LAY-DOWN YARD
for
D & B PROCESSING, LLC
BROKEN ARROW, OKLAHOMA

Case number:

Owner:	D & B Processing, LLC. 9750 South 219th E Avenue Broken Arrow, Oklahoma
Architect:	rob coday architect, llc, aia 13721 w 168th pl s sapulpa, ok 74066
Civil Engineer:	Daryl Worley, P.E. Worley Consulting

LAY-DOWN YARD
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DEVELOPMENT STANDARDS:

ZONING: I-L, LIGHT INDUSTRIAL DISTRICT

BUILDING SETBACK REQUIREMENTS:

NORTH SETBACK:	30 FT
EAST SETBACK:	0 FT
SOUTH SETBACK:	30 FT
WEST SETBACK:	30 FT

PERMITTED USES:

OFFICE, OFFICE BUSINESS AND PROFESSIONAL, RESEARCH LABORATORY, GENERAL INDUSTRIAL SERVICE, ASSEMBLY, LIGHT MANUFACTURING, LIGHT OFFICE/WAREHOUSE, **[STORAGE YARD],** WAREHOUSE AND WHOLESALE ESTABLISHMENT BY RIGHT.

MINIMUM LOT FRONTAGE:

MINIMUM FRONTAGE:	150 FT
PROVIDED:	460 FT, COMPLIES

MAXIMUM BLDG HEIGHT: DOES NOT APPLY, NO BUILDINGS

OFF-STREET PARKING: NO EMPLOYEES THIS SITE, OFF-STREET PARKING PROVIDED ACROSS STREET AT MAIN PLANT.

LANDSCAPING:

LANDSCAPING CONFORMING TO CITY OF BROKEN ARROW ZONING CODE WILL BE PROVIDED AT PROPERTY LINE ALONG EAST GARY STREET. REGULATED WETLAND AREA WILL BE PROTECTED WITH AN EIGHT- FOOT- WIDE BUFFER. WETLAND WILL NOT BE SPRINKLERED AS IT WILL REMAIN IN ITS NATURAL STATE.

SCREEN FENCES:

SOUTH: AN EIGHT- FOOT-HIGH METAL PANEL FENCE WITH GATE WILL BE PROVIDED AT THE SOUTH SIDE OF THE PROPERTY, ELEVEN FOOT INSIDE THE PROPERTY.

EAST: NO FENCE WILL BE PROVIDED AT THE EAST PROPERTY LINE, IL IS ADJACENT.

NORTH: AN EXISTING WIRE FENCE WILL REMAIN AT THE NORTH PROPERTY LINE ALONG THE UNION PACIFIC RAILROAD RIGHT-OF-WAY.

WEST: IT IS PROPOSED THAT THE POOR CONDITION WIRE FENCE REMAIN IN PLACE AT THE WEST PROPERTY LINE. THIS WILL MINIMIZE DAMAGE TO THE VEGETATION WHICH IS CURRENTLY GROWING IN THAT LOW AREA. THE LAND WEST OF THE SUBJECT SITE, WHICH LIES BETWEEN THE WEST PROPERTY LINE AND THE SCHOOL IS VERY HEAVILY COVERED WITH BRUSH AND TREES. THIS NATURAL BUFFER IS DIFFICULT TO PENETRATE AND IS MORE ATTRACTIVE THAN A SCREEN FENCE WOULD BE.

EXTERIOR LIGHTING:

NO EXTERIOR LIGHTING IS TO BE PROVIDED.

SIGNS:

NO SIGNS EXCEPT THE REQUIRED ADDRESS SIGN WILL BE PROVIDED.
BUILDING FACADES AND DESIGN: NO BUILDING(S) WILL BE CONSTRUCTED.

WETLAND;

REFER EXHIBIT "A", WETLAND WILL BE PROTECTED PER AQUATIC RESOURCES DELINEATION REPORT PREPARED BY APEX COMPANIES, LLC. APPROPRIATE FEDERAL PERMITS AND APPROVALS ALONG WITH STATE OF OKLAHOMA AND CITY OF BROKEN ARROW RULES AND REGULATIONS WILL BE OBSERVED. THE WETLAND WILL NOT BE DESIGNED WITH THE STORMWATER SYSTEM AS IT WILL BE PROTECTED IN ITS "NATURAL" STATE.

STORMWATER CONTROL:

THE SITE IS SUBJECT TO RECEIVING OFF-SITE STORMWATER AS WELL AS HAVING A DETENTION AREA FROM THE PROPERTY TO THE EAST. THE REQUIREMENTS WILL BE STUDIED BY A REGISTERED OKLAHOMA CIVIL ENGINEER AND, IF ANY REWORK OF THE STORMWATER DRAINAGE IS REQUIRED, THAT DESIGN WILL BE SUBMITTED FOR REVIEW AND APPROVAL OF THE CITY OF BROKEN ARROW.

MATERIAL STORAGE:

MATERIAL IS UNLOADED FROM TRUCKS BY FORKLIFTS AND PLACED UPON RAILROAD TIES. THE HEIGHT OF THE RAILROAD TIES ALLOWS STORMWATER TO FLOW UNIMPEDED BELOW THE STEEL. THE YARD IS KEPT CLEAN AS IT IS CONSTANTLY HAVING MATERIAL MOVED THUS THERE IS NEVER AN AREA OF THE YARD WHICH WILL IMPEDE THE FLOW OF THE WATER (EXCEPT THE AREA WHICH IS DESIGNED TO BE A DETENTION AREA).

DEVELOPMENT CRITERIA

The PUD's occupancy will be as a "lay-down" yard, a staging area for metal sheets which are used by the D & B manufacturing facilities across East Gary Street (E 96th St S). Yard will be screened from the street by an 8' high metal fence.

No structures are to be built on the site. No employees will be placed there except temporarily to accept shipments and to pick up materials to transfer to the manufacturing buildings.

A wetlands area is located on the site. The wetlands regulatory area has been studied and an assessment report prepared by Apex Companies, LLC. The Owner will protect the defined wetlands are during construction and of occupancy of Phase ONE and will secure, prior to commencing construction, the proper permits for the construction of Phase TWO.

A portion of the site is utilized as a detention and stormwater flow path for stormwater from the east and north. The use of this site for the lay-down staging works well as the steel is placed on railroad ties which enables stormwater to freely flow throughout the site as well as enable protection and free flow of the wetlands area.

EXISTING CONDITIONS:

1E Parcel is zoned IL.
2E Parcel is m/l .
3E Existing parcel surface has existing gravel, detention easements, drainage easements, sanitary sewer easement and a regulated wetland easement.
4E Area north of the wetlands currently has limited accessibility.
5E Existing area tabulations:
Total area: 398,703.86 SQ FT
+/- 9.15 ACRES

DEVELOPMENT PLANS:

1D PUD will consist of two phases:
Phase ONE, 89,622.27 SF (2.057 ACRES) = will consist of the south portion of the site, between Gary and the wetlands. Work this phase will consist of moving an existing metal screen fence north in order to provide a 10 foot street landscape buffer, gravel gravel yard to stage pre-production metal. The wetlands will be protected during the construction and occupancy of Phase I.

Phase TWO 253,627.58 SF (5.83 ACRES, including wetlands with buffer) will consist of the north portion of the site, between the south edge of the 8' wide wetlands "buffer" and the RR. Work will consist of design and securing required permits for implementation of protection of the wetlands, constructing the 8' wide "buffer strip, grading and gravel placement.

Not included in the above cited area tabulations are the various easements.

AREA TABULATIONS

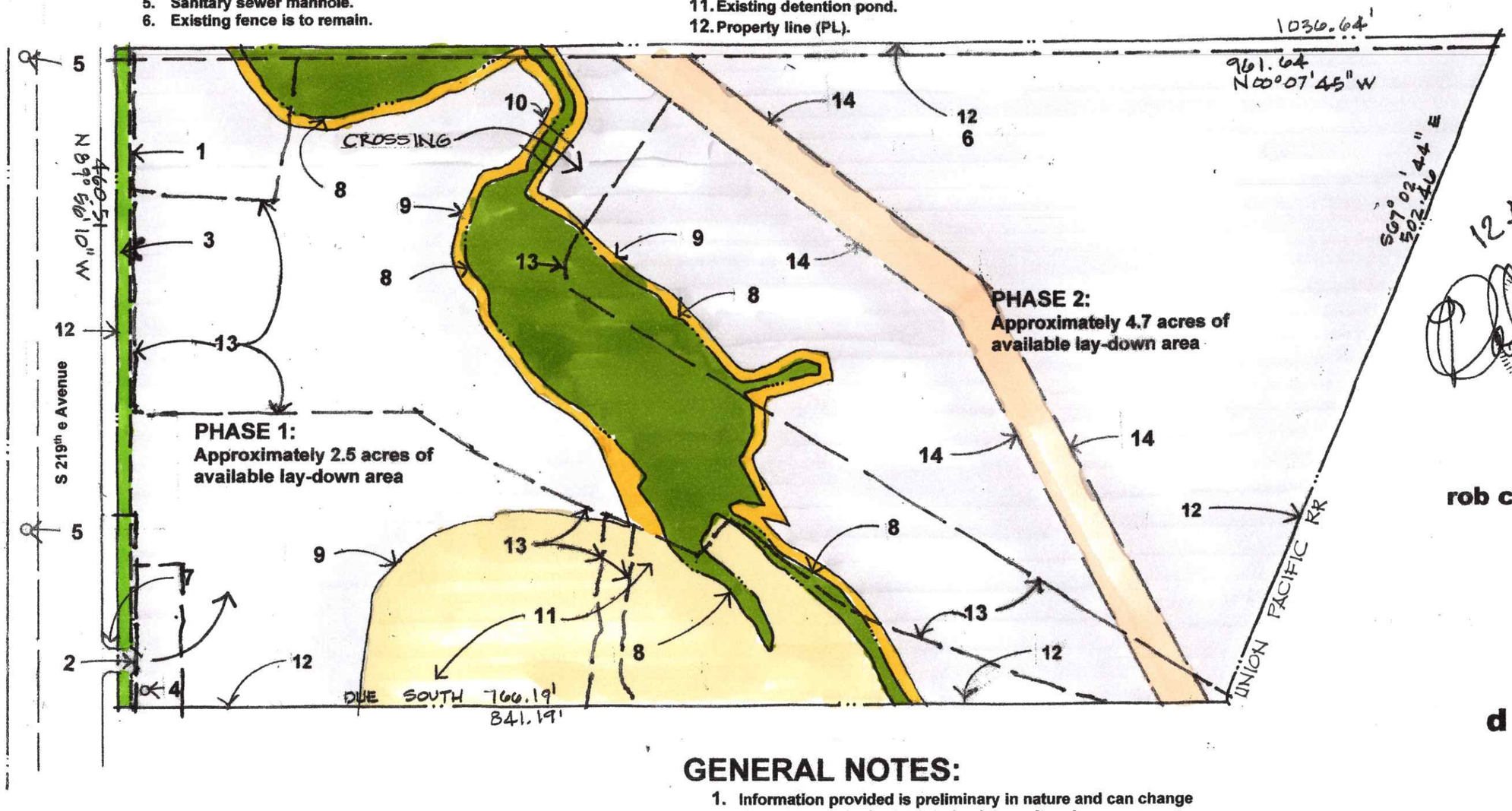
TOTAL AREA OF PARCEL:	398,703.86 SQ FT	9.15 ACRES (+/-)
PHASE ONE:	89,622.27 SQ FT	2.06 ACRES (+/-)
PHASE TWO:	253,627.58 SQ FT	5.82 ACRES (+/-)
PHASE TWO WITHOUT WETLANDS:	204,940.14 SQ FT	4.71 ACRES (+/-)
DETENTION EASEMENT:	120,647.07 SQ FT	2.77 ACRES (+/-)
20' DRAINAGE EASEMENT:	2,529.90 SQ FT	.06 ACRES (+/-)
30' SAN. SEWER EASEMENT:	20,416.50 SQ FT	0.47 ACRES (+/-)
TEMPORARY ACCESS EASEMENT:	3,360.34 SQ FT	0.07 ACRES (+/-)
EXISTING DETENTION BUFFER:	39,443.72 SQ FT	0.91 ACRES (+/-)
WETLAND AREA:	33,837.30 SQ FT	0.78 ACRES (+/-)
WETLAND WITH BUFFER:	46,687.44 SQ FT	1.07 ACRES (+/-)

LEGAL DESCRIPTION:

A tract of land in the Southwest Quarter of the Northeast Quarter (SW/4 NE/4) of Section Twenty (20), Township Eighteen (18) North, Range Fifteen (15) East of the Indian Base and Meridian, Wagoner County, State of Oklahoma, according to the U.S. Government Survey thereof, more particularly described as follows: Beginning at the Southwest corner of said NE/4, thence N 00°07'45" W along the Westerly line thereof a distance of 1036.64 feet to a point on the Southerly Right-of-Way line of the MK&T Railroad; thence S 67°02'44" E along said line a distance of 502.46 feet to the Northwest corner of Coach Port, an Addition in Wagoner County, State of Oklahoma, according to the recorded Plat thereof; thence due South and along the West line of said Coach Port, a distance of 841.19 feet to the South line of said NE/4; thence N 89°56'10" W along the Southerly line of said SW/4 NE/4 a distance of 460.34 feet to the Point of Beginning; LESS AND EXCEPT the South 75.00 feet thereof.

KEY NOTES:

1. 6-foot-high metal screening fence.
2. Metal access gate w/ Knox box.
3. 10-foot-wide landscaping strip complete with sprinkler system.
4. Water service with meter. Water service to supply sprinkler system with backflow prevention.
5. Sanitary sewer manhole.
6. Existing fence is to remain.
7. Existing 16" diameter plastic pipe culvert.
8. Boundary of regulated wetland.
9. 8 foot wide "buffer" between regulated wetland and new gravel for laydown yard.
10. Wetland crossing structure.
11. Existing detention pond.
12. Property line (PL).
13. Existing Drainage easement which directs offsite stormwater. Possible to be amended (per Civil Engineer's design) with final stormwater design. Line: _ _ _ _
14. Sanitary Sewer Easement. Line: _ _ _ _



12 Aug. 2025

STATE OF OKLAHOMA
Robby Alan Coday
No. 2145
Kiefer
Oklahoma
LICENSED ARCHITECT

rob coday architect LLC
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kiefer, ok 74041
918 636 0574
rcodayarch@yahoo.com

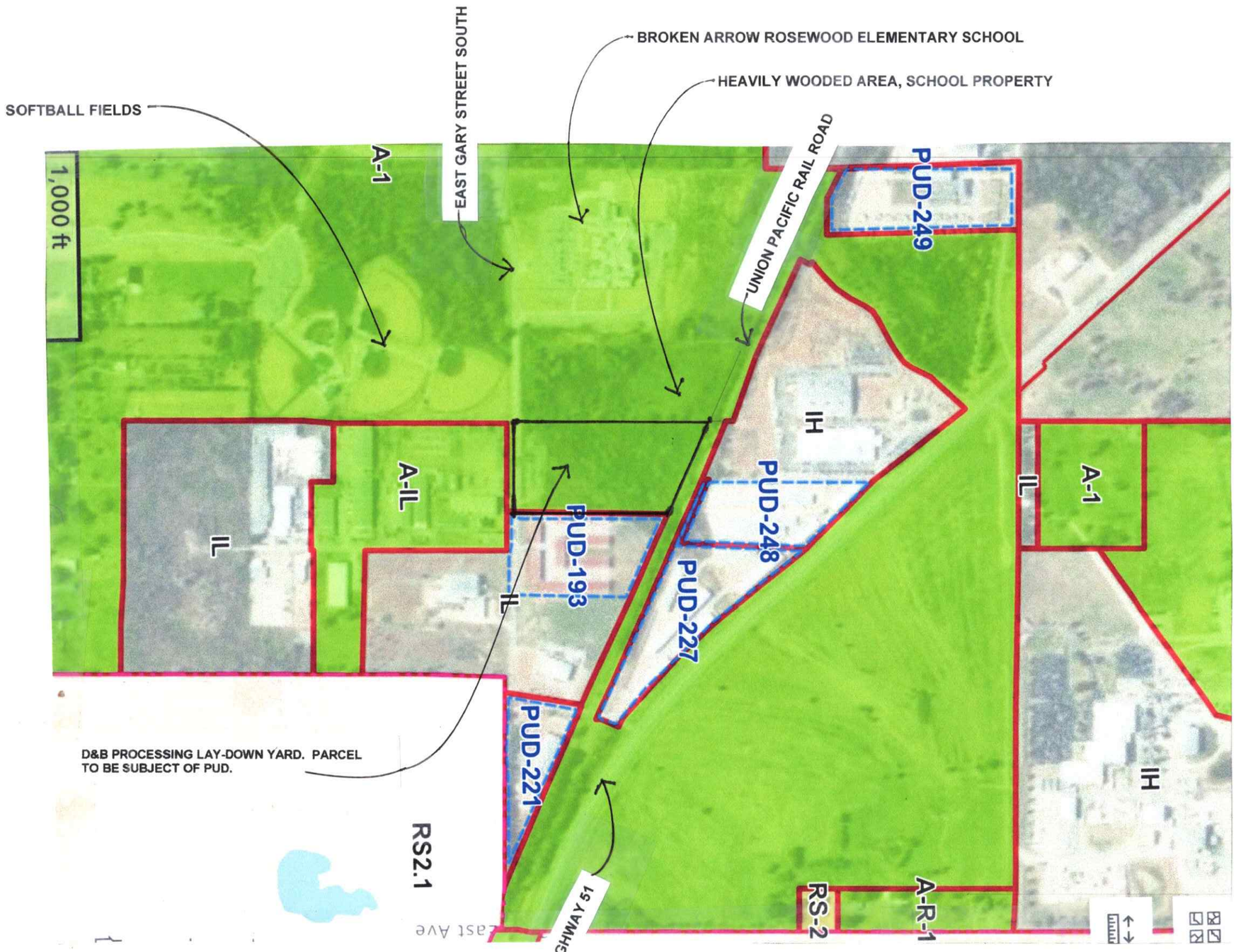
zoning change
for
d & b processing
laydown yard

SITE PLAN
1"=80'

NORTH

GENERAL NOTES:

1. Information provided is preliminary in nature and can change during actual design and project's permit review process.
2. Wetlands boundary is based upon consultant's review.
3. Future Platting: Property's internal stormwater easements may be amended based upon engineer's stormwater design; however, no change to off-site stormwater which affects this site will be reduced without engineer's study.
4. Lay-down area has a gravel surface with defined edge at the wetland edge. Refer Civil Engineer's drawings.



VICINITY ZONING MAP

SCALE: REFER BAR GRAPH

EXHIBIT A

AQUATIC RESOURCES DELINEATION REPORT

Laydown Yard
4600 E Gary St
Broken Arrow, OK 74014
Wagoner County

Prepared for:

D&B Processing
9750 South 219th East Avenue
Broken Arrow, 74014

May 2025

Prepared by:

Apex Companies, LLC
6666 South Sheridan Road, Suite 250
Tulsa, OK 74133

Apex Project No. DBP001-0312045-25007888

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1.0 INTRODUCTION

Apex Companies, LLC (Apex) completed an aquatic resources delineation for the approximately 9.2-acre property located at 4600 East Gary Street in Broken Arrow, OK, in Wagoner County (Project). The Project is mostly undeveloped except for a laydown yard in the southeast portion. The Project location is provided in **Figure 1**.

The purpose of the assessment was to identify water features within the Project and determine the locations and extent of potentially jurisdictional WOTUS subject to the Clean Water Act (CWA). Under Section 404 of the CWA, the United States Army Corps of Engineers (USACE) has the authority to permit the discharge of dredged or fill material into WOTUS.

2.0 REGULATORY OVERVIEW

WOTUS are regulated under Section 404 of the CWA and a subset of those waters are subject to Section 10 of the Rivers and Harbors Act. The Environmental Protection Agency (EPA) is responsible for administering the laws and regulations of the CWA; however, the USACE has the primary regulatory authority for enforcing Section 404/10 requirements for WOTUS, including wetlands.

The definition of WOTUS has been in transition. EPA promulgated the "Revised Definition of 'Waters of the United States'" rule on March 20, 2023, to effectively replace the National Waters Protection Rule which was already remanded by a US Supreme Court decision. On August 29, 2023, EPA issued a final rule, the "Revised Definition of 'Waters of the United States'; Conforming" rule, to align key aspects of the regulatory text to the US Supreme Court's May 25, 2023, decision in the case of *Sackett v. EPA.* However, considering preliminary injunctions, the agencies are interpreting WOTUS consistent with the pre-2015 regulatory regime, plus the *Sackett* decision, in 26 states, including Oklahoma, until further notice.

Section 10 of the Rivers and Harbors Act applies to all navigable WOTUS, and those waters that are subject to the ebb and flow of tides, including any wetlands located below the mean high water line of tidal waters. Section 404 of the CWA applies to all waters, including wetlands, which have a continuous surface connection to other WOTUS. Wetlands have been defined by the USACE as areas that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions.

3.0 METHODOLOGY

3.1 Background Review

Prior to conducting field work, the following resources were evaluated to identify water features and areas that are prone to wetland formation within the Project. Referenced sources can be found in **Appendix A** including:

- National Oceanic and Atmospheric Administration (NOAA) National Weather Service data
- US Geological Survey (USGS) topographic map (**Figure 2**)
- US Fish and Wildlife Service (USFWS) National Wetlands Inventory (NWI) database (**Figure 2**)

- US Department of Agriculture (USDA) National Resources Conservation Service (NRCS) digital soil database (**Figure 3**)
- Federal Emergency Management Agency (FEMA) Flood Insurance Rate Map (FIRM; **Figure 4**)
- Aerial Photography, Google Earth 1995-2025

The antecedent precipitation conditions at the Project were evaluated prior to conducting the fieldwork on May 14 and 16, 2025, using the USACE Antecedent Precipitation Tool (APT) version v.2.0.0. The generated result of APT evaluation is included in **Appendix B**. Based on this evaluation; the survey occurred during the wet season and the antecedent precipitation was wetter than normal during fieldwork in May 2025.

According to NOAA, 0.71 inches of precipitation was recorded on May 7-8, 2025, prior to the May 2025 survey at the Broken Arrow 1.5 WSW weather station in Broken Arrow, OK.

3.2 Project Area Description

Ecoregion and Land Use

The Project lies entirely within the Osage Cuestas EPA Level IV Ecoregion within the Central Irregular Plains EPA Level III Ecoregion. The Osage Cuestas ecoregion is an irregular to undulating plain that is underlain by interbedded, westward-dipping sandstone, shale, and limestone. Natural vegetation is mostly tall grass prairie, but a mix of tall grass prairie and oak-hickory forest is native to eastern areas. Today rangeland, cropland, riparian forests, and on rocky hills, oak woodland or oak forest occur. Rivers and streams typically have low gradients, slowly moving water, muddy banks, and meander in wide valleys. Stream substrates and habitats vary from a high quality, variable mix of conditions to silt- and mud-choked channels. (Woods et al. 2005).

The Project includes approximately 9.2 acres of mostly undeveloped land which includes an approximately 0.8-acre laydown yard for metal sheets on the southeast portion. A municipal wastewater utility right-of-way (ROW) transects the Project in the central portion as evidenced by active construction during the May 2025 survey. The Project consisted of mixed grassland on the southeastern portion which transitions to forested communities dominated by deciduous trees, such as green ash (*Fraxinus pennsylvanica*), common hackberry (*Celtis occidentalis*), American elm (*Ulmus americanus*), black willow (*Salix nigra*), and eastern cottonwood (*Populus deltoides*). Per USGS topographic maps, an unnamed riverine feature transects the Project from the northeast corner to the southeast corner.

3.3 Field Survey

The approximately 9.2-acre Project was assessed by project scientist, Gianna Spear, MS, on May 14 and 16, 2025. The assessment was conducted following the guidance of *USACE Wetlands Delineation Manual* (1987) and *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Midwest Region* (Version 2.0, 2010). At the time of the May 2025 survey, there was active construction along the municipal wastewater utility ROW in response to a municipal wastewater pipeline break. Sewage had entered the environment; however, the volume and impact had not yet been determined at the time of the May 2025 survey. Due to safety concerns, the area of active construction and potential areas of

impact were avoided. Visual assessment of the areas was made from a safe distance. Lack of access to these portions of the Project is discussed in Section 4.3.

The field survey consisted of a visual presence/absence assessment of aquatic features within the Project. All aquatic features were digitally georeferenced/mapped using an Apple iPad tethered via Bluetooth connection with an iSXBlue II+ GNSS with sub-meter accuracy. ArcGIS's Field Maps application was used to store, host, and process collected Project data.

For waterways and waterbodies, the presence of an Ordinary High-Water Mark (OHWM) as defined in the *USACE National Ordinary High Water Mark Field Delineation Manual for Rivers and Streams*, dated January 2025 was used. The manual defines OHWM as "that line on the shore established by the fluctuations of water and indicated by physical characteristics such as [a] clear, natural line impressed on the bank, shelving, changes in the character of soil, destruction of terrestrial vegetation, the presence of litter and debris, or other appropriate means that consider the characteristics of the surrounding areas.

The presence of a wetland was determined by the existence of all three (3) of the following criteria: wetland hydrology, hydrophytic vegetation, and hydric soils. Areas meeting all three (3) wetland criteria as described below contain two (2) data points one (1) within the boundary of the wetland and one (1) demarcating the upland extent outside of the wetland). Historical aerial photography and current Project conditions were evaluated to determine connectivity with hydrologic features outside of the Project.

Hydrology

Wetland hydrology indicators include the presence of surface water, high water tables, saturation, water marks, sediment deposits, drift deposits, algal mats or crusts, iron deposits, and inundation visible on aerial imagery. In addition, water-stained leaves, aquatic fauna, hydrogen sulfide odor, oxidized rhizospheres along living roots, the presence of iron reduction in tilled soils, thin muck surfaces, gauge or well data, drainage patterns, surface soil cracks, crayfish burrows, and shallow aquitards are considered indicators of wetland hydrology.

Hydrophytic Vegetation

The USACE *2022 National Wetland Plant Lists* for the Midwest Region were used to identify the appropriate wetland indicator status for each plant species identified. Hydrophytic vegetation is considered prevalent where more than 50 percent of the dominant species in a plant community have an indicator status of OBL, FACW, or FAC as defined below.

Individual plant species are classified as follows:

- OBL – obligate wetland species
- FACW – facultative trending wet and usually found in wetlands
- FAC – facultative found in wetlands and uplands
- FACU – facultative but usually found in uplands
- UPL – upland species
- NI – plants with no indicator; usually considered upland species

Hydric Soil

Hydric soils are defined as soils that are saturated, flooded, or ponded during the growing season for a period sufficient to develop anaerobic conditions in the upper horizons. These conditions are created by repeated or prolonged saturation or flooding resulting in changes in soil color and chemistry which are used to differentiate hydric from non-hydric soils.

3.4 Anticipated Determination of Jurisdictional Status

The anticipated jurisdictional status of each aquatic feature was determined based on our experience and guidance produced by the EPA and USACE for the pre-2015 regulatory regime and the *Sackett v. EPA* US Supreme Court decision.

4.0 RESULTS

4.1 Delineated Aquatic Features

A total of eight (8) aquatic features were delineated within the Project through the methodologies described above which include: four (4) waterways, one (1) waterbody, and three (3) wetlands. Additionally, a retention pond is present in the southeastern corner of the Project. The results of the assessment are summarized in **Tables 1-3**. Delineated aquatic features are depicted in **Figure 5**, clearly representing which features and boundaries have been field verified. Representative photographs from the May 2025 survey events are provided in **Appendix C**.

A total of nine (9) data points (DP; **Figure 5**) were sampled in May 2025 within the Project that were suspected of having wetland conditions or to delineate the extent of wetlands. Four (4) of the nine (9) data points met all three criteria (hydrology, hydric soils, and hydric vegetation) to be deemed a wetland. Wetland determination data sheets are provided in **Appendix B**.

Table 1: Delineated Aquatic Features - Waterways

ID	Resource Type[1]	Surface Area[2] (acres) within Project	Average OHWM Width (ft)[3]	Potentially Jurisdictional?	NWI[4]
WW01	Intermittent	0.120	3	Yes	PFO1A
WW02	Intermittent	0.048	3	Yes	PFO1A
WW03	Intermittent	0.024	4	Yes	PFO1A
WW04	Ephemeral	0.011	2	No	PFO1A

[1]Resource types defined as follows:
Ephemeral: A waterway that flows only in direct response to a precipitation event.
Intermittent: A waterway that flows more than in direct response to a precipitation event, and generally seasonally.
Perennial: A waterway that flows continuously throughout the year.
[2]All calculations were based on the Project using the NAD 1983 StatePlane Oklahoma North FIPS 3501 Feet coordinate system as depicted in **Figure 5**.
[3]Average OHWM rounded to the nearest foot.
[4]National Wetlands Inventory classification defined as follows:
PFO: Palustrine forested; 1: Broad-leaved deciduous; A: Temporary Flooded

Table 2: Delineated Aquatic Features – Waterbodies

ID	Resource Type[1]	Surface Area (acres)[2] within Project	Potentially Jurisdictional?	NWI[3]
WB01	Impoundment	0.15	Yes	PFO1A

[1]Impoundment is defined as a waterbody with a continuous and indistinguishable surface connection with a waterway.
[2]All calculations were based on the Project using the NAD 1983 StatePlane Oklahoma North FIPS 3501 Feet coordinate system as depicted in **Figure 5**.
[3]National Wetlands Inventory classification defined as follows:
PFO: Palustrine forested; 1: Broad-leaved deciduous; A: Temporary Flooded

Table 3: Delineated Aquatic Features – Wetlands

ID	Resource Type[1]	Area (acres)[2]	Potentially Jurisdictional?	NWI[3]
WET01-PEM	Palustrine Emergent	0.140	No	-
WET02-PEM	Palustrine Emergent	0.163	Yes	PFO1A
WET03-PFO	Palustrine Forested	0.386	Yes	PFO1A

[1]Resource type is defined as follows:
PEM – Palustrine Emergent Wetland
PFO – Forested Wetland
[2]All calculations were based on the Project using the NAD 1983 StatePlane Oklahoma North FIPS 3501 Feet coordinate system as depicted in **Figure 5**.
[3]National Wetlands Inventory classification defined as follows:
PFO: Palustrine forested; 1: Broad-leaved deciduous; A: Temporary Flooded

4.2 Aquatic Features Descriptions

Waterways

WW01, WW02, and WW03

WW01, WW02, and WW03 are intermittent streams (**Figure 5**). WW01 extends from the east central portion of the project to the southwest before joining WW02 and flowing off the Project. WW03 is a continuation of WW01. WW01 and WW03 are bound by herbaceous upland, forested upland, and herbaceous wetland vegetation communities. Herbaceous upland species includes common ragweed (*Ambrosia artemisiifolia*), black willow, poison ivy (*Toxicodendron radicans*), Japanese honeysuckle (*Lonicera japonica*), coralberry (*Symphoricarpos orbiculatus*), and Chinese privet (*Ligustrum sinense*). Within the forested upland, additional species include mulberry (*Morus rubra*), common hackberry, and snailseed (*Nephroia carolina*). Evidence of an OHWM consists of minor scouring, exposed tree roots, changes in character of soil, and drift deposits. The OHWM ranges from approximately two (2) to five (5) feet. The stream bed consists of silty clay sediment and surface water was turbid at the time of the survey. WW02 has similar vegetation community, bed, and hydrological characteristics. WW02 may have had a continuous upstream surface connection with WB01 and WET03-PFO which is further discussed in the Wetlands section. Evidence of vehicle traffic through WW01 and WW02 is evident in the west central portion of Project, likely impacting turbidity and altering rate and path of flow. Additionally, evidence of earthwork activities was observed adjacent to WW01 and WW02 which likely have contributed sediment deposition into the streams.

WW04

WW04 is an ephemeral stream that drains excess flow during heavy precipitation events from WET02-PEM into WW02. The vegetation community is consistent with WW03. A faint OHWM is present intermittently and is evident by destruction of vegetation and minor scouring. WW04 is impacted by vehicle traffic, altering rate and path of flow.

Waterbodies

WB01

WB01 is an isolated impoundment northeast of WW02 and adjacent to the municipal wastewater utility pipeline right of way. Evidence of earthwork activities and additional pooling were observed within the immediate proximity of WB01. WB01 did not have a continuous surface connection with WET03-PFO or WW02 at the time of the May 2025 survey, however there likely was a historical continuous surface connection based on aerial imagery and local topography.

Wetlands

WET01-PEM

WET01-PEM is a palustrine emergent wetland that is present within a historical retention pond. The dominant vegetation observed within the retention pond is the Rufous bulrush (*Scirpus pendulus*). Additional species are broomsedge bluestem (*Andropogon virginicus*) and common spike-rush (*Eleocharis palustris*). The retention pond receives upland flow from the east adjacent property and drains through a concrete outlet as sheet flow into WET02-PEM.

WET02-PEM

WET02-PEM is a palustrine emergent wetland adjacent to WW01 with which it exhibits a continuous surface connection. Dominant vegetation consists of swamp dock (*Rumex verticillatus*), bearded beggarticks (*Bidens aristosa*), summer grape (*Vitis aestivalis*), tall goldenrod (*Solidago altissima*), poison ivy, black willow, climbing rose (*Rosa setigera*), foxtail sedge (*Carex vulpinoidea*), and fleabane (*Erigeron annuus*). Intermittent standing water and drainage patterns were observed. Debris from tree removal is present within the wetland. The eastern portion of WET02-PEM likely receives subsurface flow from the retention pond.

WET03-PFO

WET03-PFO is a forested wetland within the northern portion of the Project. Dominant vegetation consists of black willow, common spike-rush, and poison ivy. Other vegetation consists of American elm, American sycamore (*Platanus occidentalis*), late boneset (*Eupatorium serotinum*), and Japanese honeysuckle. Standing water and saturation were observed and confirmed from aerial imagery were observed. The southwestern portion of WET03-PFO has been impacted by the ongoing wastewater utility construction and sewage spill. During the May 2025 survey, the ROW between WET03-PFO and WB01 was graded, potentially filled, and installed with construction matting. These observations

combined with aerial imagery and local topography, it is likely that WET03-PFO had a historical surface connection with WB01 and WW02. However, at the time of the survey, there was no surface connection.

4.3 Normal Circumstances, Problematic Areas, and Atypical Situations

The *USACE Wetland Delineation Manual* (1987), *Regional Supplement* (2010), and *Regulatory Guidance Letters* (RGL 82-02 and 86-09) define the terms Normal Circumstances, Problematic Areas, and Atypical Situations. Apex looked for these conditions during the field events. Atypical Situations are a result of human activities or natural events that modify vegetation, hydrology, or soil. This could include placement of fill, construction of dams/levees, land use conversion, channelization of drainages, fire, drought, or flooding.

At the time of the May 2025 survey, there was construction on the municipal wastewater utility right of way that transects the Project . The right of way was graded, cleared of all vegetation, and construction matting was placed over areas between WET03-PFO and WB01. Earthwork activities were evident in areas adjacent to the right of way, altering the soils, vegetation community, and hydrology. Pooling was observed in areas and is shown in the photolog (**Appendix D**) and in **Figure 5**. The construction foreman indicated that the wastewater pipeline failed, resulting in a sewage release to the immediate area. The amount and extent of sewage release had not been determined at the time of the May 2025 survey. The approximate extent of sewage release footprint shown on **Figure 5** was determined by odor and presence of algae in areas of pooling, but the footprint has not been confirmed. Given accessibility was restricted due to avoid untreated sewage and active construction, the extent of WET03-PFO within the potential sewage release footprint was visually estimated from a safe distance and further refined with aerial imagery. These conditions classify WET03-PFO as an Atypical Situation. The presence of wetland hydrology and hydrophytic vegetation were confirmed, but soil samples were not feasible to define the entire extent of WET03-PFO.

In addition, the May 2024 survey occurred during the wet season, and according to the USACE APT, conditions were wetter than normal. Higher than normal water levels were considered during evaluation.

5.0 REGULATORY CONSIDERATIONS

5.1 USACE and EPA Jurisdictional Determination

The USACE and EPA have not delegated the authority to make jurisdictional determinations; however, the jurisdictional determination opinions of Apex, expressed herein, are based on the records review, site observations, experience, joint USACE and EPA guidance, and the federal definition of WOTUS. The USACE asserts jurisdiction on a case-by-case basis. USACE and EPA concurrence can be sought through the Approved Jurisdictional Determination process.

There were four (4) aquatic features, WW01, WW02, WW03, and WET02-PEM, on the Project that were considered potential WOTUS based on field conditions during the May 2025 survey. The WET03-PFO jurisdictional status is dependent on post-construction conditions within the wastewater utility right of way. If pre-construction conditions are restored, and the connection between WET03-PFO is restored, then WET03-PFO is likely jurisdictional. If the connection is permanently severed, it is likely that WET03-PFO is not jurisdictional. Per the Supreme Court of the United States decision in *EPA v. Sackett*, wetlands

must have a "continuous surface connection" with another WOTUS so that there is "no clear demarcation between waters and wetlands." Based on the May 2025 survey, WET02-PEM directly abuts WW01 and WW02 discharges into WW01. WW001 is an intermittent stream that eventually discharges into Broken Arrow Creek which discharges into the Arkansas River, a Section 10 River, and Harbors Act water according to the USACE Tulsa District (**Figure 6**). Additionally, tributaries may be considered WOTUS if they are "relatively permanent, standing or continuously flowing bodies" which excludes ephemeral streams (WW04) due to short durations of flow. Tables 1-3 summarize the type, NWI classification, and acreage of the features.

6.0 SUMMARY AND CONCLUSIONS

Apex completed a WOTUS assessment on an approximately 9.2-acre survey area for the D&B Processing property. The purpose of the investigation was to identify and delineate potentially jurisdictional WOTUS that are subject to regulations under Section 404 of the CWA. Jurisdictional WOTUS are regulated under the CWA by the USACE.

The investigation was completed through the review of background resources, field identification of water features, and determination of potential jurisdictional WOTUS. Apex identified eight (8) aquatic features at the Project. These features were identified based on the presence of an OHWM, hydrology indicators, hydrophytic vegetation, and/or hydric soils.

It is our opinion that four (4) aquatic features, WW01, WW02, WW03, and WET02-PEM, on the Project are likely jurisdictional WOTUS regulated by USACE under Section 404 of the CWA following the pre-2015 Rule and *Sackett* decision. WET03-PFO is also potentially jurisdictional if a surface connection is restored with WB01 and WW02 after the wastewater utility right of way construction is completed and been restored.

These services and this report were performed and prepared in accordance with generally accepted and customary practices of the environmental profession. No warranties, express or implied, are intended or made. The limitations of this assessment should be recognized as the relying party formulates conclusions on the environmental risks associated with construction of the proposed Project. Furthermore, the services herein shall in no way be construed, designed, or intended to be relied upon as legal interpretation or advice.

If you have any questions or require additional information, please contact Amy Smith at amy.smith@apexcos.com.

Sincerely,
Apex Companies, LLC

Gianna Spear, MS
Environmental Scientist II

Amy Smith, PhD, CSE
Senior Program Manager

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APPENDIX A

FIGURES

Figure 1
Site Location Map

Aquatic Resources Delineation
D&B Processing
4600 E Gary St
Broken Arrow, OK 74014

Legend

Project Boundary

0 925 1,850
Feet

N

Feature symbols are not shown to scale

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Z:\GIS_Repository\Tulsa\Clients\01_A_G\DNB_Processing\Broken_Arrow_WOTUS\DNB Processing BA WOTUS.aprx Modified 5/23/2025 by Gianna.Barolin@apexcos.com GCS WGS 1984 Coordinate System

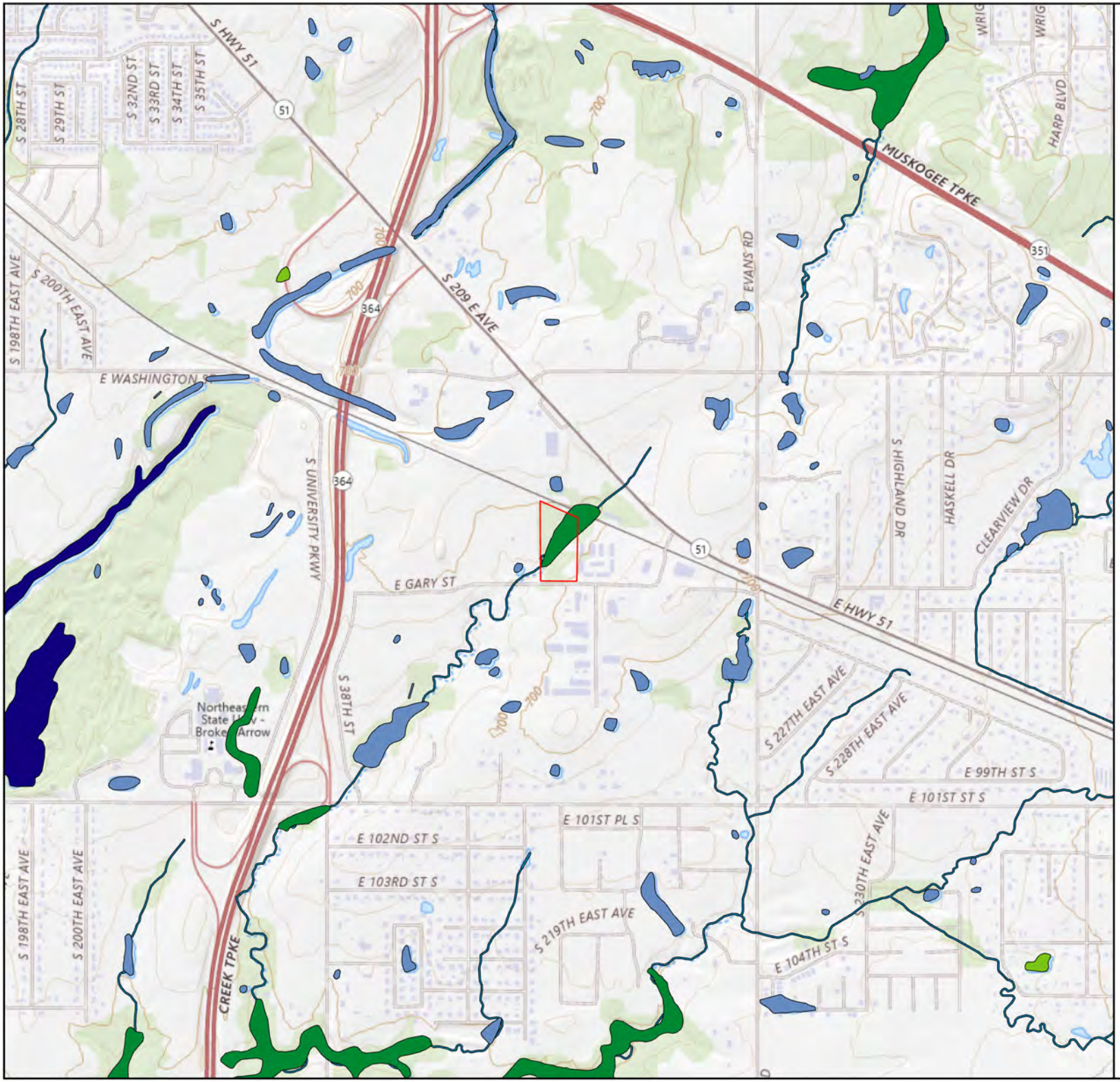

Figure 2

National Wetlands Inventory and USGS Topographic Map

Aquatic Resources Delineation
D&B Processing
4600 E Gary St
Broken Arrow, OK 74014

Legend

- Project Boundary

Wetlands

- Estuarine and Marine Deepwater
- Estuarine and Marine Wetland
- Freshwater Emergent Wetland
- Freshwater Forested/Shrub Wetland
- Freshwater Pond
- Lake
- Other
- Riverine

0 925 1,850
Feet

N

Feature symbols are not shown to scale

APEX

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United States Department of Agriculture

NRCS

Natural Resources Conservation Service

A product of the National Cooperative Soil Survey, a joint effort of the United States Department of Agriculture and other Federal agencies, State agencies including the Agricultural Experiment Stations, and local participants

Custom Soil Resource Report for Wagoner County, Oklahoma

Figure 3

May 22, 2025

Preface

Soil surveys contain information that affects land use planning in survey areas. They highlight soil limitations that affect various land uses and provide information about the properties of the soils in the survey areas. Soil surveys are designed for many different users, including farmers, ranchers, foresters, agronomists, urban planners, community officials, engineers, developers, builders, and home buyers. Also, conservationists, teachers, students, and specialists in recreation, waste disposal, and pollution control can use the surveys to help them understand, protect, or enhance the environment.

Various land use regulations of Federal, State, and local governments may impose special restrictions on land use or land treatment. Soil surveys identify soil properties that are used in making various land use or land treatment decisions. The information is intended to help the land users identify and reduce the effects of soil limitations on various land uses. The landowner or user is responsible for identifying and complying with existing laws and regulations.

Although soil survey information can be used for general farm, local, and wider area planning, onsite investigation is needed to supplement this information in some cases. Examples include soil quality assessments (http://www.nrcs.usda.gov/wps/portal/nrcs/main/soils/health/) and certain conservation and engineering applications. For more detailed information, contact your local USDA Service Center (https://offices.sc.egov.usda.gov/locator/app?agency=nrcs) or your NRCS State Soil Scientist (http://www.nrcs.usda.gov/wps/portal/nrcs/detail/soils/contactus/?cid=nrcs142p2_053951).

Great differences in soil properties can occur within short distances. Some soils are seasonally wet or subject to flooding. Some are too unstable to be used as a foundation for buildings or roads. Clayey or wet soils are poorly suited to use as septic tank absorption fields. A high water table makes a soil poorly suited to basements or underground installations.

The National Cooperative Soil Survey is a joint effort of the United States Department of Agriculture and other Federal agencies, State agencies including the Agricultural Experiment Stations, and local agencies. The Natural Resources Conservation Service (NRCS) has leadership for the Federal part of the National Cooperative Soil Survey.

Information about soils is updated periodically. Updated information is available through the NRCS Web Soil Survey, the site for official soil survey information.

The U.S. Department of Agriculture (USDA) prohibits discrimination in all its programs and activities on the basis of race, color, national origin, age, disability, and where applicable, sex, marital status, familial status, parental status, religion, sexual orientation, genetic information, political beliefs, reprisal, or because all or a part of an individual's income is derived from any public assistance program. (Not all prohibited bases apply to all programs.) Persons with disabilities who require

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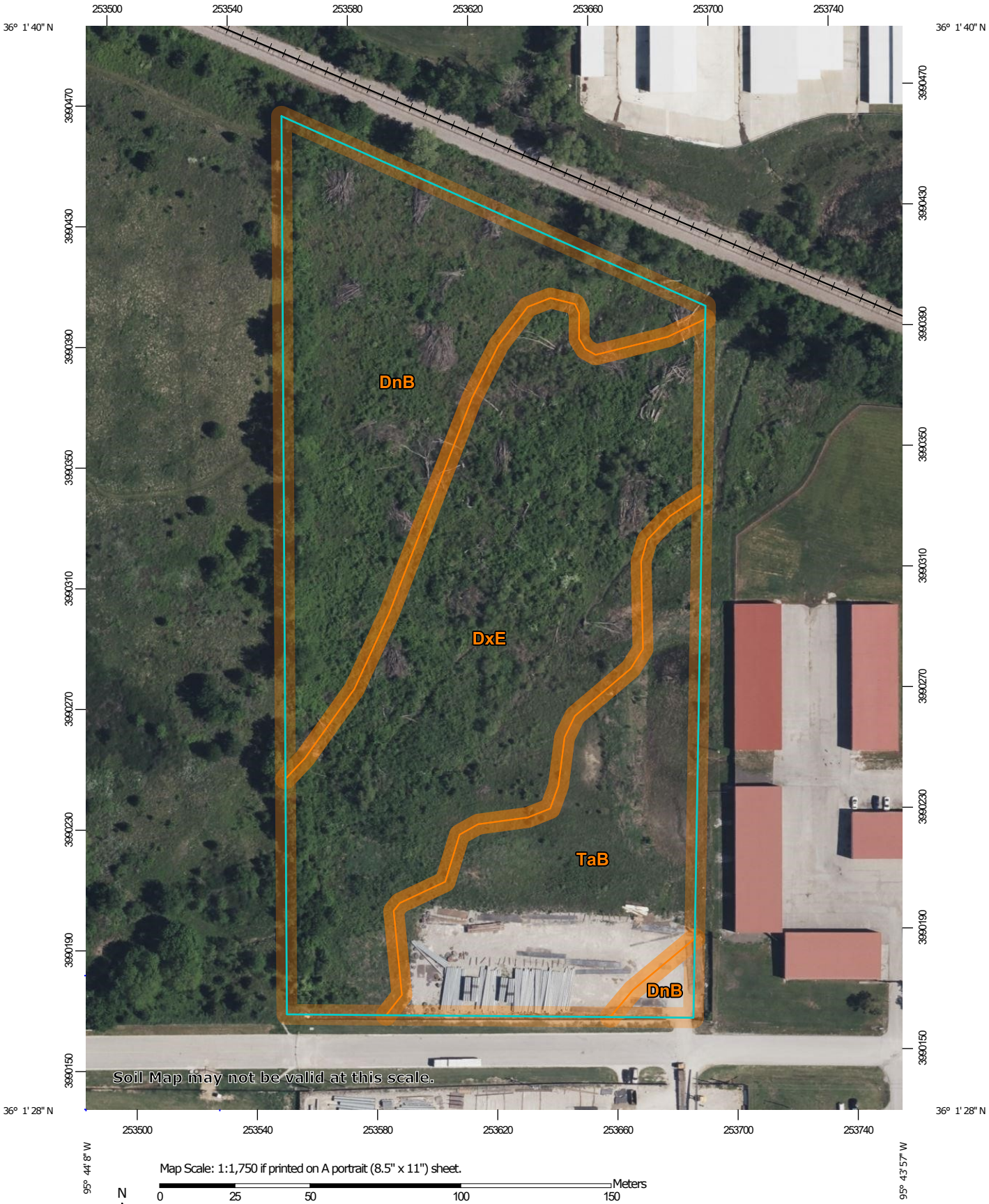
Soil Map

The soil map section includes the soil map for the defined area of interest, a list of soil map units on the map and extent of each map unit, and cartographic symbols displayed on the map. Also presented are various metadata about data used to produce the map, and a description of each soil map unit.

Custom Soil Resource Report
Soil Map



Map Scale: 1:1,750 if printed on A portrait (8.5" x 11") sheet.

N

Meters: 0 25 50 100 150

Feet: 0 50 100 200 300

Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 15N WGS84

MAP LEGEND

Area of Interest (AOI)
- Area of Interest (AOI)

Soils
- Soil Map Unit Polygons
- Soil Map Unit Lines
- Soil Map Unit Points

Special Point Features
- Blowout
- Borrow Pit
- Clay Spot
- Closed Depression
- Gravel Pit
- Gravelly Spot
- Landfill
- Lava Flow
- Marsh or swamp
- Mine or Quarry
- Miscellaneous Water
- Perennial Water
- Rock Outcrop
- Saline Spot
- Sandy Spot
- Severely Eroded Spot
- Sinkhole
- Slide or Slip
- Sodic Spot
- Spoil Area
- Stony Spot
- Very Stony Spot
- Wet Spot
- Other
- Special Line Features

Water Features
- Streams and Canals

Transportation
- Rails
- Interstate Highways
- US Routes
- Major Roads
- Local Roads

Background
- Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:24,000.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL:
Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Wagoner County, Oklahoma
Survey Area Data: Version 20, Sep 11, 2024

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: May 11, 2022—May 14, 2022

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
DnB	Dennis silt loam, 1 to 3 percent slopes	3.0	32.6%
DxE	Dennis-Radley complex, 0 to 15 percent slopes	4.0	43.9%
TaB	Taloka silt loam, 1 to 3 percent slopes	2.2	23.5%
Totals for Area of Interest		**9.2**	**100.0%**

Map Unit Descriptions

The map units delineated on the detailed soil maps in a soil survey represent the soils or miscellaneous areas in the survey area. The map unit descriptions, along with the maps, can be used to determine the composition and properties of a unit.

A map unit delineation on a soil map represents an area dominated by one or more major kinds of soil or miscellaneous areas. A map unit is identified and named according to the taxonomic classification of the dominant soils. Within a taxonomic class there are precisely defined limits for the properties of the soils. On the landscape, however, the soils are natural phenomena, and they have the characteristic variability of all natural phenomena. Thus, the range of some observed properties may extend beyond the limits defined for a taxonomic class. Areas of soils of a single taxonomic class rarely, if ever, can be mapped without including areas of other taxonomic classes. Consequently, every map unit is made up of the soils or miscellaneous areas for which it is named and some minor components that belong to taxonomic classes other than those of the major soils.

Most minor soils have properties similar to those of the dominant soil or soils in the map unit, and thus they do not affect use and management. These are called noncontrasting, or similar, components. They may or may not be mentioned in a particular map unit description. Other minor components, however, have properties and behavioral characteristics divergent enough to affect use or to require different management. These are called contrasting, or dissimilar, components. They generally are in small areas and could not be mapped separately because of the scale used. Some small areas of strongly contrasting soils or miscellaneous areas are identified by a special symbol on the maps. If included in the database for a given area, the contrasting minor components are identified in the map unit descriptions along with some characteristics of each. A few areas of minor components may not have been observed, and consequently they are not mentioned in the descriptions, especially where the pattern was so complex that it was impractical to make enough observations to identify all the soils and miscellaneous areas on the landscape.

The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The objective of mapping is not to delineate pure taxonomic classes but rather to separate the landscape into landforms or

landform segments that have similar use and management requirements. The delineation of such segments on the map provides sufficient information for the development of resource plans. If intensive use of small areas is planned, however, onsite investigation is needed to define and locate the soils and miscellaneous areas.

An identifying symbol precedes the map unit name in the map unit descriptions. Each description includes general facts about the unit and gives important soil properties and qualities.

Soils that have profiles that are almost alike make up a *soil series*. Except for differences in texture of the surface layer, all the soils of a series have major horizons that are similar in composition, thickness, and arrangement.

Soils of one series can differ in texture of the surface layer, slope, stoniness, salinity, degree of erosion, and other characteristics that affect their use. On the basis of such differences, a soil series is divided into *soil phases*. Most of the areas shown on the detailed soil maps are phases of soil series. The name of a soil phase commonly indicates a feature that affects use or management. For example, Alpha silt loam, 0 to 2 percent slopes, is a phase of the Alpha series.

Some map units are made up of two or more major soils or miscellaneous areas. These map units are complexes, associations, or undifferentiated groups.

A *complex* consists of two or more soils or miscellaneous areas in such an intricate pattern or in such small areas that they cannot be shown separately on the maps. The pattern and proportion of the soils or miscellaneous areas are somewhat similar in all areas. Alpha-Beta complex, 0 to 6 percent slopes, is an example.

An *association* is made up of two or more geographically associated soils or miscellaneous areas that are shown as one unit on the maps. Because of present or anticipated uses of the map units in the survey area, it was not considered practical or necessary to map the soils or miscellaneous areas separately. The pattern and relative proportion of the soils or miscellaneous areas are somewhat similar. Alpha-Beta association, 0 to 2 percent slopes, is an example.

An *undifferentiated group* is made up of two or more soils or miscellaneous areas that could be mapped individually but are mapped as one unit because similar interpretations can be made for use and management. The pattern and proportion of the soils or miscellaneous areas in a mapped area are not uniform. An area can be made up of only one of the major soils or miscellaneous areas, or it can be made up of all of them. Alpha and Beta soils, 0 to 2 percent slopes, is an example.

Some surveys include *miscellaneous areas*. Such areas have little or no soil material and support little or no vegetation. Rock outcrop is an example.

Wagoner County, Oklahoma

DnB—Dennis silt loam, 1 to 3 percent slopes

Map Unit Setting

National map unit symbol: 2tgsq
Elevation: 460 to 1,260 feet
Mean annual precipitation: 37 to 45 inches
Mean annual air temperature: 55 to 61 degrees F
Frost-free period: 150 to 255 days
Farmland classification: All areas are prime farmland

Map Unit Composition

Dennis and similar soils: 82 percent
Minor components: 18 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Dennis

Setting

Landform: Interfluves
Landform position (two-dimensional): Summit, footslope
Landform position (three-dimensional): Interfluve, base slope
Down-slope shape: Convex
Across-slope shape: Convex
Parent material: Silty and clayey residuum weathered from shale

Typical profile

A - 0 to 11 inches: silt loam
BA - 11 to 17 inches: silty clay loam
Bt1 - 17 to 22 inches: silty clay
Bt2 - 22 to 68 inches: silty clay
C - 68 to 79 inches: silty clay loam

Properties and qualities

Slope: 1 to 3 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Somewhat poorly drained
Capacity of the most limiting layer to transmit water (Ksat): Moderately low to moderately high (0.06 to 0.20 in/hr)
Depth to water table: About 12 to 24 inches
Frequency of flooding: None
Frequency of ponding: None
Maximum salinity: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)
Available water supply, 0 to 60 inches: Moderate (about 8.5 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 2e
Hydrologic Soil Group: C/D
Ecological site: R112XY103KS - Loamy Upland
Hydric soil rating: No

Minor Components

Parsons

Percent of map unit: 5 percent
Landform: Divides
Landform position (two-dimensional): Summit
Landform position (three-dimensional): Interfluve
Down-slope shape: Concave
Across-slope shape: Concave
Ecological site: R112XY101KS - Claypan Upland
Hydric soil rating: No

Bates

Percent of map unit: 5 percent
Landform: Interfluves
Landform position (two-dimensional): Summit, shoulder
Landform position (three-dimensional): Interfluve
Down-slope shape: Convex
Across-slope shape: Convex
Ecological site: R112XY103KS - Loamy Upland
Hydric soil rating: No

Eram

Percent of map unit: 5 percent
Landform: Interfluves
Landform position (two-dimensional): Footslope
Landform position (three-dimensional): Base slope
Down-slope shape: Convex
Across-slope shape: Convex
Ecological site: R112XY102KS - Clayey Upland
Hydric soil rating: No

Kenoma

Percent of map unit: 2 percent
Landform: Interfluves
Landform position (two-dimensional): Summit
Landform position (three-dimensional): Interfluve
Down-slope shape: Convex
Across-slope shape: Convex
Ecological site: R112XY102KS - Clayey Upland
Hydric soil rating: No

Pharoah

Percent of map unit: 1 percent
Landform: Paleoterraces
Landform position (three-dimensional): Tread
Down-slope shape: Concave
Across-slope shape: Linear
Ecological site: R112XY102KS - Clayey Upland
Hydric soil rating: No

DxE—Dennis-Radley complex, 0 to 15 percent slopes

Map Unit Setting

National map unit symbol: 2wqf9
Elevation: 480 to 790 feet
Mean annual precipitation: 41 to 45 inches
Mean annual air temperature: 59 to 63 degrees F
Frost-free period: 190 to 220 days
Farmland classification: Not prime farmland

Map Unit Composition

Dennis and similar soils: 50 percent
Radley and similar soils: 30 percent
Minor components: 20 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Dennis

Setting

Landform: Hillslopes
Landform position (two-dimensional): Shoulder, backslope
Landform position (three-dimensional): Side slope
Down-slope shape: Convex
Across-slope shape: Convex
Parent material: Silty and clayey residuum weathered from shale

Typical profile

A - 0 to 11 inches: silt loam
BA - 11 to 17 inches: silty clay loam
Bt1 - 17 to 22 inches: silty clay
Bt2 - 22 to 68 inches: silty clay
C - 68 to 79 inches: silty clay loam

Properties and qualities

Slope: 3 to 15 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Somewhat poorly drained
Capacity of the most limiting layer to transmit water (Ksat): Moderately low to moderately high (0.06 to 0.20 in/hr)
Depth to water table: About 12 to 24 inches
Frequency of flooding: None
Frequency of ponding: None
Maximum salinity: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)
Available water supply, 0 to 60 inches: High (about 10.6 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 4e
Hydrologic Soil Group: C/D
Ecological site: R112XY103KS - Loamy Upland

Hydric soil rating: No

Description of Radley

Setting

Landform: Drainageways
Landform position (three-dimensional): Tread
Down-slope shape: Linear
Across-slope shape: Linear
Parent material: Silty alluvium

Typical profile

Ap - 0 to 16 inches: silt loam
Bw - 16 to 41 inches: silty clay loam
C - 41 to 79 inches: silty clay loam

Properties and qualities

Slope: 0 to 1 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Moderately well drained
Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high (0.20 to 1.98 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: Frequent
Frequency of ponding: None
Maximum salinity: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)
Available water supply, 0 to 60 inches: High (about 12.0 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 5w
Hydrologic Soil Group: B
Ecological site: R112XY120MO - Loamy Upland Drainageway
Hydric soil rating: No

Minor Components

Taloka

Percent of map unit: 10 percent
Landform: Paleoterraces
Landform position (three-dimensional): Tread
Down-slope shape: Convex
Across-slope shape: Linear
Ecological site: R112XY101KS - Claypan Upland
Hydric soil rating: No

Coweta

Percent of map unit: 5 percent
Landform: Hillslopes
Landform position (two-dimensional): Backslope
Landform position (three-dimensional): Side slope
Down-slope shape: Convex
Across-slope shape: Convex
Ecological site: R112XY105OK - Shallow Sandstone Upland
Hydric soil rating: No

Parsons

Percent of map unit: 3 percent

Landform: Divides
Landform position (two-dimensional): Summit
Landform position (three-dimensional): Interfluve
Down-slope shape: Concave
Across-slope shape: Concave
Ecological site: R112XY101KS - Claypan Upland
Hydric soil rating: No

Okemah

Percent of map unit: 2 percent
Landform: Paleoterraces
Landform position (three-dimensional): Tread
Down-slope shape: Convex
Across-slope shape: Linear
Ecological site: R112XY103KS - Loamy Upland
Hydric soil rating: No

TaB—Taloka silt loam, 1 to 3 percent slopes

Map Unit Setting

National map unit symbol: 2thf4
Elevation: 500 to 1,200 feet
Mean annual precipitation: 37 to 45 inches
Mean annual air temperature: 54 to 63 degrees F
Frost-free period: 185 to 255 days
Farmland classification: All areas are prime farmland

Map Unit Composition

Taloka and similar soils: 94 percent
Minor components: 6 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Taloka

Setting

Landform: Paleoterraces
Landform position (three-dimensional): Tread
Down-slope shape: Convex
Across-slope shape: Linear
Parent material: Loamy and clayey alluvium and/or loamy and clayey colluvium over residuum weathered from sandstone and shale

Typical profile

Ap - 0 to 8 inches: silt loam
E - 8 to 20 inches: silt loam
2Btg1 - 20 to 24 inches: silty clay
2Btg2 - 24 to 39 inches: silty clay
2BC - 39 to 59 inches: silty clay loam
2C - 59 to 79 inches: silty clay loam

Properties and qualities

Slope: 1 to 3 percent
Depth to restrictive feature: 9 to 24 inches to abrupt textural change
Drainage class: Somewhat poorly drained
Capacity of the most limiting layer to transmit water (Ksat): Very low to moderately low (0.00 to 0.06 in/hr)
Depth to water table: About 6 to 18 inches
Frequency of flooding: None
Frequency of ponding: None
Gypsum, maximum content: 6 percent
Maximum salinity: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)
Available water supply, 0 to 60 inches: Low (about 4.2 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 3s
Hydrologic Soil Group: D
Ecological site: R112XY101KS - Claypan Upland
Hydric soil rating: No

Minor Components

Dennis

Percent of map unit: 6 percent
Landform: Interfluves
Landform position (two-dimensional): Footslope
Landform position (three-dimensional): Base slope
Down-slope shape: Convex
Across-slope shape: Convex
Ecological site: R112XY103KS - Loamy Upland
Hydric soil rating: No

Soil Information for All Uses

Suitabilities and Limitations for Use

The Suitabilities and Limitations for Use section includes various soil interpretations displayed as thematic maps with a summary table for the soil map units in the selected area of interest. A single value or rating for each map unit is generated by aggregating the interpretive ratings of individual map unit components. This aggregation process is defined for each interpretation.

Land Classifications

Land Classifications are specified land use and management groupings that are assigned to soil areas because combinations of soil have similar behavior for specified practices. Most are based on soil properties and other factors that directly influence the specific use of the soil. Example classifications include ecological site classification, farmland classification, irrigated and nonirrigated land capability classification, and hydric rating.

Hydric Rating by Map Unit

This rating indicates the percentage of map units that meets the criteria for hydric soils. Map units are composed of one or more map unit components or soil types, each of which is rated as hydric soil or not hydric. Map units that are made up dominantly of hydric soils may have small areas of minor nonhydric components in the higher positions on the landform, and map units that are made up dominantly of nonhydric soils may have small areas of minor hydric components in the lower positions on the landform. Each map unit is rated based on its respective components and the percentage of each component within the map unit.

The thematic map is color coded based on the composition of hydric components. The five color classes are separated as 100 percent hydric components, 66 to 99 percent hydric components, 33 to 65 percent hydric components, 1 to 32 percent hydric components, and less than one percent hydric components.

In Web Soil Survey, the Summary by Map Unit table that is displayed below the map pane contains a column named 'Rating'. In this column the percentage of each map unit that is classified as hydric is displayed.

Hydric soils are defined by the National Technical Committee for Hydric Soils (NTCHS) as soils that formed under conditions of saturation, flooding, or ponding long enough during the growing season to develop anaerobic conditions in the upper part (Federal Register, 1994). Under natural conditions, these soils are either saturated or inundated long enough during the growing season to support the growth and reproduction of hydrophytic vegetation.

The NTCHS definition identifies general soil properties that are associated with wetness. In order to determine whether a specific soil is a hydric soil or nonhydric soil, however, more specific information, such as information about the depth and duration of the water table, is needed. Thus, criteria that identify those estimated soil properties unique to hydric soils have been established (Federal Register, 2002). These criteria are used to identify map unit components that normally are associated with wetlands. The criteria used are selected estimated soil properties that are described in "Soil Taxonomy" (Soil Survey Staff, 1999) and "Keys to Soil Taxonomy" (Soil Survey Staff, 2006) and in the "Soil Survey Manual" (Soil Survey Division Staff, 1993).

If soils are wet enough for a long enough period of time to be considered hydric, they should exhibit certain properties that can be easily observed in the field. These visible properties are indicators of hydric soils. The indicators used to make onsite determinations of hydric soils are specified in "Field Indicators of Hydric Soils in the United States" (Hurt and Vasilas, 2006).

References:

Federal Register. July 13, 1994. Changes in hydric soils of the United States.

Federal Register. September 18, 2002. Hydric soils of the United States.

Hurt, G.W., and L.M. Vasilas, editors. Version 6.0, 2006. Field indicators of hydric soils in the United States.

Soil Survey Division Staff. 1993. Soil survey manual. Soil Conservation Service. U.S. Department of Agriculture Handbook 18.

Soil Survey Staff. 1999. Soil taxonomy: A basic system of soil classification for making and interpreting soil surveys. 2nd edition. Natural Resources Conservation Service. U.S. Department of Agriculture Handbook 436.

Soil Survey Staff. 2006. Keys to soil taxonomy. 10th edition. U.S. Department of Agriculture, Natural Resources Conservation Service.

Map—Hydric Rating by Map Unit

Map Scale: 1:1,750 if printed on A portrait (8.5" x 11") sheet.

N

Meters: 0 25 50 100 150

Feet: 0 50 100 200 300

Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 15N WGS84

MAP LEGEND

Area of Interest (AOI)
- Area of Interest (AOI)

Soils

Soil Rating Polygons
- Hydric (100%)
- Hydric (66 to 99%)
- Hydric (33 to 65%)
- Hydric (1 to 32%)
- Not Hydric (0%)
- Not rated or not available

Soil Rating Lines
- Hydric (100%)
- Hydric (66 to 99%)
- Hydric (33 to 65%)
- Hydric (1 to 32%)
- Not Hydric (0%)
- Not rated or not available

Soil Rating Points
- Hydric (100%)
- Hydric (66 to 99%)
- Hydric (33 to 65%)
- Hydric (1 to 32%)
- Not Hydric (0%)
- Not rated or not available

Water Features
- Streams and Canals

Transportation
- Rails
- Interstate Highways
- US Routes
- Major Roads
- Local Roads

Background
- Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:24,000.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL:
Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Wagoner County, Oklahoma
Survey Area Data: Version 20, Sep 11, 2024

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: May 11, 2022—May 14, 2022

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Table—Hydric Rating by Map Unit

Map unit symbol	Map unit name	Rating	Acres in AOI	Percent of AOI
DnB	Dennis silt loam, 1 to 3 percent slopes	0	3.0	32.6%
DxE	Dennis-Radley complex, 0 to 15 percent slopes	0	4.0	43.9%
TaB	Taloka silt loam, 1 to 3 percent slopes	0	2.2	23.5%
Totals for Area of Interest			**9.2**	**100.0%**

Rating Options—Hydric Rating by Map Unit

Aggregation Method: Percent Present

Component Percent Cutoff: None Specified

Tie-break Rule: Lower

National Flood Hazard Layer FIRMette

FEMA

95°44'22"W 36°1'49"N

95°43'44"W 36°1'19"N

0 250 500 1,000 1,500 2,000 Feet

1:6,000

Basemap Imagery Source: USGS National Map 2023

Legend

SEE FIS REPORT FOR DETAILED LEGEND AND INDEX MAP FOR FIRM PANEL LAYOUT

SPECIAL FLOOD HAZARD AREAS
- Without Base Flood Elevation (BFE) *Zone A, V, A99*
- With BFE or Depth *Zone AE, AO, AH, VE, AR*
- Regulatory Floodway

OTHER AREAS OF FLOOD HAZARD
- 0.2% Annual Chance Flood Hazard, Areas of 1% annual chance flood with average depth less than one foot or with drainage areas of less than one square mile *Zone X*
- Future Conditions 1% Annual Chance Flood Hazard *Zone X*
- Area with Reduced Flood Risk due to Levee. See Notes. *Zone X*
- Area with Flood Risk due to Levee *Zone D*

OTHER AREAS
- NO SCREEN — Area of Minimal Flood Hazard *Zone X*
- Effective LOMRs
- Area of Undetermined Flood Hazard *Zone D*

GENERAL STRUCTURES
- Channel, Culvert, or Storm Sewer
- Levee, Dike, or Floodwall

OTHER FEATURES
- 20.2 — Cross Sections with 1% Annual Chance
- 17.5 — Water Surface Elevation
- Coastal Transect
- 513 — Base Flood Elevation Line (BFE)
- Limit of Study
- Jurisdiction Boundary
- Coastal Transect Baseline
- Profile Baseline
- Hydrographic Feature

MAP PANELS
- Digital Data Available
- No Digital Data Available
- Unmapped

N

The pin displayed on the map is an approximate point selected by the user and does not represent an authoritative property location.

This map complies with FEMA's standards for the use of digital flood maps if it is not void as described below. The basemap shown complies with FEMA's basemap accuracy standards

The flood hazard information is derived directly from the authoritative NFHL web services provided by FEMA. This map was exported on 5/22/2025 at 11:03 PM and does not reflect changes or amendments subsequent to this date and time. The NFHL and effective information may change or become superseded by new data over time.

This map image is void if the one or more of the following map elements do not appear: basemap imagery, flood zone labels, legend, scale bar, map creation date, community identifiers, FIRM panel number, and FIRM effective date. Map images for unmapped and unmodernized areas cannot be used for regulatory purposes.

Figure 5
Delineated Features Map

Aquatic Resources Delineation
D&B Processing
4600 E Gary St
Broken Arrow, OK 74014

Legend

- Project Boundary
- 3-ft Contour
- Approximate Active Construction Area
- Potential Sewage Release Footprint

Delineated Features

- Waterway - Ephemeral Stream
- Waterway - Intermittent Stream
- Wetland - Emergent
- Wetland - Forested
- Pond
- Retention Pond
- Low Wet Area

Data Points

- Upland
- Wetland

0 60 120
Feet

N

Feature symbols are not shown to scale

Apex Companies, LLC
6666 S Sheridan Rd, Ste 250
Tulsa, OK 74136
(918) 610-3543
www.apexcos.com

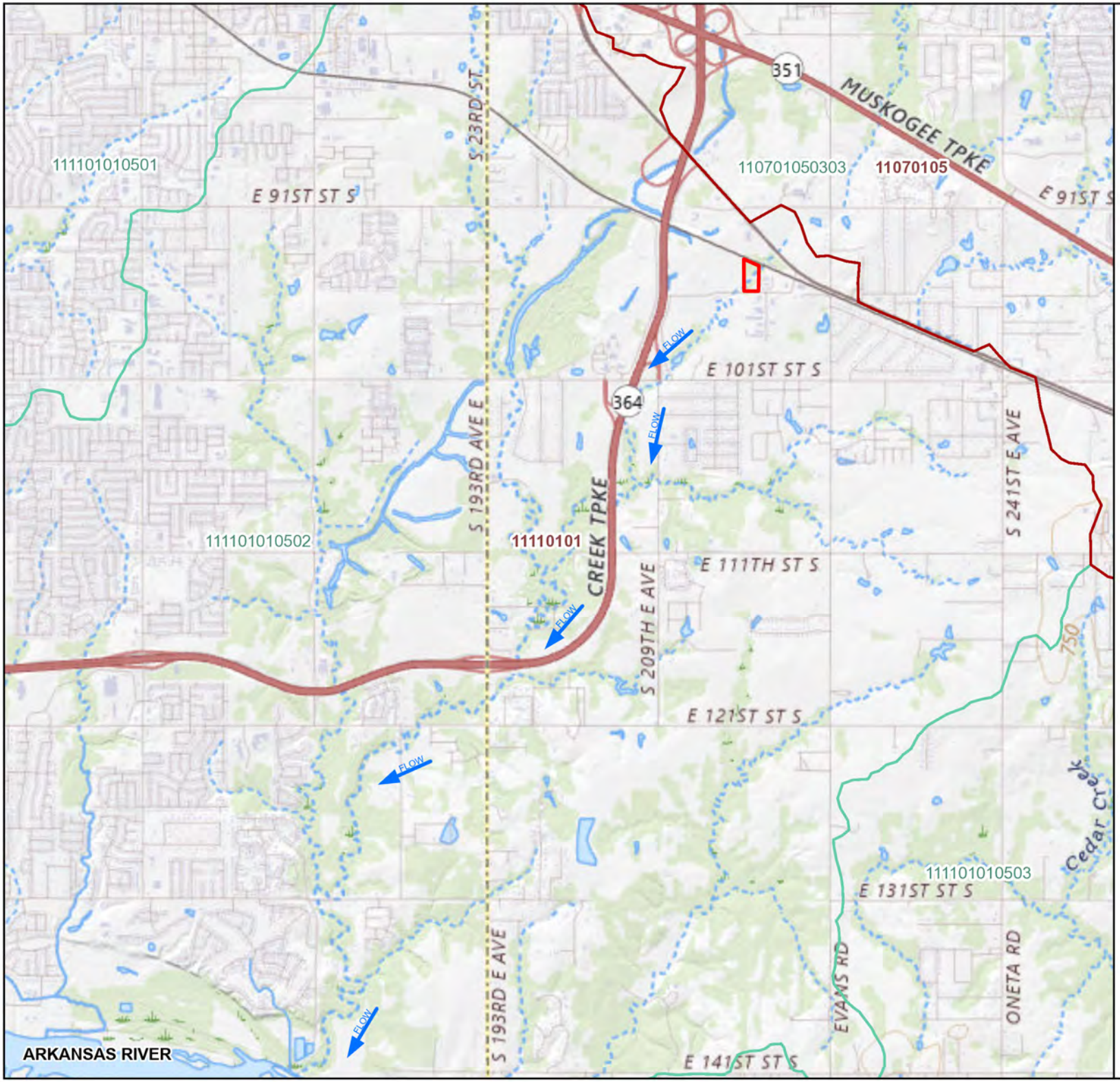


Figure 6
Watershed Map

Aquatic Resources Delineation
D&B Processing
4600 E Gary St
Broken Arrow, OK 74014

Legend

- Project Boundary
- 8-Digit HUC
- 12-Digit HUC

0 2,000 4,000
Feet

N

Feature symbols are not shown to scale

Apex Companies, LLC
6666 S Sheridan Rd, Ste 250
Tulsa, OK 74136
(918) 610-3543
www.apexcos.com

APPENDIX B

FIELD DATA FORMS

U.S. Army Corps of Engineers
WETLAND DETERMINATION DATA SHEET – Midwest Region
See ERDC/EL TR-10-16; the proponent agency is CECW-CO-R

OMB Control #: 0710-0024, Exp: 9/30/2027
Requirement Control Symbol EXEMPT:
(Authority: AR 335-15, paragraph 5-2a)

Project/Site: Laydown Yard | City/County: Broken Arrow, Wagoner County | Sampling Date: 5/14/25
Applicant/Owner: D&B Processing | State: OK | Sampling Point: DP01
Investigator(s): Gianna Spear | Section, Township, Range: Section 20 Township 18 N Range 15 E
Landform (hillside, terrace, etc.): retention pond | Local relief (concave, convex, none): concave
Slope (%): 0-1 | Lat: 36.025560 | Long: -95.733575 | Datum: WGS 1984
Soil Map Unit Name: Taloka silt loam, 1 to 3 percent slopes | NWI classification: None
Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No X (If no, explain in Remarks.)
Are Vegetation ____, Soil X, or Hydrology X significantly disturbed? Are "Normal Circumstances" present? Yes ____ No X
Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes X	No ____	**Is the Sampled Area within a Wetland?** **Yes** X **No** ____
Hydric Soil Present?	Yes X	No ____	
Wetland Hydrology Present?	Yes X	No ____	

Remarks:
According to the USACE APT, survey occurred during the wet season and conditions are wetter than normal. Since DP001 is within a retention pond, the soil and hydrology have been artificially impacted.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	=Total Cover		
Sapling/Shrub Stratum (Plot size: 15)			
1.			
2.			
3.			
4.			
5.			
	=Total Cover		
Herb Stratum (Plot size: 5)			
1. *Scirpus pendulus*	80	Yes	OBL
2. *Andropogon virginicus*	10	No	FACU
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
	90 =Total Cover		
Woody Vine Stratum (Plot size: 30)			
1.			
2.			
	=Total Cover		

Dominance Test worksheet:
Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)
Total Number of Dominant Species Across All Strata: 1 (B)
Percent of Dominant Species That Are OBL, FACW, or FAC: 100.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	80	x 1 =	80
FACW species	0	x 2 =	0
FAC species	0	x 3 =	0
FACU species	10	x 4 =	40
UPL species	0	x 5 =	0
Column Totals:	90 (A)		120 (B)

Prevalence Index = B/A = 1.33

Hydrophytic Vegetation Indicators:
____ 1 - Rapid Test for Hydrophytic Vegetation
X 2 - Dominance Test is >50%
X 3 - Prevalence Index is ≤3.0[1]
____ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
____ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** X **No** ____

Remarks: (Include photo numbers here or on a separate sheet.)

SOIL

Sampling Point: DP01

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0-4	10YR 2/2	100					Loamy/Clayey	
4-6	10YR 2/2	90	10YR 5/4	10	C	M	Loamy/Clayey	Distinct redox concentrations
6-14	10YR 2/2	80	10YR 5/4	20	C	M	Loamy/Clayey	Distinct redox concentrations

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

[2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Iron Monosulfide (A18)
- ___ Sandy Mucky Mineral (S1)
- ___ 5 cm Mucky Peat or Peat (S3)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- X Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- X Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ Iron-Manganese Masses (F12)
- ___ Red Parent Material (F21)
- ___ Very Shallow Dark Surface (F22)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** X **No** ___

Remarks:

DP001 meets hydric soil indicator F8 due to being situated in a depression

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ True Aquatic Plants (B14)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Gauge or Well Data (D9)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- X Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- X Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ___ Geomorphic Position (D2)
- X FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ___ No ___ Depth (inches): ___

Water Table Present? Yes ___ No ___ Depth (inches): ___

Saturation Present? (includes capillary fringe) Yes ___ No ___ Depth (inches): ___

Wetland Hydrology Present? **Yes** X **No** ___

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

U.S. Army Corps of Engineers
WETLAND DETERMINATION DATA SHEET – Midwest Region
See ERDC/EL TR-10-16; the proponent agency is CECW-CO-R

OMB Control #: 0710-0024, Exp: 9/30/2027
Requirement Control Symbol EXEMPT:
(Authority: AR 335-15, paragraph 5-2a)

Project/Site: Laydown Yard | City/County: Broken Arrow, Wagoner County | Sampling Date: 5/14/25
Applicant/Owner: D&B Processing | State: OK | Sampling Point: DP02
Investigator(s): Gianna Spear | Section, Township, Range: Section 20 Township 18 N Range 15 E
Landform (hillside, terrace, etc.): hillslope | Local relief (concave, convex, none): convex
Slope (%): 0-1 | Lat: 36.025645 | Long: -95.733752 | Datum: WGS 1984
Soil Map Unit Name: Taloka silt loam, 1 to 3 percent slopes | NWI classification: None
Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No X (If no, explain in Remarks.)
Are Vegetation ____, Soil X, or Hydrology X significantly disturbed? Are "Normal Circumstances" present? Yes ____ No X
Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ____	No X	**Is the Sampled Area within a Wetland?** Yes ____ No X
Hydric Soil Present?	Yes X	No ____	
Wetland Hydrology Present?	Yes ____	No X	

Remarks:
According to the USACE APT, survey occurred during the wet season and conditions are wetter than normal. DP02 is within a retention pond berm, the soil and hydrology have been artificially impacted.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	=Total Cover		
Sapling/Shrub Stratum (Plot size: 15)			
1.			
2.			
3.			
4.			
5.			
	=Total Cover		
Herb Stratum (Plot size: 5)			
1. *Bromus arvensis*	30	No	FACU
2. *Apocynum cannabinum*	15	No	FAC
3. *Sorghum halepense*	40	Yes	FACU
4. *Rubus allegheniensis*	10	No	FACU
5. *Galium aparine*	50	Yes	FACU
6. *Solidago altissima*	15	No	FACU
7. *Teucrium canadense*	10	No	FACW
8.			
9.			
10.			
	170 =Total Cover		
Woody Vine Stratum (Plot size: 30)			
1.			
2.			
	=Total Cover		

Dominance Test worksheet:
Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)
Total Number of Dominant Species Across All Strata: 2 (B)
Percent of Dominant Species That Are OBL, FACW, or FAC: 0.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	10	x 2 =	20
FAC species	15	x 3 =	45
FACU species	145	x 4 =	580
UPL species	0	x 5 =	0
Column Totals:	170 (A)		645 (B)

Prevalence Index = B/A = 3.79

Hydrophytic Vegetation Indicators:
___ 1 - Rapid Test for Hydrophytic Vegetation
___ 2 - Dominance Test is >50%
___ 3 - Prevalence Index is ≤3.0[1]
___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes ____ No X

Remarks: (Include photo numbers here or on a separate sheet.)

SOIL

Sampling Point: DP02

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0-5	10YR 2/2	100					Loamy/Clayey	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

[2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Iron Monosulfide (A18)
- ___ Sandy Mucky Mineral (S1)
- ___ 5 cm Mucky Peat or Peat (S3)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- X Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ Iron-Manganese Masses (F12)
- ___ Red Parent Material (F21)
- ___ Very Shallow Dark Surface (F22)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: compaction

Depth (inches): 5

Hydric Soil Present? **Yes** X **No** ___

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ True Aquatic Plants (B14)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Gauge or Well Data (D9)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ___ Geomorphic Position (D2)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ___ No ___ Depth (inches): ___

Water Table Present? Yes ___ No ___ Depth (inches): ___

Saturation Present? (includes capillary fringe) Yes ___ No ___ Depth (inches): ___

Wetland Hydrology Present? **Yes** ___ **No** X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

U.S. Army Corps of Engineers
WETLAND DETERMINATION DATA SHEET – Midwest Region
See ERDC/EL TR-10-16; the proponent agency is CECW-CO-R

OMB Control #: 0710-0024, Exp: 9/30/2027
Requirement Control Symbol EXEMPT:
(Authority: AR 335-15, paragraph 5-2a)

Project/Site: Laydown Yard | City/County: Broken Arrow, Wagoner County | Sampling Date: 5/16/25
Applicant/Owner: D&B Processing | State: OK | Sampling Point: DP03
Investigator(s): Gianna Spear | Section, Township, Range: Section 20 Township 18 N Range 15 E
Landform (hillside, terrace, etc.): floodplain | Local relief (concave, convex, none): concave
Slope (%): 0-1 | Lat: 36.025747 | Long: -95.734110 | Datum: WGS 1984
Soil Map Unit Name: Dennis-Radley complex, 0 to 15 percent slopes | NWI classification: None
Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No X (If no, explain in Remarks.)
Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes ____ No X
Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes X	No ____	**Is the Sampled Area within a Wetland?** Yes ____ No X
Hydric Soil Present?	Yes ____	No X	
Wetland Hydrology Present?	Yes ____	No X	

Remarks:
According to the USACE APT, survey occurred during the wet season and conditions are wetter than normal.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	=Total Cover		
Sapling/Shrub Stratum (Plot size: 15)			
1.			
2.			
3.			
4.			
5.			
	=Total Cover		
Herb Stratum (Plot size: 5)			
1. *Carex vulpinoidea*	80	Yes	FACW
2. *Scirpus pendulus*	5	No	OBL
3. *Lonicera japonica*	15	No	FACU
4. *Rubus allegheniensis*	5	No	FACU
5. *Bidens aristosa*	30	Yes	FACW
6. *Toxicodendron radicans*	10	No	FAC
7.			
8.			
9.			
10.			
	145 =Total Cover		
Woody Vine Stratum (Plot size: 30)			
1.			
2.			
	=Total Cover		

Dominance Test worksheet:
Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)
Total Number of Dominant Species Across All Strata: 2 (B)
Percent of Dominant Species That Are OBL, FACW, or FAC: 100.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	5	x 1 =	5
FACW species	110	x 2 =	220
FAC species	10	x 3 =	30
FACU species	20	x 4 =	80
UPL species	0	x 5 =	0
Column Totals:	145 (A)		335 (B)
Prevalence Index = B/A =			2.31

Hydrophytic Vegetation Indicators:
____ 1 - Rapid Test for Hydrophytic Vegetation
X 2 - Dominance Test is >50%
____ 3 - Prevalence Index is ≤3.0[1]
____ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
____ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes X No ____

Remarks: (Include photo numbers here or on a separate sheet.)

SOIL

Sampling Point: DP03

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0-15	10YR 2/1	100					Loamy/Clayey	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

[2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Iron Monosulfide (A18)
- ___ Sandy Mucky Mineral (S1)
- ___ 5 cm Mucky Peat or Peat (S3)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ Iron-Manganese Masses (F12)
- ___ Red Parent Material (F21)
- ___ Very Shallow Dark Surface (F22)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** ___ **No** X

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ True Aquatic Plants (B14)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Gauge or Well Data (D9)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ___ Geomorphic Position (D2)
- X FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ___	No X	Depth (inches): ___
Water Table Present?	Yes X	No ___	Depth (inches): 16
Saturation Present? (includes capillary fringe)	Yes X	No ___	Depth (inches): 15

Wetland Hydrology Present? **Yes** ___ **No** X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

U.S. Army Corps of Engineers
WETLAND DETERMINATION DATA SHEET – Midwest Region
See ERDC/EL TR-10-16; the proponent agency is CECW-CO-R

OMB Control #: 0710-0024, Exp: 9/30/2027
Requirement Control Symbol EXEMPT:
(Authority: AR 335-15, paragraph 5-2a)

Project/Site: Laydown Yard | City/County: Broken Arrow, Wagoner County | Sampling Date: 5/16/25
Applicant/Owner: D&B Processing | State: OK | Sampling Point: DP04
Investigator(s): Gianna Spear | Section, Township, Range: Section 20 Township 18 N Range 15 E
Landform (hillside, terrace, etc.): riparian edge | Local relief (concave, convex, none): concave
Slope (%): 1-2 | Lat: 36.025883 | Long: -95.734110 | Datum: WGS 1984
Soil Map Unit Name: Dennis-Radley complex, 0 to 15 percent slopes | NWI classification: PFO1A
Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No X (If no, explain in Remarks.)
Are Vegetation X, Soil X, or Hydrology X significantly disturbed? Are "Normal Circumstances" present? Yes ____ No X
Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes X	No ____	**Is the Sampled Area within a Wetland?** **Yes** X **No** ____
Hydric Soil Present?	Yes X	No ____	
Wetland Hydrology Present?	Yes X	No ____	

Remarks:
According to the USACE APT, survey occurred during the wet season and conditions are wetter than normal. Significant earthwork activities and local sewage release have impacted soil, vegetation, and hydrology. Data point taken outside of disturbance area, but full extent of wetland was estimated.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	____ =Total Cover		
Sapling/Shrub Stratum (Plot size: 15)			
1. *Salix nigra*	10	Yes	OBL
2. *Populus deltoides*	7	Yes	FAC
3.			
4.			
5.			
	17 =Total Cover		
Herb Stratum (Plot size: 5)			
1. *Rumex verticillatus*	25	Yes	OBL
2. *Bidens aristosa*	30	Yes	FACW
3. *Vitis aestivalis*	5	No	FACU
4. *Solidago altissima*	15	Yes	FACU
5. *Toxicodendron radicans*	10	No	FAC
6. *Salix nigra*	10	No	OBL
7. *Erigeron annuus*	5	No	FACU
8. *Rosa setigera*	7	No	FACU
9. *Carex vulpinoidea*	15	Yes	FACW
10.			
	122 =Total Cover		
Woody Vine Stratum (Plot size: 30)			
1.			
2.			
	____ =Total Cover		

Dominance Test worksheet:
Number of Dominant Species That Are OBL, FACW, or FAC: 5 (A)
Total Number of Dominant Species Across All Strata: 6 (B)
Percent of Dominant Species That Are OBL, FACW, or FAC: 83.3% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	45	x 1 =	45
FACW species	45	x 2 =	90
FAC species	17	x 3 =	51
FACU species	32	x 4 =	128
UPL species	0	x 5 =	0
Column Totals:	139 (A)		314 (B)
Prevalence Index = B/A =			2.26

Hydrophytic Vegetation Indicators:
____ 1 - Rapid Test for Hydrophytic Vegetation
X 2 - Dominance Test is >50%
X 3 - Prevalence Index is ≤3.0[1]
____ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
____ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** X **No** ____

Remarks: (Include photo numbers here or on a separate sheet.)

SOIL

Sampling Point: DP04

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0-4	10YR 2/1	100					Loamy/Clayey	
4-14	10YR 2/1	95	10YR 3/3	5	C	M	Loamy/Clayey	Distinct redox concentrations

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

[2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Iron Monosulfide (A18)
- ___ Sandy Mucky Mineral (S1)
- ___ 5 cm Mucky Peat or Peat (S3)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- X Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ Iron-Manganese Masses (F12)
- ___ Red Parent Material (F21)
- ___ Very Shallow Dark Surface (F22)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** X **No** ___

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- X Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ True Aquatic Plants (B14)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Gauge or Well Data (D9)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ___ Geomorphic Position (D2)
- X FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes X	No ___	Depth (inches): 1
Water Table Present?	Yes X	No ___	Depth (inches): 15
Saturation Present? (includes capillary fringe)	Yes X	No ___	Depth (inches): 13

Wetland Hydrology Present? **Yes** X **No** ___

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

U.S. Army Corps of Engineers
WETLAND DETERMINATION DATA SHEET – Midwest Region
See ERDC/EL TR-10-16; the proponent agency is CECW-CO-R

OMB Control #: 0710-0024, Exp: 9/30/2027
Requirement Control Symbol EXEMPT:
(Authority: AR 335-15, paragraph 5-2a)

Project/Site: Laydown Yard | City/County: Broken Arrow, Wagoner County | Sampling Date: 5/16/25
Applicant/Owner: D&B Processing | State: OK | Sampling Point: DP05
Investigator(s): Gianna Spear | Section, Township, Range: Section 20 Township 18 N Range 15 E
Landform (hillside, terrace, etc.): riparian edge | Local relief (concave, convex, none): convex
Slope (%): 1-2 | Lat: 36.025948 | Long: -95.734228 | Datum: WGS 1984
Soil Map Unit Name: Dennis-Radley complex, 0 to 15 percent slopes | NWI classification: PFO1A
Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No X (If no, explain in Remarks.)
Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes ____ No X
Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes ____ No X
Hydric Soil Present? Yes ____ No X
Wetland Hydrology Present? Yes ____ No X

Is the Sampled Area within a Wetland? **Yes** ____ **No** X

Remarks:
According to the USACE APT, survey occurred during the wet season and conditions are wetter than normal.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	=Total Cover		
Sapling/Shrub Stratum (Plot size: 15)			
1.			
2.			
3.			
4.			
5.			
	=Total Cover		
Herb Stratum (Plot size: 5)			
1. *Symphoricarpos orbiculatus*	90	Yes	FACU
2. *Toxicodendron radicans*	15	No	FAC
3. *Ambrosia artemisiifolia*	5	No	FACU
4. *Rubus allegheniensis*	20	No	FACU
5. *Vitis aestivalis*	5	No	FACU
6. *Rosa setigera*	7	No	FACU
7.			
8.			
9.			
10.			
	142 =Total Cover		
Woody Vine Stratum (Plot size: 30)			
1.			
2.			
	=Total Cover		

Dominance Test worksheet:
Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)
Total Number of Dominant Species Across All Strata: 1 (B)
Percent of Dominant Species That Are OBL, FACW, or FAC: 0.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	15	x 3 =	45
FACU species	127	x 4 =	508
UPL species	0	x 5 =	0
Column Totals:	142 (A)		553 (B)

Prevalence Index = B/A = 3.89

Hydrophytic Vegetation Indicators:
___ 1 - Rapid Test for Hydrophytic Vegetation
___ 2 - Dominance Test is >50%
___ 3 - Prevalence Index is ≤3.0[1]
___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** ____ **No** X

Remarks: (Include photo numbers here or on a separate sheet.)

SOIL

Sampling Point: DP05

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0-11	10YR 2/1	100					Loamy/Clayey	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

[2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Iron Monosulfide (A18)
- ___ Sandy Mucky Mineral (S1)
- ___ 5 cm Mucky Peat or Peat (S3)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ Iron-Manganese Masses (F12)
- ___ Red Parent Material (F21)
- ___ Very Shallow Dark Surface (F22)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: roots

Depth (inches): 11

Hydric Soil Present? **Yes** ___ **No** X

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ True Aquatic Plants (B14)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Gauge or Well Data (D9)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ___ Geomorphic Position (D2)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ___ No ___ Depth (inches): ___

Water Table Present? Yes ___ No ___ Depth (inches): ___

Saturation Present? (includes capillary fringe) Yes ___ No ___ Depth (inches): ___

Wetland Hydrology Present? **Yes** ___ **No** X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

U.S. Army Corps of Engineers
WETLAND DETERMINATION DATA SHEET – Midwest Region
See ERDC/EL TR-10-16; the proponent agency is CECW-CO-R

OMB Control #: 0710-0024, Exp: 9/30/2027
Requirement Control Symbol EXEMPT:
(Authority: AR 335-15, paragraph 5-2a)

Project/Site: Laydown Yard | City/County: Broken Arrow, Wagoner County | Sampling Date: 5/16/25
Applicant/Owner: D&B Processing | State: OK | Sampling Point: DP06
Investigator(s): Gianna Spear | Section, Township, Range: Section 20 Township 18 N Range 15 E
Landform (hillside, terrace, etc.): depression | Local relief (concave, convex, none): concave
Slope (%): 1-2 | Lat: 36.027007 | Long: -95.733802 | Datum: WGS 1984
Soil Map Unit Name: Dennis silt loam, 1 to 3 percent slopes | NWI classification: PFO1A
Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No X (If no, explain in Remarks.)
Are Vegetation ____, Soil X, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes ____ No X
Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes X	No ____	**Is the Sampled Area within a Wetland?** **Yes** X **No** ____
Hydric Soil Present?	Yes X	No ____	
Wetland Hydrology Present?	Yes X	No ____	

Remarks:
According to the USACE APT, survey occurred during the wet season and conditions are wetter than normal. DP06 located on historic earthen crossing over forested wetland.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30)	Absolute % Cover	Dominant Species?	Indicator Status
1. *Salix nigra*	10	Yes	OBL
2. *Ulmus americana*	5	Yes	FACW
3.			
4.			
5.			
	15	=Total Cover	
Sapling/Shrub Stratum (Plot size: 15)			
1. *Salix nigra*	50	Yes	OBL
2. *Platanus occidentalis*	5	No	FACW
3.			
4.			
5.			
	55	=Total Cover	
Herb Stratum (Plot size: 5)			
1. *Eleocharis palustris*	80	Yes	OBL
2. *Eupatorium serotinum*	15	No	FAC
3. *Toxicodendron radicans*	30	Yes	FAC
4. *Sorghum halepense*	5	No	FACU
5. *Penstemon digitalis*	7	No	FAC
6. *Platanus occidentalis*	5	No	FACW
7.			
8.			
9.			
10.			
	142	=Total Cover	
Woody Vine Stratum (Plot size: 30)			
1.			
2.			
		=Total Cover	

Dominance Test worksheet:
Number of Dominant Species That Are OBL, FACW, or FAC: 5 (A)
Total Number of Dominant Species Across All Strata: 5 (B)
Percent of Dominant Species That Are OBL, FACW, or FAC: 100.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	140	x 1 =	140
FACW species	15	x 2 =	30
FAC species	52	x 3 =	156
FACU species	5	x 4 =	20
UPL species	0	x 5 =	0
Column Totals:	212 (A)		346 (B)

Prevalence Index = B/A = 1.63

Hydrophytic Vegetation Indicators:
____ 1 - Rapid Test for Hydrophytic Vegetation
X 2 - Dominance Test is >50%
X 3 - Prevalence Index is ≤3.0[1]
____ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
____ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** X **No** ____

Remarks: (Include photo numbers here or on a separate sheet.)

SOIL

Sampling Point: DP06

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0-7	10YR 4/2	70	10YR 6/4	30	C	M	Loamy/Clayey	Distinct redox concentrations

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

[2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Iron Monosulfide (A18)
- ___ Sandy Mucky Mineral (S1)
- ___ 5 cm Mucky Peat or Peat (S3)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- X Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ Iron-Manganese Masses (F12)
- ___ Red Parent Material (F21)
- ___ Very Shallow Dark Surface (F22)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** X **No** ___

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- X Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ True Aquatic Plants (B14)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Gauge or Well Data (D9)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- X Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ___ Geomorphic Position (D2)
- X FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes X	No ___	Depth (inches): 6		
Water Table Present?	Yes ___	No X	Depth (inches): ___		
Saturation Present? (includes capillary fringe)	Yes ___	No X	Depth (inches): ___	**Wetland Hydrology Present?**	**Yes** X **No** ___

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Datapoint was taken on earthen crossing, surface water was present on either side up to 6 inches. Saturation visible on 2018 aerial imagery. Wetland is obscured by tree cover in more recent aerial imagery.

U.S. Army Corps of Engineers
WETLAND DETERMINATION DATA SHEET – Midwest Region
See ERDC/EL TR-10-16; the proponent agency is CECW-CO-R

OMB Control #: 0710-0024, Exp: 9/30/2027
Requirement Control Symbol EXEMPT:
(Authority: AR 335-15, paragraph 5-2a)

Project/Site: Laydown Yard | City/County: Broken Arrow, Wagoner County | Sampling Date: 5/16/25
Applicant/Owner: D&B Processing | State: OK | Sampling Point: DP07
Investigator(s): Gianna Spear | Section, Township, Range: Section 20 Township 18 N Range 15 E
Landform (hillside, terrace, etc.): hillslope | Local relief (concave, convex, none): convex
Slope (%): 3-5 | Lat: 36.027023 | Long: -95.734076 | Datum: WGS 1984
Soil Map Unit Name: Dennis silt loam, 1 to 3 percent slopes | NWI classification: None
Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No X (If no, explain in Remarks.)
Are Vegetation ____, Soil X, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes ____ No X
Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes ____ No X
Hydric Soil Present? Yes ____ No X
Wetland Hydrology Present? Yes ____ No X

Is the Sampled Area within a Wetland? **Yes** ____ **No** X

Remarks:
According to the USACE APT, survey occurred during the wet season and conditions are wetter than normal. DP06 located on historic earthen crossing over forested wetland.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30)	Absolute % Cover	Dominant Species?	Indicator Status
1. *Fraxinus pennsylvanica*	20	Yes	FACW
2.			
3.			
4.			
5.			
	20	=Total Cover	
Sapling/Shrub Stratum (Plot size: 15)			
1. *Ligustrum sinense*	20	Yes	FACU
2.			
3.			
4.			
5.			
	20	=Total Cover	
Herb Stratum (Plot size: 5)			
1. *Symphoricarpos orbiculatus*	30	Yes	FACU
2. *Rubus allegheniensis*	40	Yes	FACU
3. *Sorghum halepense*	10	No	FACU
4. *Rosa setigera*	30	Yes	FACU
5. *Solidago altissima*	5	No	FACU
6.			
7.			
8.			
9.			
10.			
	115	=Total Cover	
Woody Vine Stratum (Plot size: 30)			
1.			
2.			
		=Total Cover	

Dominance Test worksheet:
Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)
Total Number of Dominant Species Across All Strata: 5 (B)
Percent of Dominant Species That Are OBL, FACW, or FAC: 20.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	20	x 2 =	40
FAC species	0	x 3 =	0
FACU species	135	x 4 =	540
UPL species	0	x 5 =	0
Column Totals:	155 (A)		580 (B)

Prevalence Index = B/A = 3.74

Hydrophytic Vegetation Indicators:
____ 1 - Rapid Test for Hydrophytic Vegetation
____ 2 - Dominance Test is >50%
____ 3 - Prevalence Index is ≤3.0[1]
____ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
____ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** ____ **No** X

Remarks: (Include photo numbers here or on a separate sheet.)

SOIL

Sampling Point: DP07

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0-8	10YR 2/1	100					Loamy/Clayey	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

[2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Iron Monosulfide (A18)
- ___ Sandy Mucky Mineral (S1)
- ___ 5 cm Mucky Peat or Peat (S3)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ Iron-Manganese Masses (F12)
- ___ Red Parent Material (F21)
- ___ Very Shallow Dark Surface (F22)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: compaction

Depth (inches): 8

Hydric Soil Present? **Yes** ___ **No** X

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ True Aquatic Plants (B14)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Gauge or Well Data (D9)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- X Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ___ Geomorphic Position (D2)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ___	No X	Depth (inches): ___
Water Table Present?	Yes ___	No X	Depth (inches): ___
Saturation Present? (includes capillary fringe)	Yes ___	No X	Depth (inches): ___

Wetland Hydrology Present? **Yes** ___ **No** X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

U.S. Army Corps of Engineers
WETLAND DETERMINATION DATA SHEET – Midwest Region
See ERDC/EL TR-10-16; the proponent agency is CECW-CO-R

OMB Control #: 0710-0024, Exp: 9/30/2027
Requirement Control Symbol EXEMPT:
(Authority: AR 335-15, paragraph 5-2a)

Project/Site: Laydown Yard | City/County: Broken Arrow, Wagoner County | Sampling Date: 5/16/25
Applicant/Owner: D&B Processing | State: OK | Sampling Point: DP08
Investigator(s): Gianna Spear | Section, Township, Range: Section 20 Township 18 N Range 15 E
Landform (hillside, terrace, etc.): depression | Local relief (concave, convex, none): concave
Slope (%): 3-5 | Lat: 36.026045 | Long: -95.733736 | Datum: WGS 1984
Soil Map Unit Name: Dennis-Radley complex, 0 to 15 percent slopes | NWI classification: None
Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No X (If no, explain in Remarks.)
Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes ____ No X
Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes X	No ____	**Is the Sampled Area within a Wetland?** **Yes** X **No** ____
Hydric Soil Present?	Yes X	No ____	
Wetland Hydrology Present?	Yes X	No ____	

Remarks:
According to the USACE APT, survey occurred during the wet season and conditions are wetter than normal.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	=Total Cover		
Sapling/Shrub Stratum (Plot size: 15)			
1.			
2.			
3.			
4.			
5.			
	=Total Cover		
Herb Stratum (Plot size: 5)			
1. *Carex vulpinoidea*	30	Yes	FACW
2. *Typha latifolia*	15	No	OBL
3. *Rumex verticillatus*	15	No	OBL
4. *Eupatorium serotinum*	10	No	FAC
5. *Juncus spp.*	75	Yes	FACW
6. *Teucrium canadense*	5	No	FACW
7.			
8.			
9.			
10.			
	150 =Total Cover		
Woody Vine Stratum (Plot size: 30)			
1.			
2.			
	=Total Cover		

Dominance Test worksheet:
Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)
Total Number of Dominant Species Across All Strata: 2 (B)
Percent of Dominant Species That Are OBL, FACW, or FAC: 100.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	30	x 1 =	30
FACW species	110	x 2 =	220
FAC species	10	x 3 =	30
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	150 (A)		280 (B)

Prevalence Index = B/A = 1.87

Hydrophytic Vegetation Indicators:
____ 1 - Rapid Test for Hydrophytic Vegetation
X 2 - Dominance Test is >50%
X 3 - Prevalence Index is ≤3.0[1]
____ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
____ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** X **No** ____

Remarks: (Include photo numbers here or on a separate sheet.)
No inflorescence observed on the rush (Juncus spp.). Given presence in depression with only species that are designated either FACW or OBL, the rush species is likely FACW.

SOIL

Sampling Point: DP08

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0-3	10YR 2/2	100					Loamy/Clayey	
3-13	10YR 2/2	95	10YR 3/6	5	C	M	Loamy/Clayey	Prominent redox concentrations

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

[2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Iron Monosulfide (A18)
- ___ Sandy Mucky Mineral (S1)
- ___ 5 cm Mucky Peat or Peat (S3)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- X Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ Iron-Manganese Masses (F12)
- ___ Red Parent Material (F21)
- ___ Very Shallow Dark Surface (F22)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** X **No** X

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- X High Water Table (A2)
- X Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ True Aquatic Plants (B14)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Gauge or Well Data (D9)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ___ Geomorphic Position (D2)
- X FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ___	No X	Depth (inches): ___
Water Table Present?	Yes X	No ___	Depth (inches): 11
Saturation Present? (includes capillary fringe)	Yes X	No ___	Depth (inches): 9

Wetland Hydrology Present? **Yes** X **No** ___

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

U.S. Army Corps of Engineers
WETLAND DETERMINATION DATA SHEET – Midwest Region
See ERDC/EL TR-10-16; the proponent agency is CECW-CO-R

OMB Control #: 0710-0024, Exp: 9/30/2027
Requirement Control Symbol EXEMPT:
(Authority: AR 335-15, paragraph 5-2a)

Project/Site: Laydown Yard | City/County: Broken Arrow, Wagoner County | Sampling Date: 5/16/25
Applicant/Owner: D&B Processing | State: OK | Sampling Point: DP09
Investigator(s): Gianna Spear | Section, Township, Range: Section 20 Township 18 N Range 15 E
Landform (hillside, terrace, etc.): hillslope | Local relief (concave, convex, none): convex
Slope (%): 3-5 | Lat: 36.026180 | Long: -95.733450 | Datum: WGS 1984
Soil Map Unit Name: Taloka silt loam, 1 to 3 percent slopes | NWI classification: None
Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No X (If no, explain in Remarks.)
Are Vegetation____, Soil____, or Hydrology____ significantly disturbed? Are "Normal Circumstances" present? Yes ____ No X
Are Vegetation____, Soil____, or Hydrology____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ____	No X
Hydric Soil Present?	Yes ____	No X
Wetland Hydrology Present?	Yes ____	No X

Is the Sampled Area within a Wetland? Yes ____ No X

Remarks:
According to the USACE APT, survey occurred during the wet season and conditions are wetter than normal.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	=Total Cover		
Sapling/Shrub Stratum (Plot size: 15)			
1.			
2.			
3.			
4.			
5.			
	=Total Cover		
Herb Stratum (Plot size: 5)			
1. *Rhus copallinum*	50	Yes	UPL
2. *Rubus allegheniensis*	15	No	FACU
3. *Solidago altissima*	60	Yes	FACU
4. *Lonicera japonica*	60	Yes	FACU
5. *Carex bushii*	10	No	FAC
6.			
7.			
8.			
9.			
10.			
	195 =Total Cover		
Woody Vine Stratum (Plot size: 30)			
1.			
2.			
	=Total Cover		

Dominance Test worksheet:
Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)
Total Number of Dominant Species Across All Strata: 3 (B)
Percent of Dominant Species That Are OBL, FACW, or FAC: 0.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	10	x 3 =	30
FACU species	135	x 4 =	540
UPL species	50	x 5 =	250
Column Totals:	195 (A)		820 (B)

Prevalence Index = B/A = 4.21

Hydrophytic Vegetation Indicators:
____ 1 - Rapid Test for Hydrophytic Vegetation
____ 2 - Dominance Test is >50%
____ 3 - Prevalence Index is ≤3.0[1]
____ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
____ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes ____ No X

Remarks: (Include photo numbers here or on a separate sheet.)

SOIL

Sampling Point: DP09

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-8	10YR 2/2	100					Loamy/Clayey	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

[2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Iron Monosulfide (A18)
- ___ Sandy Mucky Mineral (S1)
- ___ 5 cm Mucky Peat or Peat (S3)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ Iron-Manganese Masses (F12)
- ___ Red Parent Material (F21)
- ___ Very Shallow Dark Surface (F22)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** ___ **No** X

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ True Aquatic Plants (B14)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Gauge or Well Data (D9)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ___ Geomorphic Position (D2)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ___	No X	Depth (inches): ___
Water Table Present?	Yes ___	No X	Depth (inches): ___
Saturation Present? (includes capillary fringe)	Yes ___	No X	Depth (inches): ___

Wetland Hydrology Present? **Yes** ___ **No** X

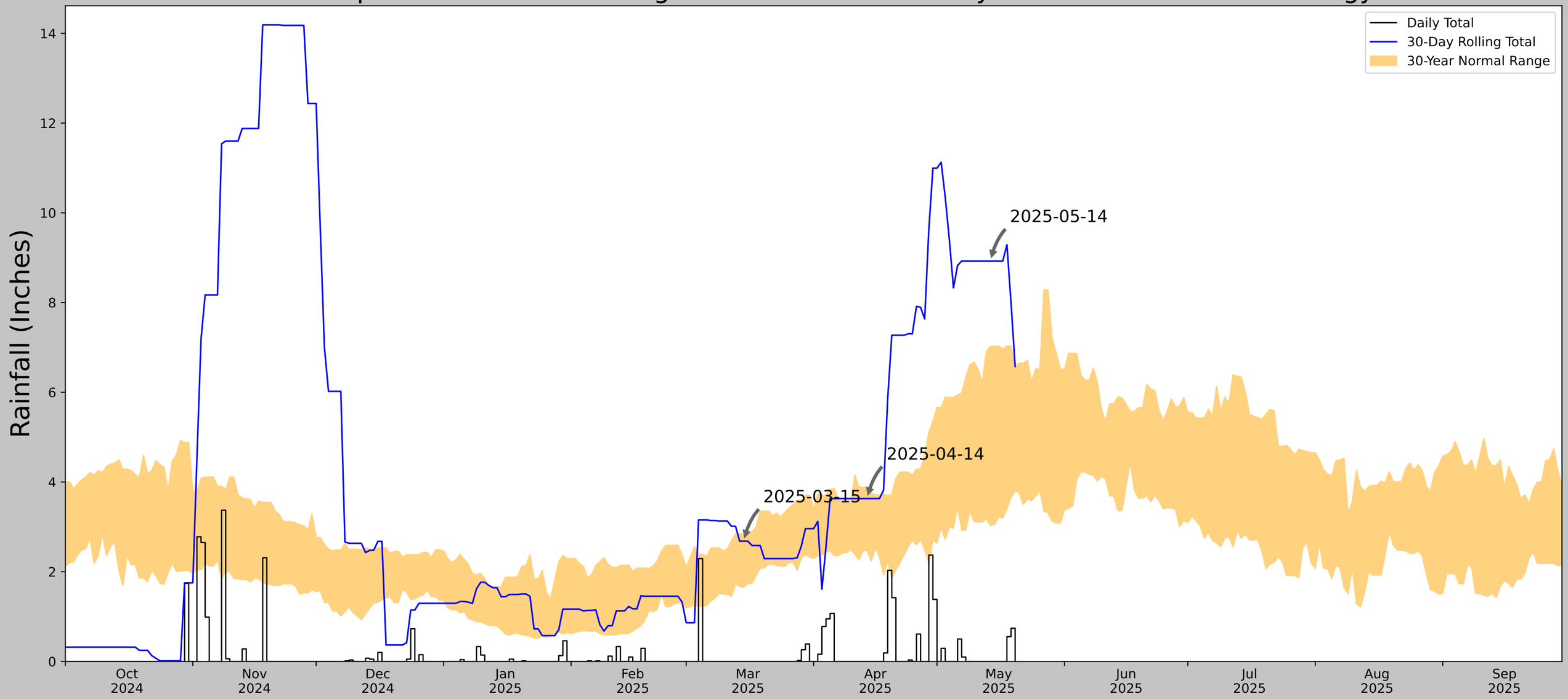
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

APPENDIX C

ANTECEDENT PRECIPITATION TOOL

Antecedent Precipitation vs Normal Range based on NOAA's Daily Global Historical Climatology Network



Coordinates	36.025779, -95.734195
Observation Date	2025-05-14
Elevation (ft)	691.554
Drought Index (PDSI)	Mild wetness (2025-04)
WebWIMP H_2O Balance	Wet Season

30 Days Ending	30^{th} %ile (in)	70^{th} %ile (in)	Observed (in)	Wetness Condition	Condition Value	Month Weight	Product
2025-05-14	3.029134	7.023622	8.925197	Wet	3	3	9
2025-04-14	2.475197	3.886614	3.629921	Normal	2	2	4
2025-03-15	1.651969	2.830709	2.681102	Normal	2	1	2
Result							Wetter than Normal - 15

US Army Corps of Engineers

ERDC ENGINEER RESEARCH & DEVELOPMENT CENTER

Figures and tables made by the Antecedent Precipitation Tool Version 2.0

Developed by: U.S. Army Corps of Engineers and U.S. Army Engineer Research and Development Center

Weather Station Name	Coordinates	Elevation (ft)	Distance (mi)	Elevation Δ	Weighted Δ	Days Normal	Days Antecedent
TULSA INTL AP	36.1986, -95.8783	639.108	14.397	52.446	7.234	11352	90
TULSA RICHARD L JONES JR AP	36.0425, -95.9903	620.079	12.466	19.029	5.847	1	0

APPENDIX D

PHOTOGRAPHIC LOG

Photograph 1

LOCATION: SW Corner of Project

Notes: Example of herbaceous upland vegetation community.

Photograph 2

LOCATION: NW Corner of Project

Notes: Example of forested upland vegetation community.

Photograph 3

LOCATION: WW01 (Waterway 01)

Notes: Intermittent stream with sediment bed. Facing upstream.

Photograph 4 LOCATION: WW01 Notes: Example of earthwork activities potentially altering turbidity, flow rate, and flow path by sediment deposition.	
Photograph 5 LOCATION: WW02 Notes: Intermittent stream with sediment bed. Facing upstream.	
Photograph 6 LOCATION: WW02 Notes: Example of vehicle traffic impact potentially altering turbidity, flow rate, and flow path. Facing downstream.	

Photograph 7 LOCATION: WW03 Notes: Intermittent stream with sediment bed. Facing downstream.	
Photograph 8 LOCATION: WW04 Notes: Ephemeral stream with intermittent OHWM. Facing upstream.	
Photograph 9 LOCATION: WET01-PEM (Palustrine Emergent Wetland 01) and DP01 Notes: DP01 (Data Point 01) met all three wetland criteria. WET01-PEM is within retention pond.	

Photograph 10 LOCATION: DP01 Notes: Soil sample. Evidence of hydric soil observed.	
Photograph 11 LOCATION: DP02 Notes: DP02 is upland reference data point for WET01-PEM, located on retention pond berm.	
Photograph 12 LOCATION: DP02 Notes: Soil sample. No evidence of hydric soil observed.	

Photograph 13 LOCATION: DP03 Notes: DP03 is upland reference data point for WET02-PEM.	
Photograph 14 LOCATION: DP03 Notes: Soil sample. No evidence of hydric soil observed.	
Photograph 15 LOCATION: WET02-PEM and DP04 Notes: DP04 met all three wetland criteria. WET02-PEM directly abuts WW01.	

Photograph 16 LOCATION: DP04 Notes: Soil sample. Evidence of hydric soil observed.	
Photograph 17 LOCATION: DP05 Notes: DP05 is upland data point to confirm extent of WET02-PEM.	
Photograph 18 LOCATION: DP05 Notes: Soil sample. No evidence of hydric soil observed.	

Photograph 19 LOCATION: WET03-PFO and DP06 Notes: DP06 met all three wetland criteria. WET03-PFO is adjacent to active construction and impacted sewage release on its southeastern extent. Photo taken from northern extent.	
Photograph 20 LOCATION: DP06 Notes: Soil sample. Evidence of hydric soil observed.	
Photograph 21 LOCATION: DP07 Notes: DP07 is upland reference data point for WET03-PFO.	

Photograph 22 LOCATION: DP07 Notes: Soil sample. No evidence of hydric soil observed.	
Photograph 23 LOCATION: WET02-PEM and DP08 Notes: DP08 is wetland reference data point to confirm extent of WET02-PEM.	
Photograph 24 LOCATION: DP08 Notes: Soil sample. Evidence of hydric soil observed.	

Photograph 25 LOCATION: DP09 Notes: DP09 is upland reference data point for WET02-PEM.	
Photograph 26 LOCATION: DP09 Notes: Soil sample. No evidence of hydric soil observed.	
Photograph 27 LOCATION: Central portion of Project and WET03-PFO Notes: Sewer line right-of-way (ROW) active construction and portion of WET03-PFO.	

Photograph 28 LOCATION: Adjacent to sewer line ROW Notes: Evidence of earthwork activities and pooling.	
Photograph 29 LOCATION: WB01 (Waterbody 01) Notes: Pond located near earthwork activities.	

EXHIBIT B

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918-440-3186
daryl-worley@sbcglobal.net

THE SON SHINES!

PROFESSIONAL ENGINEER
DARYL LELAND WORLEY
19305
REGISTERED
OKLAHOMA

Daryl Leland Worley
8-6-2025

9750 S 219TH DB PROCESSING LAY DOWN YARD
BROKEN ARROW, OK

DRAWINGS ISSUED FOR
SKETCH PLAN FOR DISCUSSION

REVISIONS
REVISIONS NUMBER | DATE

DESIGN BY: DLW
DRAWN BY: DLW
CHECKED BY: RC
PROJECT NUMBER 2025001
DATE:

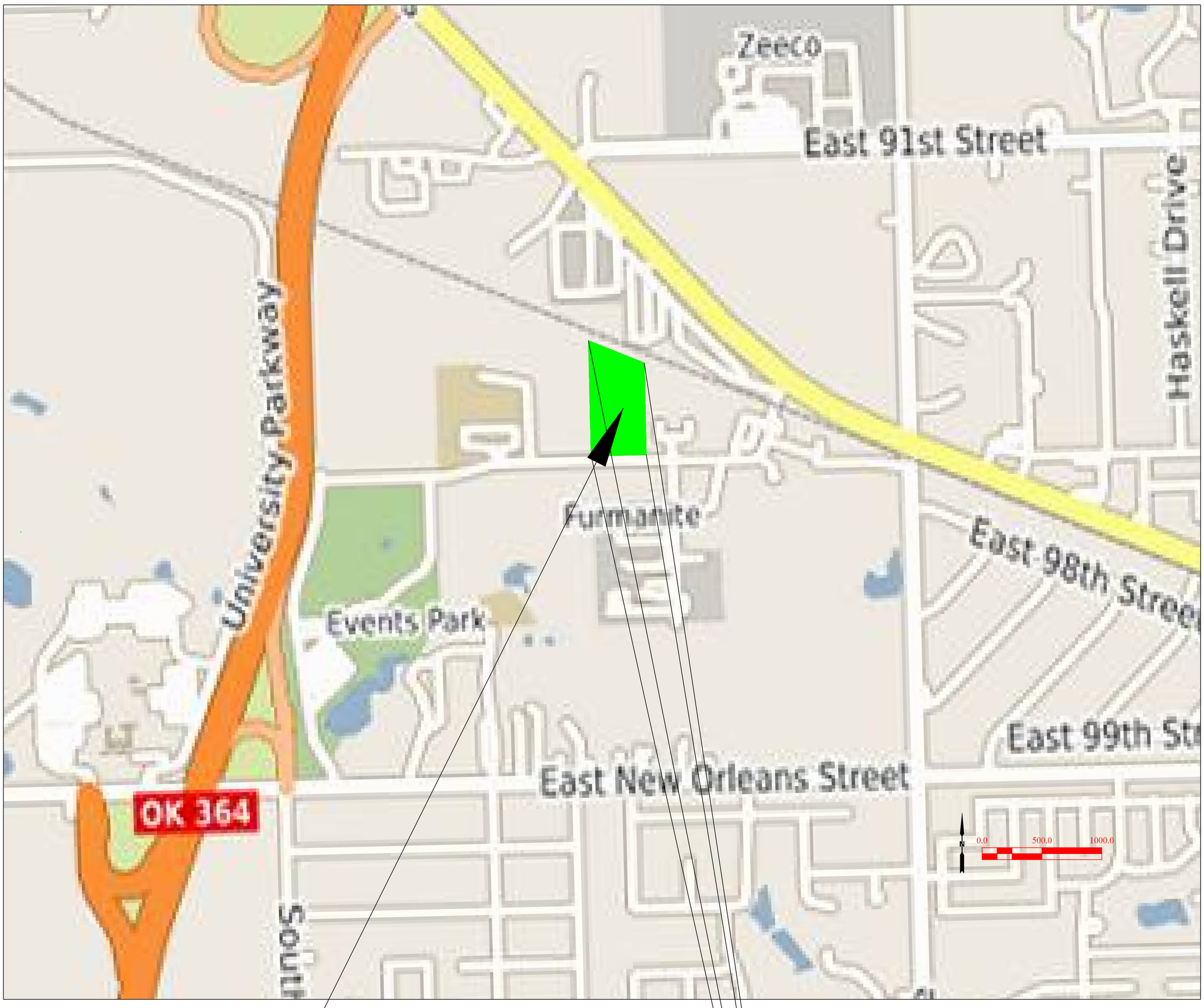
DRAWING TITLE
COVER

SHEET
C101

9750 S 219TH DB PROCESSING LAYDOWN YARD SKETCH PLAN

BROKEN ARROW

WAGONER COUNTY,OKLAHOMA



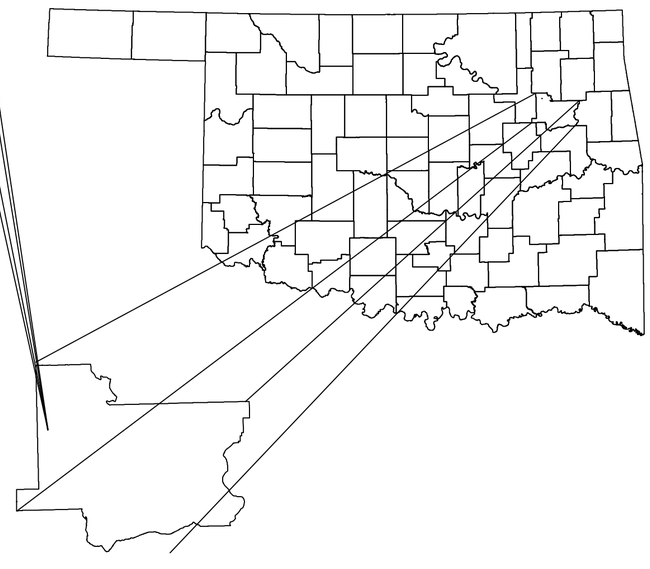
PROJECT LOCATION
36° 04' 33.28" N LATITUDE
95° 44' 02.95" W LONGITUDE
APPROXIMATE CENTER
OF PROJECT
PER GOOGLE EARTH
BROKEN ARROW,
WAGONER COUNTY, OK

BEFORE YOU DIG CALL

811

INDEX	
Title	Number
Project Cover	C101
Project Notes	C102
Site	C103

PROJECT NAME:
DB PROCESSING STEEL LAYDOWN YARD
PROJECT LOCATION:
9750 S 219TH, BROKEN ARROW, OKLAHOMA
PROJECT OWNER:GOUG BURGESS
918-619-6452



GENERAL CONSTRUCTION NOTES

C-1 PROJECT WILL BE CONSTRUCTED UNDER THE 2009 ODOT STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION. PROJECT SHALL BE CONSTRUCTED WITHOUT CLOSING THE ROAD TO LOCAL AND THROUGH TRAFFIC. CONTRACTOR SHALL BE RESPONSIBLE FOR THE PLACEMENT OF TEMPORARY PAVEMENT MARKINGS.

C-2 THE CONTRACTOR SHALL UTILIZE THE CALL-OKIE SYSTEM (1-800-522-6543 OR 811) 48 HOURS IN ADVANCE OF EXCAVATION.

C-3 NOT USED CONTRACTOR IS RESPONSIBLE FOR MAINTAINING WATER AND SEWER SERVICE CONNECTIONS TO THE BUSINESS IN WORKING ORDER AT ALL TIMES EXCEPT FOR BRIEF INTERRUPTIONS IN SERVICE FOR SERVICES TO BE RE-INSTATED. IN NO CASE SHALL SERVICES BE ALLOWED TO REMAIN OUT OF SERVICE OVERNIGHT.

C-4 THE CONTRACTOR SHALL MAKE THE NECESSARY PROVISIONS FOR THE SUPPORT AND PROTECTION OF ALL UTILITY POLES, GAS MAINS, TELEPHONE CABLES, SANITARY SEWER LINES, ELECTRIC CABLES, DRAINAGE PIPES, UTILITY SERVICES , AND ALL OTHER STRUCTURES BOTH ABOVE AND BELOW GROUND DURING CONSTRUCTION. THE CONTRACTOR IS LIABLE FOR ALL DAMAGES DONE TO SUCH EXISTING FACILITIES AS A RESULT OF THE CONTRACTORS OPERATIONS.

C-5 THE CONTRACTOR SHALL SUBMIT WRITTEN REQUEST TO THE OWNER FOR APPROVAL OF ALL AREAS TO BE USED FOR STAGING , MOBILIZATION, EQUIPMENT AND MATERIAL STORAGE AND GENERAL PROJECT CONSTRUCTION MANAGEMENT. REQUEST SHALL BE SUBMITTED TO THE OWNER WITHIN 5 DAYS OF THE NOTICE TO PROCEED.

C-6 CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING GENERAL SAFETY AT AND ADJACENT TO THE PROJECT AREA, INCLUDING THE PERSONAL SAFETY OF THE CONSTRUCTION CREW AND THE GENERAL PUBLIC AND THE SAFETY OF PUBLIC AND PRIVATE PROPERTY.

C-7 CONTRACTOR SHALL BE RESPONSIBLE FOR KEEPING STREETS AND SIDEWALKS ADJACENT TO PROJECT FREE OF MUD AND DEBRIS CAUSED BY CONSTRUCTION ACTIVITIES.

C-8 NO EQUIPMENT OR MATERIAL SHALL BE DEPOSITED ON PRIVATE PROPERTY WITHOUT WRITTEN PERMISSION. THE CONTRACTOR IS RESPONSIBLE FOR ALL DAMAGES RESULTING FROM SUCH ACTS AND SHALL REMOVE THE MATERIAL AND RESTORE THE PROPERTY AT THE EXPENSE OF THE CONTRACTOR.

C-9 THE LOCATIONS OF DRIVEWAYS, STEPS, AND RETAINING WALL, TC AND ALL WATER, SANITARY, STORM SEWER, TELEPHONE, GAS , ELECTRIC, AND CABLE TELEVISION UTILITIES SHOWN ON THE PLAN ARE APPROXIMATE. ACCURATE LOCATIONS SHALL BE VERIFIED AT THE TIME OF CONSTRUCTION AFTER CONSULTATION WITH THE PROPERTY OWNERS AND THE RESPECTIVE COMPANIES.

C-10 THE CONTRACTOR PERSONNEL SHALL WEAR IDENTIFYING CLOTHING OR HATS AT ALL TIMES.

C-11 CONSTRUCTION ACTIVITIES SHALL BE LIMITED TO THE HOURS OF 7:00 AM TO 7:00 PM UNLESS APPROVED OR DIRECTED BY THE OWNER.

C-12 CONSTRUCTION DEBRIS SUCH AS BROKEN CONCRETE, EXCESS FILL, ETC SHALL BECOME THE PROPERTY OF THE CONTRACTOR. MATERIAL SHALL BE COMPLETELY REMOVED FROM THE SITE PRIOR TO ACCEPTANCE OF THE PROJECT. ALL MATERIAL SHALL BE DISPOSED IN A MANNER THAT IS IN COMPLIANCE WITH ALL LOCAL, STATE, AND FEDERAL REGULATIONS.

C-13 OPERATION OF ALL WATER VALVES SHALL BE PERFORMED BY THE OWNER OF THER UTILITY. THIS WORK SHALL BE DISCUSSED WITH THE UTILITY 72 HOURS IN ADVANCE OF THE NEED TO COMMENCE SUCH WORK.

C-14 ALL HAUL TRUCKS USED IN THE HAULING OF MATERIALSHALL COVER THEIR BEDS WITH A HEAVY COTTON, CANVAS OR VINYL TARP.

QUANTITY NOTES

ALL QUANTITIES GIVEN ARE FOR INFORMATIONAL PURPOSES. THE ACTUAL QUANTITY INSTALLED MAY VARY.

GEO-TECHNICAL NOTES

NO GEO-TECHNICAL INVESTIGATION HAS BEEN MADE. CONTRACTOR MUST SATISFY THEMSELF AS TO THE PRESENCE OF ROCK OR OTHER CONSTRUCTION HINDRANCES

CLEARING NOTES

CONTRACTOR IS RESPONSIBLE FOR THE CLEARING

PROJECT INFO
THERE IS AN 8 FT WIDE BUFFER
OUTSIDE THE REGULATED WETLAND.

THE FINAL AND EXITING GRADES ALONG THE BUFFER LINE ARE THE SAME ELEVATION

THE FINAL SURFACE WILL BE GRAVEL SO NO IMPERVIOUS SURFACE WILL BE ADDED.

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8-6-2025

9750 S 219TH DB PROCESSING LAY DOWN YARD

BROKEN ARROW, OK

DRAWINGS ISSUED FOR

SKETCH PLAN FOR DISCUSSION

REVISIONS

REVISIONS NUMBER	DATE

DESIGN BY: DLW
DRAWN BY: DLW
CHECKED BY: RC

PROJECT NUMBER
2025001

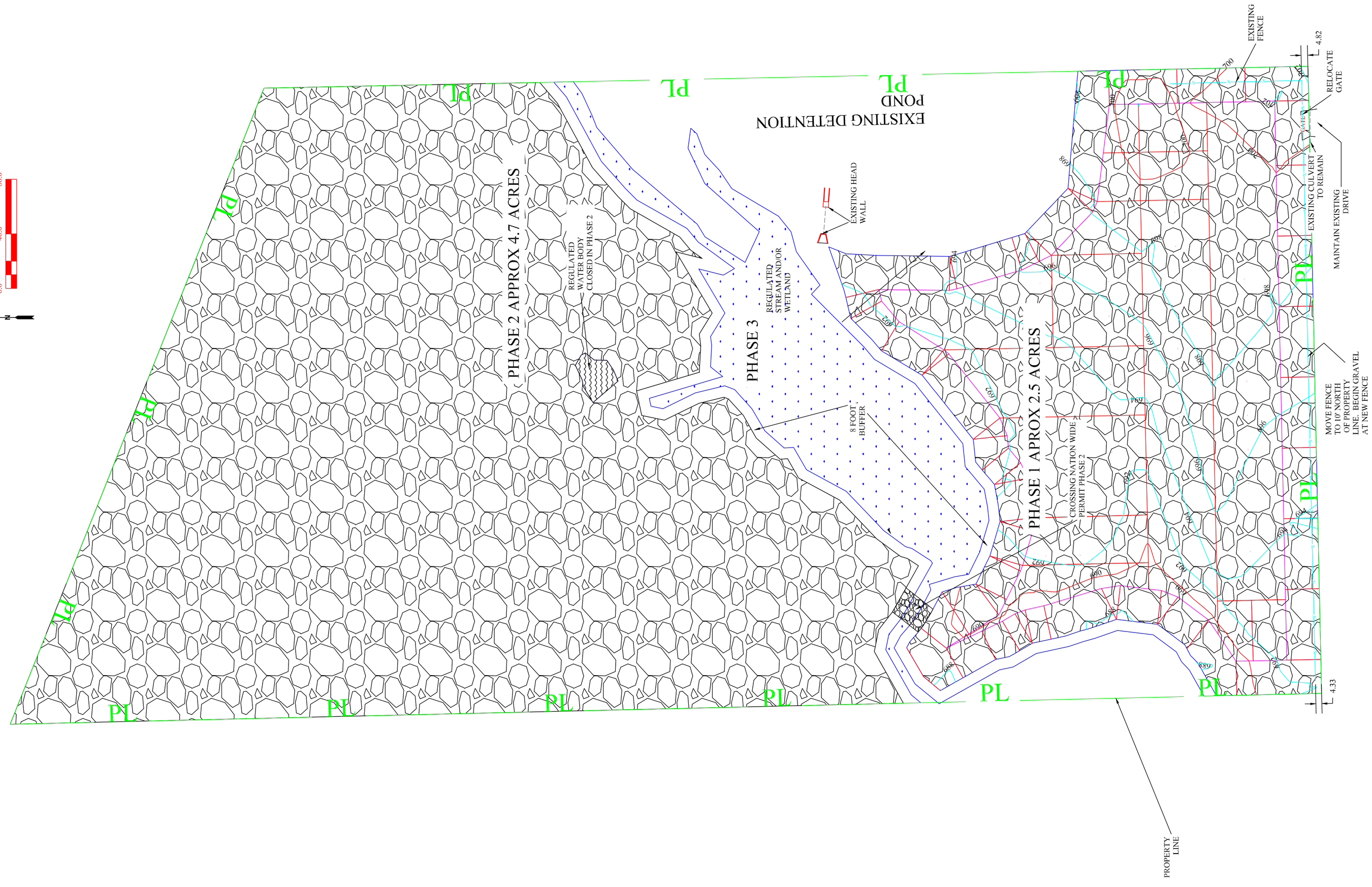
DATE:

DRAWING TITLE

PROJECT NOTES

SHEET

C102



C103

SHEET

SITE

DRAWING TITLE

DATE:

PROJECT NUMBER
2025001

CHECKED BY: RC

DRAWN BY: DLW

DESIGN BY: DLW

REVISIONS NUMBER	DATE
REVISIONS	

DRAWINGS ISSUED FOR

SKETCH
PLAN FOR
DISCUSSION

9750 S 219TH DB
PROCESSING
LAY DOWN
YARD

BROKEN ARROW, OK

DARYL LELAND WORLEY
PROFESSIONAL ENGINEER
OKLAHOMA
19305

Daryl Leland Worley
8-6-2025

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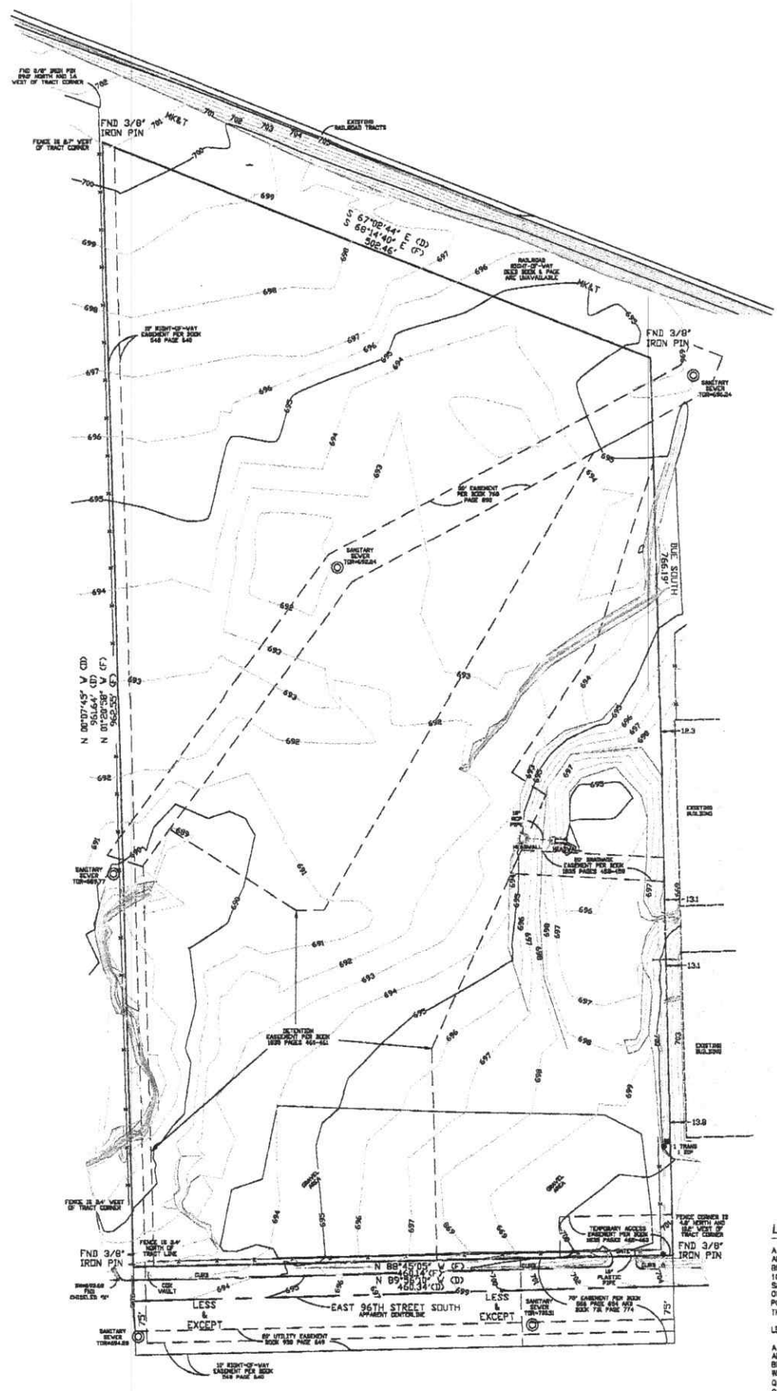
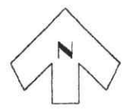
THE SON SHINES!

EXHIBIT C





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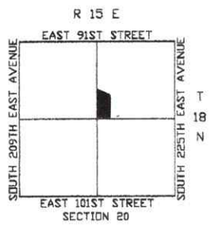
SCALE IN FEET



LOCATION MAP

LEGEND

- SEWER MANHOLE
- SS — SANITARY SEWER LINE
- RCP REINFORCED CONCRETE PIPE
- WATER METER
- WATER VALVE
- GAS METER
- TELEPHONE PEDESTAL
- POWER POLE
- LIGHT POLE
- SIGN
- A/C
- PARKING BUMPER
- DOWN SPOUT
- SGDI SINGLE GRATE DROP INLET
- DGDI DUAL GRATE DROP INLET
- IRRIGATION CONTROL BOX
- E ELECTRIC SERVICE
- G GAS SERVICE
- T TELEPHONE SERVICE
- FIRE HYDRANT
- OHE OVERHEAD UTILITIES
- FENCE LINE
- GUARD POST
- CONC CONCRETE
- ASPH ASPHALT
- CLEAN OUT
- SD SATELLITE DISH
- CABLE TV

BEFORE YOU DIG, CALL OKIE FOR LOCATION OF UNDERGROUND UTILITIES. 1-800-522-6543

GENERAL NOTES

BASIS OF BEARING: ASSUMED N 00°07'45" W ALONG THE WEST LINE OF SAID TRACT.

THE PROPERTY DESCRIBED HEREON CONTAINS NO MARKED PARKING SPACES WITH NO MARKED HANDICAPPED SPACES.

THE PROPERTY DESCRIBED HEREON CONTAINS 9.15 ACRES, MORE OR LESS.

ABOVE GROUND FEATURES OF PUBLIC UTILITIES SUCH AS, BUT NOT LIMITED TO: METERS, VALVES, MANHOLES, POLES AND PEDESTALS ARE LOCATED AND SHOWN HEREON. NO UNDERGROUND UTILITY LINES WERE FLAGGED BY THEIR RESPECTIVE OWNERS AND THEREFORE ARE NOT SHOWN.

THIS PROPERTY LIES IN ZONES "UNSHADED X" FLOOD HAZARD AREA PER F.I.R.M. COMMUNITY PANEL NO. 40143C0115J AS LAST REVISED 09-30-18

FIELD WORK COMPLETED FEBRUARY 15, 2025

SET 3/8" IRON PIN WITH CAP AT ALL CORNERS EXCEPT WHERE NOTED ON DRAWING.

F = FIELD MEASURED COURSE.
P = RECORDED PLAT COURSE.
D = DESCRIBED COURSE.

PROPERTY ADDRESS: TBD

NOTE: THE PROPERTY DESCRIBED HEREON HAS APPARENT ACCESS TO EAST 96TH STREET SOUTH A PUBLICLY MAINTAINED ROAD.

BENCHMARK: FOUND CHISELED "X" = 863.62, NAVD 88 DATUM, BASED ON THE OKLAHOMA STATE PLANE NETWORK

INVOICE NO.: 25141

NO COMMITMENT OR EASEMENT PROVIDED AT THE TIME OF SURVEY.

LEGAL DESCRIPTION

A TRACT OF LAND IN THE SW/4 OF NE/4 OF SECTION 20, TOWNSHIP 18 NORTH, RANGE 15 EAST OF THE INDIAN BASE AND MERIDIAN, WAGONER COUNTY, STATE OF OKLAHOMA, BEING MORE PARTICULARLY DESCRIED AS FOLLOWS TO WIT: BEGINNING AT THE SW CORNER OF SAID NE/4, THENCE N00 07'45"W ALONG THE WESTERLY LINE THEREOF A DISTANCE OF 1036.84 FEET TO A POINT ON THE SOUTHERLY RIGHT-OF-WAY LINE OF THE MK&T RAILROAD, THENCE S67°03'44"E ALONG SAID LINE A DISTANCE OF 507.46 FEET TO THE NW CORNER OF COACH PORT, AN ADDITION IN WAGONER COUNTY, STATE OF OKLAHOMA, ACCORDING TO THE RECORDED PLAT THEREOF. THENCE DUE SOUTH ALONG THE WEST LINE OF SAID COACH PORT, A DISTANCE OF 641.18 FEET TO THE SOUTHWESTERLY CORNER OF SAID COACH PORT, THENCE N89°56'10"W ALONG THE SOUTHERLY LINE OF SAID SW/4 OF NE/4 A DISTANCE OF 460.34 FEET TO THE POINT OF BEGINNING.

LESS AND EXCEPT THE FOLLOWING DESCRIBED TRACT:

A TRACT OF LAND IN THE SW/4 OF NE/4 OF SECTION 20, TOWNSHIP 18 NORTH, RANGE 15 EAST OF THE INDIAN BASE AND MERIDIAN, WAGONER COUNTY, STATE OF OKLAHOMA, BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS, TO-WIT: BEGINNING AT SOUTHWEST COMER OF LOT 1, BLOCK 1 OF COACH PORT AN ADDITION TO THE CITY OF BROKEN ARROW, WAGONER COUNTY, STATE OF OKLAHOMA; THENCE SOUTH 75.00 FEET TO A POINT ON THE SOUTH LINE OF THE NORTHEAST QUARTER OF SAID SECTION, THENCE N89°56'10"W ALONG THE SOUTH LINE OF SAID NORTHEAST QUARTER FOR A DISTANCE OF 460.34 FEET TO THE CENTER OF SAID SECTION 20; THENCE N00°07'45"W ALONG THE WEST LINE OF SAID NORTHEAST QUARTER FOR A DISTANCE OF 75.00 FEET; THENCE S 89 56'10" E FOR A DISTANCE OF 460.51 FEET TO THE POINT OF BEGINNING.

INSTRUMENT NOTES

○ DENOTES INSTRUMENT SHOWN ON SURVEY SEQUENCE COINCIDES WITH COMMITMENT

ALL EASEMENTS AND RIGHTS-OF-WAY CONTAINED IN FIDELITY NATIONAL TITLE INSURANCE COMPANY COMMITMENT FOR TITLE INSURANCE, COMMITMENT NO. XXXXX, EFFECTIVE DATE XXXXX, 2024 AT 7:00XX A.M., ARE SHOWN HEREON.

NO COMMITMENT OR EASEMENT PROVIDED AT THE TIME OF SURVEY.

ALTA/NSPS LAND TITLE – TOPOGRAPHIC SURVEY

CERTIFICATE

DAVID D. LACY, THE UNDERSIGNED, A REGISTERED PROFESSIONAL LAND SURVEYOR, DO HEREBY CERTIFY TO:

D & B PROCESSING

THIS IS TO CERTIFY THAT THIS MAP OR PLAT AND THE SURVEY ON WHICH IT IS BASED WERE MADE IN ACCORDANCE WITH THE 2021 MINIMUM STANDARD DETAIL REQUIREMENTS FOR ALTA/NSPS LAND TITLE SURVEYS, JOINTLY ESTABLISHED AND ADOPTED BY ALTA AND NSPS, AND INCLUDES ITEMS 1, 2, 3, 4, 8, 11, AND 18 OF TABLE A THEREOF. THE FIELDWORK WAS COMPLETED ON FEBRUARY 15, 2025.

THIS PLAT OF SURVEY MEETS THE MINIMUM TECHNICAL STANDARDS, AS ADOPTED BY THE BOARD OF REGISTRATION FOR PROFESSIONAL ENGINEERS AND LAND SURVEYORS FOR THE STATE OF OKLAHOMA.

AND

THAT: THIS TOPOGRAPHIC SURVEY PLAT IS A TRUE AND ACCURATE REPRESENTATION OF THE TOPOGRAPHIC FEATURES SITUATED ON THE LAND DESCRIBED HEREON, SHOWS THE LOCATION OF ALL BUILDINGS, STRUCTURES AND OTHER IMPROVEMENTS SITUATED THEREON, ACCURATELY SHOWS SPOT ELEVATIONS AND A ONE (1) FOOT CONTOUR INTERVAL AS BASED ON THOSE SPOT ELEVATIONS.

DAVID D. LACY, P.L.S. #1666

REGISTERED LAND SURVEYOR — DAVID D. LACY — OKLAHOMA

2/26/2025
SEAL/DATE

DAVID D. LACY
PO BOX 471211, Tulsa OK 74147
Phone: 918.518.1873
Email: pls4air@gmail.com

EXHIBIT D

COACH PORT - PUD 193

A part of the NE/4 of Section 20, T-18-N, R-15-E, of the I.B. & M,
City of Broken Arrow, Wagoner County, State of Oklahoma.

Addition has 1 Lot in 1 Block
and contains 7.18 acres, more or less.

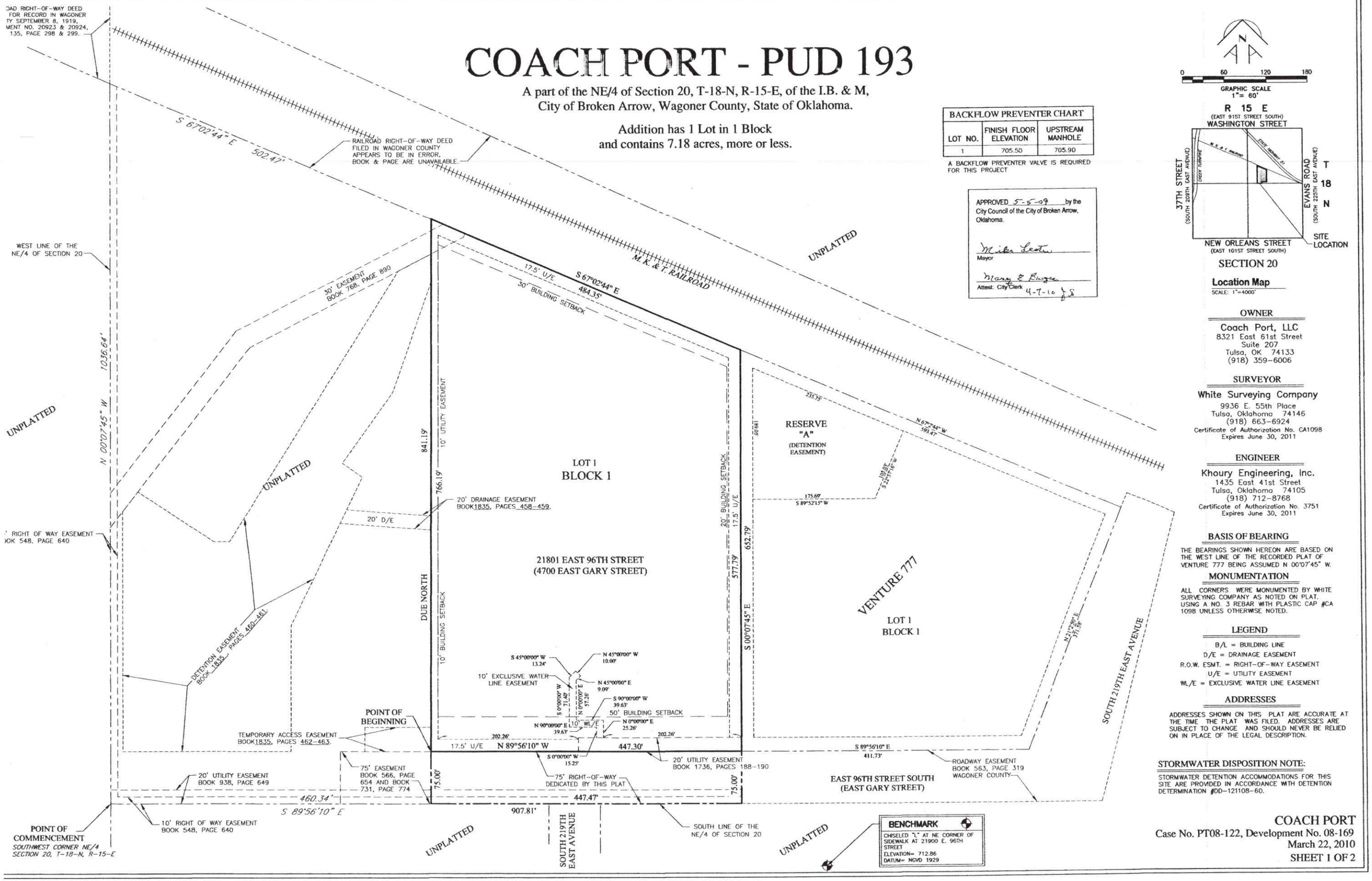
BACKFLOW PREVENTER CHART		
LOT NO.	FINISH FLOOR ELEVATION	UPSTREAM MANHOLE
1	705.50	705.90

A BACKFLOW PREVENTER VALVE IS REQUIRED FOR THIS PROJECT

APPROVED 5-5-09 by the City Council of the City of Broken Arrow, Oklahoma.

Mike Lester
Mayor

Mary E Buzze
Attest: City Clerk 4-7-10



SECTION 20

Location Map
SCALE: 1"=4000'

OWNER

Coach Port, LLC
8321 East 61st Street
Suite 207
Tulsa, OK 74133
(918) 359-6006

SURVEYOR

White Surveying Company
9936 E. 55th Place
Tulsa, Oklahoma 74146
(918) 663-6924
Certificate of Authorization No. CA1098
Expires June 30, 2011

ENGINEER

Khoury Engineering, Inc.
1435 East 41st Street
Tulsa, Oklahoma 74105
(918) 712-8768
Certificate of Authorization No. 3751
Expires June 30, 2011

BASIS OF BEARING

THE BEARINGS SHOWN HEREON ARE BASED ON THE WEST LINE OF THE RECORDED PLAT OF VENTURE 777 BEING ASSUMED N 00°07'45" W.

MONUMENTATION

ALL CORNERS WERE MONUMENTED BY WHITE SURVEYING COMPANY AS NOTED ON PLAT. USING A NO. 3 REBAR WITH PLASTIC CAP #CA 1098 UNLESS OTHERWISE NOTED.

LEGEND

B/L = BUILDING LINE
D/E = DRAINAGE EASEMENT
R.O.W. ESMT. = RIGHT-OF-WAY EASEMENT
U/E = UTILITY EASEMENT
WL/E = EXCLUSIVE WATER LINE EASEMENT

ADDRESSES

ADDRESSES SHOWN ON THIS PLAT ARE ACCURATE AT THE TIME THE PLAT WAS FILED. ADDRESSES ARE SUBJECT TO CHANGE AND SHOULD NEVER BE RELIED ON IN PLACE OF THE LEGAL DESCRIPTION.

STORMWATER DISPOSITION NOTE:

STORMWATER DETENTION ACCOMMODATIONS FOR THIS SITE ARE PROVIDED IN ACCORDANCE WITH DETENTION DETERMINATION #DD-121108-60.

COACH PORT
Case No. PT08-122, Development No. 08-169
March 22, 2010
SHEET 1 OF 2