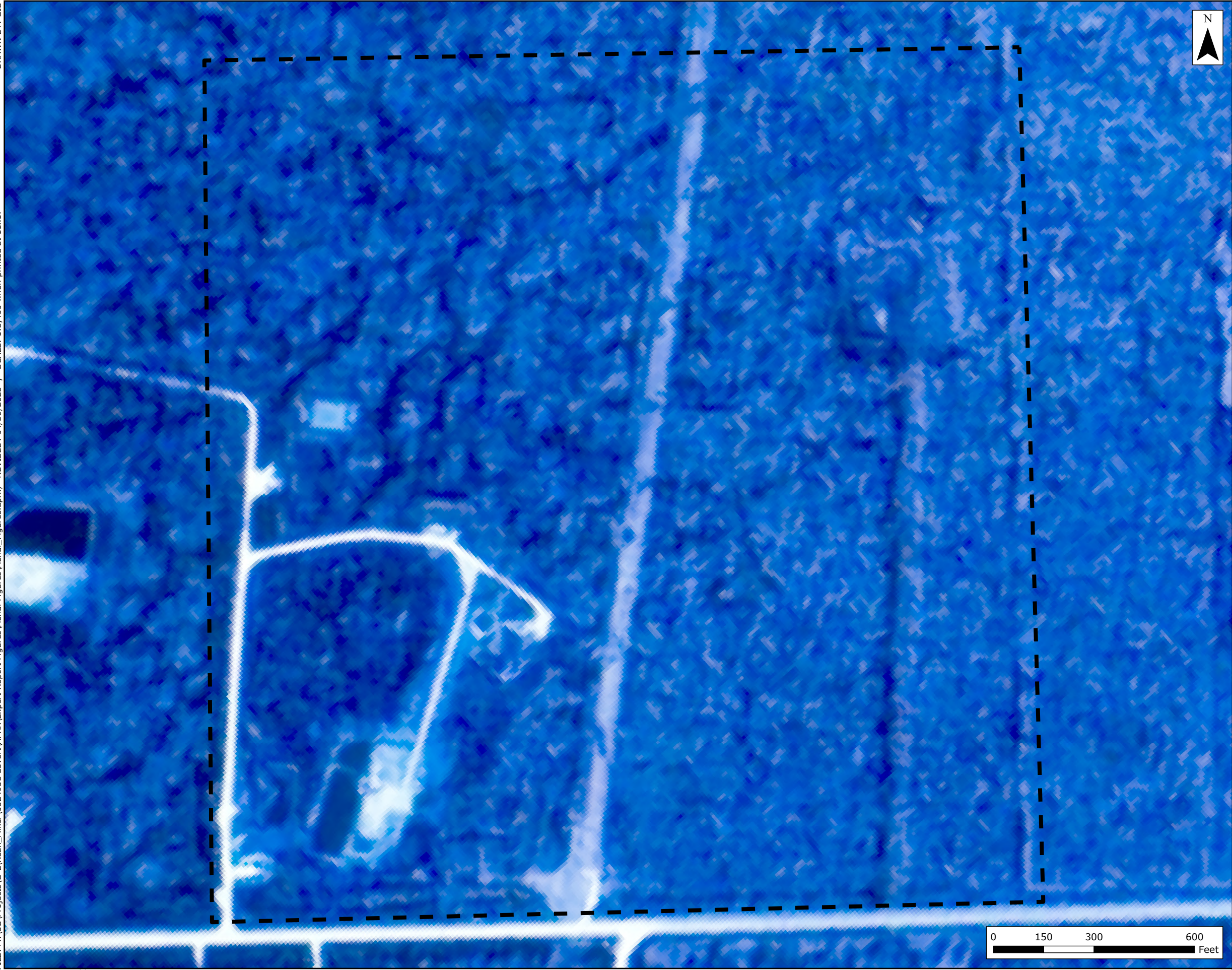


Legend
■ Property

Notes:
1. 1973 aerial imagery via USGS Earth Explorer.

Figure 26
1973 Aerial Photograph
Paul M. Levert, et al. v. Union Texas International Corporation, et al.
Bayou Choctaw Oil & Gas Field
West Baton Rouge Parish, Louisiana

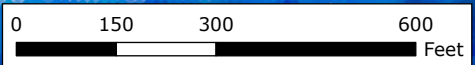




Legend
■ Property

Notes:
1. 1975 aerial imagery via USGS Earth Explorer.

Figure 27
1975 Aerial Photograph
Paul M. Levert, et al. v. Union Texas International Corporation, et al.
Bayou Choctaw Oil & Gas Field
West Baton Rouge Parish, Louisiana

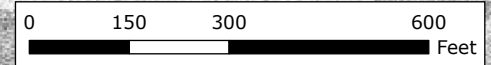




Legend
■ Property

Notes:
1. 1978 aerial imagery via USGS Earth Explorer.

Figure 28
1978 Aerial Photograph
Paul M. Levert, et al. v. Union Texas
International Corporation, et al.
Bayou Choctaw Oil & Gas Field
West Baton Rouge Parish, Louisiana





Legend

■ Property

Notes:
1. 1983 aerial imagery via USGS Earth Explorer.

Figure 29
1983 Aerial Photograph
Paul M. Levert, et al. v. Union Texas
International Corporation, et al.
Bayou Choctaw Oil & Gas Field
West Baton Rouge Parish, Louisiana





Legend
■ Property

Notes:
1. 1985 aerial imagery via USGS Earth Explorer.

Figure 30
1985 Aerial Photograph
Paul M. Levert, et al. v. Union Texas
International Corporation, et al.
Bayou Choctaw Oil & Gas Field
West Baton Rouge Parish, Louisiana



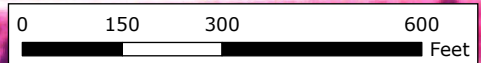


Legend

 Property

Notes:
1. 1988 aerial imagery via USGS Earth Explorer.

Figure 31
1988 Aerial Photograph
Paul M. Levert, et al. v. Union Texas
International Corporation, et al.
Bayou Choctaw Oil & Gas Field
West Baton Rouge Parish, Louisiana

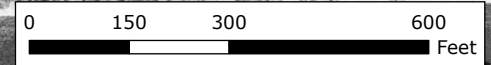




Legend
■ Property

Notes:
1. 1989 aerial imagery via USGS Earth Explorer.

Figure 32
1989 Aerial Photograph
Paul M. Levert, et al. v. Union Texas International Corporation, et al.
Bayou Choctaw Oil & Gas Field
West Baton Rouge Parish, Louisiana



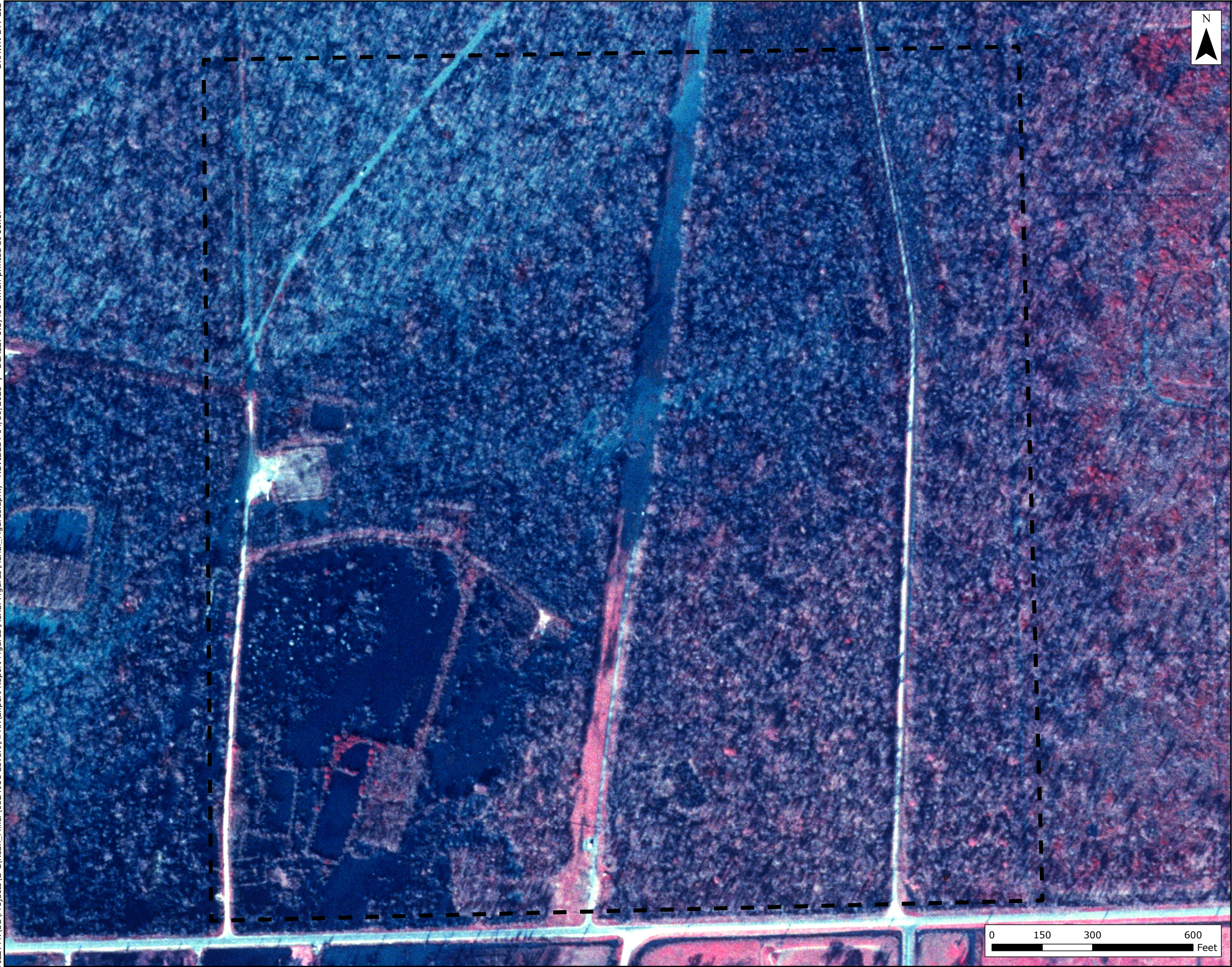


Legend
■ Property

Notes:
1. 1993 aerial imagery via USGS Earth Explorer.

Figure 33
1993 Aerial Photograph
Paul M. Levert, et al. v. Union Texas International Corporation, et al.
Bayou Choctaw Oil & Gas Field
West Baton Rouge Parish, Louisiana





Legend

■ Property

Notes:
1. 1995 aerial imagery via USGS Earth Explorer.

Figure 34
1995 Aerial Photograph
Paul M. Levert, et al. v. Union Texas International Corporation, et al.
Bayou Choctaw Oil & Gas Field
West Baton Rouge Parish, Louisiana

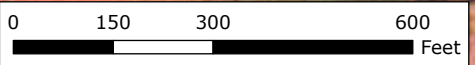




Legend
■ Property

Notes:
1. 1998 aerial imagery via USGS Earth Explorer.

Figure 35
1998 Aerial Photograph
Paul M. Levert, et al. v. Union Texas International Corporation, et al.
Bayou Choctaw Oil & Gas Field
West Baton Rouge Parish, Louisiana



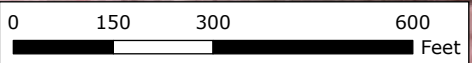


Legend

 Property

Notes:
1. 2004 aerial imagery via USGS Earth Explorer.

Figure 36
2004 Aerial Photograph
Paul M. Levert, et al. v. Union Texas
International Corporation, et al.
Bayou Choctaw Oil & Gas Field
West Baton Rouge Parish, Louisiana





Legend

 Property

Notes:
1. 2009 aerial imagery via USGS Earth Explorer.

Figure 37
2009 Aerial Photograph
Paul M. Levert, et al. v. Union Texas
International Corporation, et al.
Bayou Choctaw Oil & Gas Field
West Baton Rouge Parish, Louisiana



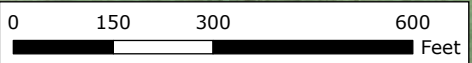


Legend

 Property

Notes:
1. 2013 aerial imagery via USGS Earth Explorer.

Figure 38
2013 Aerial Photograph
Paul M. Levert, et al. v. Union Texas
International Corporation, et al.
Bayou Choctaw Oil & Gas Field
West Baton Rouge Parish, Louisiana





Legend

 Property

Notes:
1. 2017 aerial imagery via USGS Earth Explorer.

Figure 39
2017 Aerial Photograph
Paul M. Levert, et al. v. Union Texas
International Corporation, et al.
Bayou Choctaw Oil & Gas Field
West Baton Rouge Parish, Louisiana





Legend

 Property

Notes:
1. 2021 aerial imagery via USGS Earth Explorer.

Figure 40
2021 Aerial Photograph
Paul M. Levert, et al. v. Union Texas
International Corporation, et al.
Bayou Choctaw Oil & Gas Field
West Baton Rouge Parish, Louisiana





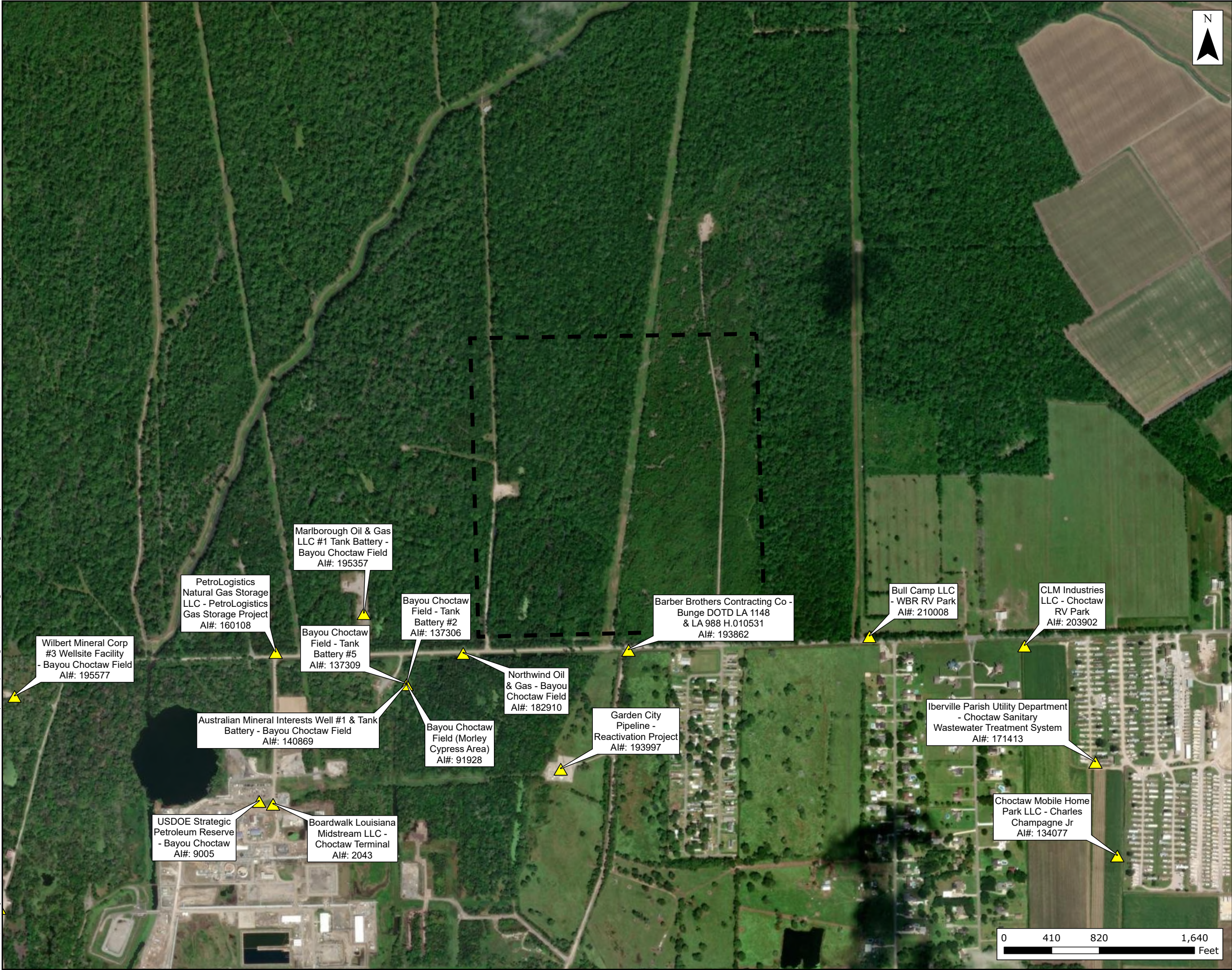
Legend

 Property

Notes:
1. 2023 aerial imagery via USGS Earth Explorer.

Figure 41
2023 Aerial Photograph
Paul M. Levert, et al. v. Union Texas
International Corporation, et al.
Bayou Choctaw Oil & Gas Field
West Baton Rouge Parish, Louisiana





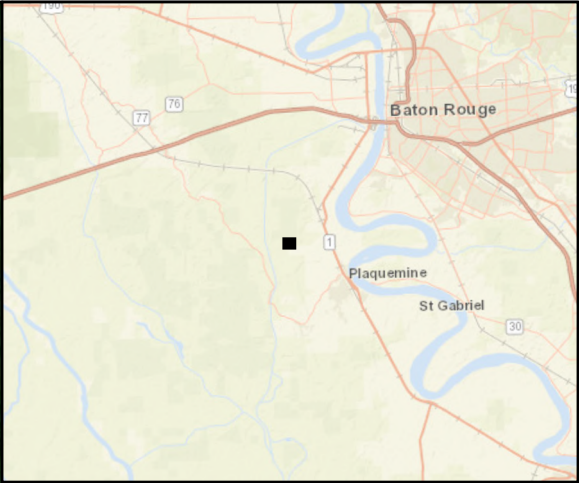
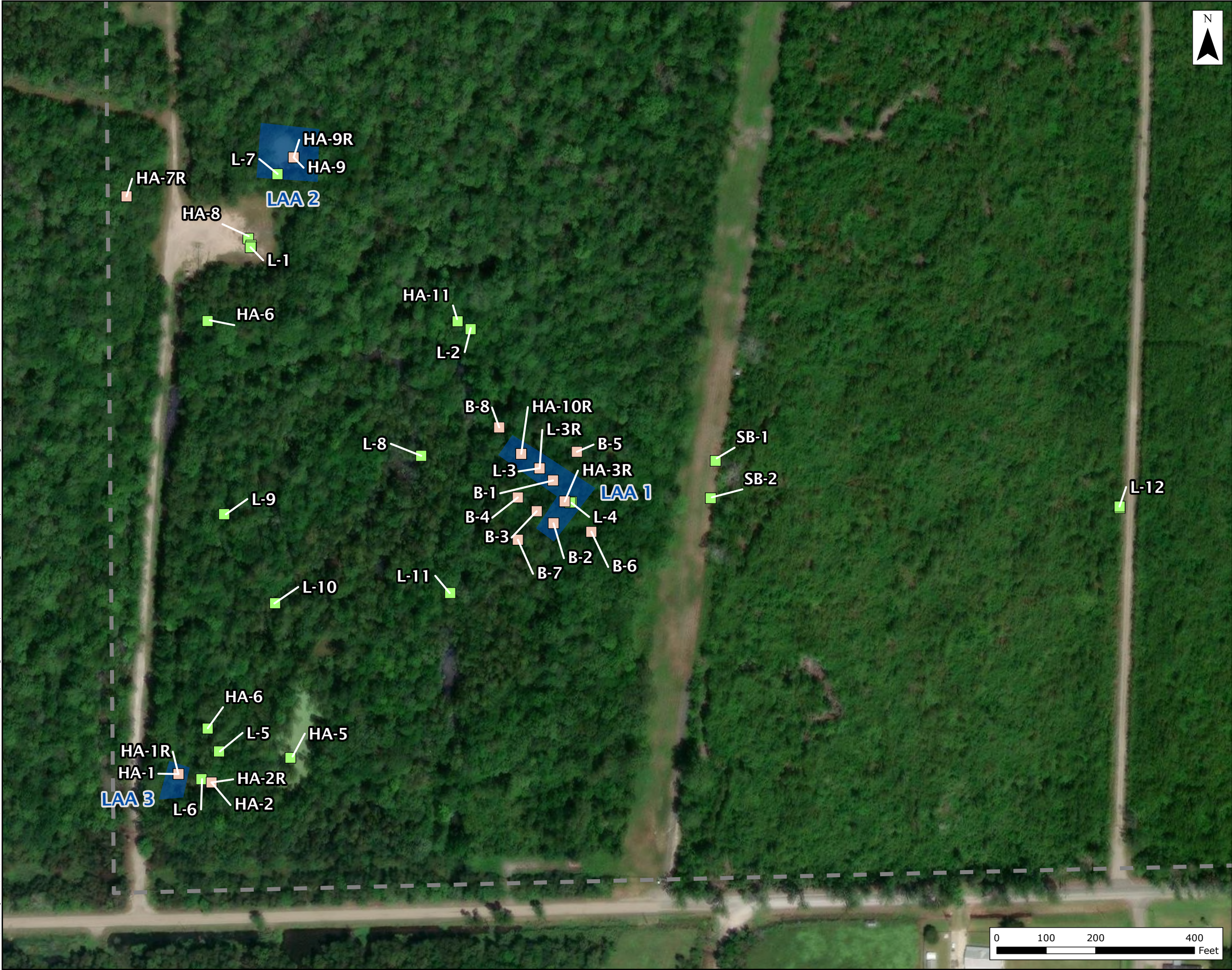
Legend

- Operational Area
- LDEQ Agency Interest (AI) Locations

Notes:
1. Baton Rouge 1:100,000 scale Surface Geology Map from Louisiana Geological Survey.
2. Imagery basemap via ESRI.

Figure 42
LDEQ Agency Interest Locations
Paul M. Levert, et al. v. Union Texas International Corporation, et al.
Bayou Choctaw Oil & Gas Field
West Baton Rouge Parish, Louisiana





Legend

- Property
- Chevron Soil Limited Admission Area
- ERM Soil Sample Location
- ICON Soil Sample Location

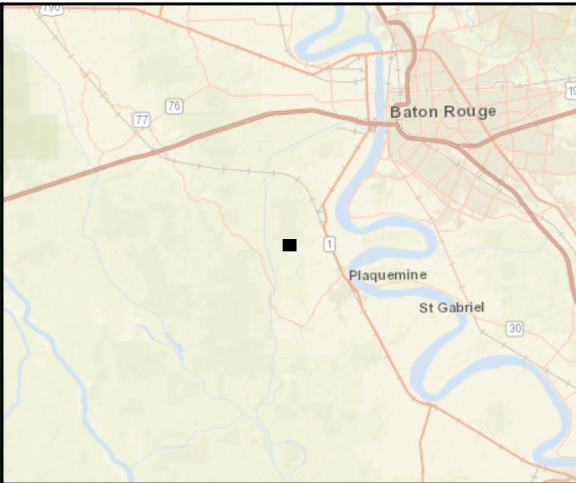
Notes:
1. Imagery basemap via ESRI.

Figure 43
Soil Sample Locations

Paul M. Levert, et al. v. Union Texas
International Corporation, et al.
Bayou Choctaw Oil & Gas Field
West Baton Rouge Parish, Louisiana



FILE: M:\US\Projects\G-L\Kean_Miller\0524933 Levert\APRX\MFP Report\Figures\Sample Location\Figures.aprx... REVISED: 04/17/2025... SCALE: 1:2,350 when printed at 11x17
DRAWN BY: GIS

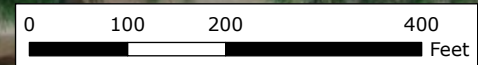


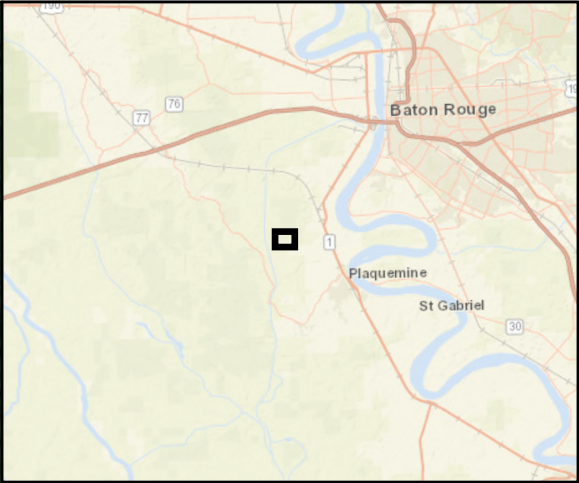
Legend

- Property
- ERM Monitoring Well
- ICON Monitoring Well
- Chevron Groundwater Limited Admission Area

Notes:
1. Imagery basemap via ESRI.

Figure 44
Monitoring Well Locations
Paul M. Levert, et al. v. Union Texas
International Corporation, et al.
Bayou Choctaw Oil & Gas Field
West Baton Rouge Parish, Louisiana





Legend

- Property
- Surface Water Sample Location

Notes:
1. Imagery basemap via ESRI.

Figure 45
Surface Water Sample Locations
Paul M. Levert, et al. v. Union Texas
International Corporation, et al.
Bayou Choctaw Oil & Gas Field
West Baton Rouge Parish, Louisiana





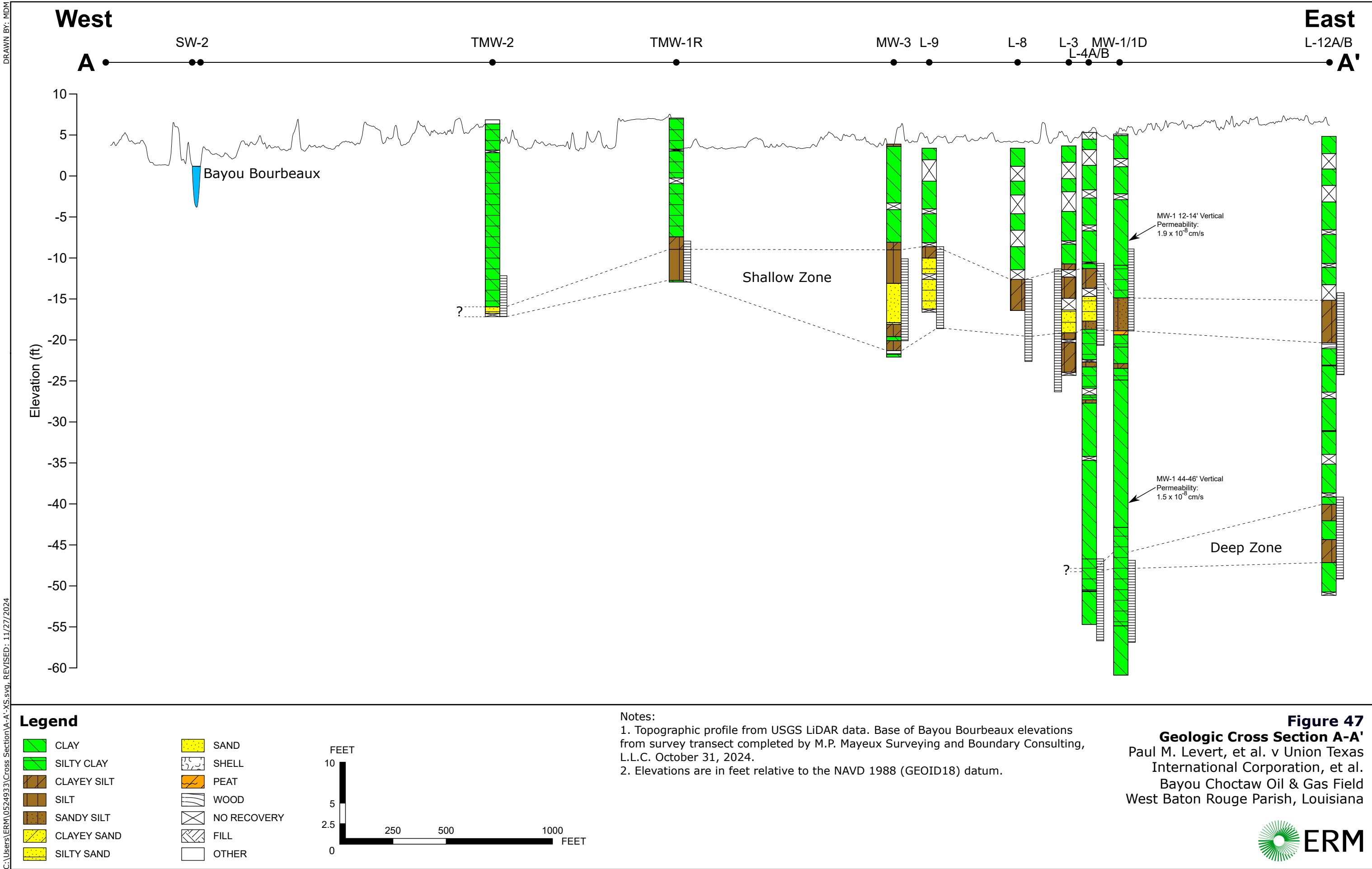
- Legend**
- Property
 - ERM Monitoring Well
 - ERM Surface Water Sample Location
 - ICON Monitoring Well
 - MP&A Monitoring Wells
 - Chevron Soil Limited Admission Area
 - Chevron Groundwater Limited Admission Area

Notes:
1. Imagery basemap via ESRI.

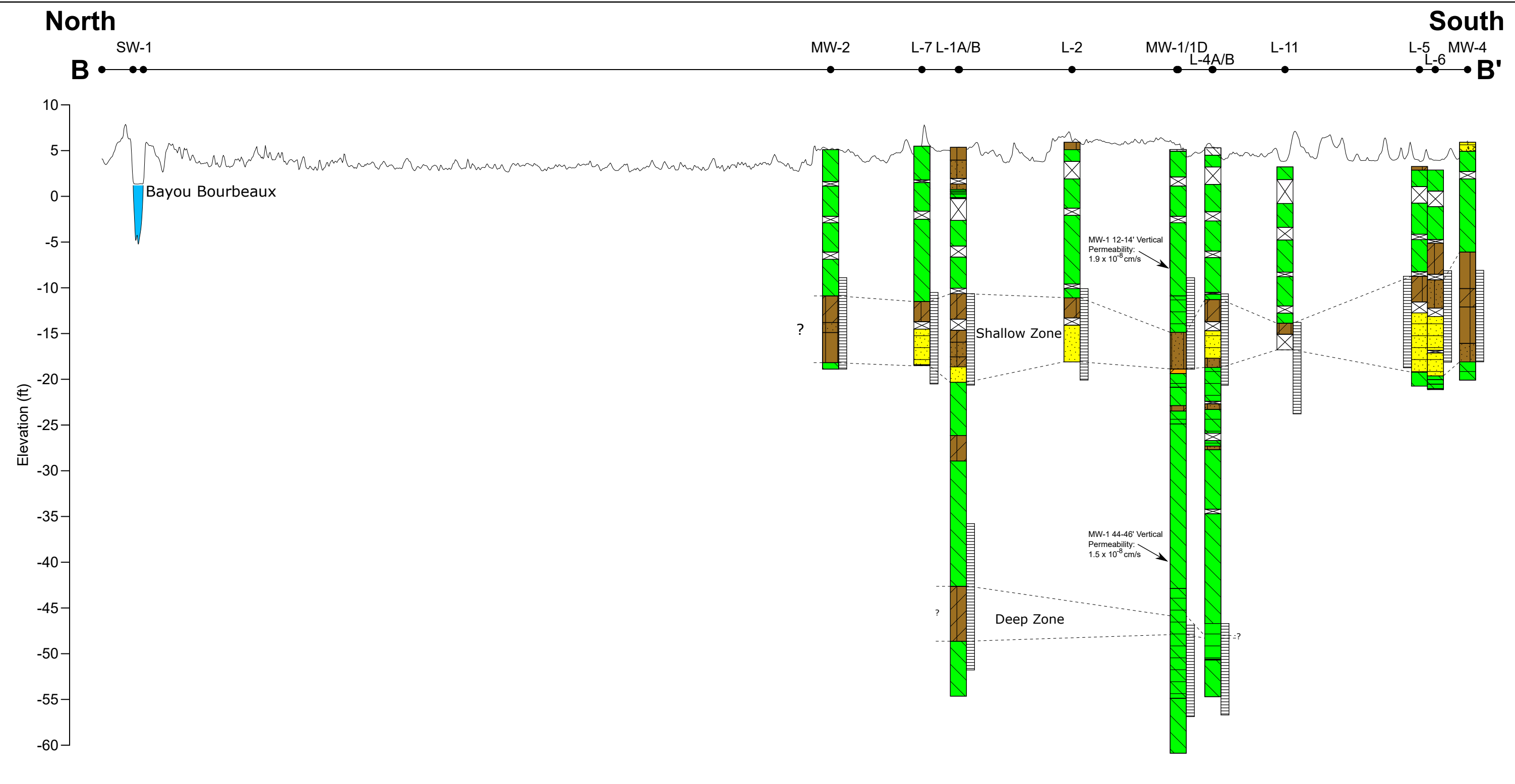
Figure 46
Cross-Section Locations
Paul M. Levert, et al. v. Union Texas
International Corporation, et al.
Bayou Choctaw Oil & Gas Field
West Baton Rouge Parish, Louisiana



C:\Users\ERM\0524933\Cross Section\A-A'-XS.svg, REVISED: 11/27/2024

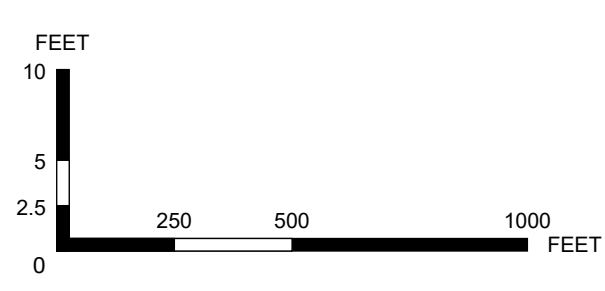


C:\ERM\0524933\Cross Section\B-B'-XS.svg, REVISED: 11/25/2024



Legend

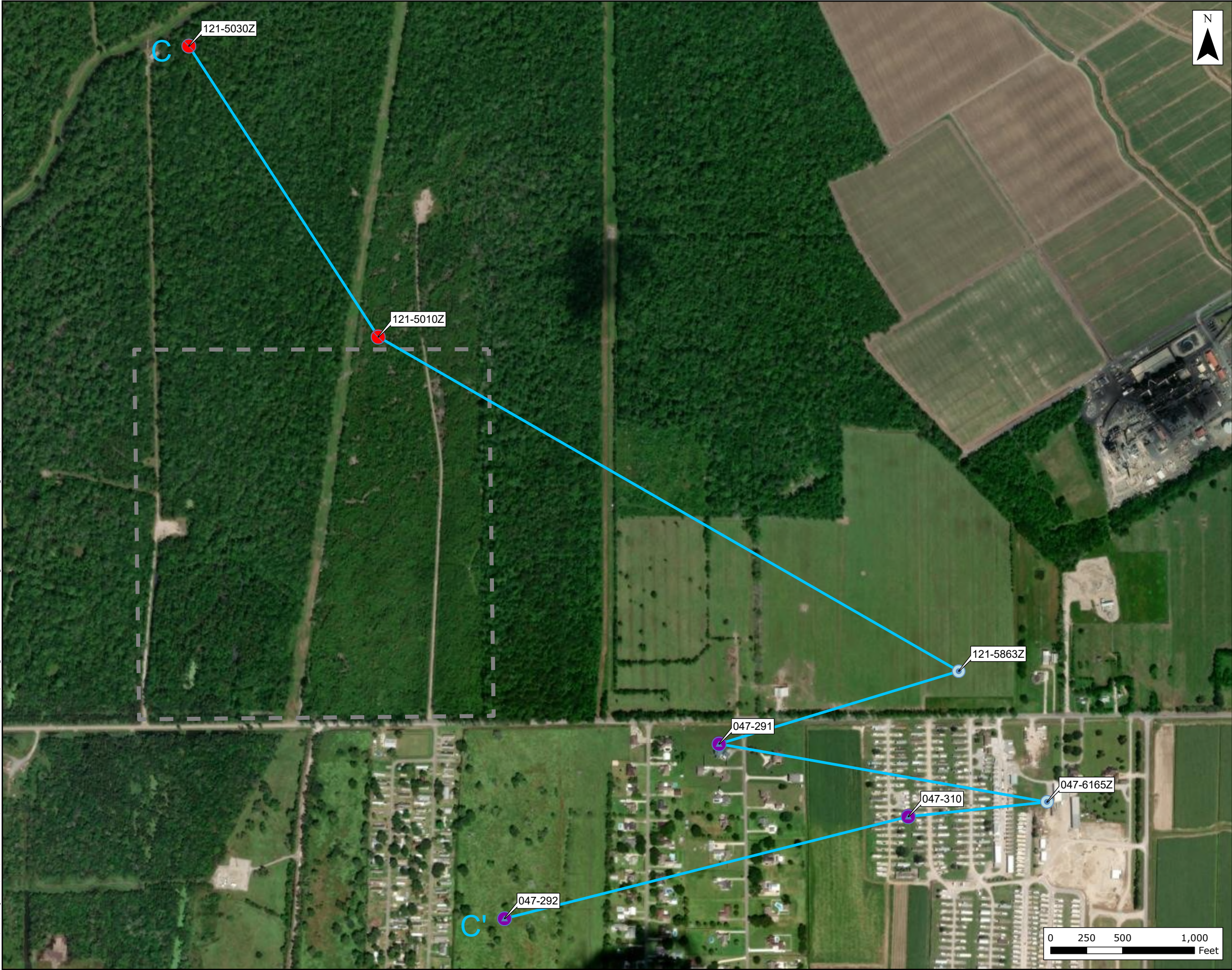
	CLAY		SILTY SAND
	SILTY CLAY		SAND
	PEATY CLAY		SILTY SHELLY GRAVEL
	CLAYEY SILT		SHELL
	SILT		PEAT
	CLAYEY SANDY SILT		NO RECOVERY
	SANDY SILT		FILL



Notes:
1. Topographic profile from USGS LiDAR data. Base of Bayou Bourbeaux elevations from survey transect completed by M.P. Mayeux Surveying and Boundary Consulting, L.L.C. October 31, 2024.
2. Elevations are in feet relative to the NAVD 1988 (GEOID18) datum.

Figure 48
Geologic Cross Section B-B'
Paul M. Levert, et al. v Union Texas International Corporation, et al.
Bayou Choctaw Oil & Gas Field
West Baton Rouge Parish, Louisiana





Legend

- Property
- Bore hole/Test Hole
- Domestic
- Public Supply
- Rig Supply

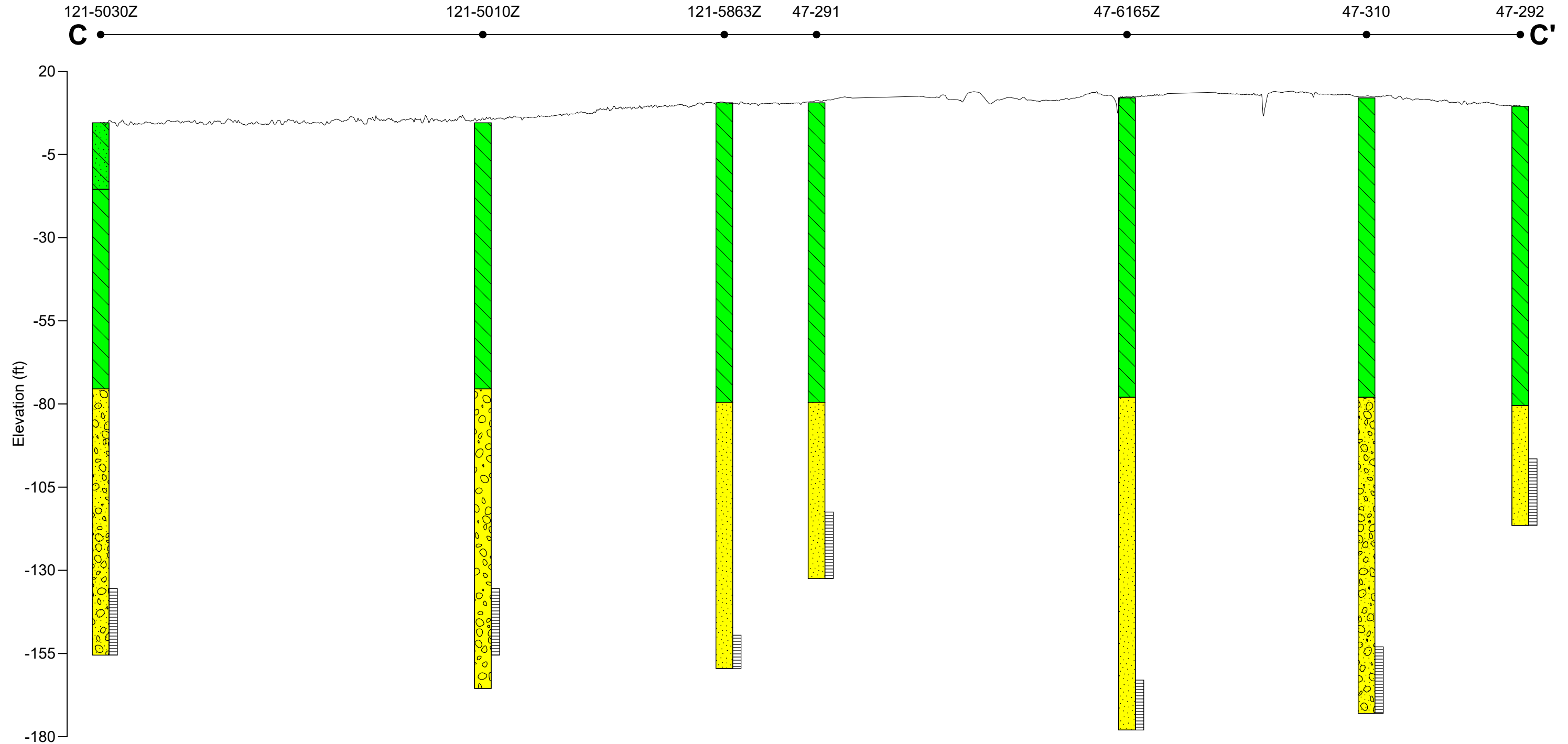
Notes:
1. Imagery basemap via ESRI.

Figure 49
Water Well Drillers Log
Cross-Section Location
Paul M. Levert, et al. v. Union Texas
International Corporation, et al.
Bayou Choctaw Oil & Gas Field
West Baton Rouge Parish, Louisiana



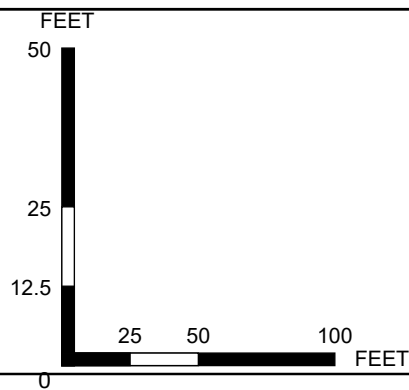
C:\ERM\0524933 - Levert\Cross Section\C-C'.X5.svg, REVISED: 01/09/2025

DRAWN BY: MDM



Legend

- CLAY
- SANDY CLAY
- SAND
- GRAVELLY SAND
- GRAVEL



Notes:

Figure 50
Water Well Drillers Logs Cross Section C-C'
Paul M. Levert, et al. v Union Texas International Corporation, et al. Bayou Choctaw Oil & Gas Field
West Baton Rouge Parish, Louisiana





- Legend**
- Property
 - ICON Monitoring Well
 - Potentiometric Surface Contour
 - General Direction of Groundwater Flow

Notes:
1. ICON monitoring wells installed in 2023. ERM collected split samples. Screened interval depth shown in parentheses.
2. Imagery Basemap via ArcGIS Online.

Figure 51
October 17, 2023
Potentiometric Surface Map
Shallow Zone - Water Elevation
Paul M. Levert, et al. v Union Texas International Corporation, et al.
Bayou Choctaw Oil & Gas Field
West Baton Rouge Parish, Louisiana





- Legend**
- Property
 - ICON Monitoring Well
 - Potentiometric Surface Contour
 - General Direction of Groundwater Flow

Notes:

1. ICON monitoring wells installed in 2023. ERM collected split samples. Screened interval depth shown in parentheses.
2. Imagery Basemap via ArcGIS Online.

Figure 52
October 17, 2023
Potentiometric Surface Map
Shallow Zone - EFWH
Paul M. Levert, et al. v Union Texas
International Corporation, et al.
Bayou Choctaw Oil & Gas Field
West Baton Rouge Parish, Louisiana





Legend

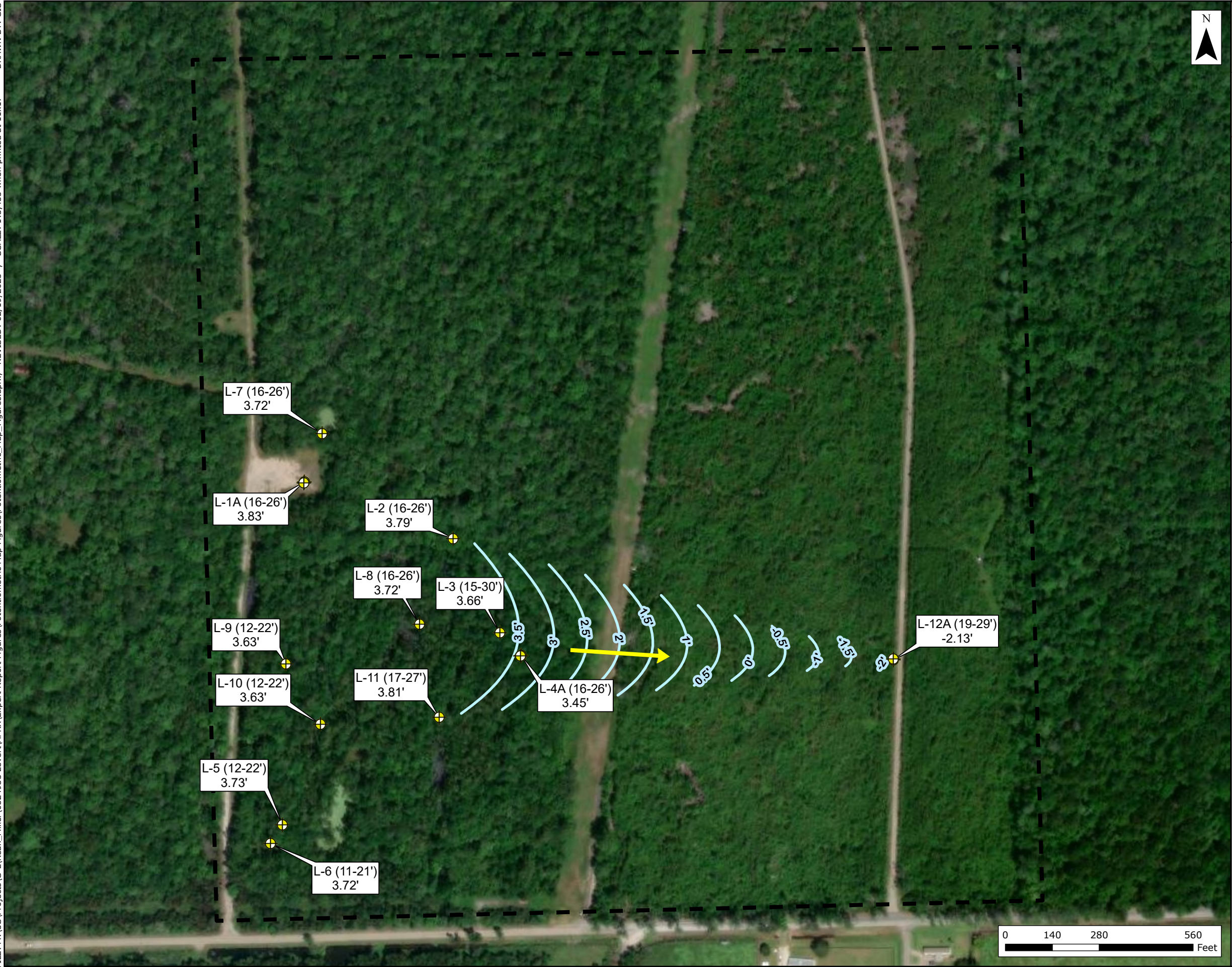
- Property
- ICON Monitoring Well
- Potentiometric Surface Contour
- General Direction of Groundwater Flow

Notes:
1. ICON monitoring wells installed in 2023. ERM collected split samples. Screened interval depth shown in parentheses.
2. Imagery Basemap via ArcGIS Online.

Figure 53 October 17, 2023 Potentiometric Surface Map Deep Zone

Paul M. Levert, et al. v Union Texas
International Corporation, et al.
Bayou Choctaw Oil & Gas Field
West Baton Rouge Parish, Louisiana





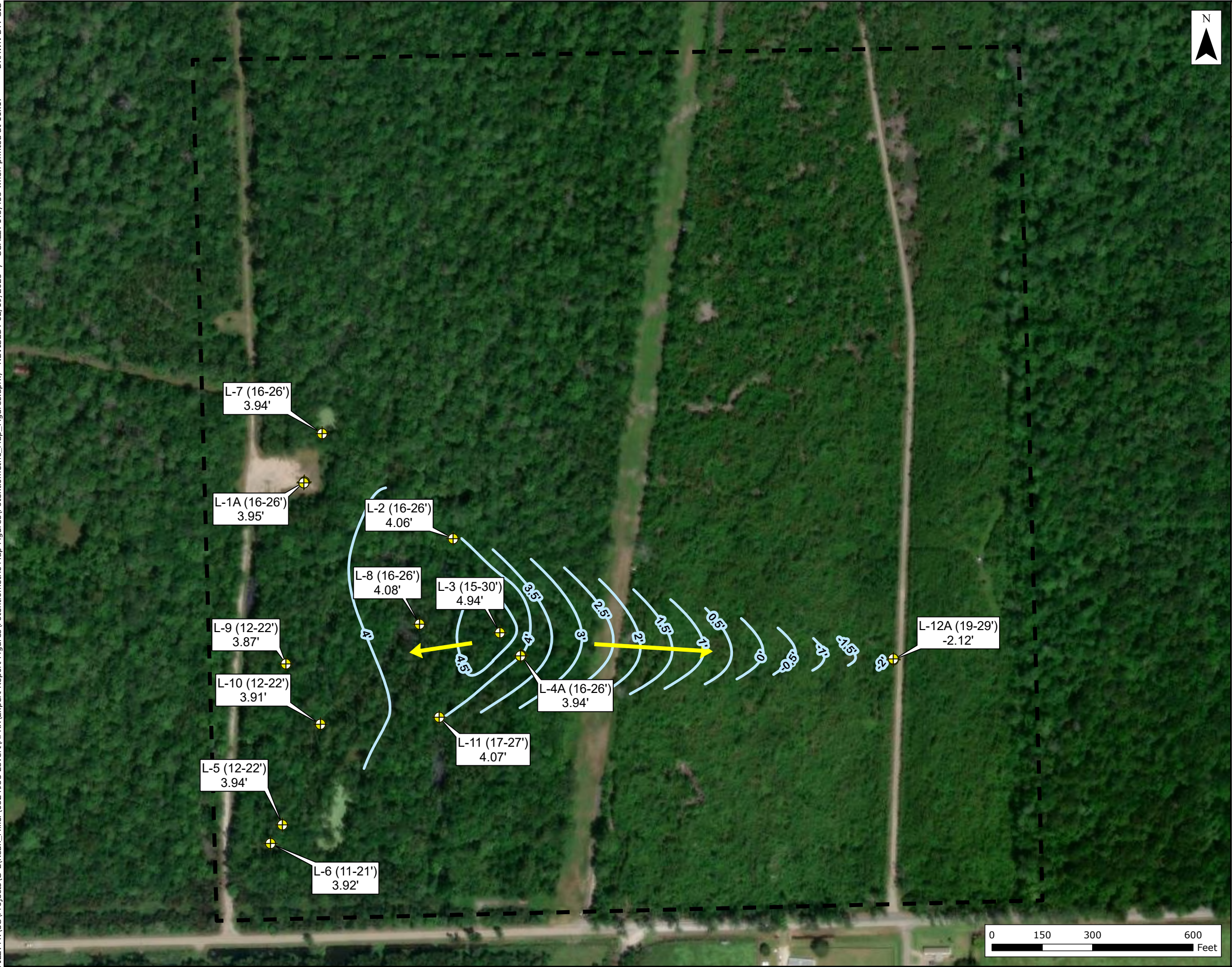
- Legend**
- Property
 - ICON Monitoring Well
 - Potentiometric Surface Contour
 - General Direction of Groundwater Flow

Notes:

1. ICON monitoring wells installed in 2023. ERM collected split samples. Screened interval depth shown in parentheses.
2. Imagery Basemap via ArcGIS Online.

Figure 54
September 20, 2024
Potentiometric Surface Map
Shallow Zone - Water Elevation
Paul M. Levert, et al. v Union Texas
International Corporation, et al.
Bayou Choctaw Oil & Gas Field
West Baton Rouge Parish, Louisiana





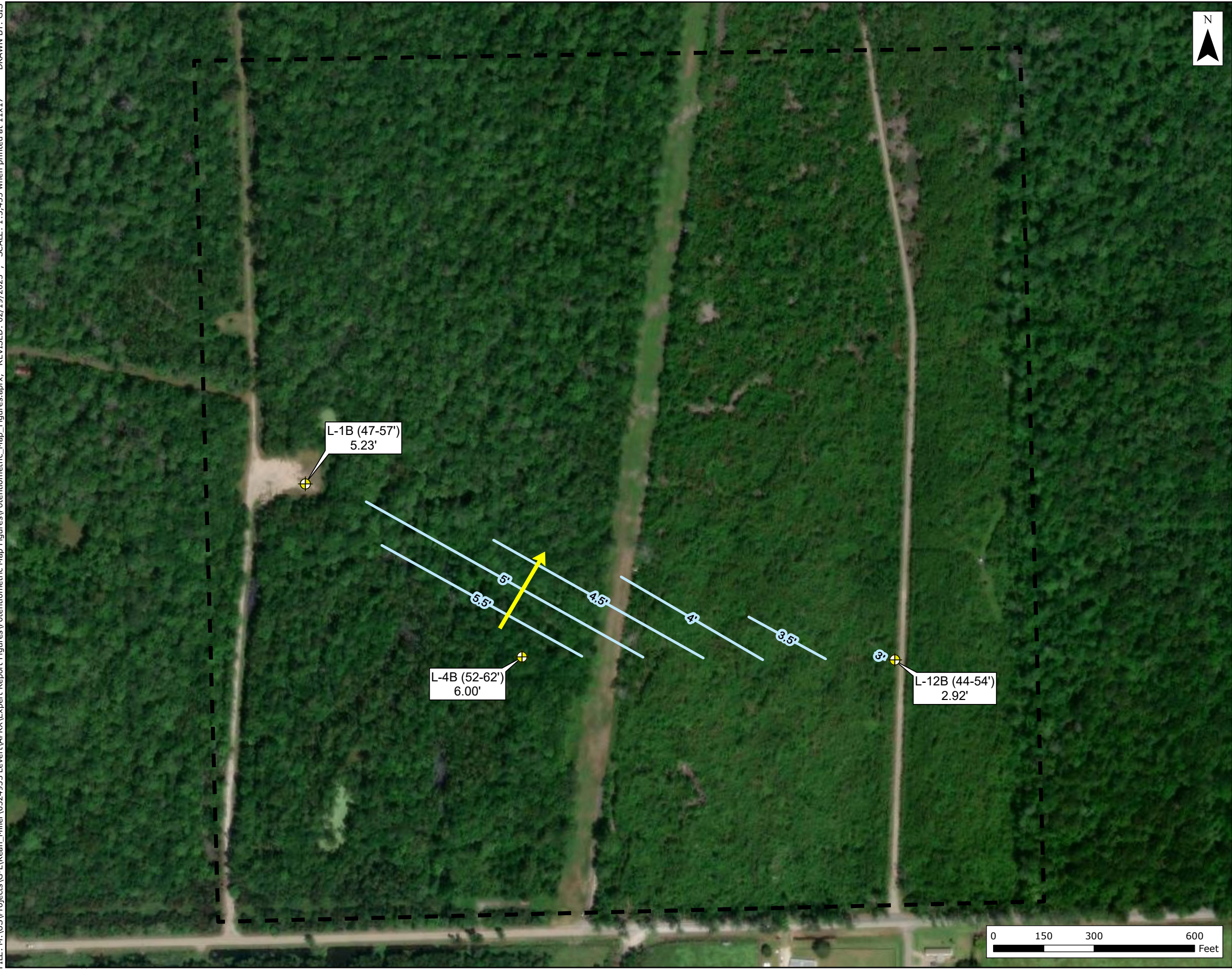
- Legend**
- Property
 - ICON Monitoring Well
 - Potentiometric Surface Contour
 - General Direction of Groundwater Flow

Notes:

1. ICON monitoring wells installed in 2023. ERM collected split samples. Screened interval depth shown in parentheses.
2. Imagery Basemap via ArcGIS Online.

Figure 55
September 20, 2024
Potentiometric Surface Map
Shallow Zone - EFWH
Paul M. Levert, et al. v Union Texas International Corporation, et al.
Bayou Choctaw Oil & Gas Field
West Baton Rouge Parish, Louisiana



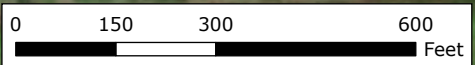


Legend

- Property
- ICON Monitoring Well
- Potentiometric Surface Contour
- General Direction of Groundwater Flow

Notes:
1. ICON monitoring wells installed in 2023. ERM collected split samples. Screened interval depth shown in parentheses.
2. Imagery Basemap via ArcGIS Online.

Figure 56
September 20, 2024
Potentiometric Surface Map
Deep Zone
Paul M. Levert, et al. v Union Texas
International Corporation, et al.
Bayou Choctaw Oil & Gas Field
West Baton Rouge Parish, Louisiana



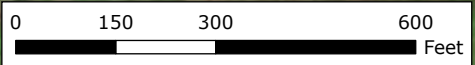


- Legend**
- Property
 - ICON Monitoring Well
 - ERM Monitoring Well
 - Potentiometric Surface Contour
 - General Direction of Groundwater Flow

Notes:

1. ICON monitoring wells installed in 2023. ERM collected split samples. Screened interval depth shown in parentheses.
2. Imagery Basemap via ArcGIS Online.

Figure 57
November 1, 2024
Potentiometric Surface Map
Shallow Zone - Water Elevation
Paul M. Levert, et al. v Union Texas
International Corporation, et al.
Bayou Choctaw Oil & Gas Field
West Baton Rouge Parish, Louisiana





- Legend**
- Property
 - ICON Monitoring Well
 - ERM Monitoring Well
 - Potentiometric Surface Contour
 - General Direction of Groundwater Flow

Notes:

1. ICON monitoring wells installed in 2023. ERM collected split samples. Screened interval depth shown in parentheses.
2. Imagery Basemap via ArcGIS Online.

Figure 58
November 1, 2024
Potentiometric Surface Map
Shallow Zone - EFWD
Paul M. Levert, et al. v Union Texas International Corporation, et al.
Bayou Choctaw Oil & Gas Field
West Baton Rouge Parish, Louisiana



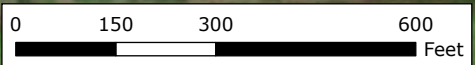


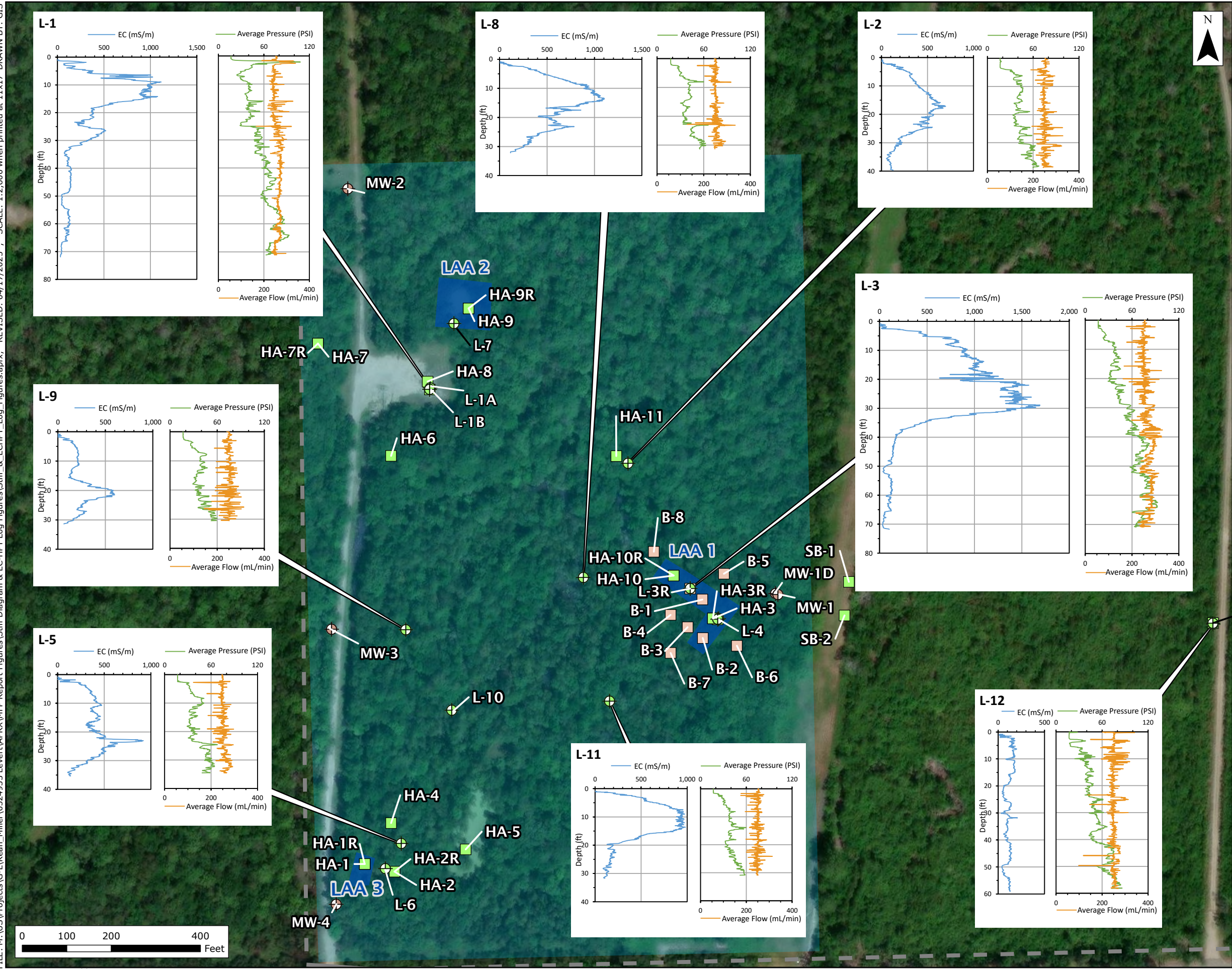
- Legend**
- Property
 - ICON Monitoring Well
 - ERM Monitoring Well
 - Potentiometric Surface Contour
 - General Direction of Groundwater Flow

Notes:

1. ICON monitoring wells installed in 2023. ERM collected split samples. Screened interval depth shown in parentheses.
2. Imagery Basemap via ArcGIS Online.

Figure 59
November 1, 2024
Potentiometric Surface Map
Deep Zone
Paul M. Levert, et al. v Union Texas
International Corporation, et al.
Bayou Choctaw Oil & Gas Field
West Baton Rouge Parish, Louisiana

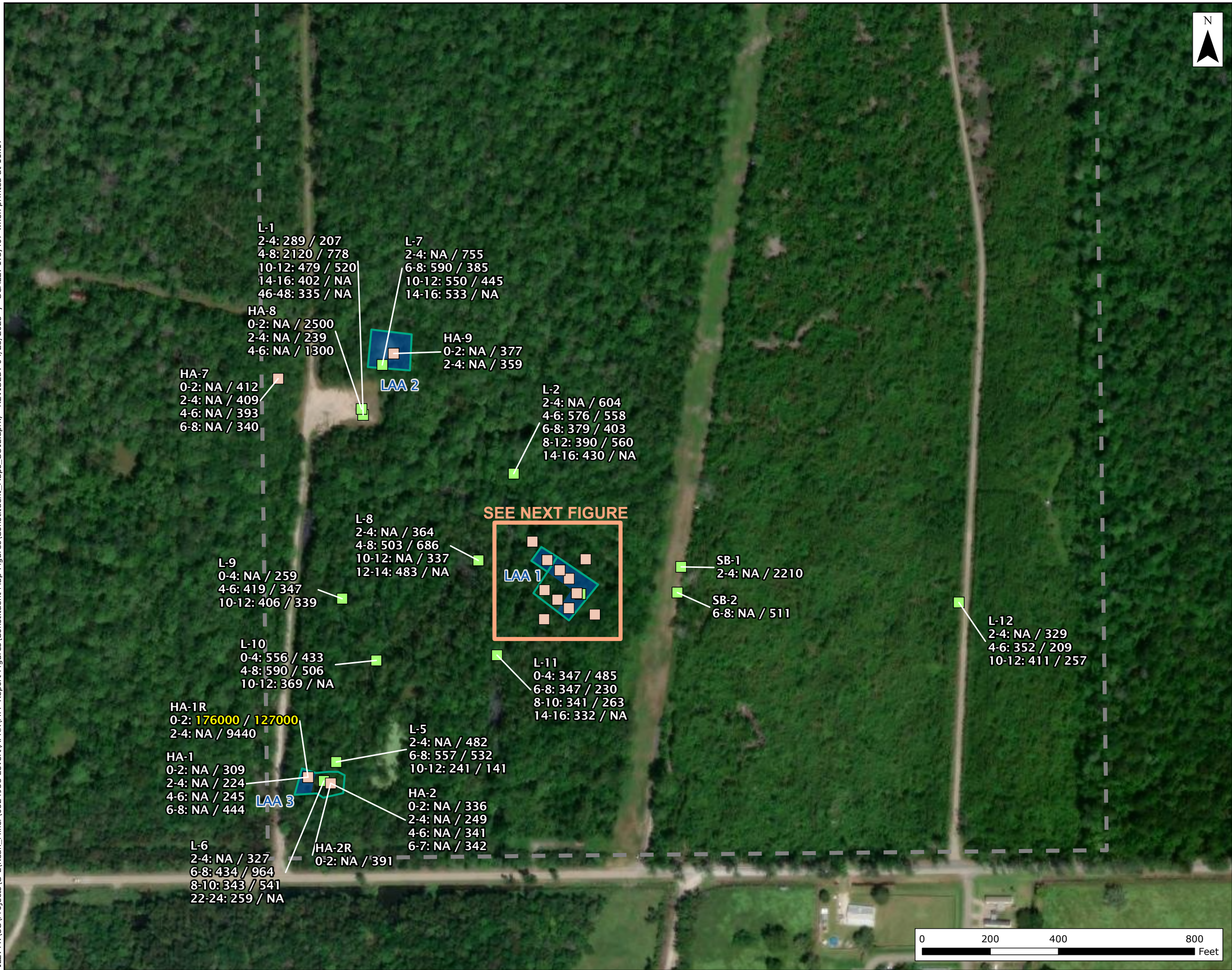




Notes:
1. Basemap imagery via ArcGIS Online.

Figure 60
ICON EC & HPT Probe Logs
Paul M. Levert, et al. v. Union Texas
International Corporation, et al.
Bayou Choctaw Oil & Gas Field
West Baton Rouge Parish, Louisiana





Legend

- Property
- ERM Soil Sample Location
- ICON Soil Sample Location
- Approximate Pit Boundary
- Chevron Soil Limited Admission Area

Notes:

1. TTB concentration reported in mg/kg (dry).
2. 29-B screening standard = 20000 mg/kg; exceedances shown in yellow.
3. Results are shown as
Depth: ERM result / ICON result.
4. Depths in feet.
5. NA = not analyzed
6. Basemap imagery via ArcGIS Online.

Figure 61
True Total Barium in Soil
Paul M. Levert, et al. v Union Texas International Corporation, et al.
Bayou Choctaw Oil & Gas Field
West Baton Rouge Parish, Louisiana



FILE: M:\US\Projects\G-L\Kean_Miller\0524933 Levert\APRX\MFP Report Figures\Constituent Map Figures\Soil_L.aprx, REVISED: 04/23/2025, SCALE: 1:475 when printed at 11x17



Legend

- ERM Soil Sample Location
- ICON Soil Sample Location
- Approximate Pit Boundary
- Chevron Soil Limited Admission Area

Notes:
1. TTB concentration reported in mg/kg (dry).
2. 29-B screening standard = 20000mg/kg; exceedances shown in yellow.
3. Results are shown as
Depth: ERM result / ICON result.
4. Depths in feet.
5. NA = not analyzed
6. Basemap imagery via ArcGIS Online.

Figure 62
True Total Barium in Soil - Zoom
Paul M. Levert, et al. v Union Texas International Corporation, et al.
Bayou Choctaw Oil & Gas Field
West Baton Rouge Parish, Louisiana



FILE: M:\US\Projects\G-L\Kean_Miller\0524933 Levert\APRX\MFP Report Figures\Constituent Map Figures\SOIL.aprx, REVISED: 04/23/2025, SCALE: 1:3,407 when printed at 11x17



Legend

- Property
- ERM Soil Sample Location
- ICON Soil Sample Location
- Approximate Pit Boundary
- Chevron Soil Limited Admission Area

Notes:

1. Barium concentration reported in mg/kg (wet weight).
2. RECAP screening standard = 550 mg/kg; exceedances shown in yellow.
3. Results are shown as **Depth: ERM result / ICON result.**
4. Depths in feet.
5. NA = not analyzed
6. Basemap imagery via ArcGIS Online.

Figure 63
Barium in Soil
Paul M. Levert, et al. v Union Texas International Corporation, et al.
Bayou Choctaw Oil & Gas Field
West Baton Rouge Parish, Louisiana



FILE: M:\US\Projects\G-L\Kean_Miller\0524933 Levert\APRX\MFP Report Figures\Constituent Map Figures\SOIL.aprx, REVISED: 04/23/2025, SCALE: 1:475 when printed at 11x17



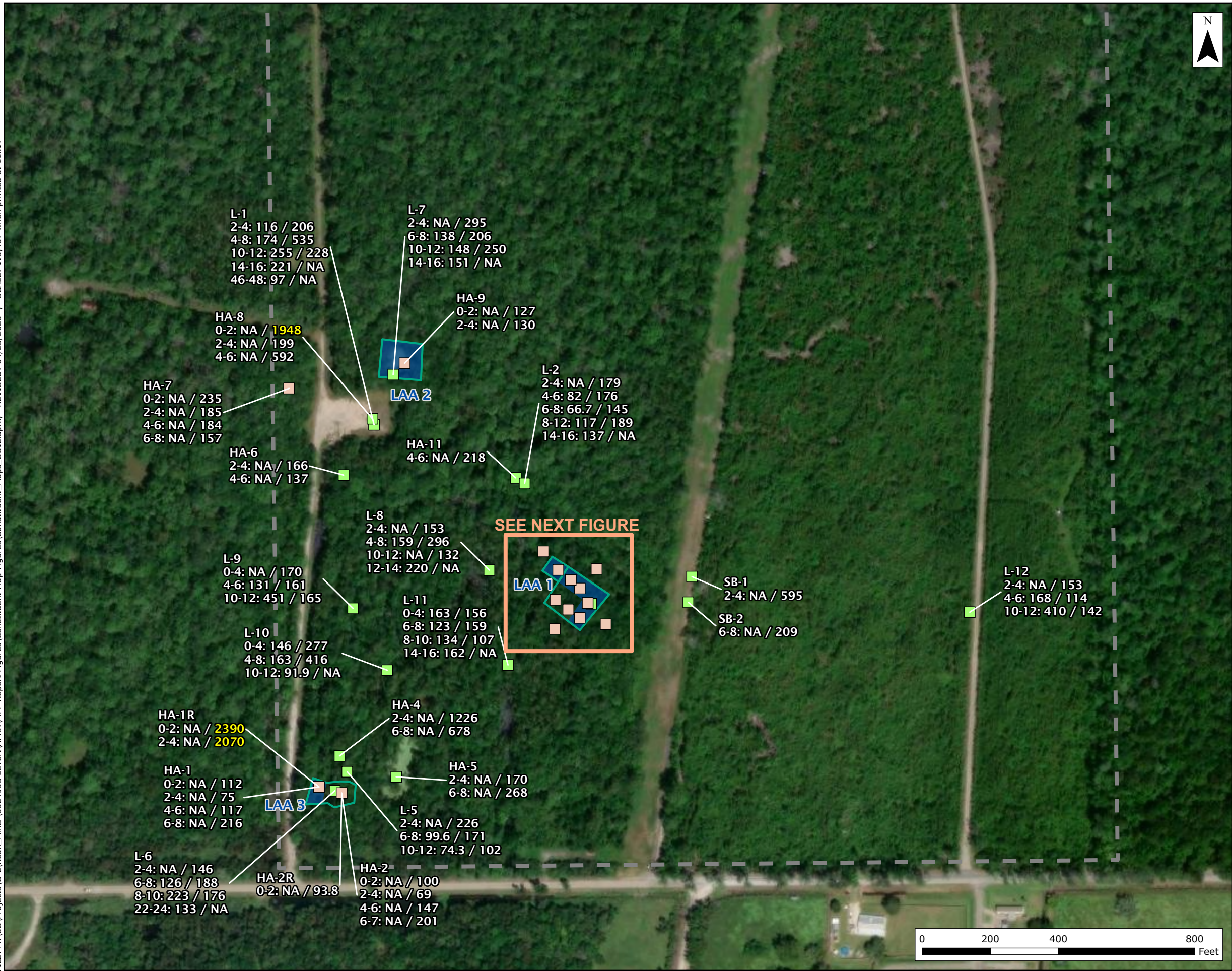
- Legend**
- ERM Soil Sample Location
 - ICON Soil Sample Location
 - Approximate Pit Boundary
 - Chevron Soil Limited Admission Area

- Notes:**
- Barium concentration reported in mg/kg (wet weight).
 - RECAP screening standard = 550 mg/kg; exceedances shown in yellow.
 - Results are shown as **Depth: ERM result / ICON result.**
 - Depths in feet.
 - NA = not analyzed
 - Basemap imagery via ArcGIS Online.

Figure 64
Barium in Soil - Zoom
Paul M. Levert, et al. v Union Texas International Corporation, et al.
Bayou Choctaw Oil & Gas Field
West Baton Rouge Parish, Louisiana



FILE: M:\US\Projects\G-L\Kean_Miller\0524933 Levert\APRX\MFP Report Figures\Constituent Map Figures\SOIL.aprx, REVISED: 04/23/2025, SCALE: 1:3,407 when printed at 11x17



Legend

- Property
- ERM Soil Sample Location
- ICON Soil Sample Location
- Approximate Pit Boundary
- Chevron Soil Limited Admission Area

Notes:

- Barium concentration reported in mg/kg (wet weight).
- Updated RECAP screening standard = 1600 mg/kg; exceedances shown in yellow.
- Results are shown as
Depth: ERM result / ICON result.
- Depths in feet.
- NA = not analyzed
- Basemap imagery via ArcGIS Online.

Figure 65
Barium in Soil - Updated SS
Paul M. Levert, et al. v Union Texas International Corporation, et al.
Bayou Choctaw Oil & Gas Field
West Baton Rouge Parish, Louisiana



FILE: M:\US\Projects\G-L\Kean_Miller\0524933 Levert\APRX\MFP Report Figures\Constituent Map Figures\SOIL.aprx, REVISED: 04/23/2025, SCALE: 1:475 when printed at 11x17

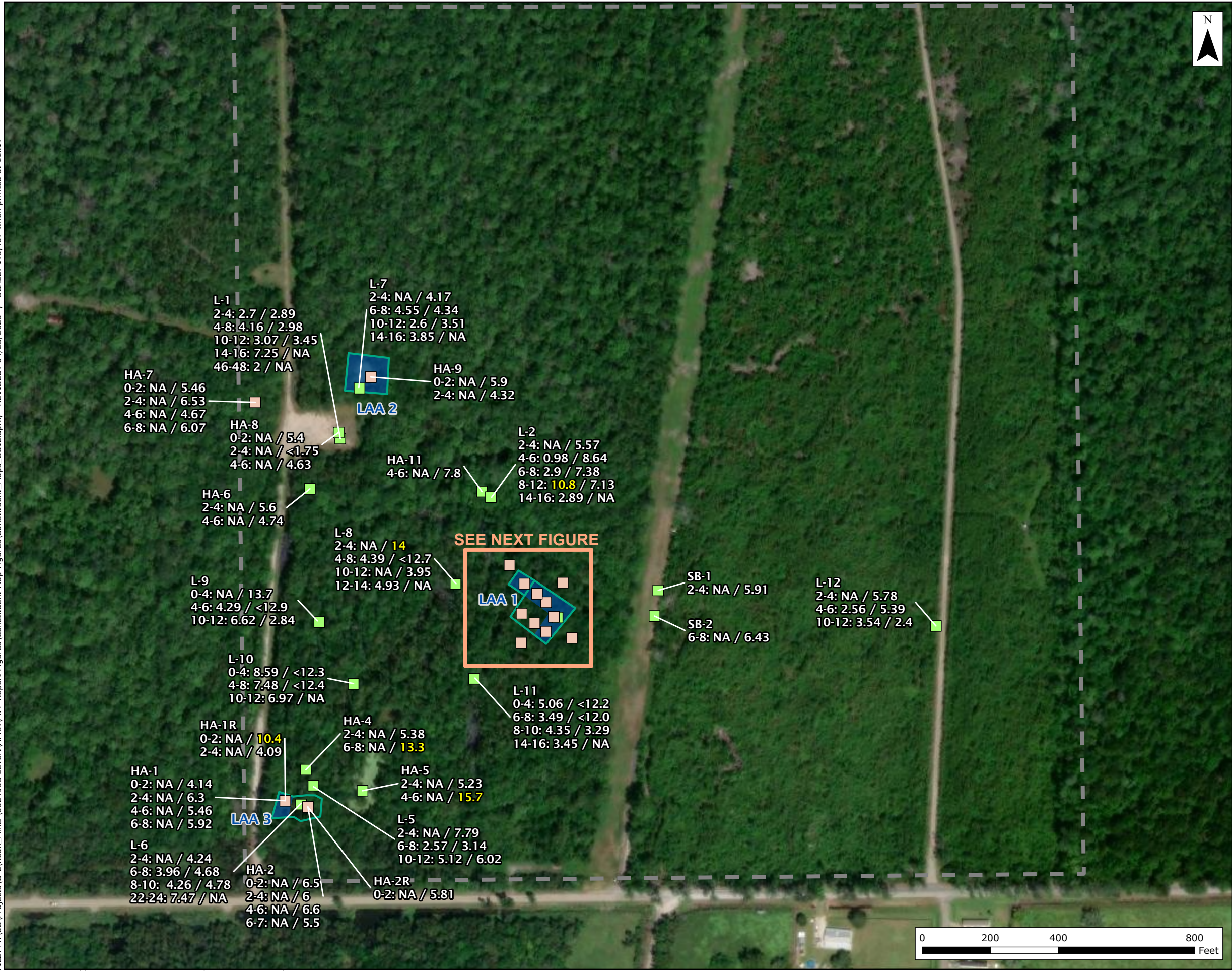


- Legend**
- ERM Soil Sample Location
 - ICON Soil Sample Location
 - Approximate Pit Boundary
 - Chevron Soil Limited Admission Area

- Notes:**
- Barium concentration reported in mg/kg (wet weight).
 - Updated RECAP screening standard = 1600 mg/kg; exceedances shown in yellow.
 - Results are shown as **Depth: ERM result / ICON result.**
 - Depths in feet.
 - NA = not analyzed
 - Basemap imagery via ArcGIS Online.

Figure 66
Barium in Soil - Updated SS
Zoom
Paul M. Levert, et al. v Union Texas International Corporation, et al.
Bayou Choctaw Oil & Gas Field
West Baton Rouge Parish, Louisiana





Legend

- Property
- ERM Soil Sample Location
- ICON Soil Sample Location
- Approximate Pit Boundary
- Chevron Soil Limited Admission Area

Notes:

1. Arsenic concentration reported in mg/kg (wet weight).
2. 29-B screening standard = 10 mg/kg; exceedances shown in yellow.
3. Results are shown as **Depth: ERM result / ICON result.**
4. Depths in feet.
5. NA = not analyzed
6. Basemap imagery via ArcGIS Online.

Figure 67
Arsenic in Soil
Paul M. Levert, et al. v Union Texas
International Corporation, et al.
Bayou Choctaw Oil & Gas Field
West Baton Rouge Parish, Louisiana



FILE: M:\US\Projects\G-L\Kean_Miller\0524933 Levert\APRX\MFP Report Figures\Constituent Map Figures\Constituent Maps_SOIL.aprx, REVISED: 04/23/2025, SCALE: 1:475 when printed at 11x17



Legend

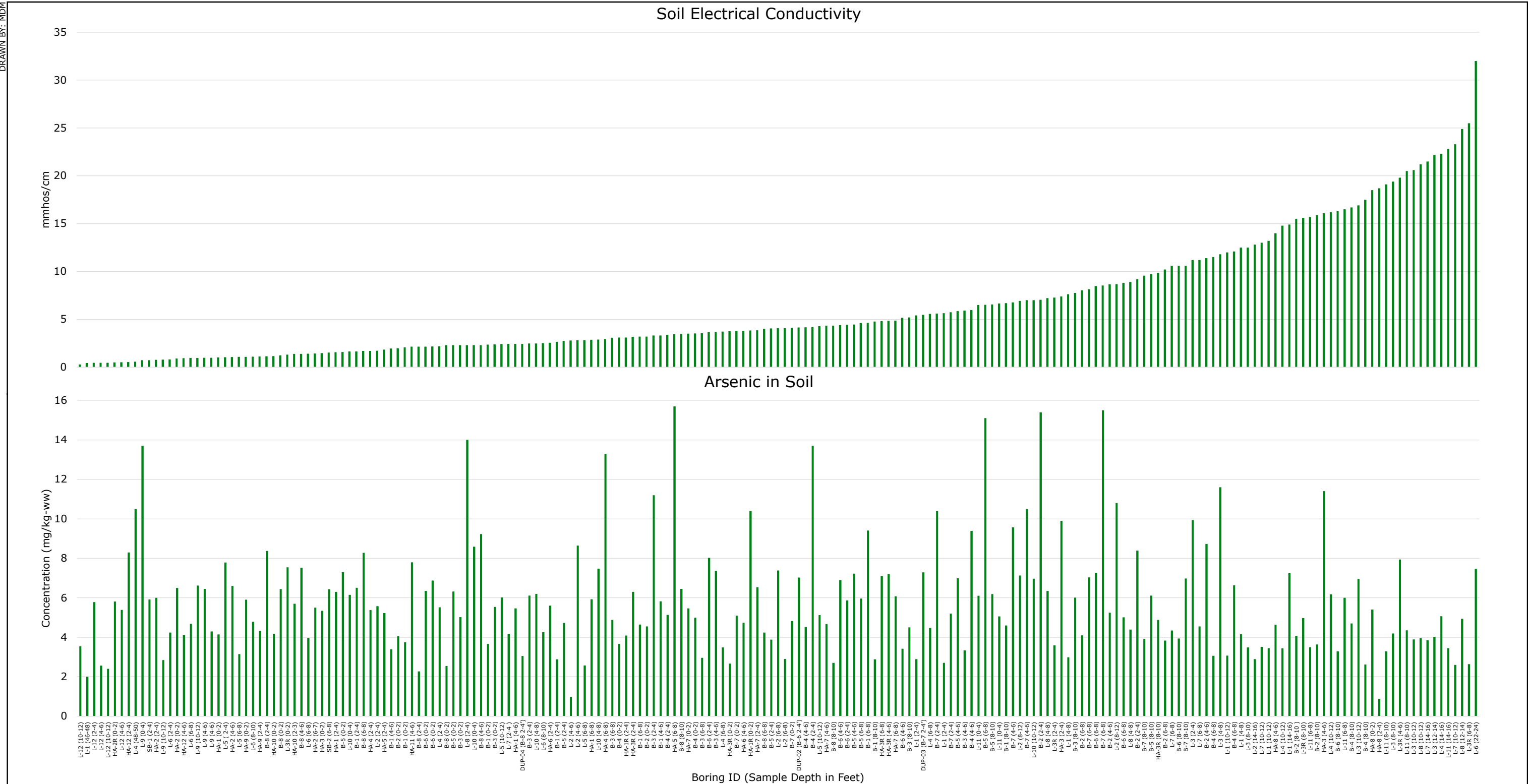
- ERM Soil Sample Location
- ICON Soil Sample Location
- Approximate Pit Boundary
- Chevron Soil Limited Admission Area

Notes:

- Arsenic concentration reported in mg/kg (wet weight).
- 29-B screening standard = 10 mg/kg; exceedances shown in yellow.
- Results are shown as **Depth: ERM result / ICON result.**
- Depths in feet.
- NA = not analyzed
- Basemap imagery via ArcGIS Online.

Figure 68
Arsenic in Soil - Zoom
Paul M. Levert, et al. v Union Texas International Corporation, et al.
Bayou Choctaw Oil & Gas Field
West Baton Rouge Parish, Louisiana

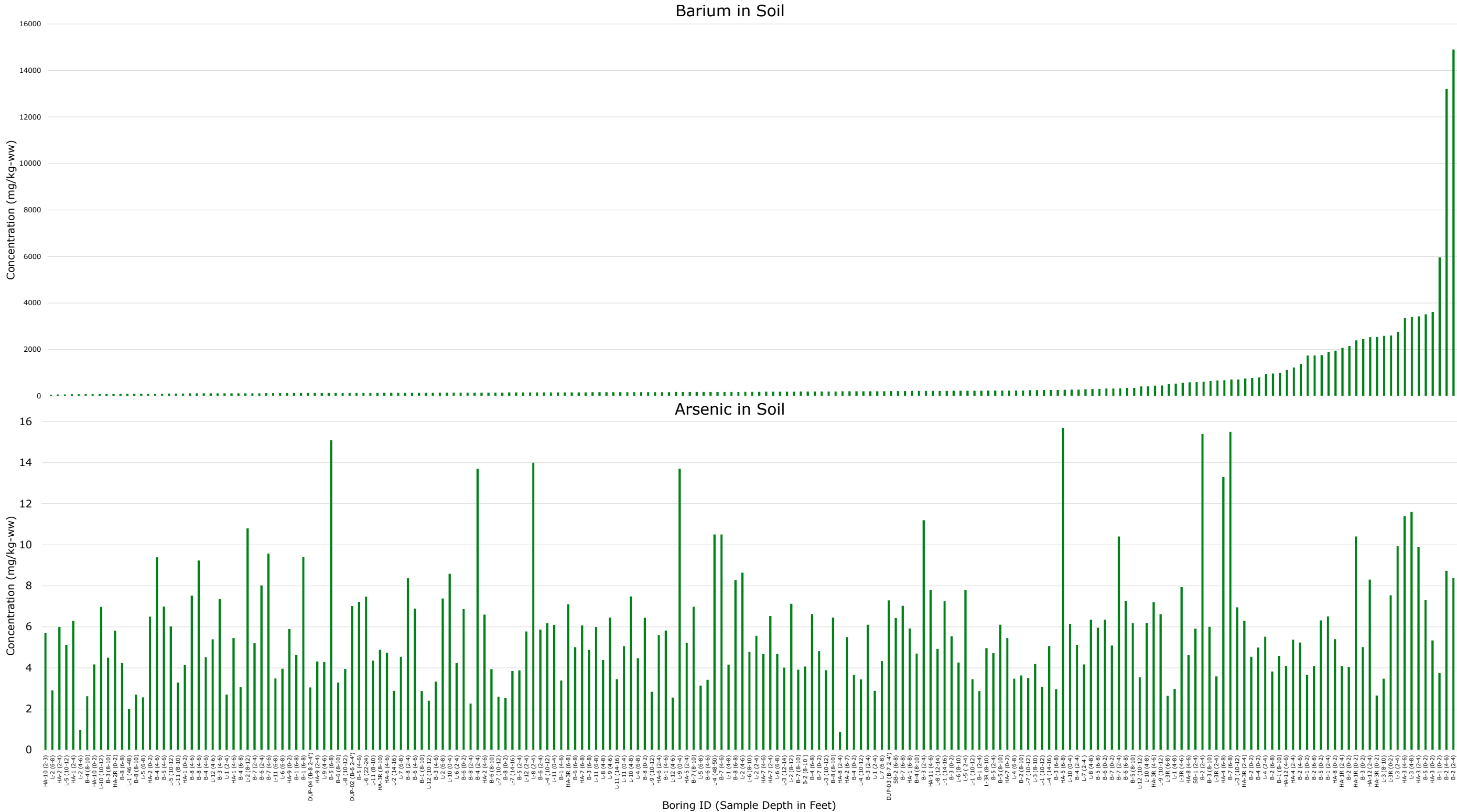




Notes:
Results for soil samples collected by both ERM and ICON are shown.
Soil data are shown in the units listed on the graphs for each constituent.
Where a constituent was not detected above the reporting limit, a value of half the reporting limit is shown.
Samples are ordered by electrical conductivity from lowest on the left to highest on the right.
Boring IDs listed on the x-axis apply to all paired charts.

Figure 69
Electrical Conductivity vs. Arsenic in Soil
Paul M. Levert, et al. v Union Texas
International Corporation, et al.
Bayou Choctaw Oil & Gas Field
West Baton Rouge Parish, Louisiana



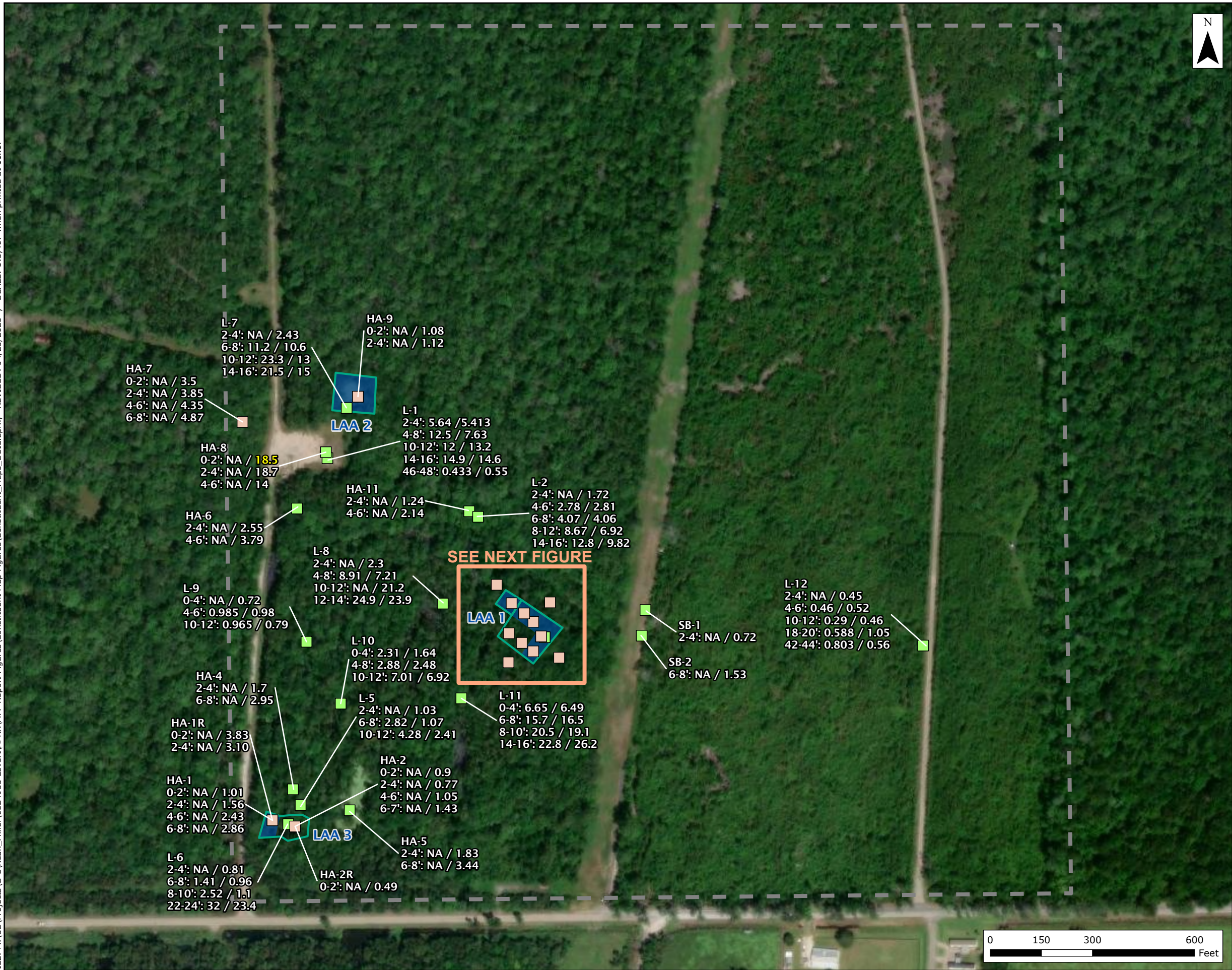


Notes:
Results for soil samples collected by both ERM and ICON are shown.
Soil data are shown in the units listed on the graphs for each constituent.
Where a constituent was not detected above the reporting limit, a value of half the reporting limit is shown.
Samples are ordered by barium from lowest on the left to highest on the right.
Boring IDs listed on the x-axis apply to all paired charts.

Figure 70
Barium vs. Arsenic in Soil
Paul M. Levert, et al. v Union Texas
International Corporation, et al.
Bayou Choctaw Oil & Gas Field
West Baton Rouge Parish, Louisiana



FILE: M:\US\Projects\G-L\Kean_Miller\0524933 Levert\APRX\IMFP Report Figures\Constituent Map Figures\Constituent Map Figures_Soil.aprx, REVISED: 04/23/2025, SCALE: 1:3,407 when printed at 11x17



Legend

- Property
- ERM Soil Sample Location
- ICON Soil Sample Location
- Approximate Pit Boundary
- Chevron Soil Limited Admission Area

Notes:

- Results are shown as **ERM result / ICON result.**
- 29-B screening standard = 8 mmhos/cm
- Exceedances within upper 2' shown in yellow.
- NA = not analyzed
- Basemap imagery via ArcGIS Online.

Figure 71
Electrical Conductivity in Soil
Paul M. Levert, et al. v Union Texas International Corporation, et al.
Bayou Choctaw Oil & Gas Field
West Baton Rouge Parish, Louisiana



FILE: M:\US\Projects\G-L\Kean_Miller\0524933 Levert\APRX\MFP Report Figures\Constituent Map Figures\SOIL.aprx, REVISED: 04/23/2025, SCALE: 1:475 when printed at 11x17

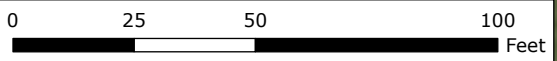


Legend

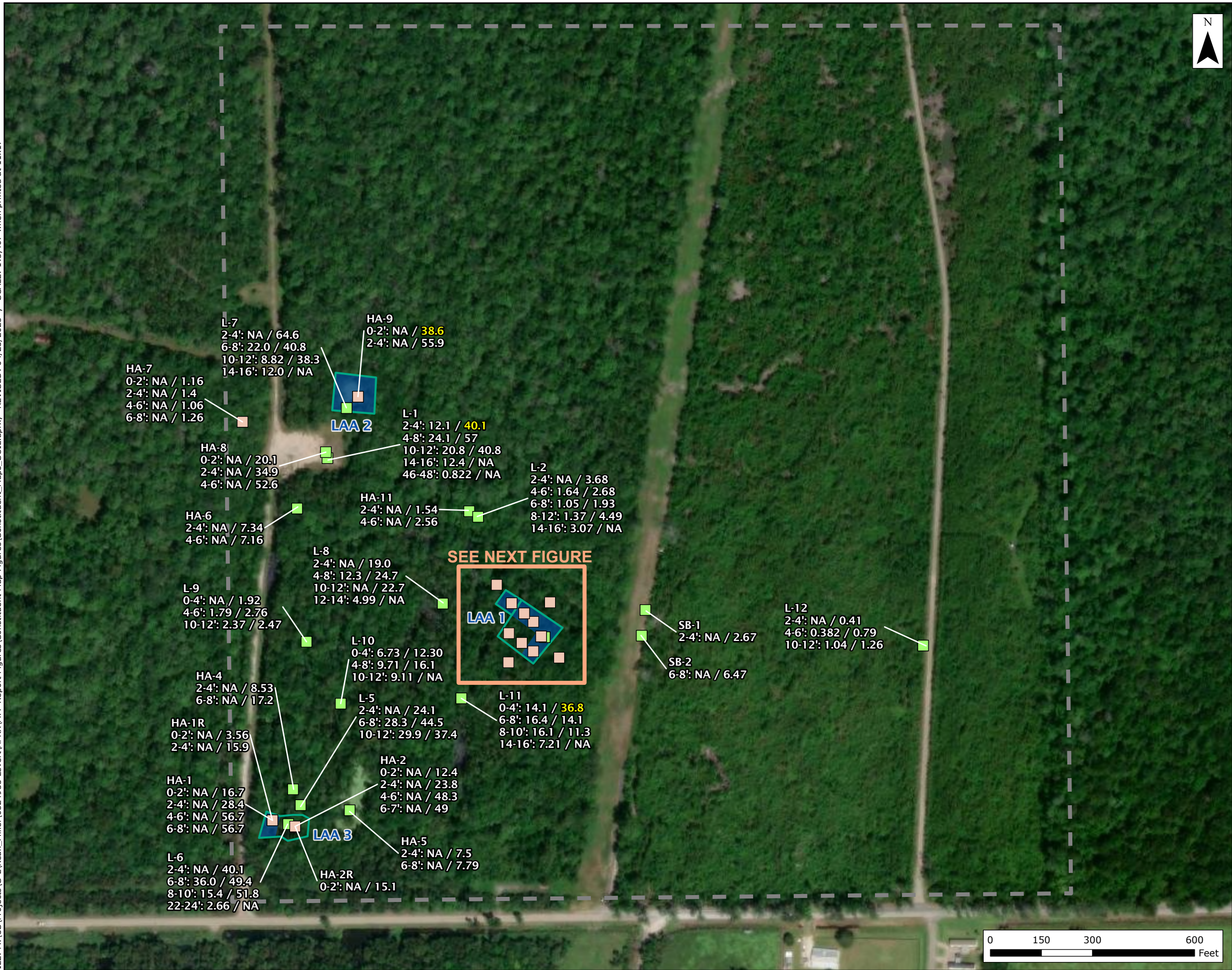
- ERM Soil Sample Location
- ICON Soil Sample Location
- Approximate Pit Boundary
- Chevron Soil Limited Admission Area

- Notes:
- Results are shown as **ERM result / ICON result.**
 - 29-B screening standard = 8 mmhos/cm
 - Exceedances within upper 2' shown in yellow.
 - NA = not analyzed
 - Basemap imagery via ArcGIS Online.

Figure 72
Electrical Conductivity
in Soil - Zoom
Paul M. Levert, et al. v Union Texas
International Corporation, et al.
Bayou Choctaw Oil & Gas Field
West Baton Rouge Parish, Louisiana



FILE: M:\US\Projects\G-L\Kean_Miller\0524933 Levert\APRX\WFP Report Figures\Constituent Map Figures\Constituent Map Figures_SOIL.aprx, REVISED: 04/23/2025, SCALE: 1:3,407 when printed at 11x17



Legend

- Property
- ERM Soil Sample Location
- ICON Soil Sample Location
- Approximate Pit Boundary
- Chevron Soil Limited Admission Area

- Notes:
- Results are shown as **ERM result / ICON result.**
 - 29-B screening standard for ESP = 25%
 - Exceedances within upper 2' shown in yellow.
 - NA = not analyzed
 - Basemap imagery via ArcGIS Online.

Figure 73 Exchangeable Sodium Percentage in Soil

Paul M. Levert, et al. v Union Texas
International Corporation, et al.
Bayou Choctaw Oil & Gas Field
West Baton Rouge Parish, Louisiana



FILE: M:\US\Projects\G-L\Kean_Miller\0524933 Levert\APRX\MFP Report Figures\Constituent Map Figures\SOIL.aprx, REVISED: 04/23/2025, SCALE: 1:475 when printed at 11x17



Legend

- ERM Soil Sample Location
- ICON Soil Sample Location
- Approximate Pit Boundary
- Chevron Soil Limited Admission Area

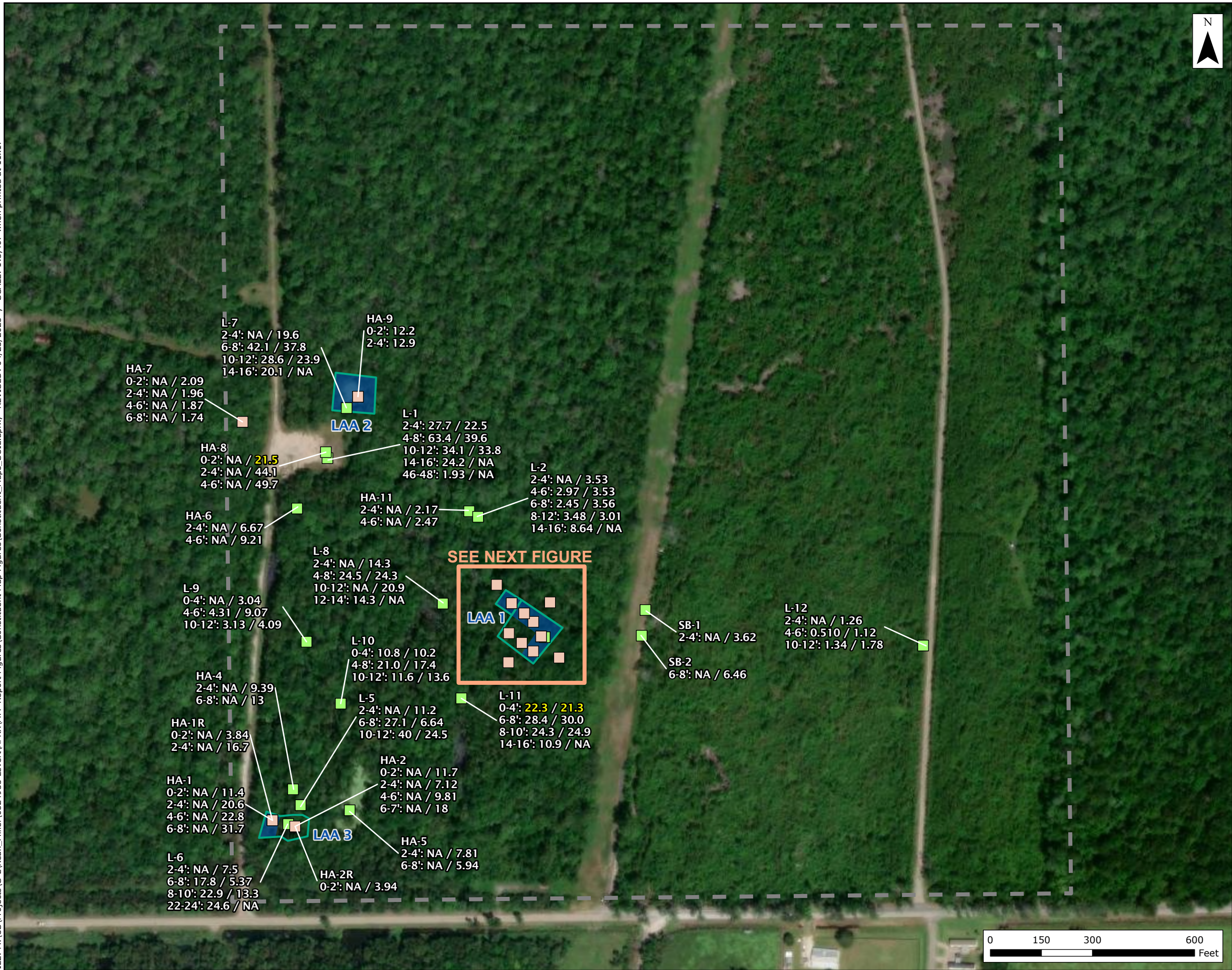
- Notes:
- Results are shown as **ERM result / ICON result.**
 - 29-B screening standard for ESP = 25%
 - Exceedances within upper 2' shown in yellow.
 - NA = not analyzed
 - Basemap imagery via ArcGIS Online.

Figure 74
Exchangeable Sodium Percentage in Soil - Zoom

Paul M. Levert, et al. v Union Texas International Corporation, et al.
Bayou Choctaw Oil & Gas Field
West Baton Rouge Parish, Louisiana



FILE: M:\US\Projects\G-L\Kean_Miller\0524933 Levert\APRX\WFP Report Figures\Constituent Map Figures\Constituent Map Figures_Soil.aprx, REVISED: 04/23/2025, SCALE: 1:3,407 when printed at 11x17



- Legend**
- Property
 - ERM Soil Sample Location
 - ICON Soil Sample Location
 - Approximate Pit Boundary
 - Chevron Soil Limited Admission Area

- Notes:**
- Results are shown as **ERM result / ICON result.**
 - 29-B screening standard FOR SAR = 14
 - Exceedances in upper 2' shown in yellow.
 - NA = not analyzed
 - Basemap imagery via ArcGIS Online.

Figure 75
Sodium Adsorption Ratio of Soil
Paul M. Levert, et al. v Union Texas International Corporation, et al.
Bayou Choctaw Oil & Gas Field
West Baton Rouge Parish, Louisiana



FILE: M:\US\Projects\G-L\Kean_Miller\0524933 Levert\APRX\MFP Report Figures\Constituent Map Figures\SOIL.aprx, REVISED: 04/23/2025, SCALE: 1:475 when printed at 11x17



Legend

- ERM Soil Sample Location
- ICON Soil Sample Location
- Approximate Pit Boundary
- Chevron Soil Limited Admission Area

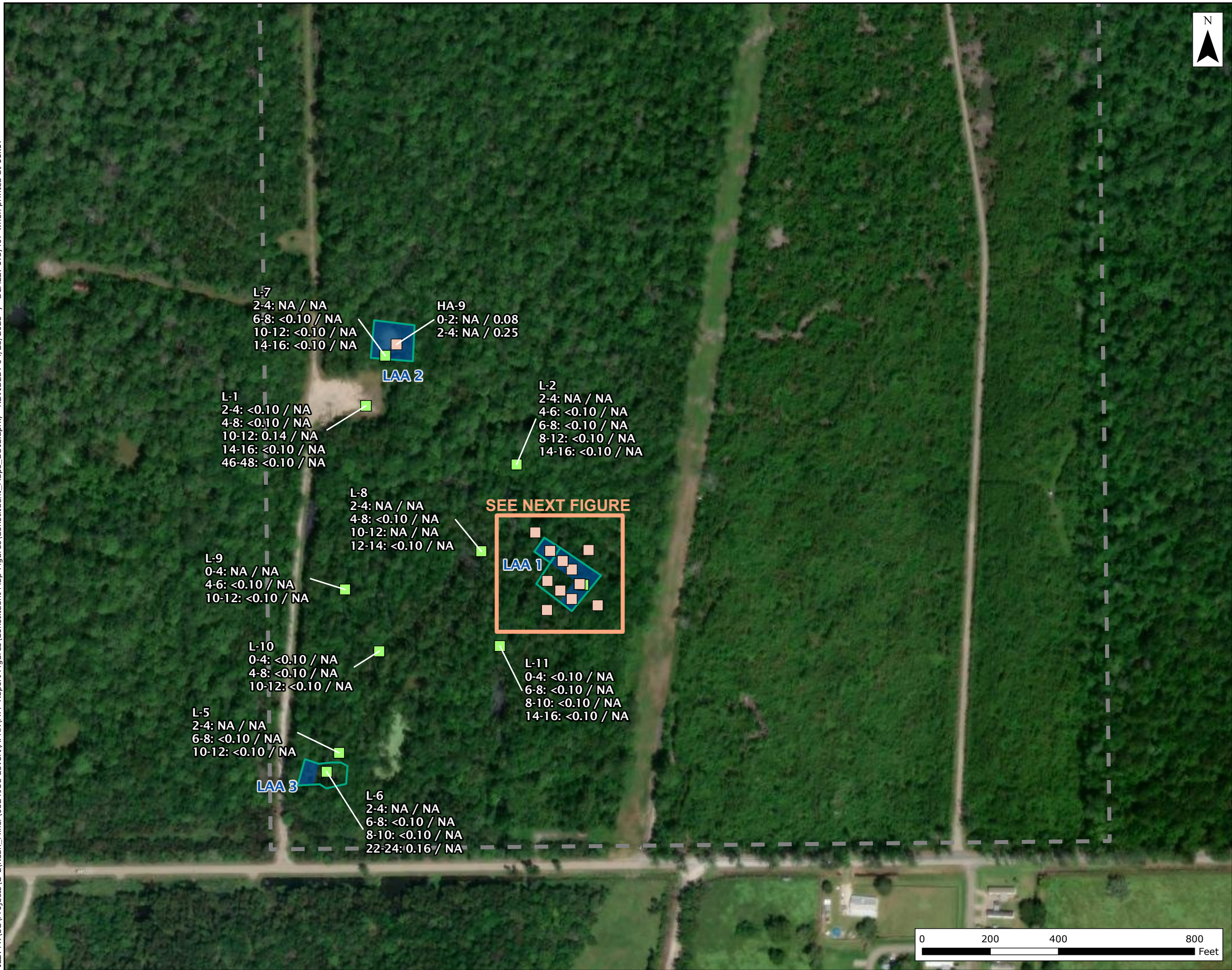
- Notes:
- Results are shown as **ERM result / ICON result.**
 - 29-B screening standard FOR SAR = 14
 - Exceedances in upper 2' shown in yellow.
 - NA = not analyzed
 - Basemap imagery via ArcGIS Online.

Figure 76
Sodium Adsorption Ratio
of Soil - Zoom
Paul M. Levert, et al. v Union Texas
International Corporation, et al.
Bayou Choctaw Oil & Gas Field
West Baton Rouge Parish, Louisiana



DRAWN BY: GIS

FILE: M:\US\Projects\G-L\Kean_Miller\0524933 Levert\APRX\MFP Report Figures\Constituent Map Figures\SOIL.aprx, REVISED: 04/23/2025, SCALE: 1:3,407 when printed at 11x17



Legend

- Property
- ERM Soil Sample Location
- ICON Soil Sample Location
- Approximate Pit Boundary
- Chevron Soil Limited Admission Area

Notes:

- 29-B screening standard = 1%; exceedances shown in yellow.
- Results are shown as
Depth: ERM result / ICON result.
- Depths in feet.
- NA = Not Analyzed
- Basemap imagery via ArcGIS Online.

Figure 77
HEM Oil & Grease in Soil
Paul M. Levert, et al. v Union Texas International Corporation, et al.
Bayou Choctaw Oil & Gas Field
West Baton Rouge Parish, Louisiana



FILE: M:\US\Projects\G-L\Kean_Miller\0524933 Levert\APRX\MFP Report Figures\Constituent Map Figures\SOIL.aprx, REVISED: 04/23/2025, SCALE: 1:475 when printed at 11x17



Legend

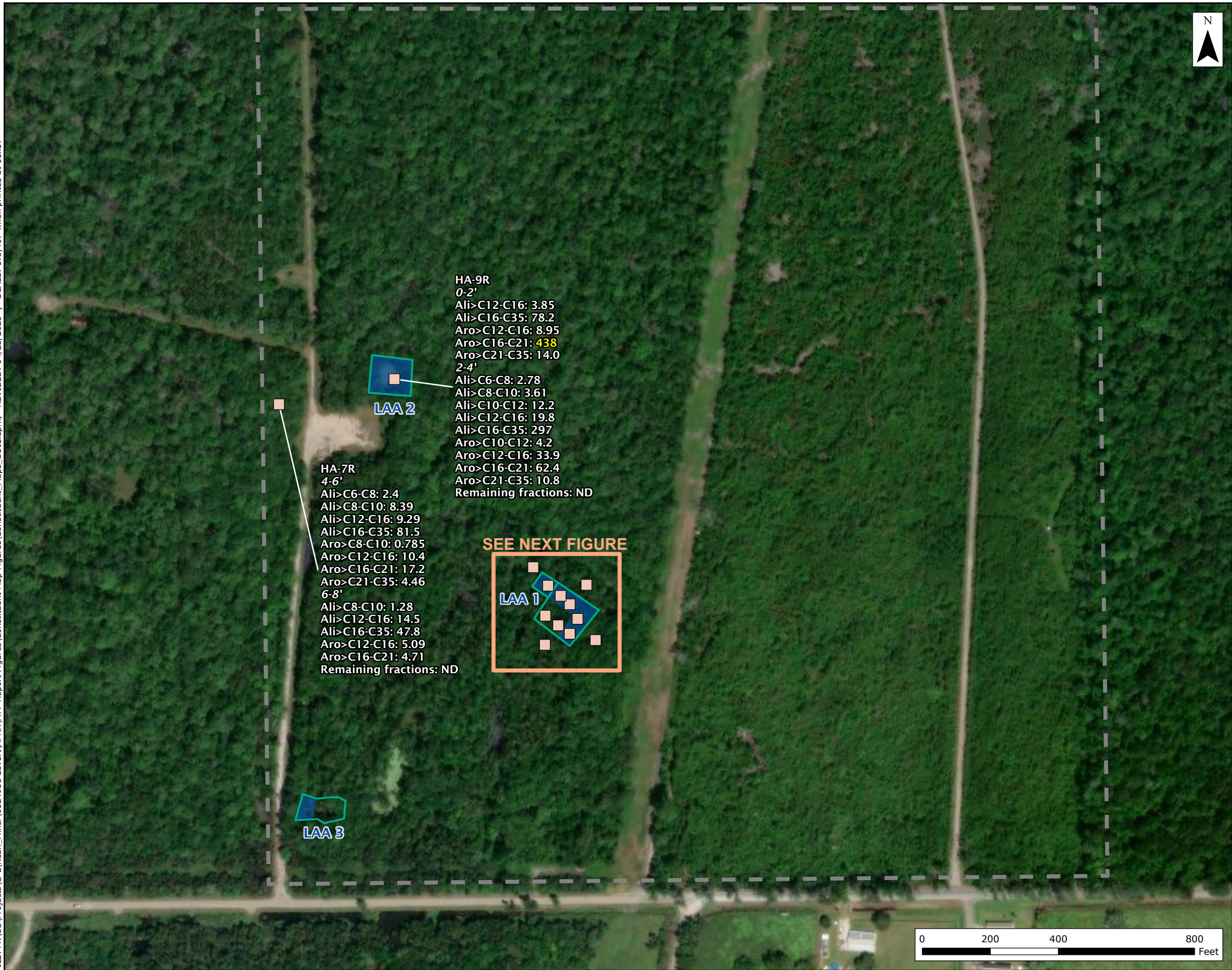
- ERM Soil Sample Location
- ICON Soil Sample Location
- Approximate Pit Boundary
- Chevron Soil Limited Admission Area

Notes:

- 29-B screening standard = 1%; exceedances shown in yellow.
- Results are shown as **Depth: ERM result / ICON result.**
- Depths in feet.
- NA = Not Analyzed
- Basemap imagery via ArcGIS Online.

Figure 78
HEM Oil & Grease in Soil - Zoom
Paul M. Levert, et al. v Union Texas International Corporation, et al.
Bayou Choctaw Oil & Gas Field
West Baton Rouge Parish, Louisiana





Legend

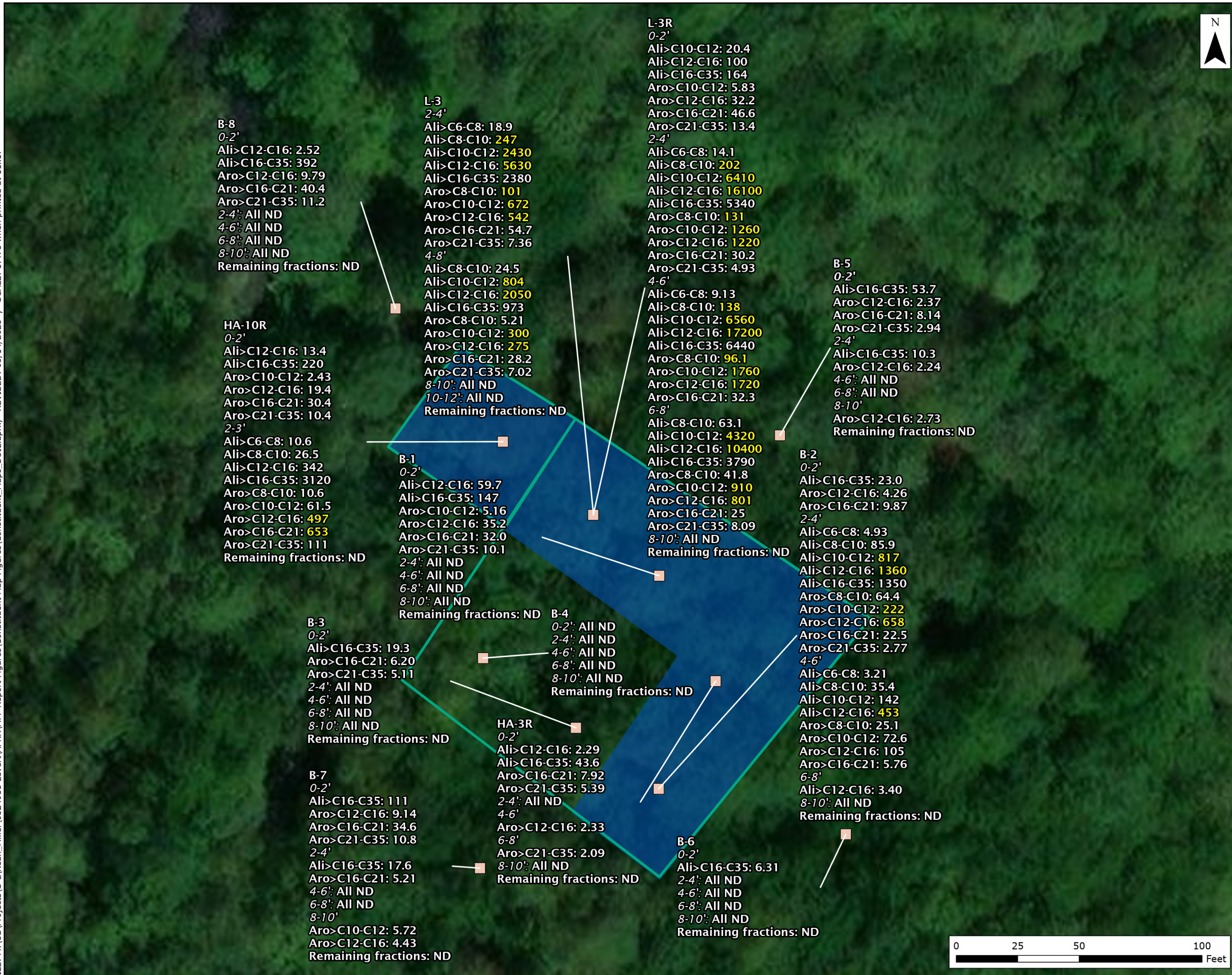
- Property
- ERM Soil Sample Location
- Approximate Pit Boundary
- Chevron Soil Limited Admission Area

- Notes:
- TPH fractions reported in mg/kg (wet weight).
 - RECAP screening standards (mg/kg):
 - Ali>C6-C8 = 3.2
 - Ali>C8-C10 = 0.15
 - Ali>C10-C12 = 0.15
 - Ali>C12-C16 = 0.15
 - Ali>C16-C35 = 7.3
 - Aro>C8-C10 = 0.15
 - Aro>C10-C12 = 0.15
 - Aro>C12-C16 = 0.15
 - Aro>C16-C21 = 0.15
 - Aro>C21-C35 = 0.15
 - Standard exceedances shown in yellow.
 - Results are shown as **ERM result / ICON result.**
 - ND = Non-Detect
 - Basemap imagery via ArcGIS Online.

Figure 79
TPH Fractions in Soil
Paul M. Levert, et al. v Union Texas
International Corporation, et al.
Bayou Choctaw Oil & Gas Field
West Baton Rouge Parish, Louisiana



FILE: M:\US\Projects\G-L\Kean_Miller\0524933 Levert\APRX\MFP Report Figures\Constituent Map Figures\SOIL.aprx, REVISED: 05/14/2025, SCALE: 1:475 when printed at 11x17



Legend

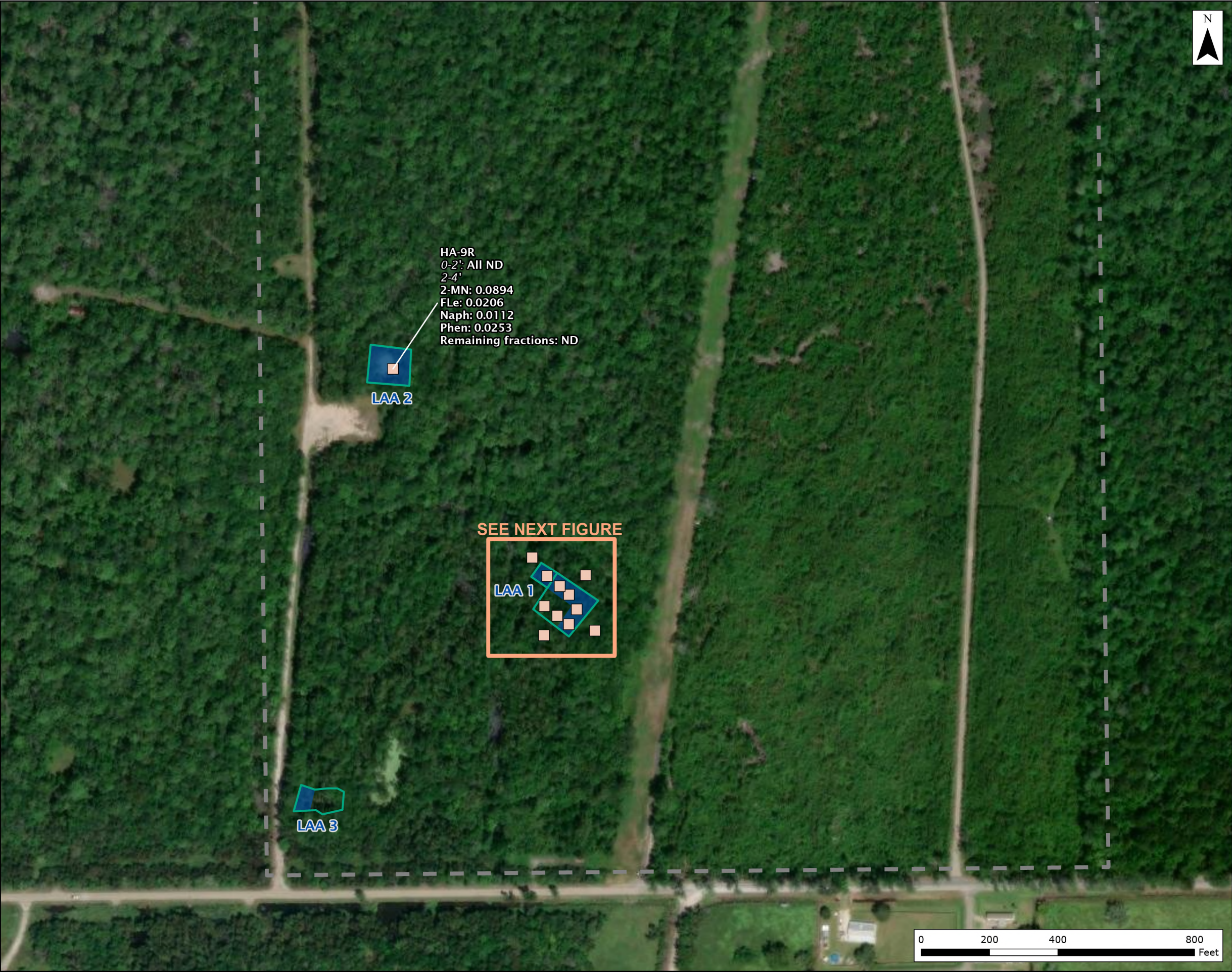
- Property
- ERM Soil Sample Location
- Approximate Pit Boundary
- Chevron Soil Limited Admission Area

- Notes:
- TPH fractions reported in mg/kg (wet weight).
 - RECAP screening standards (mg/kg):
 - Ali>C6-C8 = 3.2
 - Ali>C8-C10 = 0.15
 - Ali>C10-C12 = 0.15
 - Ali>C12-C16 = 0.15
 - Ali>C16-C35 = 7.3
 - Aro>C8-C10 = 0.15
 - Aro>C10-C12 = 0.15
 - Aro>C12-C16 = 0.15
 - Aro>C16-C21 = 0.15
 - Aro>C21-C35 = 0.15
 - Standard exceedances shown in yellow.
 - Results are shown as **ERM result / ICON result.**
 - ND = Non-Detect
 - Basemap imagery via ArcGIS Online.

Figure 80
TPH Fractions in Soil - Zoom
Paul M. Levert, et al. v Union Texas International Corporation, et al.
Bayou Choctaw Oil & Gas Field
West Baton Rouge Parish, Louisiana



FILE: M:\US\Projects\G-L\Kean_Miller\0524933 Levert\APRX\MFP Report Figures\Constituent Map Figures\SOIL.aprx, REVISED: 05/13/2025, SCALE: 1:3,407 when printed at 11x17



Legend

- Property
- ERM Soil Sample Location
- Approximate Pit Boundary
- Chevron Soil Limited Admission Area

- Notes:
1. PAH concentrations reported in mg/kg (wet weight).
 2. RECAP screening standards:
 - 2-Methylnaphthalene (2-MN) = 1.7
 - Acenaphthene (Ace) = 220
 - Anthracene (Anth) = 120
 - Benzo(a)anthracene (BaA) = 0.62
 - Benzo(a)pyrene (BaP) = 0.33
 - Benzo(b)fluoranthene (BbF) = 0.62
 - Benzo(k)fluoranthene (BkF) = 6.2
 - Chrysene (Chry) = 62
 - Fluoranthene (FLa)= 220
 - Fluorene (FLe) = 230
 - Naphthalene (Naph)= 1.5
 - Phenanthrene (Phen) = 660
 - Pyrene (Pyr)= 230
 3. Exceedances shown in yellow.
 4. ND = Non-Detect
 5. Basemap imagery via ArcGIS Online.

Figure 81
PAHs in Soil
Paul M. Levert, et al. v Union Texas
International Corporation, et al.
Bayou Choctaw Oil & Gas Field
West Baton Rouge Parish, Louisiana





- Legend**
- ERM Soil Sample Location
 - Approximate Pit Boundary
 - Chevron Soil Limited Admission Area

- Notes:**
- PAH concentrations reported in mg/kg (wet weight).
 - RECAP screening standards:
 - 2-Methylnaphthalene (2-MN) = 1.7
 - Acenaphthene (Ace) = 220
 - Anthracene (Anth) = 120
 - Benzo(a)anthracene (BaA) = 0.62
 - Benzo(a)pyrene (BaP) = 0.33
 - Benzo(b)fluoranthene (BbF) = 0.62
 - Benzo(k)fluoranthene (BkF) = 6.2
 - Chrysene (Chry) = 62
 - Fluoranthene (FLA) = 220
 - Fluorene (FLe) = 230
 - Naphthalene (Naph) = 1.5
 - Phenanthrene (Phen) = 660
 - Pyrene (Pyr) = 230
 - Exceedances shown in yellow.
 - ND = non-detect
 - Basemap imagery via ArcGIS Online.

Figure 82
PAHs in Soil - Zoom
Paul M. Levert, et al. v Union Texas
International Corporation, et al.
Bayou Choctaw Oil & Gas Field
West Baton Rouge Parish, Louisiana





Legend

- Property
- ERM Soil Sample Location
- Approximate Pit Boundary
- Chevron Soil Limited Admission Area

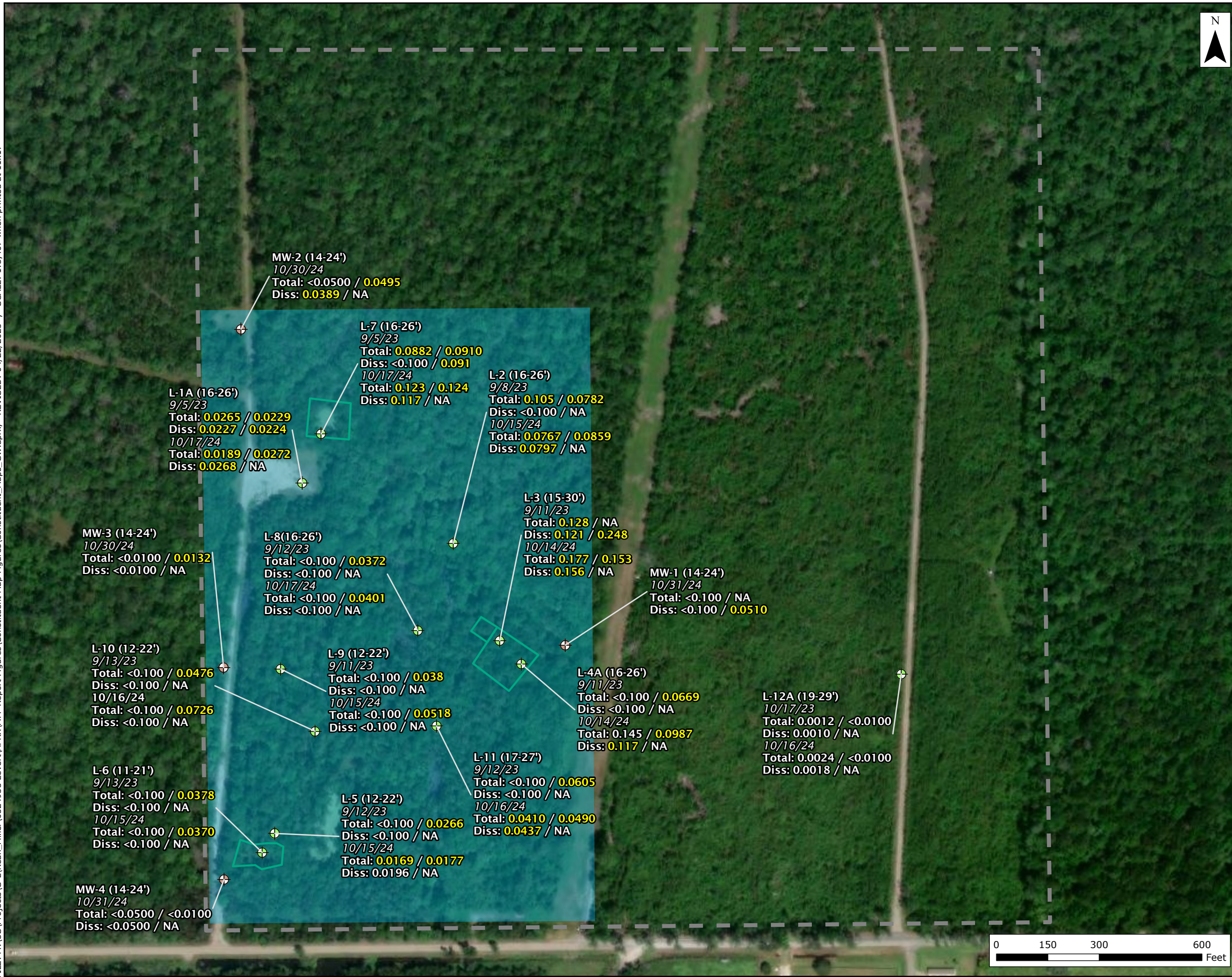
Notes:

1. ICON only analyzed BTEX at B-2 2-4'; Results shown as **ERM result / ICON result.**
2. RECAP screening standards (mg/kg):
Benzene = 0.051
Ethylbenzene = 19
Toluene = 20
o-Xylene = NA
m&p-Xylenes = NA
Xylenes (total) = 18
3. Exceedances shown in yellow.
4. ND = Non Detect
5. Basemap imagery via ArcGIS Online.

Figure 83
BTEX in Soil
Paul M. Levert, et al. v Union Texas International Corporation, et al.
Bayou Choctaw Oil & Gas Field
West Baton Rouge Parish, Louisiana



FILE: M:\US\Projects\G-L\Kean_Miller\0524933 Levert\APRX\MFP Report Figures\Constituent Map Figures\Constituent Maps_GW.aprx, REVISED: 04/22/2025, SCALE: 1:3,407 when printed at 11x17



Legend

- Property
- ERM Monitoring Well
- ICON Monitoring Well
- Approximate Pit Boundary
- Chevron Groundwater Limited Admission Area

Notes:

- Arsenic concentration reported in mg/L.
- LDEQ RECAP screening standard = 0.01; exceedances shown in yellow.
- Results are shown as **Total As: ERM result / ICON result.**
- NA = not analyzed
- Basemap imagery via ArcGIS Online.

Figure 84
Arsenic in Groundwater - Shallow
Paul M. Levert, et al. v. Union Texas International Corporation, et al.
Bayou Choctaw Oil & Gas Field
West Baton Rouge Parish, Louisiana



DRAWN BY: GIS

FILE: M:\US\Projects\G-L\Kean_Miller\0524933 Levert\APRX\MFP Report Figures\Constituent Map Figures\Constituent_Maps_GW.aprx, REVISED: 04/22/2025, SCALE: 1:3,407 when printed at 11x17



Legend

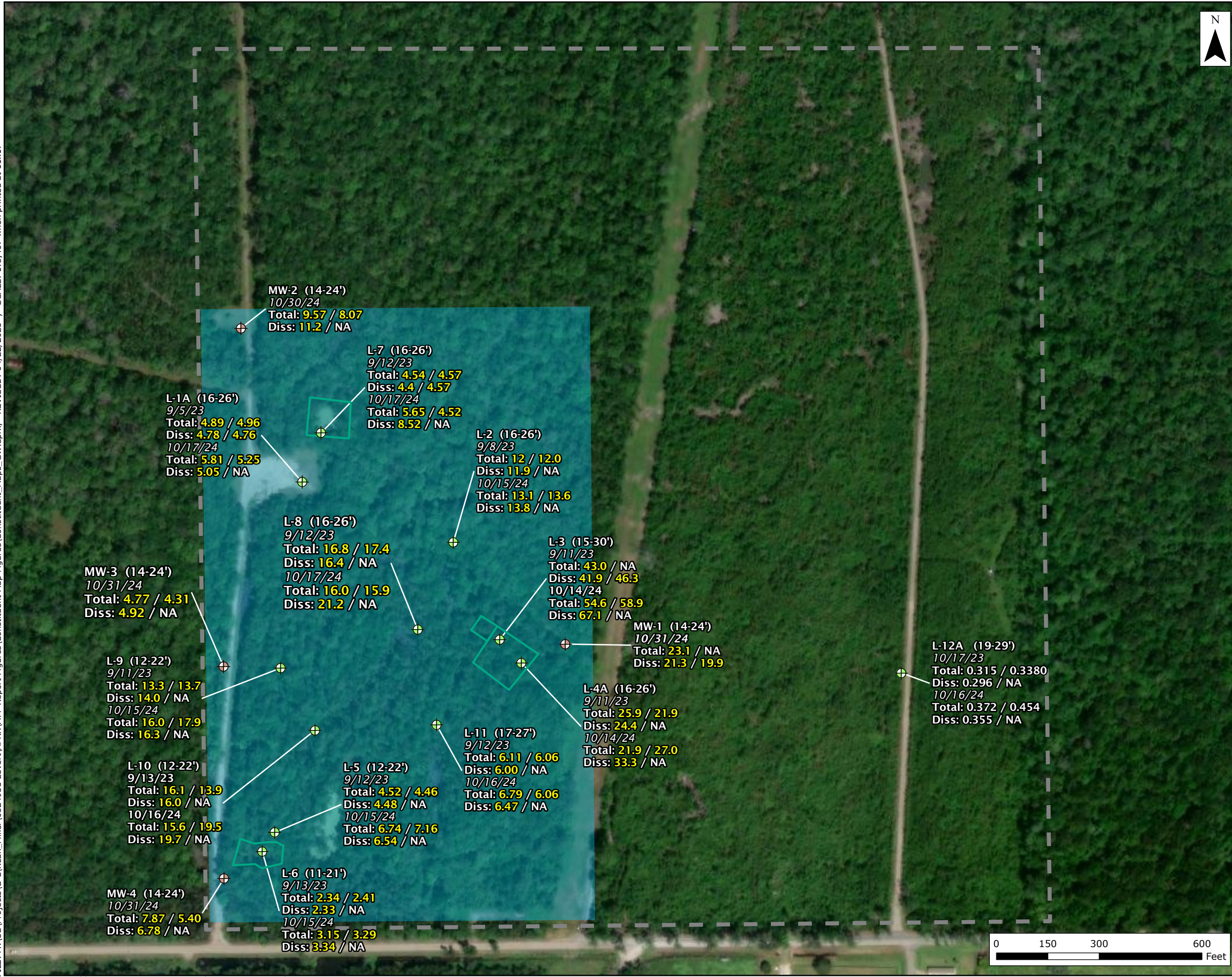
- Property
- ERM Monitoring Well
- Approximate Pit Boundary

Notes:

1. Arsenic concentration reported in mg/L.
2. LDEQ RECAP screening standard = 0.01; exceedances shown in yellow.
3. Results are shown as
Total As: ERM result / ICON result.
4. NA = not analyzed
5. Basemap imagery via ArcGIS Online.

Figure 85
Arsenic in Groundwater - Deep
Paul M. Levert, et al. v. Union Texas International Corporation, et al.
Bayou Choctaw Oil & Gas Field
West Baton Rouge Parish, Louisiana

FILE: M:\US\Projects\G-L\Kean_Miller\0524933 Levert\APRX\MFP Report Figures\Constituent Map Figures\Constituent Maps_GW.aprx, REVISED: 04/22/2025, SCALE: 1:3,407 when printed at 11x17



Legend

- Property
- ERM Monitoring Well
- ICON Monitoring Well
- Approximate Pit Boundary
- Chevron Groundwater Limited Admission Area

Notes:

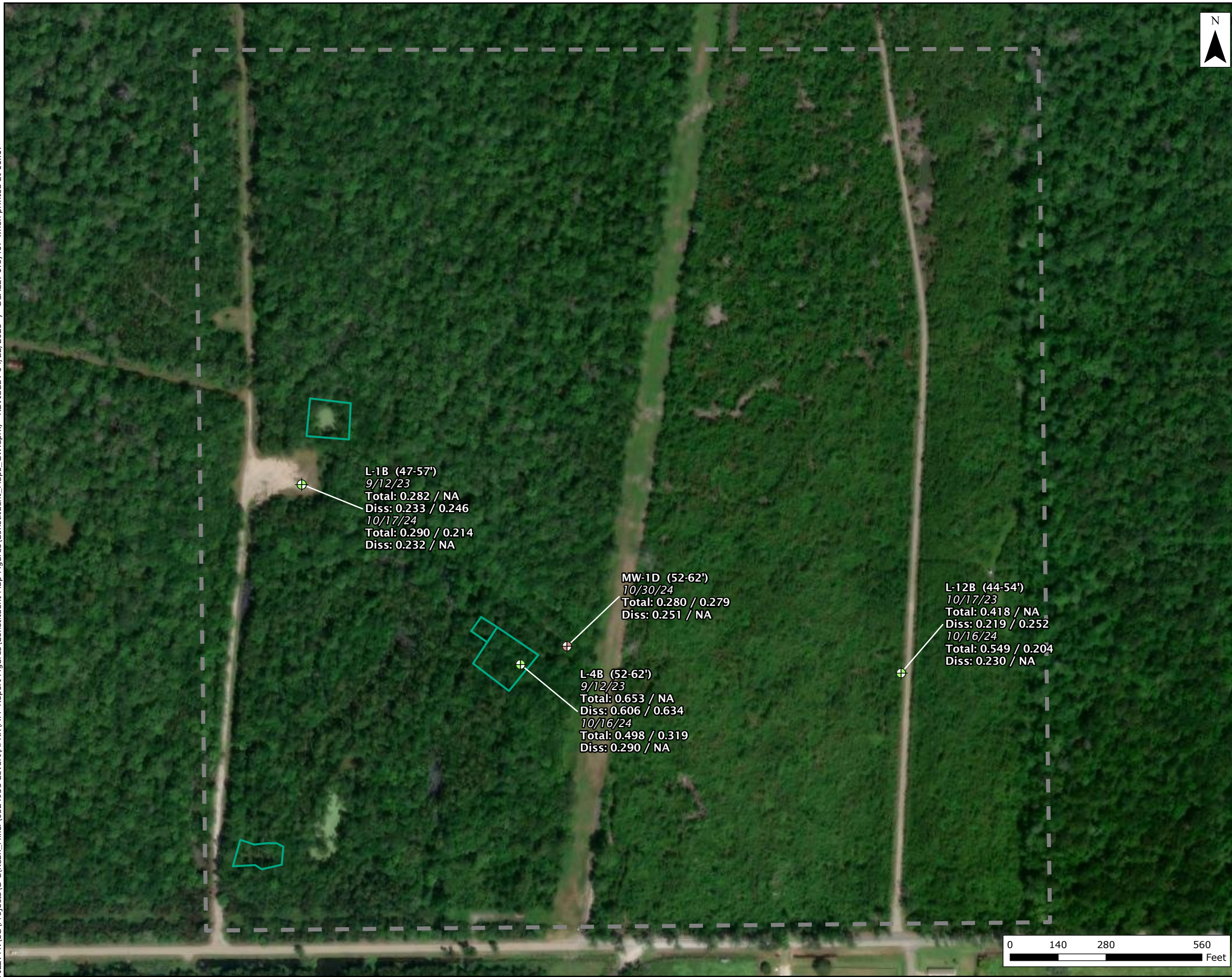
- Barium concentration reported in mg/L.
- LDEQ RECAP screening standard = 2; exceedances shown in blue.
- Results are shown as
Total Ba: ERM result / ICON result.
- NA = not analyzed
- Basemap imagery via ArcGIS Online.

Figure 86
Barium in Groundwater - Shallow
Paul M. Levert, et al. v. Union Texas International Corporation, et al.
Bayou Choctaw Oil & Gas Field
West Baton Rouge Parish, Louisiana



DRAWN BY: GIS

FILE: M:\US\Projects\G-L\Kean_Miller\0524933 Levert\APRX\MFP Report Figures\Constituent Map Figures\Constituent Maps_GW.aprx, REVISED: 04/22/2025, SCALE: 1:3,407 when printed at 11x17



Legend

- Property
- ERM Monitoring Well
- ICON Monitoring Well
- Approximate Pit Boundary

Notes:
1. Barium concentration reported in mg/L.
2. LDEQ RECAP screening standard = 2; exceedances shown in blue.
3. Results are shown as
Total Ba: ERM result / ICON result.
4. NA = not analyzed
3. Basemap imagery via ArcGIS Online.

Figure 87
Barium in Groundwater - Deep
Paul M. Levert, et al. v. Union Texas
International Corporation, et al.
Bayou Choctaw Oil & Gas Field
West Baton Rouge Parish, Louisiana



FILE: M:\US\Projects\G-L\Kean_Miller\0524933 Levert\APRX\MFP Report Figures\Constituent Map Figures\Constituent Maps_GW.aprx, REVISED: 04/22/2025, SCALE: 1:3,407 when printed at 11x17



Legend

- Property
- ERM Monitoring Well
- ICON Monitoring Well
- Approximate Pit Boundary
- Chevron Groundwater Limited Admission Area

Notes:

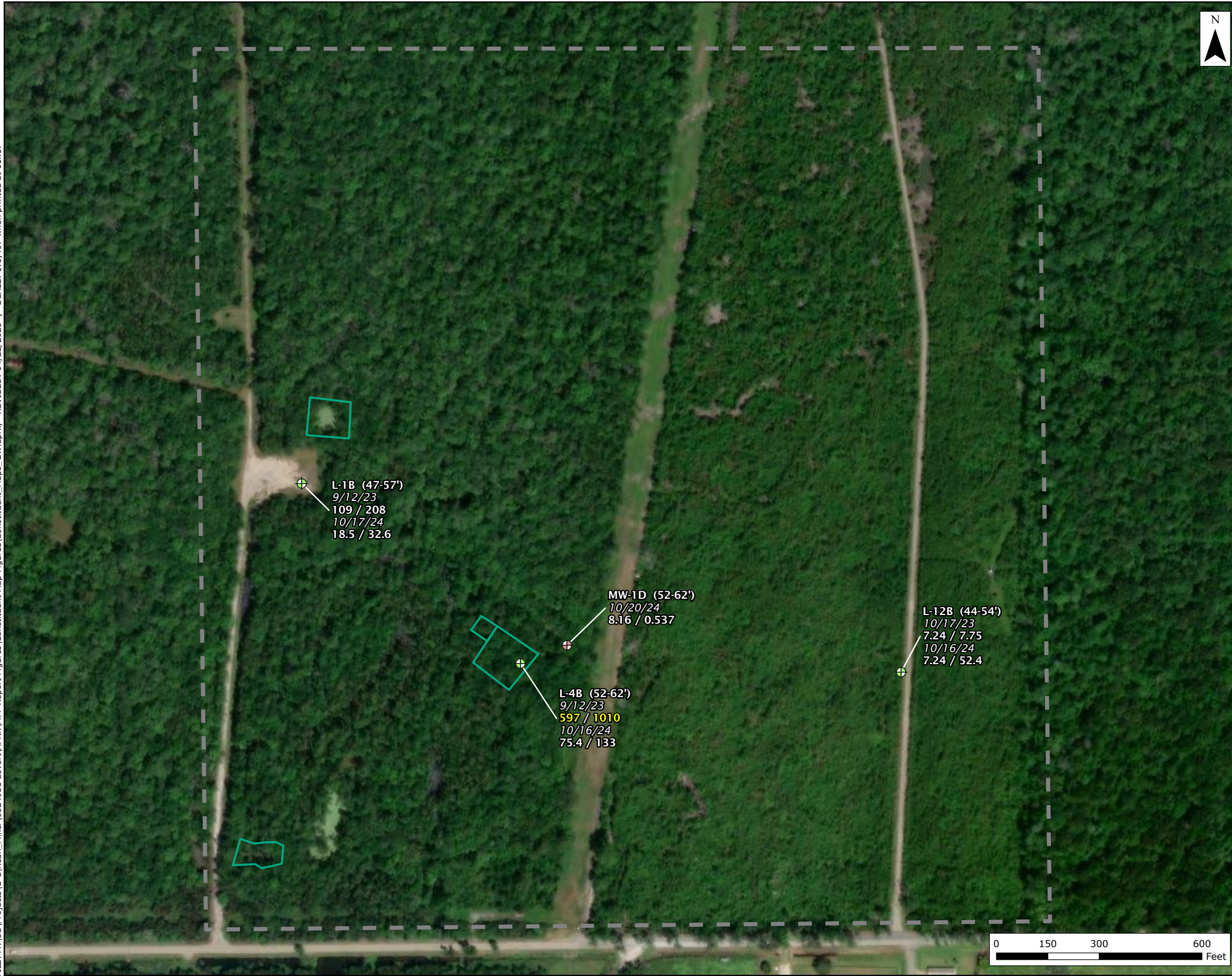
- Chloride concentration reported in mg/L.
- EPA SMCL screening standard = 250; exceedances shown in blue.
- Results are shown as **ERM result / ICON result.**
- NA = not analyzed
- Basemap imagery via ArcGIS Online.

Figure 88 Chloride in Groundwater - Shallow

Paul M. Levert, et al. v. Union Texas International Corporation, et al.
Bayou Choctaw Oil & Gas Field
West Baton Rouge Parish, Louisiana



FILE: M:\US\Projects\G-L\Kean_Miller\0524933 Levert\APRX\MFP Report Figures\Constituent Map Figures\Constituent Maps_GW.aprx, REVISED: 04/22/2025, SCALE: 1:3,407 when printed at 11x17



Legend

- Property
- ERM Monitoring Well
- ICON Monitoring Well
- Approximate Pit Boundary

Notes:
1. Chloride concentration reported in mg/L.
2. EPA SMCL screening standard = 250; exceedances shown in blue.
3. Results are shown as **ERM result / ICON result.**
4. NA = not analyzed
2. Basemap imagery via ArcGIS Online.

Figure 89
Chloride in Groundwater - Deep
Paul M. Levert, et al. v. Union Texas International Corporation, et al.
Bayou Choctaw Oil & Gas Field
West Baton Rouge Parish, Louisiana



FILE: M:\US\Projects\G-L\Kean_Miller\0524933 Levert\APRX\MFP Report Figures\Constituent Map Figures\Constituent Maps_GW.aprx, REVISED: 05/05/2025, SCALE: 1:3,407 when printed at 11x17



Legend

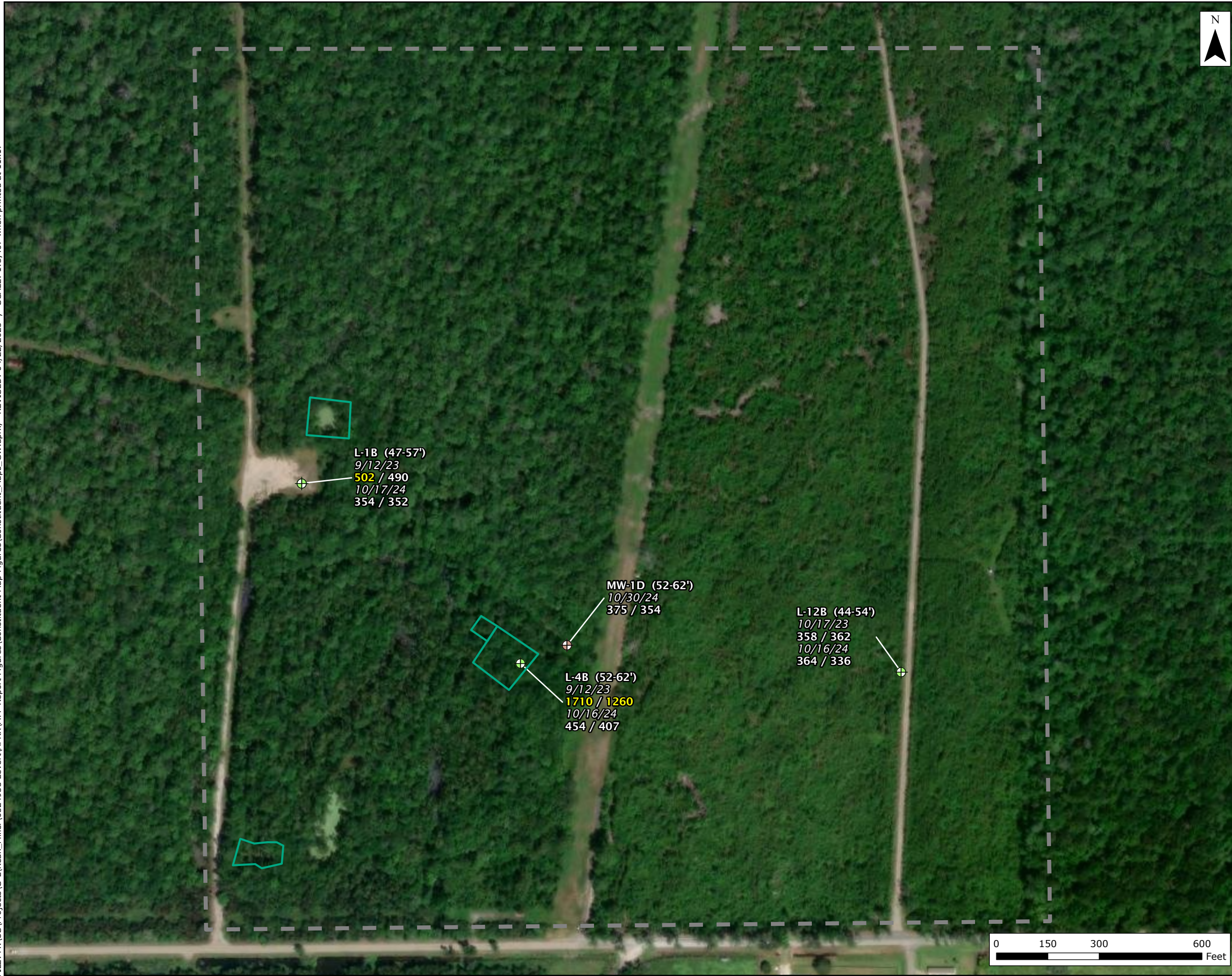
- Property
- ERM Monitoring Well
- ICON Monitoring Well
- Approximate Pit Boundary
- Chevron Groundwater Limited Admission Area

Notes:

- TDS concentration reported in mg/L.
- EPA SMCL screening standard = 500; exceedances shown in blue.
- Results are shown as **ERM result / ICON result.**
- Basemap imagery via ArcGIS Online.

Figure 90
TDS in Groundwater - Shallow
Paul M. Levert, et al. v. Union Texas International Corporation, et al.
Bayou Choctaw Oil & Gas Field
West Baton Rouge Parish, Louisiana

FILE: M:\US\Projects\G-L\Kean_Miller\0524933 Levert\APRX\MFP Report Figures\Constituent Map Figures\Constituent Maps_GW.aprx, REVISED: 04/22/2025, SCALE: 1:3,407 when printed at 11x17



Legend

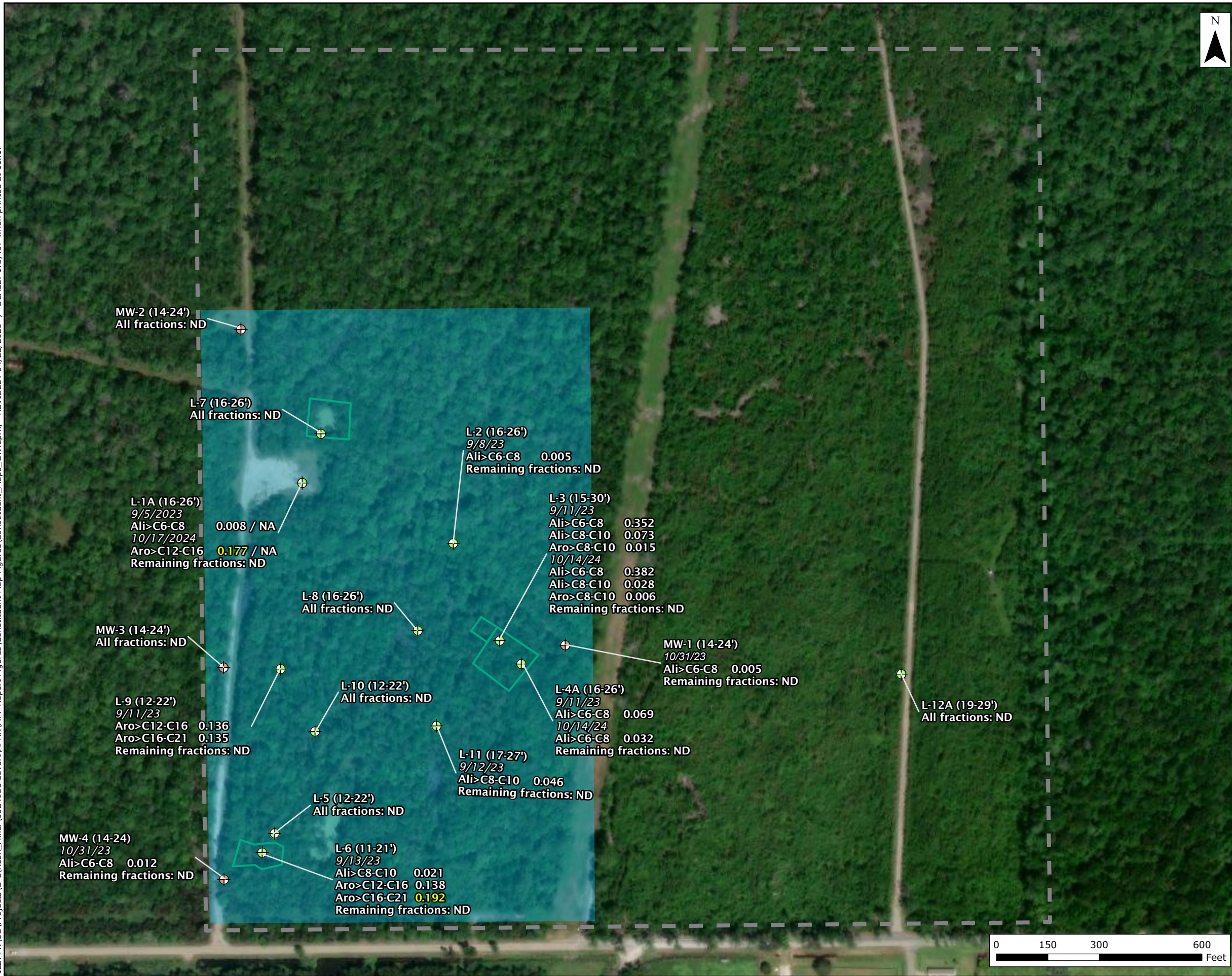
- Property
- ERM Monitoring Well
- ICON Monitoring Well
- Approximate Pit Boundary

Notes:
1. TDS concentration reported in mg/L.
2. EPA SMCL screening standard = 500; exceedances shown in blue.
3. Results are shown as **ERM result / ICON result.**
4. Basemap imagery via ArcGIS Online.

Figure 91
TDS in Groundwater - Deep
Paul M. Levert, et al. v. Union Texas International Corporation, et al.
Bayou Choctaw Oil & Gas Field
West Baton Rouge Parish, Louisiana



FILE: M:\US\Projects\G-L\Kean_Miller\0524933 Levert\APRX\MFP Report Figures\Constituent Map Figures\Constituent Maps_GW.aprx, REVISED: 04/22/2025, SCALE: 1:3,407 when printed at 11x17



Legend

- Property
- ERM Monitoring Well
- ICON Monitoring Well
- Approximate Pit Boundary
- Chevron Groundwater Limited Admission Area

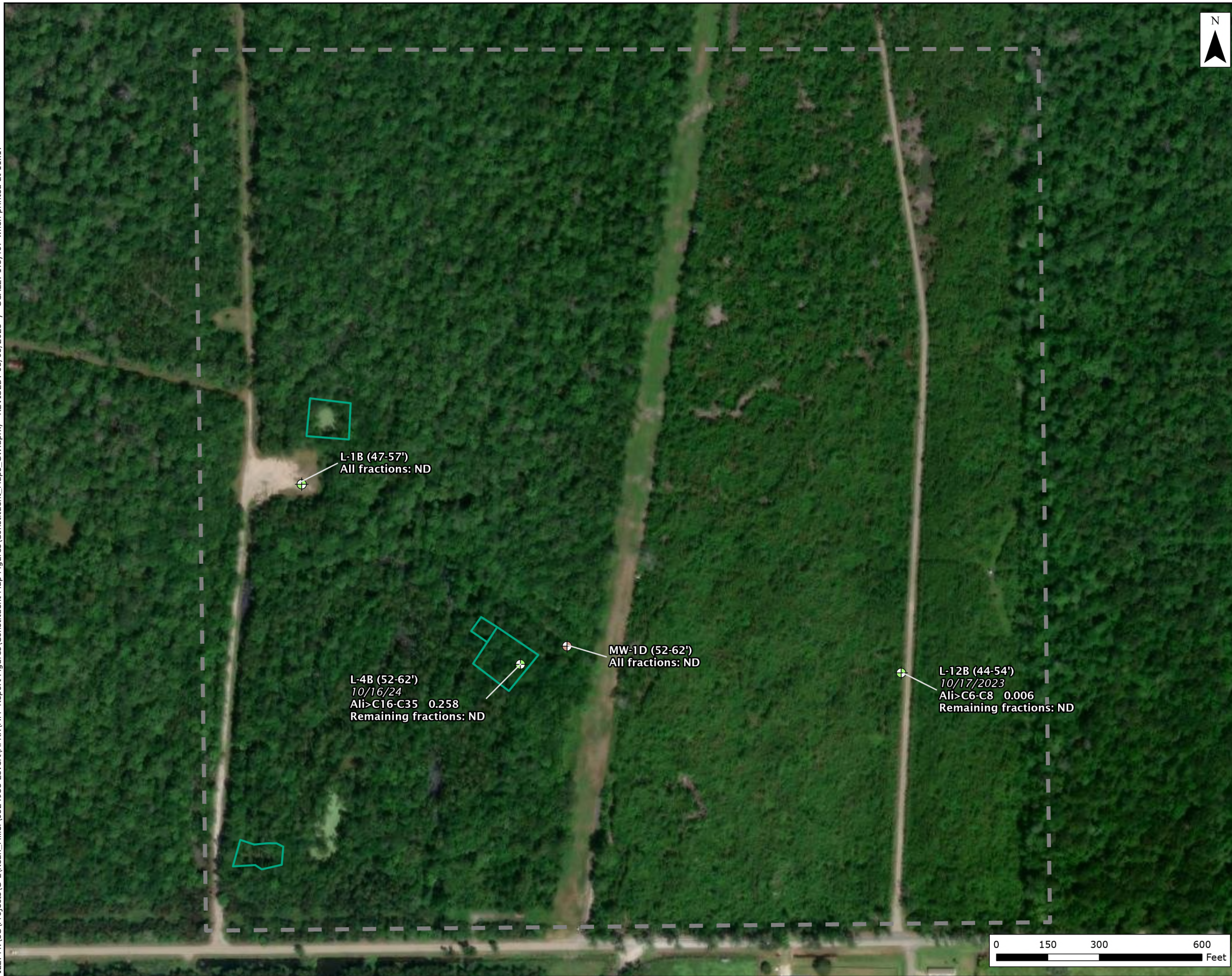
Notes:

- RECAP screening standards (mg/L):
 - TPH-G = 0.15
 - TPH-D = 0.15
 - TPH-O = 0.15
 - Ali>C6-C8 = 3.2
 - Ali>C8-C10 = 0.15
 - Ali>C10-C12 = 0.15
 - Ali>C12-C16 = 0.15
 - Ali>C16-C35 = 7.3
 - Aro>C8-C10 = 0.15
 - Aro>C10-C12 = 0.15
 - Aro>C12-C16 = 0.15
 - Aro>C16-C21 = 0.15
 - Aro>C21-C35 = 0.15
- Exceedances shown in yellow.
- ND = Non-Detect
- Basemap imagery via ArcGIS Online.

Figure 92
TPH Fractions in
Groundwater - Shallow
Paul M. Levert, et al. v. Union Texas
International Corporation, et al.
Bayou Choctaw Oil & Gas Field
West Baton Rouge Parish, Louisiana



FILE: M:\US\Projects\G-L\Kean_Miller\0524933 Levert\APRX\MFP Report Figures\Constituent Map Figures\Constituent Maps_GW.aprx, REVISED: 05/05/2025, SCALE: 1:3,407 when printed at 11x17



Legend

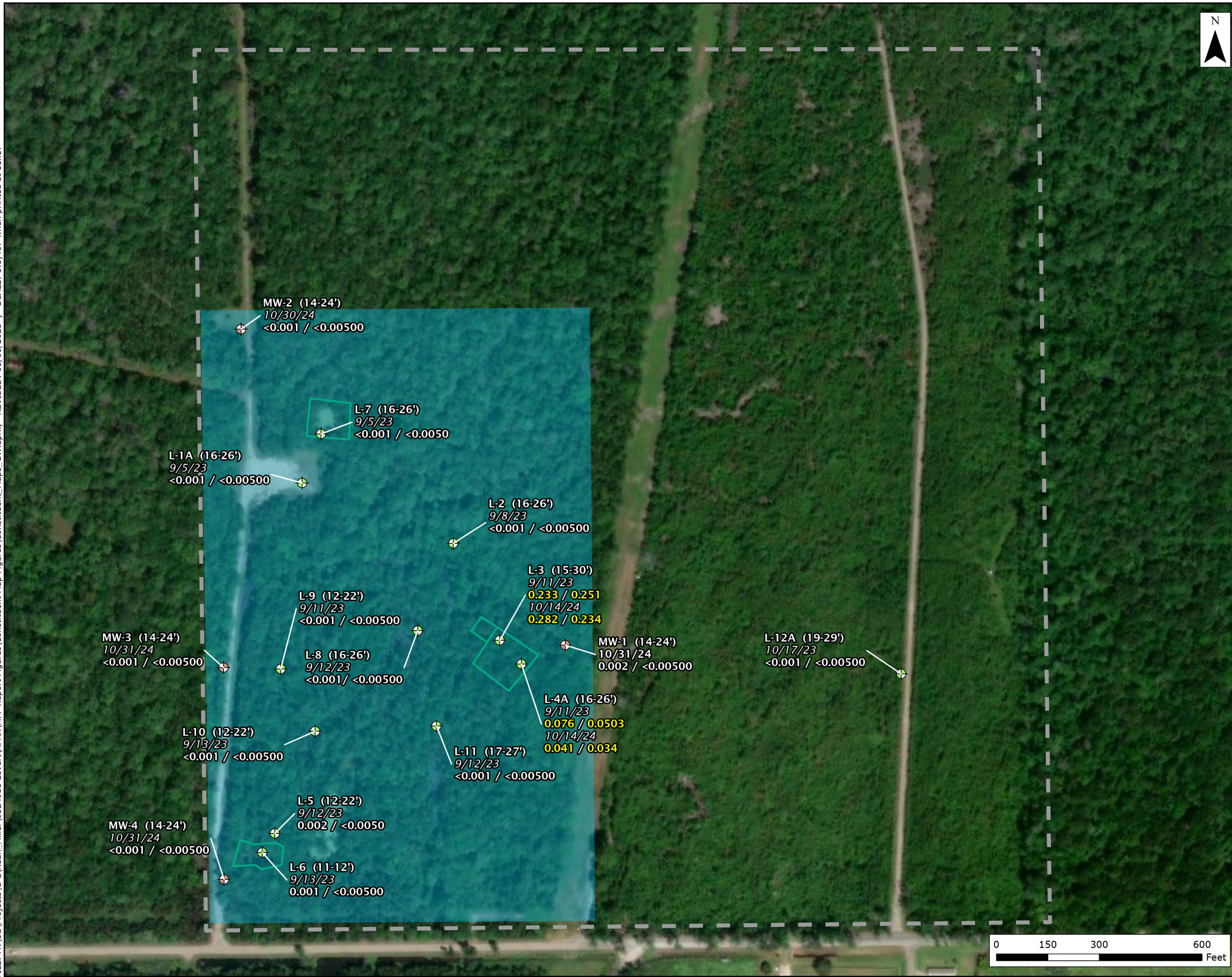
- Property
- ERM Monitoring Well
- ICON Monitoring Well
- Approximate Pit Boundary

- Notes:
- RECAP screening standards (mg/L):
 - TPH-G = 0.15
 - TPH-D = 0.15
 - TPH-O = 0.15
 - Ali>C6-C8 = 3.2
 - Ali>C8-C10 = 0.15
 - Ali>C10-C12 = 0.15
 - Ali>C12-C16 = 0.15
 - Ali>C16-C35 = 7.3
 - Aro>C8-C10 = 0.15
 - Aro>C10-C12 = 0.15
 - Aro>C12-C16 = 0.15
 - Aro>C16-C21 = 0.15
 - Aro>C21-C35 = 0.15
 - Exceedances shown in yellow.
 - ND = Non-Detect
 - Basemap imagery via ArcGIS Online.

Figure 93
TPH Fractions in
Groundwater - Deep
Paul M. Levert, et al. v Union Texas
International Corporation, et al.
Bayou Choctaw Oil & Gas Field
West Baton Rouge Parish, Louisiana



FILE: M:\US\Projects\G-L\Kean_Miller\0524933 Levert\APRX\MFP Report Figures\Constituent Map Figures\Constituent Maps_GW.aprx, REVISED: 05/05/2025, SCALE: 1:3,407 when printed at 11x17



Legend

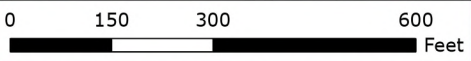
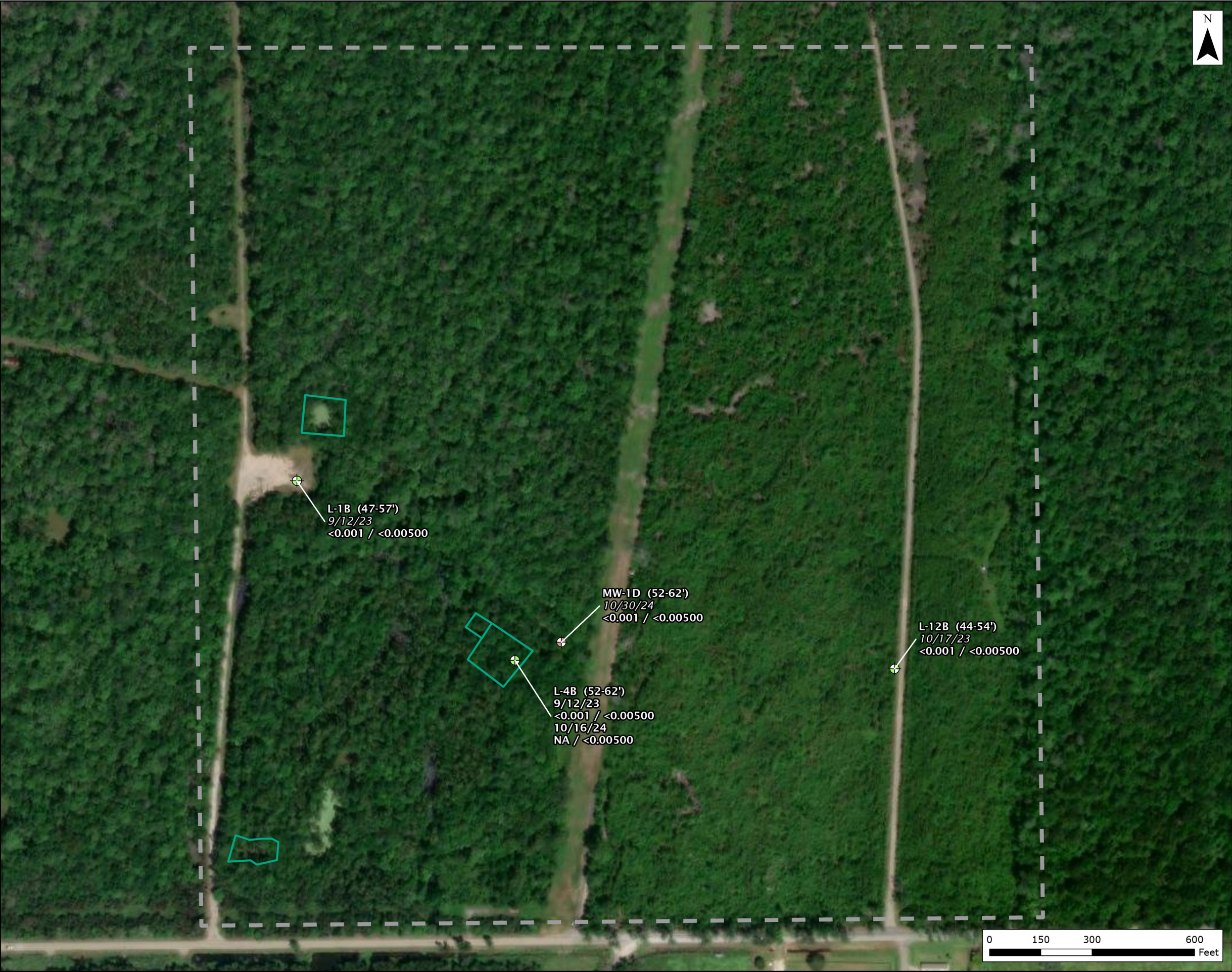
- Property
- ERM Monitoring Well
- ICON Monitoring Well
- Approximate Pit Boundary
- Chevron Groundwater Limited Admission Area

Notes:

1. Benzene concentration reported in mg/L.
2. LDEQ RECAP screening standard = 0.005; exceedances shown in yellow.
3. Results are shown as **ERM result / ICON result.**
4. NA = Not Analyzed
5. Basemap imagery via ArcGIS Online.

Figure 94
Benzene in Groundwater - Shallow
Paul M. Levert, et al. v. Union Texas International Corporation, et al.
Bayou Choctaw Oil & Gas Field
West Baton Rouge Parish, Louisiana

FILE: M:\US\Projects\G-L\Kean_Miller\0524933 Levert\APRX\MFP Report Figures\Constituent Map Figures\Constituent Maps_GW.aprx, REVISED: 05/05/2025, SCALE: 1:3,407 when printed at 11x17



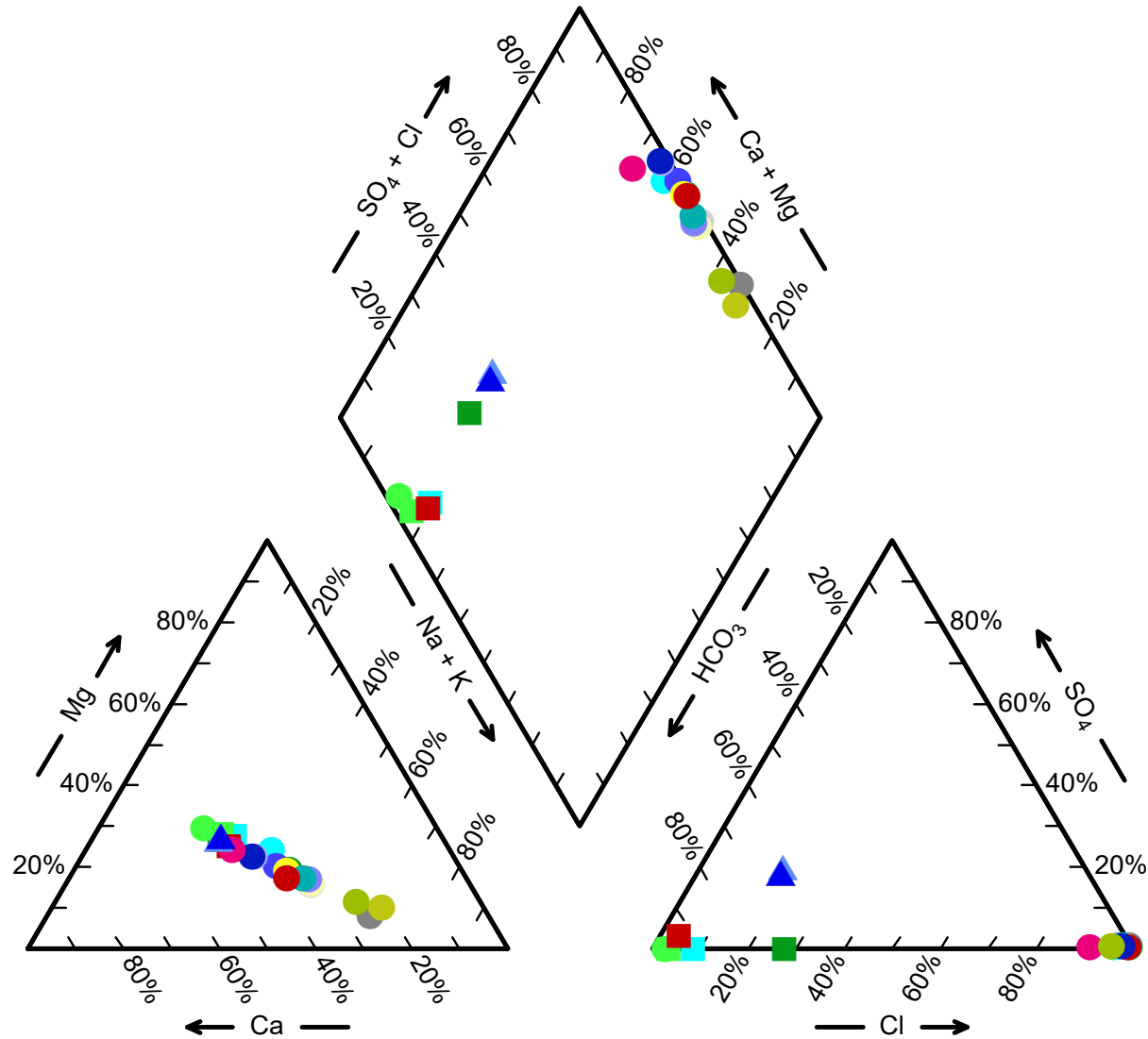
Legend

- Property
- ERM Monitoring Well
- ICON Monitoring Well
- Approximate Pit Boundary

- Notes:
1. Benzene concentration reported in mg/L.
 2. LDEQ RECAP screening standard = 0.005; exceedances shown in yellow.
 3. Results are shown as **ERM result / ICON result.**
 4. NA = Not Analyzed
 5. Basemap imagery via ArcGIS Online.

Figure 95
Benzene in Groundwater - Deep
Paul M. Levert, et al. v. Union Texas
International Corporation, et al.
Bayou Choctaw Oil & Gas Field
West Baton Rouge Parish, Louisiana



**Legend**

● L-1A (16-26')	● L-7 (16-26')	● MW-1 (14-24')	● L-1B (47-57')
● L-2 (16-26')	● L-8 (16-26')	● MW-2 (14-24')	■ L-4B (52-62')
● L-3 (15-30')	● L-9 (12-22')	● MW-3 (14-24')	■ L-12B (44-54')
● L-4A (16-26')	● L-10 (12-22')	● MW-4 (14-24')	■ MW-1D (52-62')
● L-5 (12-22')	● L-11 (17-27')	▲ SW-1	
● L-6 (11-21')	● L-12A (19-29')	▲ SW-2	

Note:

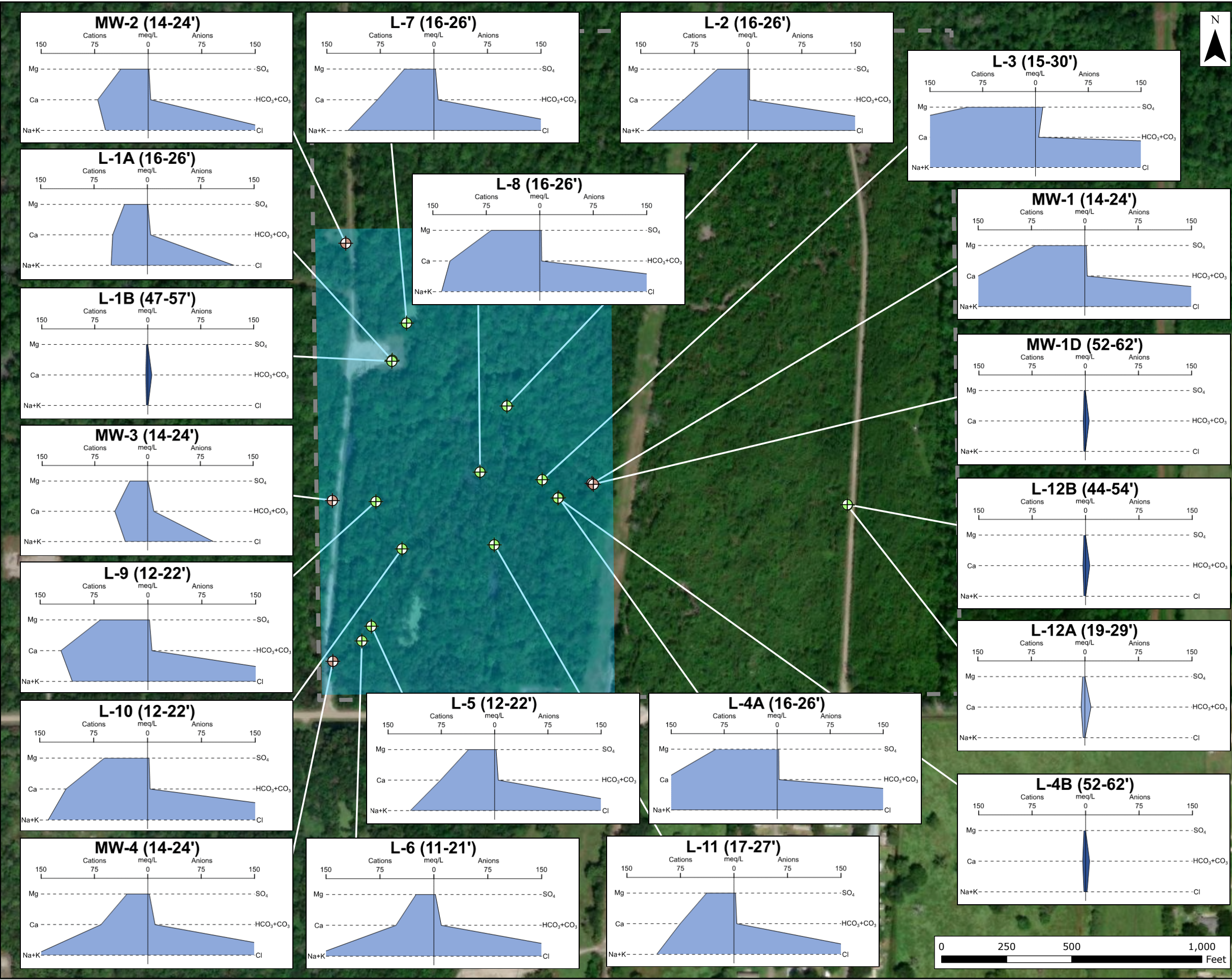
Circles are samples collected from the shallow zone, squares from the deep zone, and triangles from Bayou Bourbeaux surface water.
Data displayed is from the ERM split samples collected in October 2024.

Figure 96**Piper Diagram**

Paul M. Levert, et al. v Union Texas
International Corporation, et al.
Bayou Choctaw Oil & Gas Field
West Baton Rouge Parish, Louisiana



FILE: M:\US\Projects\G-L\Kean_Miller\0524933 Levert\APRX\MFP Report Figures\Stiff Diagram & EC-HPT Log Figures\Stiff & EC-HPT Log Figures.aprx, REVISED: 04/17/2025, SCALE: 1:4,500 when printed at 11x17 DRAWN BY: GIS



- Legend**
- Property
 - ERM Monitoring Well
 - ICON Monitoring Well
 - Chevron Groundwater Limited Admission Area

Notes:
1. Basemap imagery via ArcGIS Online.

Figure 97
Stiff Diagrams
Paul M. Levert, et al. v. Union Texas International Corporation, et al.
Bayou Choctaw Oil & Gas Field
West Baton Rouge Parish, Louisiana



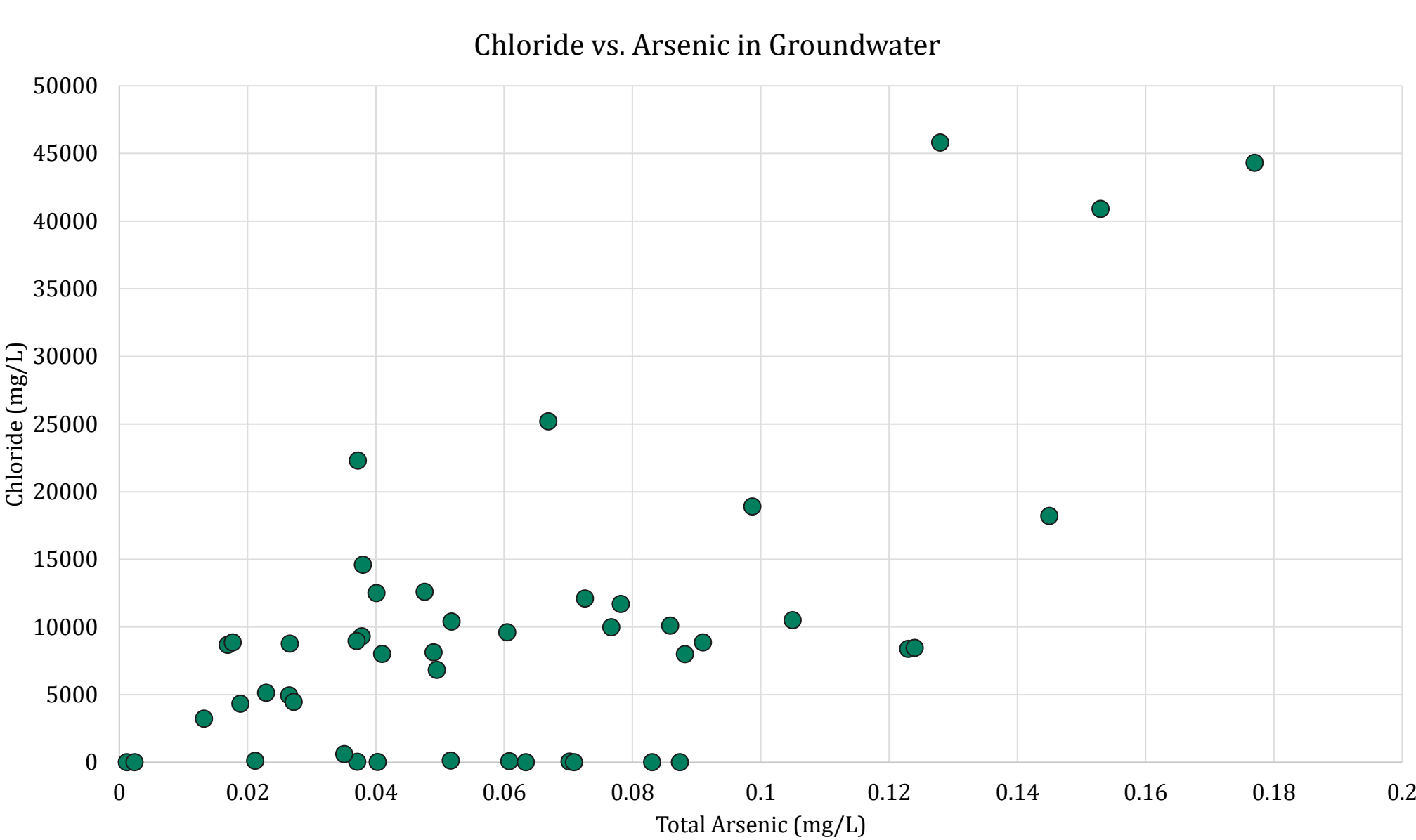
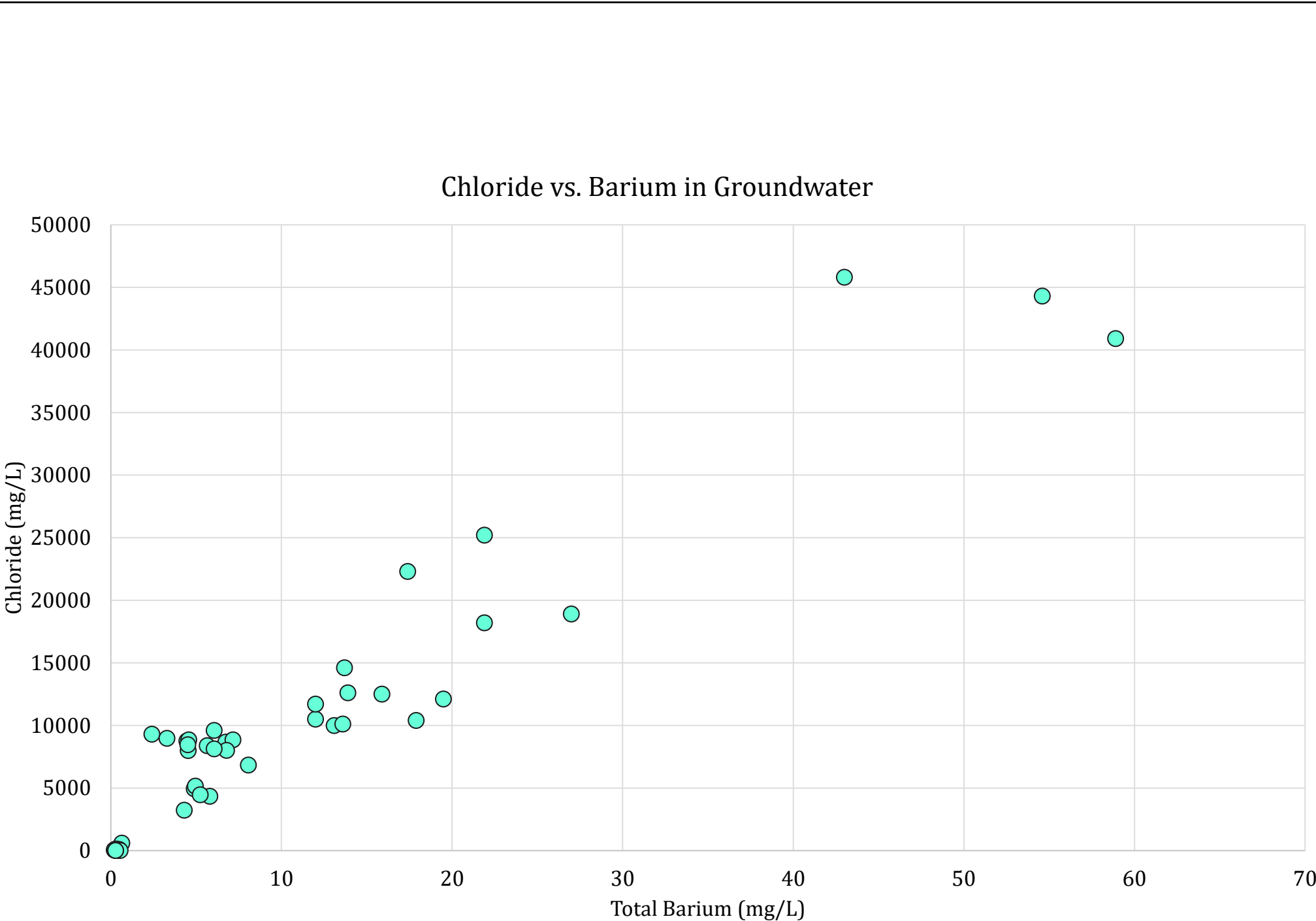
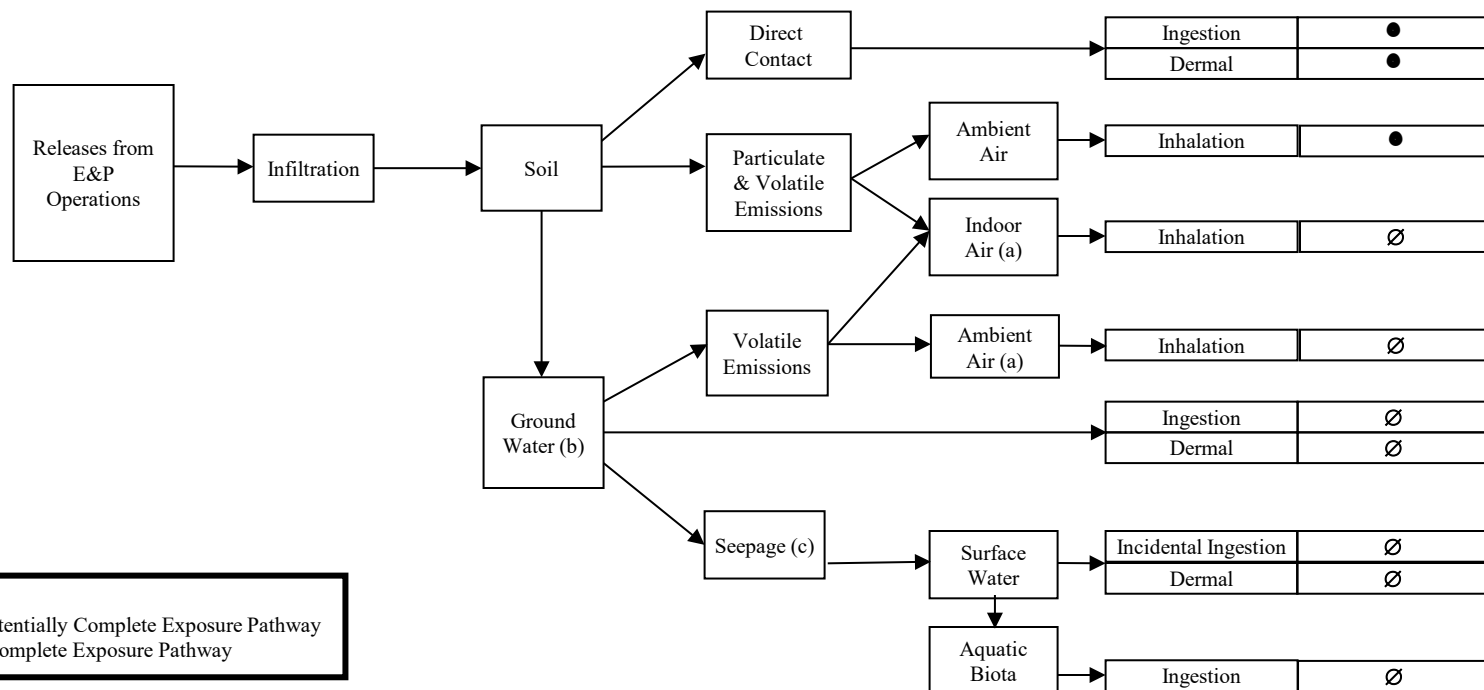


Figure 98
Chloride vs. Arsenic and Barium in Groundwater
Paul M. Levert, et al. v Union Texas
International Corporation, et al.
Bayou Choctaw Oil & Gas Field
West Baton Rouge Parish, Louisiana

Notes:
Results for groundwater samples collected by both ERM and ICON are shown.
Total chloride, arsenic, and barium are shown, and units shown in mg/L.
Where a constituent was not detected above the reporting limit, that groundwater sample is not shown.



Primary Source	Release Mechanism 1	Secondary Sources	Release Mechanisms 2	Tertiary Sources	Exposure Route	Potential On-site Receptor
----------------	---------------------	-------------------	----------------------	------------------	----------------	----------------------------



Notes:

- Considering the ERM remediation plan, the volatile emissions into indoor air inhalation pathway for soil is incomplete: the locations with detectable volatile constituents will be removed as part of the remediation. The volatile emissions into indoor/ambient air inhalation pathway for groundwater is incomplete as depth to groundwater exceeds the vertical exclusion/attenuation depth of 15 feet bgs.
- Groundwater is Class 3 in accordance with RECAP, with no current or potential use as water supply.
- The groundwater to surface water discharge pathway is incomplete.

FIGURE 99
CONCEPTUAL SITE MODEL IN SUPPORT OF
ERM REMEDIATION PLAN

Paul M. Levert, et al. v Union Texas International
Corporation, et al.
Bayou Choctaw Oil & Gas Field
West Baton Rouge Parish, Louisiana



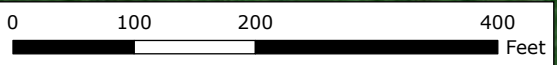


Legend

- Property
- ERM Soil Sample Location
- ICON Soil Sample Location
- ICON Monitoring Well
- Proposed Soil Remediation Area
- Chevron Soil Limited Admission Area

Notes:
1. Basemap imagery via ArcGIS Online.

Figure 100
ERM Proposed Soil Remediation
Paul M. Levert, et al. v. Union Texas
International Corporation, et al.
Bayou Choctaw Oil & Gas Field
West Baton Rouge Parish, Louisiana





- Legend**
- Property
 - ICON Monitoring Well
 - ERM Monitoring Well
 - Chevron Groundwater Limited Admission Area

Notes:
1. Basemap imagery via ArcGIS Online.

Figure 101
ERM Proposed
Monitoring Well Network
Paul M. Levert, et al. v. Union Texas
International Corporation, et al.
Bayou Choctaw Oil & Gas Field
West Baton Rouge Parish, Louisiana





Legend

- Property
- ERM Monitoring Well
- ICON Monitoring Well
- ERM Contingent Groundwater Remediation Area
- Chevron Groundwater Limited Admission Area

Notes:
1. Basemap imagery via ArcGIS Online.

Figure 102
ERM Contingent Groundwater Remediation Area

Paul M. Levert, et al. v. Union Texas International Corporation, et al.
Bayou Choctaw Oil & Gas Field
West Baton Rouge Parish, Louisiana

