

Appendix D - Location Criteria

Name & Address ¼ mile radius – land owners, residents, offset operators, and industrial facilities within 1/4 mile (Section 519.C.4)

The following is a list of land owners/residents within 1/4 mile of the proposed Commercial SWD Facility:

1. Edwards, Jason Davis (Parcel # 700031378)
715 South Ridge Dr.
Minden, LA 71055
2. Timberstar Louisiana I LP C/O Hancock Forest Management (Parcel # 700031376)
8570 Business Park Dr. STE #200
Shreveport, LA 71105
3. Bienville Timberlands Co., LP C/O Hancock Forest Management (Parcel # 700031376B)
8570 Business Park Dr. STE #200
Shreveport, LA 71105
4. Edith R. Foster C/O Tye Stephen Adams (Parcel # 700009000)
2739 Hwy 515
Coushatta, LA 71019
5. Elizabeth Full Gospel Baptist Church (Parcel # 7700000151)
P.O. Box 1275
Coushatta, LA 71019
6. Johnson Construction Co., Inc (Parcel # 700013990)
60 Southgate Dr.
Bossier City, LA 71112
7. Rosalie C. Jackson (Parcel # 700008750)
312 Lancashire Dr.
Bossier City, LA 71111
8. Freddie M. Stafford Nelson (Parcel # 700030250)
P.O. Box 672
Coushatta, LA 71019
9. Walter Johnson Jr. C/O Lula Evans (Parcel # 700014300)
7029 Hwy 371
Coushatta, LA 71019

The following is a list of offset operators within 1/4 mile of the proposed Commercial SWD Facility:

1. GEP Haynesville, LLC (Org ID G2380)
1425 Lake Front Circle
The Woodlands, TX 77380

The following is a list of industrial facilities within 1/4 mile of the proposed Commercial SWD Facility:

*There are no industrial facilities within ¼ mile of the proposed facility.

The following is a list of all public and private water supply wells within one (1) mile of the proposed facility:

1. Facility Use / Non-Community Public Water Supply well No. 081-5957Z is located over 1000' away from the proposed facility. This well is plugged and abandoned and was used at an oil and gas facility.
2. Facility Use / Non-Community Public Water Supply well No. 081-6025Z is located over 840' away from the proposed facility. This well is plugged and abandoned and was used at an oil and gas facility.
3. Non-Community Public Water Supply well No. 081-5047Z is located over 2875' away from the proposed facility. This well is used as a private domestic well, and is well over ¼ mile from the proposed facility.
4. Non-Community Public Water Supply well No. 081-6310Z is located over 5020' away from the proposed facility. This well is used as a private domestic well, and is well over ¼ mile from the proposed facility.
5. Non-Community Public Water Supply well No. 081-77 is located over 5185' away from the proposed facility. This well is used as a private domestic well, and is well over ¼ mile from the proposed facility.

The following is a list of all waivers sent and received; copies of waivers enclosed:

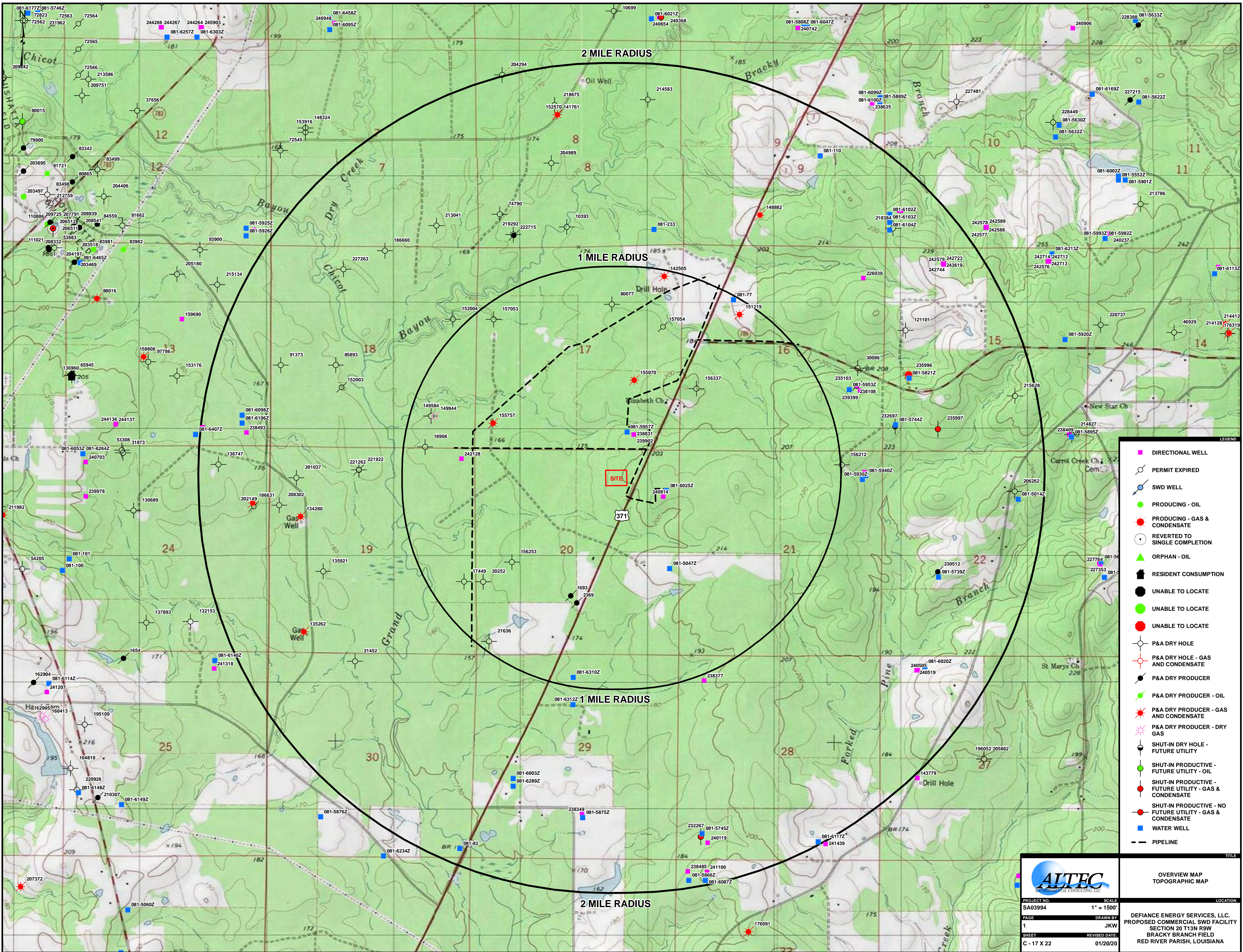
N/A

The following is a list of all residential, commercial, or public buildings or hospitals within ¼ mile of the proposed facility boundary:

1. There are three (3) Residential Buildings on the property belonging to Freddie M. Stafford Nelson (Parcel # 700030250) within ¼ mile of the proposed facility boundaries. The three (3) buildings are at 7035 US 371, there are two (2) residential trailers that appear to be uninhabited and one (1) inhabited residence.
2. There are no Commercial Buildings within ¼ mile of the proposed facility boundaries.
3. There are no Public Buildings within ¼ mile of the proposed facility boundaries.
4. There are no Hospitals within ¼ mile of the proposed facility boundaries.

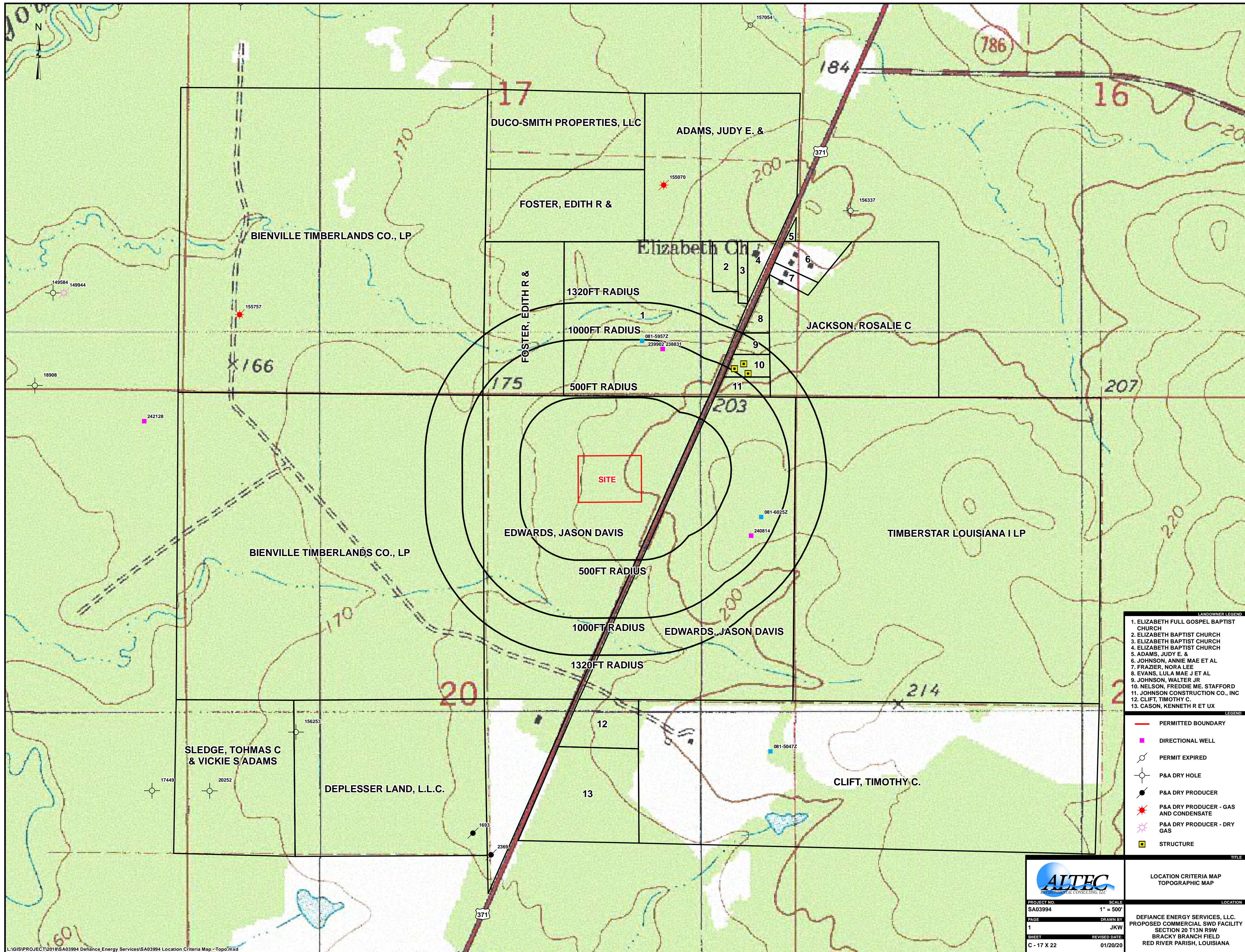
Water Wells Within 1 Mile of the Proposed Facility Boundary

Water Well No.	Owners Name	Well Depth	Geologic Unit	Drillers Name	Sec.	T.	Rng.	Water Level	Date Measured	Owners Number	Casing Diameter	Parish Name	Aquifer Name	Use Description	Well Status	Long (Decimal Degrees)	Lat (Decimal Degrees)
081-6310Z	JARRIED WOODARD	142	124WLCX	FOSTER (BILLY) CONSTRUCTION COMPANY	29	13N	09W	null	null	null	4	RED RIVER	WILCOX AQUIFER	domestic	Active	-93.31361111	32.08805556
081-5957Z	ENCANA OIL & GAS	300	124WLCX	PINENERGY, LTD	17	13N	09W	45	6/15/2009	EGBC 17H1	4	RED RIVER	WILCOX AQUIFER	oil/gas_rig supply	P&A	-93.30916667	32.10555556
081-5047Z	CLIFT, TIM	230	124WLCX	MIKE'S	20	13N	09W	70	3/10/1988	null	4	RED RIVER	WILCOX AQUIFER	domestic	Active	-93.30555556	32.09583333
081-77	LLOYD, DESIRE	22	124WLCX	UNKNOWN	16	13N	09W	11.89	12/16/1954	null	8	RED RIVER	WILCOX AQUIFER	domestic	Active	-93.30027778	32.115
081-6025Z	ENCANA OIL	260	124WLCX	PINENERGY, LTD	20	13N	09W	70	11/17/2009	BROWN SW MINERALS 20H-1	4	RED RIVER	WILCOX AQUIFER	oil/gas_rig supply	P&A	-93.30583333	32.10138889



- LEGEND**
- DIRECTIONAL WELL
 - PERMIT EXPIRED
 - SWD WELL
 - PRODUCING - OIL
 - PRODUCING - GAS & CONDENSATE
 - REVERTED TO SINGLE COMPLETION
 - ▲ ORPHAN - OIL
 - RESIDENT CONSUMPTION
 - UNABLE TO LOCATE
 - UNABLE TO LOCATE
 - UNABLE TO LOCATE
 - P&A DRY HOLE
 - P&A DRY HOLE - GAS AND CONDENSATE
 - P&A DRY PRODUCER
 - P&A DRY PRODUCER - OIL
 - P&A DRY PRODUCER - GAS AND CONDENSATE
 - P&A DRY PRODUCER - DRY GAS
 - SHUT-IN DRY HOLE - FUTURE UTILITY
 - SHUT-IN PRODUCTIVE - FUTURE UTILITY - OIL
 - SHUT-IN PRODUCTIVE - FUTURE UTILITY - GAS & CONDENSATE
 - SHUT-IN PRODUCTIVE - NO FUTURE UTILITY - GAS & CONDENSATE
 - WATER WELL
 - PIPELINE

ALTEC EARTH AND ENVIRONMENTAL CONSULTING, LLC		OVERVIEW MAP TOPOGRAPHIC MAP
PROJECT NO. SA03994	SCALE 1" = 1500'	LOCATION
PAGE 1	DRAWN BY JKW	DEFIANCE ENERGY SERVICES, LLC. PROPOSED COMMERCIAL SWD FACILITY SECTION 20 T13N R9W BRACKY BRANCH FIELD RED RIVER PARISH, LOUISIANA
SHEET C - 17 X 22	REVISED DATE 01/20/20	



- LANDOWNER LEGEND**
1. ELIZABETH FULL GOSPEL BAPTIST CHURCH
 2. ELIZABETH BAPTIST CHURCH
 3. ELIZABETH BAPTIST CHURCH
 4. ELIZABETH BAPTIST CHURCH
 5. ADAMS, JUDY E. &
 6. JOHNSON, ANNIE MAE ET AL
 7. FRAZIER, NORA LEE
 8. EVANS, LULA MAE J ET AL
 9. JOHNSON, WALTER JR
 10. NELSON, FREDDIE ME. STAFFORD
 11. JOHNSON CONSTRUCTION CO., INC
 12. CLIFT, TIMOTHY C.
 13. CASON, KENNETH R ET UX

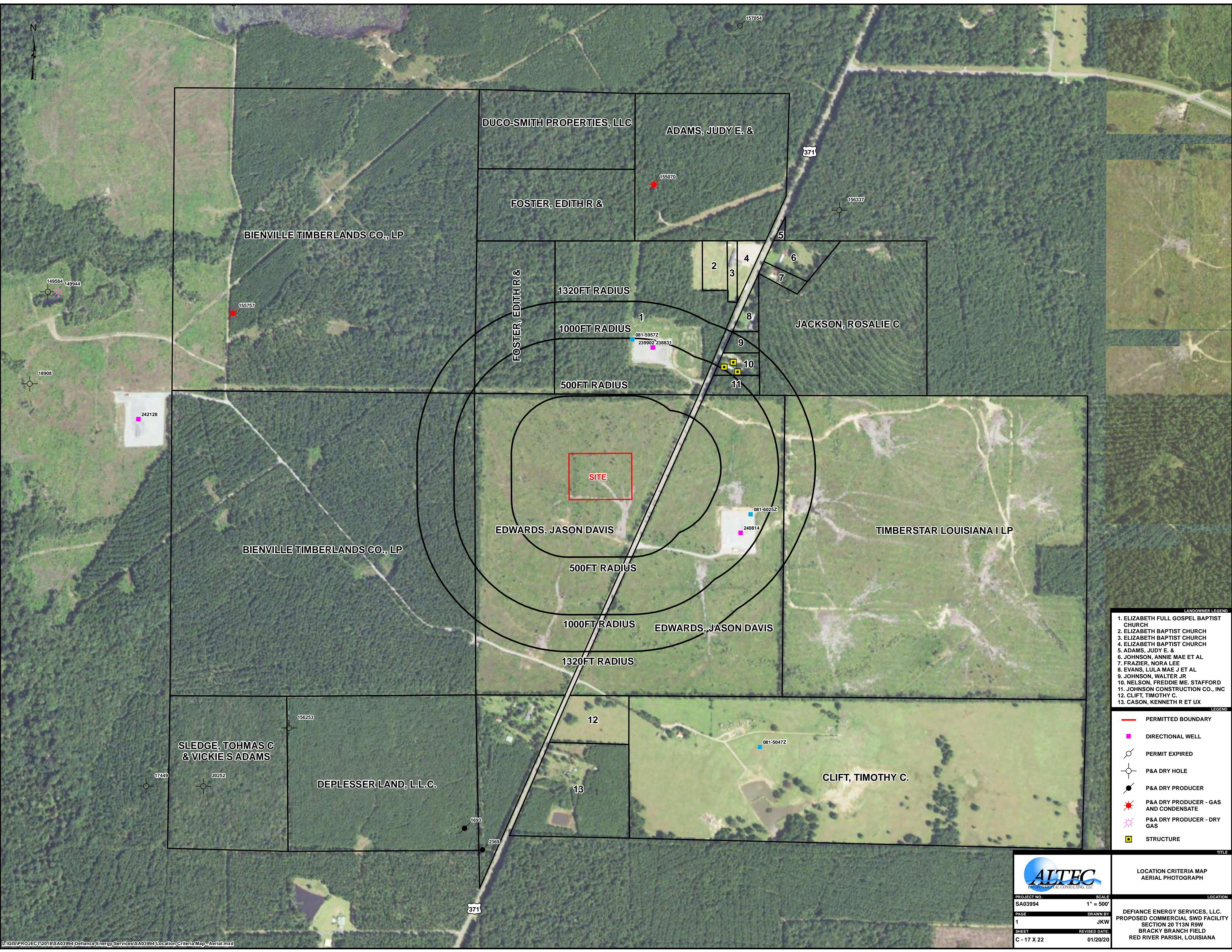
- LEGEND**
- PERMITTED BOUNDARY
 - DIRECTIONAL WELL
 - PERMIT EXPIRED
 - P&A DRY HOLE
 - P&A DRY PRODUCER
 - P&A DRY PRODUCER - GAS AND CONDENSATE
 - P&A DRY PRODUCER - DRY GAS
 - STRUCTURE

ALTEC
ENVIRONMENTAL CONSULTING, LLC

PROJECT NO. SA03994
 SCALE 1" = 500'
 PAGE 1
 DRAWN BY JKW
 SHEET C - 17 X 22
 REVISED DATE: 01/20/20

LOCATION CRITERIA MAP TOPOGRAPHIC MAP

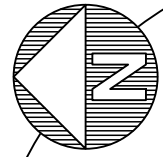
DEFIANCE ENERGY SERVICES, LLC.
 PROPOSED COMMERCIAL SWD FACILITY
 SECTION 20 T13N R9W
 BRACKY BRANCH FIELD
 RED RIVER PARISH, LOUISIANA



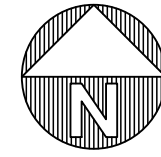
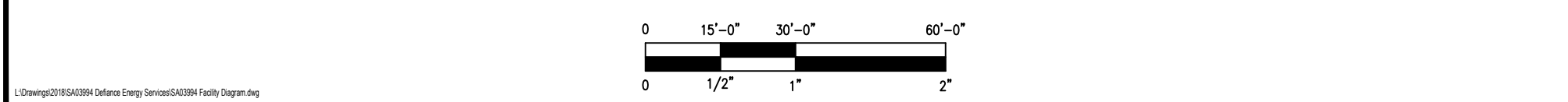
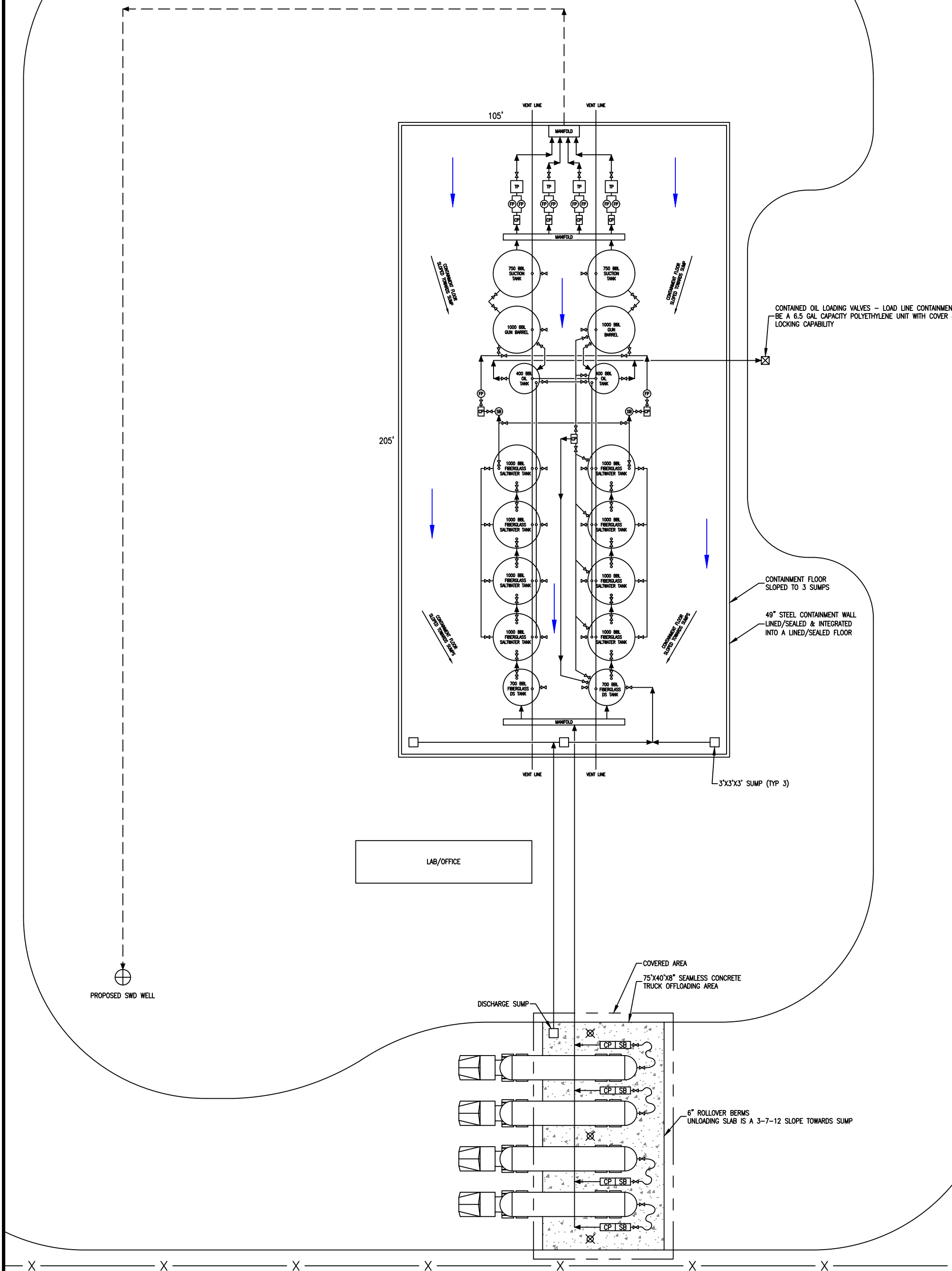
- LANDOWNER LEGEND**
1. ELIZABETH FULL GOSPEL BAPTIST CHURCH
 2. ELIZABETH BAPTIST CHURCH
 3. ELIZABETH BAPTIST CHURCH
 4. ELIZABETH BAPTIST CHURCH
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 7. FRAZIER, NORA LEE
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 13. CASON, KENNETH R ET UX

- LEGEND**
- PERMITTED BOUNDARY
 - DIRECTIONAL WELL
 - ⊗ PERMIT EXPIRED
 - ⊙ P&A DRY HOLE
 - P&A DRY PRODUCER
 - ★ P&A DRY PRODUCER - GAS AND CONDENSATE
 - ✱ P&A DRY PRODUCER - DRY GAS
 - STRUCTURE

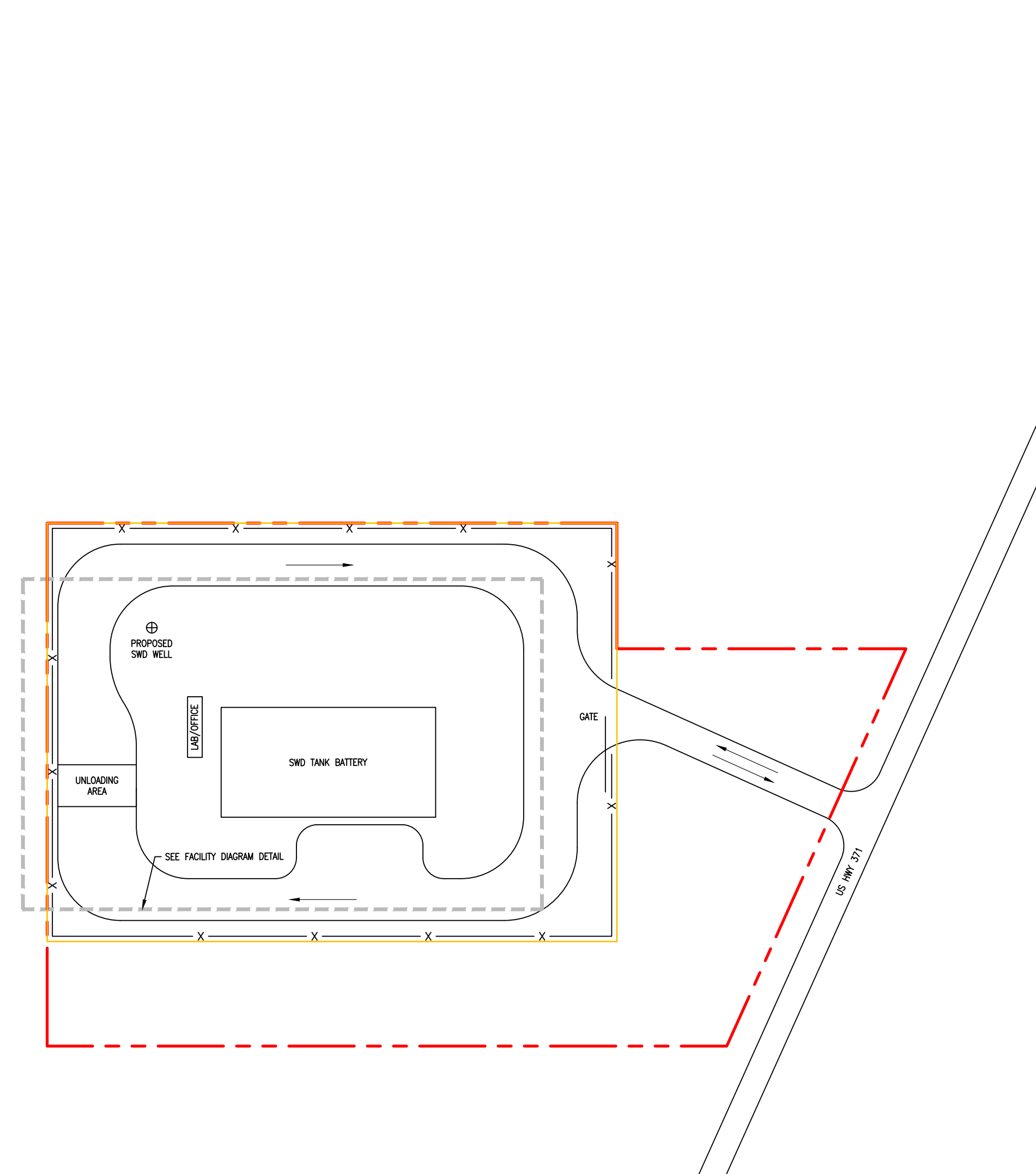
		PROJECT NO.	SCALE
		SA03994	1" = 500'
PAGE	DRAWN BY	LOCATION	
1	JKW	DEFIANCE ENERGY SERVICES, LLC.	
SHEET	REVISED DATE:	PROPOSED COMMERCIAL SWD FACILITY	
C - 17 X 22	01/20/20	SECTION 20 T13N R9W	
		BRACKY BRANCH FIELD	
		RED RIVER PARISH, LOUISIANA	



FACILITY DIAGRAM DETAIL



FACILITY DIAGRAM



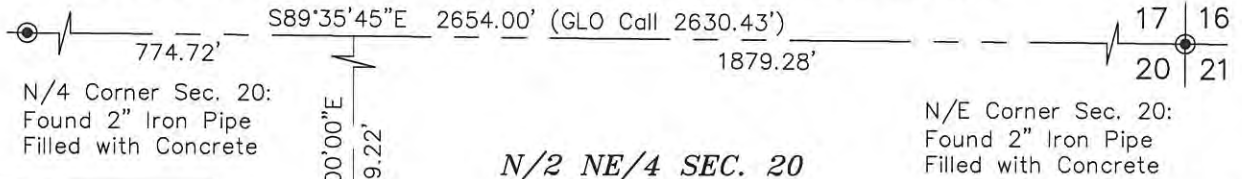
LEGEND	
	PROPERTY BOUNDARY
	PERMITTED BOUNDARY
	6' CHAIN LINK FENCE
	UNDERGROUND FLOWLINE
	DRAINAGE DIRECTION
	CENTRIFUGAL PUMP
	TRIPLEX PUMP
	CONCRETE
	LEL MONITOR

		ATTACHMENT 3 FACILITY DIAGRAM
PROJECT NO. SA03994	SCALE AS SHOWN	LOCATION
PAGE 1	DRAWN BY JKW	DEFIANCE ENERGY SERVICES, LLC. PROPOSED COMMERCIAL SWD FACILITY SECTION 20 T13N R5W RED RIVER PARISH, LOUISIANA
SHEET C - 17" X 22"	REVISED DATE 07/08/20	



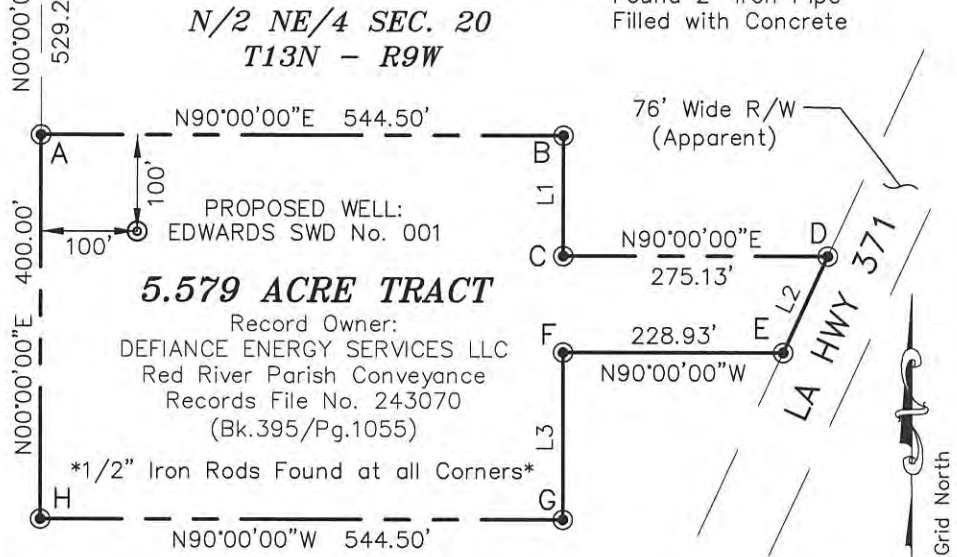
MAP OF SURVEY

A 5.579 ACRE TRACT OF LAND IN THE N/2 OF THE NE/4 OF SECTION 20, TOWNSHIP 13 NORTH, RANGE 9 WEST, NORTHWESTERN LAND DISTRICT, LOUISIANA MERIDIAN, RED RIVER PARISH, LOUISIANA; FOR: DEFIANCE ENERGY SERVICES LLC



LINE TABLE		
LINE	BEARING	DISTANCE
L1	S00°00'00\"E	125.00'
L2	S24°47'46\"W	110.16'
L3	S00°00'00\"E	175.00'

LEGEND	
	MONUMENT FOUND
	PROPOSED SWD WELL
	SUBJECT BOUNDARY
	SECTION LINE
	TIE TO SECTION
	HIGHWAY R/W
	LINE NOT TO SCALE



TRACT CORNER COORDINATE TABLE				
	NAD 83		State Plane Grid, LA North	
POINT	LATITUDE	LONGITUDE	NORTHING	EASTING
A	N32° 06' 10.0359\"	W93° 18' 39.3414\"	583974.34'	3029735.74'
B	N32° 06' 10.0762\"	W93° 18' 33.0111\"	583974.34'	3030280.24'
C	N32° 06' 08.8392\"	W93° 18' 33.0003\"	583849.34'	3030280.24'
D	N32° 06' 08.8595\"	W93° 18' 29.8017\"	583849.34'	3030555.37'
E	N32° 06' 07.8665\"	W93° 18' 30.3301\"	583749.34'	3030509.17'
F	N32° 06' 07.8496\"	W93° 18' 32.9916\"	583749.34'	3030280.24'
G	N32° 06' 06.1178\"	W93° 18' 32.9764\"	583749.34'	3030280.24'
H	N32° 06' 06.0775\"	W93° 18' 39.3066\"	583749.34'	3029735.74'
WELL	N32° 06' 09.0523\"	W93° 18' 38.1677\"	583874.20'	3029835.95'

GENERAL NOTES:

1. Subject tract has direct access to the public right of way of LA HWY 371.
2. This survey does not constitute wetlands determinations, sub-surface determinations, or environmental assessments.
3. The surveyor does not guarantee title or that all servitudes of record or use are shown on this map.

BASIS OF BEARING/COORDINATES:

Bearings, distances, and Northing/Easting State Plane Coordinates are grid based on the Louisiana State Plane Coordinate System, North zone, NAD 1983, as determined by on-site GNSS observations referenced to National Geodetic Survey continuously operating reference station "SHRV". LAT/LONG coordinates are also NAD 1983.

REFERENCE SURVEYS:

1. Map of survey of the subject tract by H. Timothy Howell dated 10/8/2018.
2. Location plat of proposed EDWARDS SWD NO. 001 by Paul W. Culpepper dated 1/30/2019.

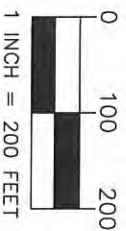
This Map of Survey is certified to be in accordance with a physical survey made on the ground under the direction of the undersigned and complies with the requirements of Louisiana "Standards of Practice for Boundary Surveys for a Class D survey. The field work was completed on July 29, 2019.

KYLE G. BROWNSBERGER
License No. 5189
PROFESSIONAL

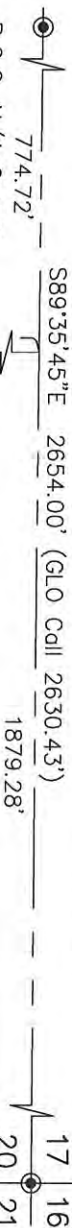
Kyle G. Brownsberger 7-29-2019
KYLE G. BROWNSBERGER, P.L.S. No. 5189
Brownsberger Land Surveying, LLC
3431 Pines Road, Shreveport, LA 71119
Phone: (318) 210-0907

MAP OF SURVEY

A 2.294 ACRE TRACT OF LAND IN THE N/2 OF THE NE/4 OF SECTION 20, TOWNSHIP 13 NORTH, RANGE 9 WEST, NORTHWESTERN LAND DISTRICT, LOUISIANA MERIDIAN, RED RIVER PARISH, LOUISIANA; FOR: DEFIANCE ENERGY SERVICES LLC



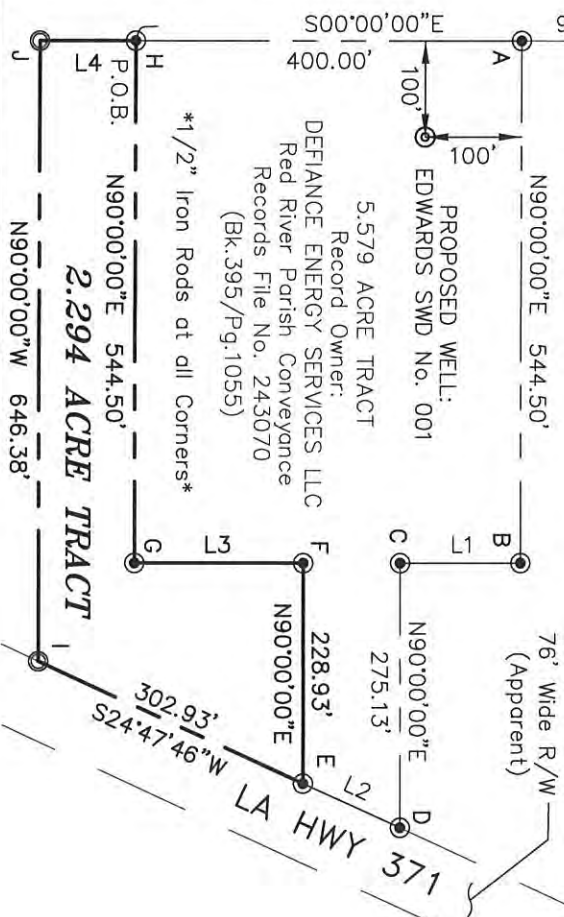
P.O.C. N/4 Corner
Sec. 20: Found 2"
Iron Pipe Filled with
Concrete



**N/2 NE/4 SEC. 20
T13N - R9W**

N/E Corner Sec. 20:
Found 2" Iron Pipe
Filled with Concrete

LEGEND	
	MONUMENT FOUND
	SET 1/2" IRON ROD
	PROPOSED SWD WELL
	SUBJECT BOUNDARY
	BOUNDARY LINE
	TIE TO SECTION
	HIGHWAY R/W
	LINE NOT TO SCALE



TRACT CORNER COORDINATE TABLE

POINT	NAD 83 LATITUDE	LONGITUDE	State Plane Grid, LA North NORTHING	EASTING
A	N32° 06' 10.0359"	W93° 18' 39.3414"	583974.34'	3029735.74'
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J	N32° 06' 05.0879"	W93° 18' 39.2979"	583474.34'	3029735.74'
WELL	N32° 06' 09.0523"	W93° 18' 38.1677"	583874.20'	3029835.95'

LINE TABLE

LINE	BEARING	DISTANCE
L1	S00°00'00"E	125.00'
L2	S24°47'46"W	110.16'
L3	N00°00'00"E	175.00'
L4	N00°00'00"E	100.00'

2.294 ACRE TRACT DESCRIPTION:

A TRACT OF LAND IN THE NORTH HALF OF THE NORTHEAST QUARTER (N/2 NE/4) OF SECTION 20, TOWNSHIP 13 NORTH, RANGE 9 WEST, NORTHWESTERN LAND DISTRICT, LOUISIANA MERIDIAN, CADDO PARISH, LOUISIANA, BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

Commence at a found 2" iron pipe filled with concrete marking the North quarter corner of said Section 30; thence run on the South line of said Section, S 89° 35' 45" E - 774.72 feet to a point; thence run S 00° 00' 00" E - 929.22 feet to a found 1/2" iron rod marking the Southwest corner of a called 5.579 acre tract described in deed recorded in Book 395, Page 1055, Conveyance Records of Red River Parish, and being the Point of Beginning of the tract herein described;

From the Point of Beginning run on the South line of said tract, N 90° 00' 00" E - 544.50 feet to a found 1/2" iron rod; thence run on the Southerly East line of said tract, N 90° 00' 00" E - 175.00 feet to a found 1/2" iron rod; thence run on the South line of said tract, N 90° 00' 00" E - 228.93 feet to a found 1/2" iron rod on the apparent Westerly right of way line of LA Highway 371; thence run on said Westerly right of way line, S 24° 47' 46" W - 302.93 feet to a set 1/2" iron rod capped "KGB PLS# 5189"; thence run N 90° 00' 00" W - 646.38 feet to a set 1/2" iron rod capped "KGB PLS# 5189"; thence run N 00° 00' 00" E - 100.00 feet to the Point of Beginning. Herein described tract contains 2.294 acres.

GENERAL NOTES:

1. Subject tract adjoins the public right of way of LA HWY 371. Access may be subject to LADOTD or other approval.
2. This survey does not constitute wetlands determinations, sub-surface determinations, or environmental assessments.
3. The surveyor does not guarantee title or that all servitudes of record or use are shown on this map.

BASIS OF BEARING/COORDINATES:

Bearings, distances, and Northing/Easting State Plane Coordinates are grid based on the Louisiana State Plane Coordinate System, North zone, NAD 1983, as determined by on-site GNSS observations referenced to NGS CORS station "SHRV". Coordinates and distances are U.S. survey feet.

REFERENCE SURVEYS:

1. Map of survey of a 5.579 Acre tract by H. Timothy Howell dated 10/8/2018.
2. Location plat of proposed EDWARDS SWD NO. 001 by Paul W. Culpepper dated 1/30/2019.
3. Map of survey of a 5.579 Acre Tract by Kyle G. Brownsberger dated July 29, 2019.

Drawing Date: 1/6/2020

Field Survey: 1/3/2020

Revised: N/A

.dwg file: 19026-2bmap

Drawn by: KGB

This Map of Survey is certified to be in accordance with a physical survey made on the ground under the jurisdiction of the undersigned and complies with the requirements of Louisiana, "Statute of Practice for Boundary Surveys" for a Class D survey. The field work was completed on January 3, 2020.



KYLE G. BROWNSBERGER
License No. 5189
PROFESSIONAL
LAND SURVEYOR

01-03-2020

Kyle G. Brownsberger
Kyle G. Brownsberger, P.L.S. No. 5189
Brownsberger Land Surveying, LLC
3431 Pines Road, Shreveport, LA 71119
Phone: (318) 210-0907