APPENDIX A

EXHIBITS

Exhibit 1 – Vicinity Map

Exhibit 2 – Site Location Map

Exhibit 3 – Topographic Map, 1998

Exhibit 4 – Aerial Photograph, 2013

Exhibit 5 – Soils Map

Exhibit 6 – Floodplain Map

Exhibit 7 – National Wetlands Inventory (NWI) Map

Exhibit 8 – Project Design Layout

PATH: N:\SPRIDESIGN\GIS\MAPS\WEST_HACKBERRY\WH_VICINITY_MAP_032216.mxd

SOURCE: ESRI StreetMap USA

N

5 2.5 0 5 Miles

EXHIBIT 1
VICINITY MAP

Brine Disposal Pipeline Replacement Project
West Hackberry, Strategic Petroleum Reserve
Cameron Parish, Louisiana

PATH: \SPRDESIGN\GIS\MAPS\WEST_HACKBERRY\WH_SITE_LOCATION_032216.mxd

SOURCE: ESRI StreetMap USA

N

1 0.5 0 1 Miles

EXHIBIT 2
SITE LOCATION MAP

Brine Disposal Pipeline Replacement Project
West Hackberry, Strategic Petroleum Reserve
Cameron Parish, Louisiana

PATH: \\SPRDESIGN\GIS\MAPS\WEST_HACKBERRY\WH_TOPO_1998_BRINE_LINE_022216.mxd

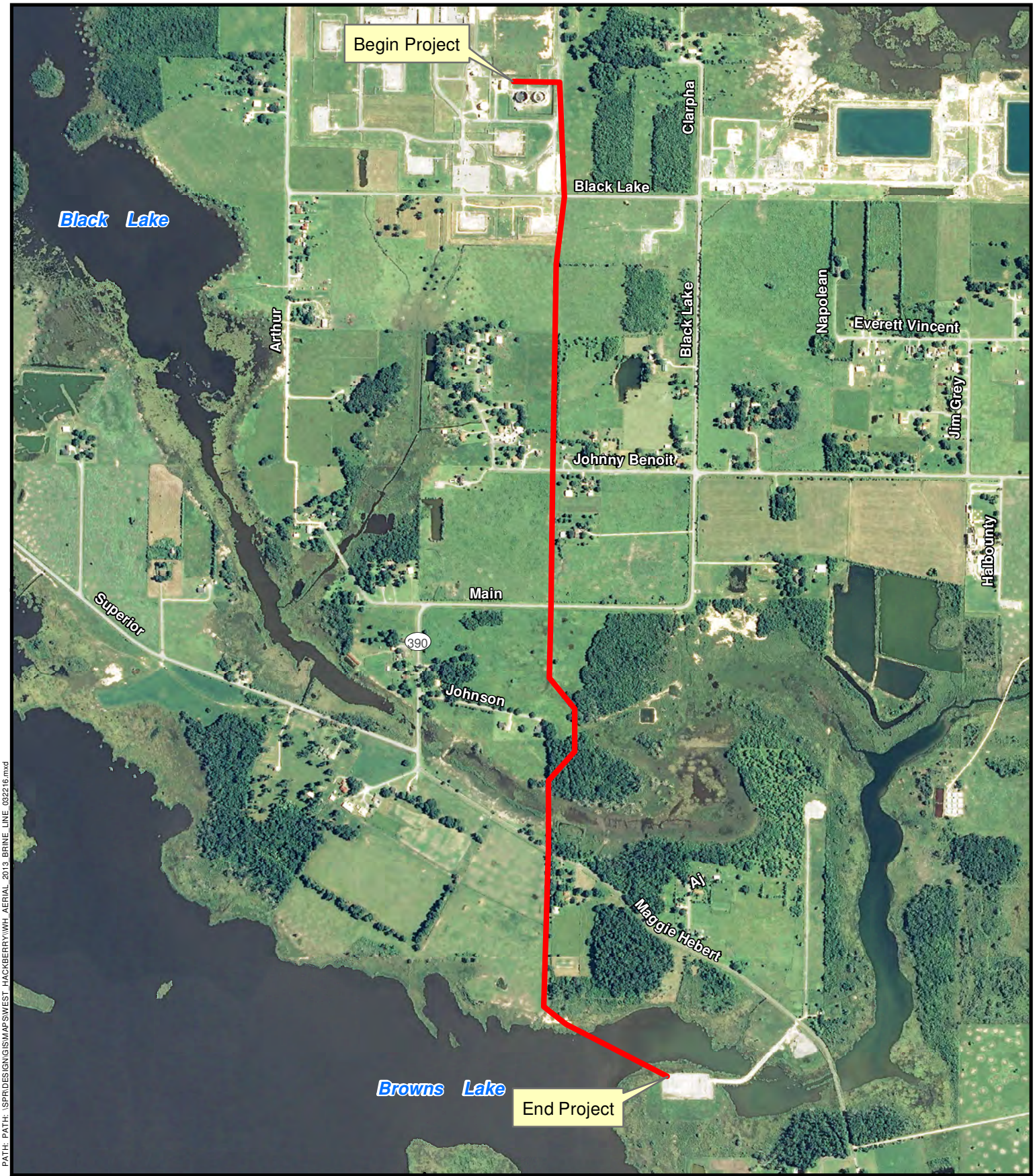
SOURCE: USGS, Browns Lake, 7.5 Minute Topographic Quadrangle, 1998

N

1,000 500 0 1,000 Feet

EXHIBIT 3
TOPOGRAPHIC MAP, 1998

Brine Disposal Pipeline Replacement Project
West Hackberry, Strategic Petroleum Reserve
Cameron Parish, Louisiana



PATH: PATH: \SPRIDESIGN\GIS\MAPS\WEST_HACKBERRY\\WH_AERIAL_2013_BRINE_LINE_032216.mxd

SOURCE: USDA-NAIP, 2013

N

1,000 500 0 1,000

Feet

EXHIBIT 4
AERIAL PHOTOGRAPH, 2013

Brine Disposal Pipeline Replacement Project
West Hackberry, Strategic Petroleum Reserve
Cameron Parish, Louisiana

SOURCE: USDA (SSURGO), 2015
USDA-NAIP, 2013

N

1,000 500 0 1,000 Feet

EXHIBIT 5
SOILS MAP

Brine Disposal Pipeline Replacement Project
West Hackberry, Strategic Petroleum Reserve
Cameron Parish, Louisiana

PATH: N:\SPR\DESIGN\GIS\MAPS\WEST_HACKBERRY\WH_FEMA_BRINE_LINE_032216.mxd

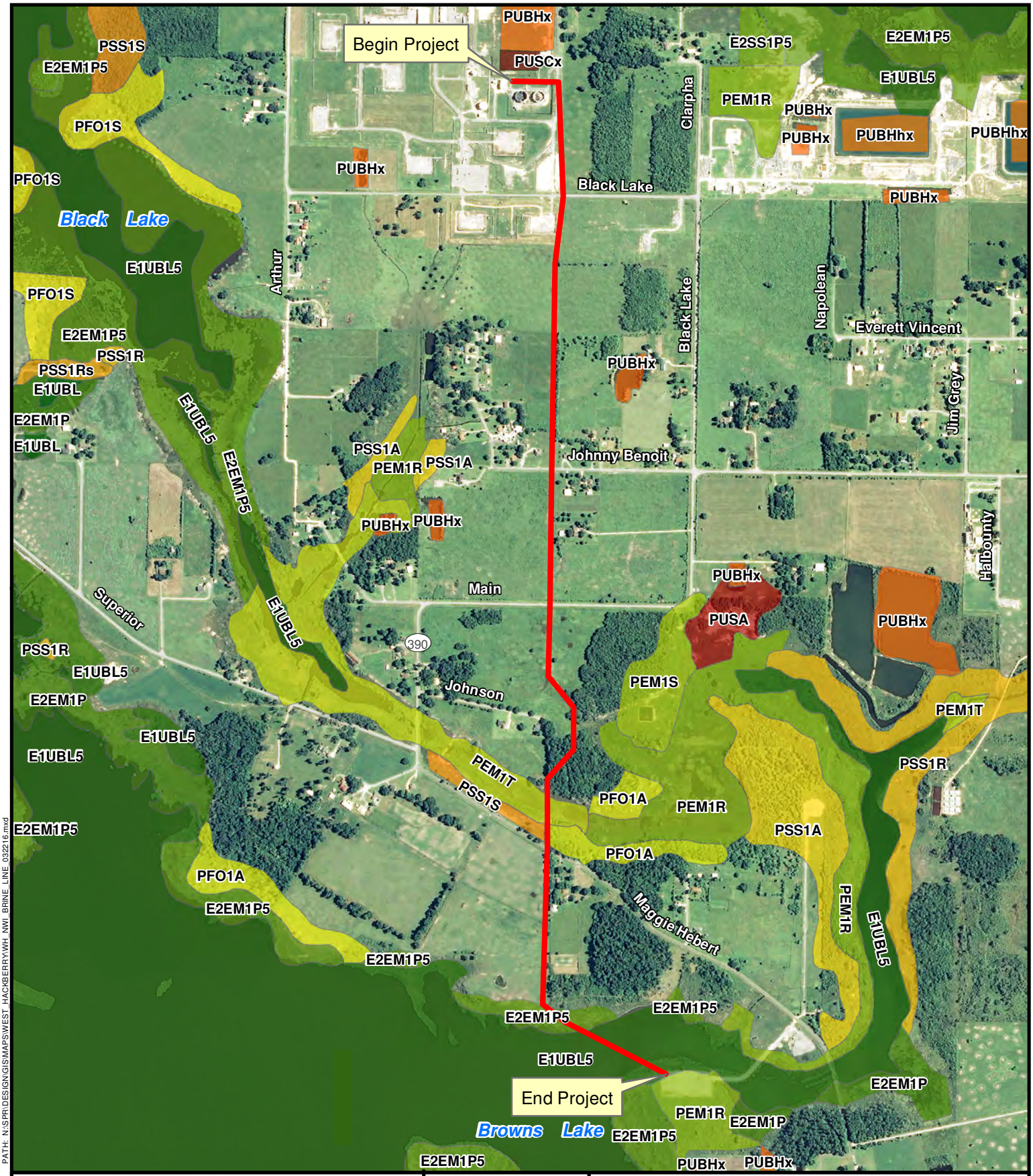
SOURCE: FEMA 11/16/2012, Panel No. 22023C0375H, USDA-NAIP, 2013

N

1,000 500 0 1,000 Feet

EXHIBIT 6
FLOODPLAIN MAP

Brine Disposal Pipeline Replacement Project
West Hackberry, Strategic Petroleum Reserve
Cameron Parish, Louisiana



PATH: N:\SPR\DESIGN\GIS\MAPS\WEST_HACKBERRY\WH_NWI_BRINE_LINE_032216.mxd

SOURCE: National Wetlands Inventory (NWI), 11-1988
USDA-NAIP, 2013

N

1,000 500 0 1,000
Feet

EXHIBIT 7
NATIONAL WETLANDS INVENTORY

Brine Disposal Pipeline Replacement Project
West Hackberry, Strategic Petroleum Reserve
Cameron Parish, Louisiana

U. S. DEPARTMENT OF ENERGY
STRATEGIC PETROLEUM RESERVE

REPLACE 24" BRINE DISPOSAL PIPELINE INSTALL
TASK NO. WH-MM-826

WEST HACKBERRY
CAMERON PARISH, LOUISIANA

VCI Project Management Construction Management Engineering

ISSUED FOR REFERENCE
IN TASK NO. WH-MM-826

S&B INFRASTRUCTURE, LTD.

S&B JOB NO. U2505

Texas Firm Registration Number: F-1582

REGISTRATION STAMP

REVISION ____
NUMBER ____

DESIGNED BY:
DRAWN BY:
CHECKED BY:
ENGINEER OF RECORD:
SIGNATURE:
DATE:

NO.	CHANGE DESCRIPTION	DRAWN BY	CHECKED BY	PROJECT ENGINEER	ENGINEERING MANAGER	D.O.E. APPROVAL	DATE

NO.	CHANGE DESCRIPTION	DRAWN BY	CHECKED BY	PROJECT ENGINEER	ENGINEERING MANAGER	D.O.E. APPROVAL	DATE

REPLACE 24" BRINE DISPOSAL PIPELINE INSTALL

TITLE SHEET

WEST HACKBERRY
CAMERON PARISH, LOUISIANA

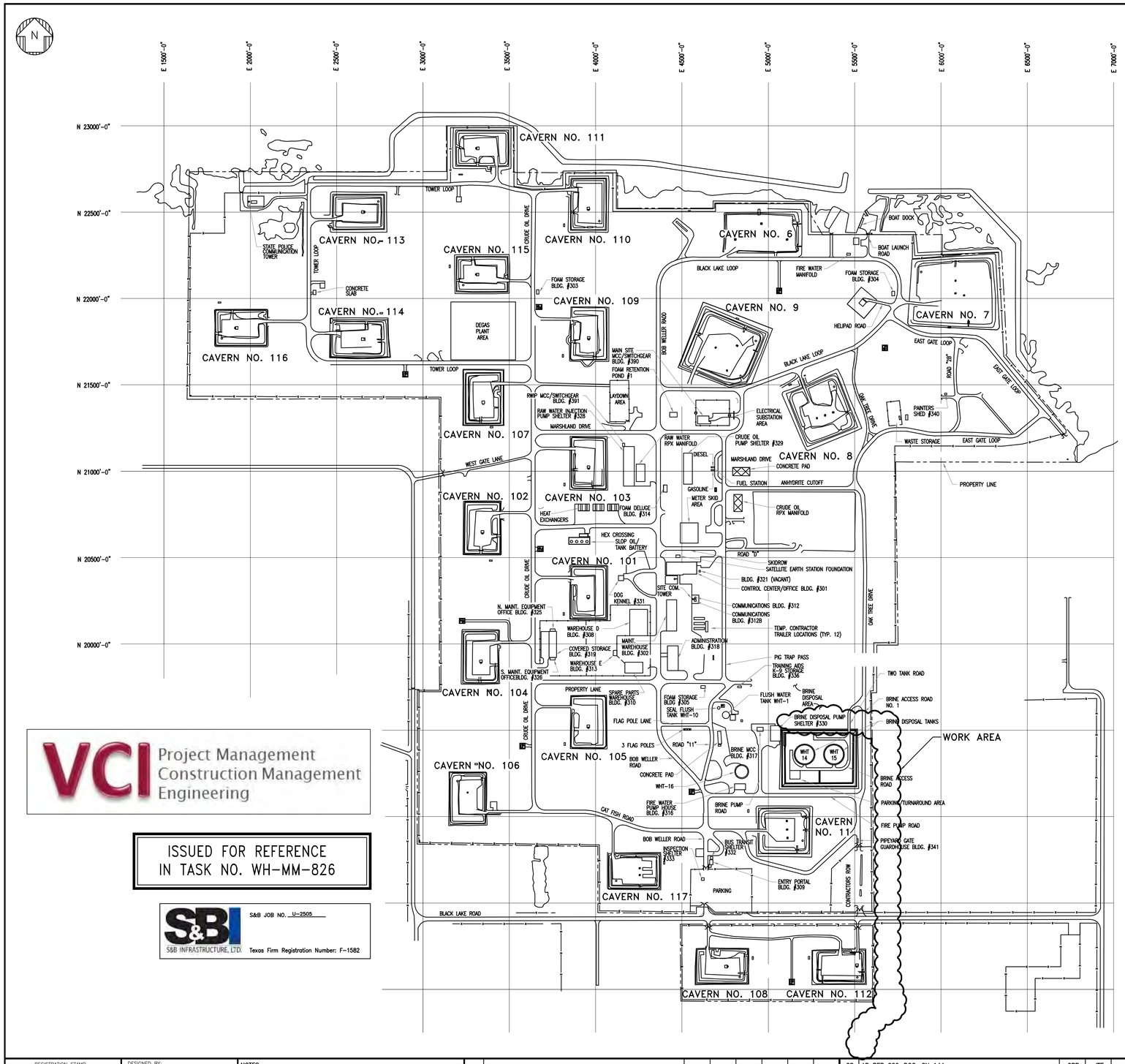
OFFICE OF SYSTEMS AND PROJECTS

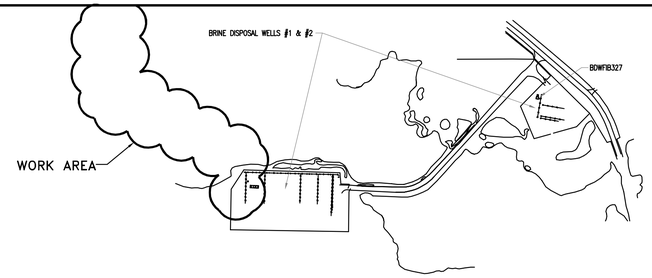
STRATEGIC PETROLEUM RESERVE

APPROVED FOR CONSTRUCTION ____
DATE ____

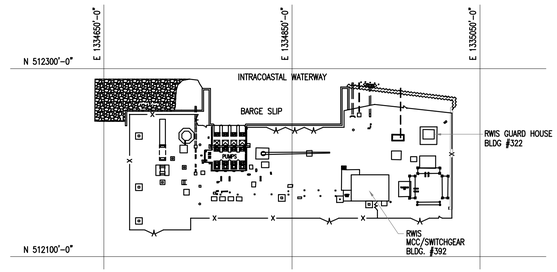
PROJECT AUTH. # 03191783
TASK NUMBER: WH-MM-826
DISCIPLINE: ALL
SCALE: NONE
DRAWING NUMBER: SK-U-WH826-001
SHEET 1 OF 1
REV. 0

S. & B. INFRASTRUCTURE, LTD.
S:\project\ve\u2505\TITLE SHEETS\PFC\SK-U-WH826-001_REF.dwg Sep 19, 2016-11:01am aventjn



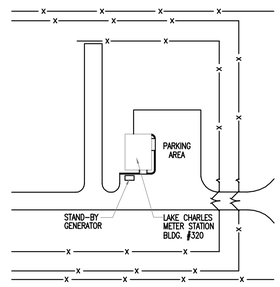


BRINE DISPOSAL WELL PAD No.1 & No.2



RAW WATER INTAKE STRUCTURE

N.T.S.



LAKE CHARLES METER STATION

N.T.S.

VCI Project Management Construction Management Engineering

ISSUED FOR REFERENCE IN TASK NO. WH-MM-826

S&B INFRASTRUCTURE, LTD.

S&B JOB NO. U-2505

Texas Firm Registration Number: F-1582

WEST HACKBERRY MECHANICAL DRAWING INDEX LINKS

(SEE NOTE 1)

- CRUDE OIL SYSTEM HEADER
- RAW WATER SYSTEM HEADER
- CRUDE OIL MANIFOLD (RPX)
- RAW WATER MANIFOLD (RPX)
- CRUDE OIL HEAT EXCHANGERS
- RAW WATER INJECTION PUMP
- CRUDE OIL INJECTION PUMP
- RAW WATER INTAKE STRUCTURE
- CRUDE OIL LAUNCHER/RECEIVERS
- CRUDE OIL METERS
- CAVERN NO. 6 (SOUR)
- CAVERN NO. 7 (SWEET)
- CAVERN NO. 8 (SOUR)
- CAVERN NO. 9 (SOUR)
- CAVERN NO. 11 (SOUR)
- CAVERN NO. 101 (SWEET)
- CAVERN NO. 102 (SWEET)
- CAVERN NO. 103 (SWEET)
- CAVERN NO. 104 (SWEET)
- CAVERN NO. 105 (SWEET)
- CAVERN NO. 106 (SOUR)
- CAVERN NO. 107 (SWEET)
- CAVERN NO. 108 (SWEET)
- CAVERN NO. 109 (SOUR)
- CAVERN NO. 110 (SWEET)
- CAVERN NO. 111 (SOUR)
- CAVERN NO. 112 (SOUR)
- CAVERN NO. 113 (SWEET)
- CAVERN NO. 114 (SOUR)
- CAVERN NO. 115 (SOUR)
- CAVERN NO. 116 (SWEET)
- CAVERN NO. 117 (SOUR)
- EMERGENCY GENERATOR
- FLUSH WATER PUMPS
- BRINE DISPOSAL
- FIRE PROTECTION
- OIL/WATER SEPARATION
- POTABLE WATER
- SEAL FLUSH
- SLOP OIL SYSTEM

1" = 300'-0" (300' 150' 0 300' 600')

REGISTRATION STAMP

REVISION _____ NUMBER _____

DESIGNED BY:
DRAWN BY:
CHECKED BY:
ENGINEER OF RECORD:
SIGNATURE:
DATE:

NOTES:

1. TO ACCESS THE MECHANICAL DRAWING INDEX FOR EACH AREA SHOWN, DOUBLE-CLICK ON THE TEXT WITHIN THE CHART AND THE MECHANICAL DRAWING INDEX WILL BE VIEWED IN MYRIAD. THE MECHANICAL DRAWING INDEX CAN ALSO BE ACCESSED BY DOUBLE-CLICKING ON THE BOLD TEXT WITHIN THE SITE PLAN ITSELF.
2. HEAT FLUX EXCLUSION ZONES ARE ON HIDDEN LAYERS CALLED "HF-BRINE POND", "HF-C.O. PIPELINE", "HF-C.O. PIPELINE 300 FT", "HF-C.O. PIPELINE 75 FT", "HF-DEGAS 425 FT", "HF-DIKE 300 FT", "HF-DIKE 75 FT", "HF-DYNERGY AND K9", "HF-NG PIPELINE" & "HF-SAFE ZONE". TO VIEW THIS INFO, TURN THE LAYERS ON IN VIEWER OR AUTOCAD.

NO.	CHANGE DESCRIPTION	DRAWN BY	CHECKED BY	PROJECT ENGINEER	ENGINEERING MANAGER	D.O.E. APPROVAL	DATE
30	AB PER 999-DOC, CN 146	JMM	JTF				12/11/14
29	AB PER 999-DOC, CN 145	CBB	JTF				5/16/12

NO.	CHANGE DESCRIPTION	DRAWN BY	CHECKED BY	PROJECT ENGINEER	ENGINEERING MANAGER	D.O.E. APPROVAL	DATE
28	AB PER 999-DOC, CN 144	CBB	JTF				4/26/12
27	AB PER 999-DOC, CN 143	CBB	JTF				6/28/11
26	AB PER WH-10-067, 03042093, CN 139 & 999-DOC, CN, 142	EMB	BD				2/21/11
25	AB PER 999-DOC, CN 141	TLM	JTF				12/9/10
24	AB PER 999-DOC, CN 140	JTF	BD				10/21/10
23	AB PER 999-DOC, CN 137 & CN 138	TLM	JTF				8/2/10
22	AB PER 999-DOC, CN 136	TLM	JTF				4/8/10
21	AB PER 999-DOC, CN 133	TLM	JTF				5/14/09
	PRIOR ENGINEER'S REVISIONS AND SEALS ARE ON FILE WITH THE SPR.						

PLAN

OVERALL SITE

WEST HACKBERRY

CAMERON PARISH, LOUISIANA

OFFICE OF SYSTEMS AND PROJECTS

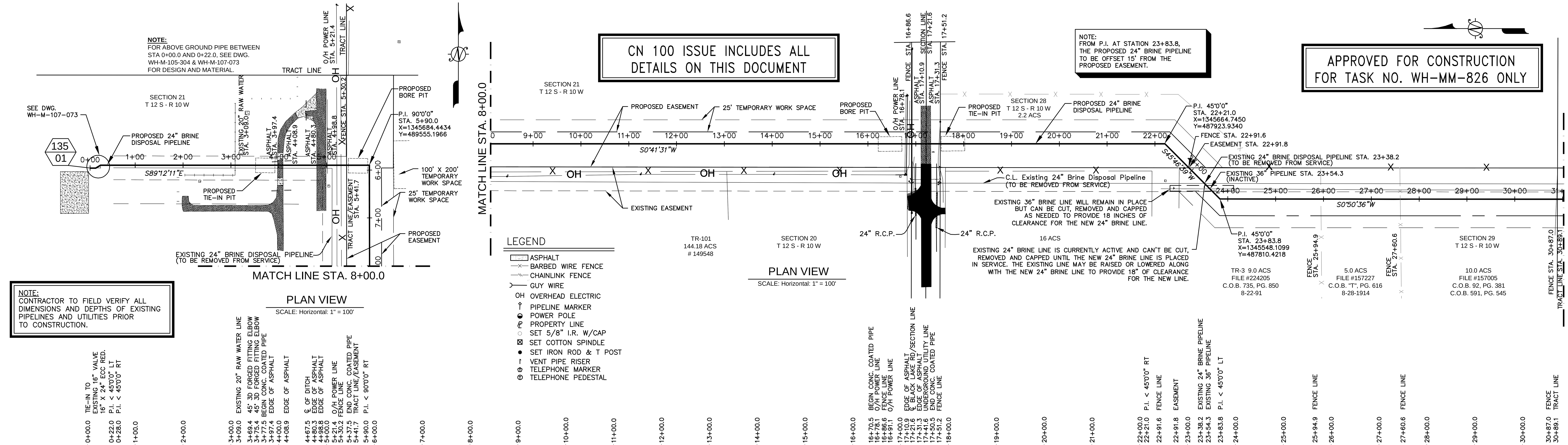
STRATEGIC PETROLEUM RESERVE

APPROVED FOR CONSTRUCTION _____

DATE _____

TASK NUMBER: WH-MM-826
DISCIPLINE: CIVIL/STRUCTURAL
SCALE: 1" = 300'-0"
DRAWING NUMBER: WH-C-201-001
SHEET C1 OF 15
REV. 30

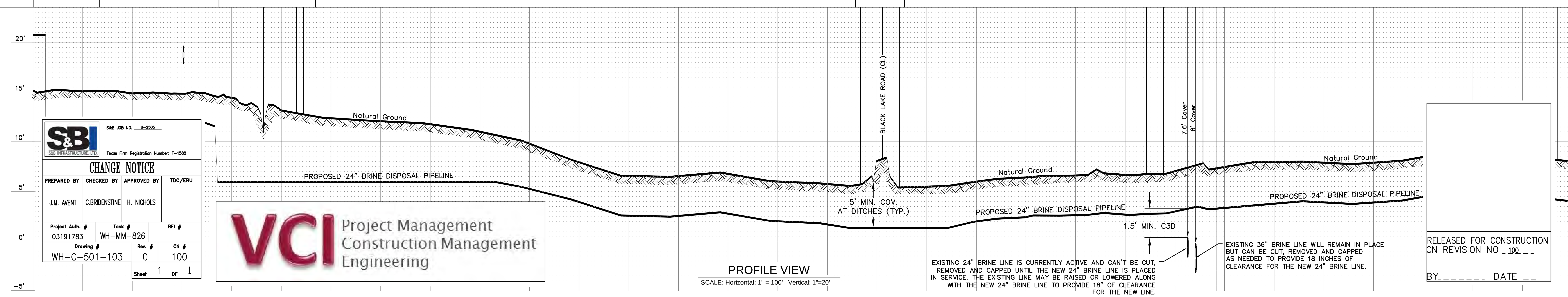
TERRAIN	INSIDE FACILITY FENCE	FLAT PASTURE	FLAT PASTURE	FLAT PASTURE	FLAT PASTURE	FLAT PASTURE	FLAT PASTURE
VEGETATION	GRASSY AREA	OPEN GRASSY AREA	OPEN GRASSY AREA	OPEN GRASSY AREA	OPEN GRASSY AREA	OPEN GRASSY AREA	OPEN GRASSY AREA
OWNER	UNITED STATES OF AMERICA	UNKNOWN	UNKNOWN	UNKNOWN	TRIDENT ENERGY GROUP	U.R. GASSEN ET AL	DONALD B. DEROUEN ESTATE DOROTHY MAE DEROUEN LYONS
RODS							
PARISH-STATE	CAMERON PARISH, LOUISIANA	CAMERON PARISH, LOUISIANA	CAMERON PARISH, LOUISIANA	CAMERON PARISH, LOUISIANA	CAMERON PARISH, LOUISIANA	CAMERON PARISH, LA	CAMERON PARISH, LOUISIANA



REF. DWG	WH-M-105-304	WH-M-107-073 WH-M-107-231	WH-C-509-033	WH-C-509-034
MOP	1296 PSIG			

MATERIAL: 0+10.0 (9), 0+16.0 (9)(5), 0+22.0 (9), 0+30.0 (4), (1), 3+69.4 (4), 3+75.4 (4), 3+77.5, (2), 5+28.5 (7), 5+37.5 (7)(3), 5+90.0, (1), 16+70.5, 16+77.5 (7), (2), 17+42.5 (6)(7), 17+50.5, (7)(4) 22+21.0, (7)(4) 23+83.8, (1)

Lengths: 30' | 347' | 160' | 1,133' | 80' | 1,350'



PROFILE VIEW

SCALE: Horizontal: 1" = 100' Vertical: 1"=20'

NO.	MATERIAL DESCRIPTION	QUANTITY
9	24" 45 DEG, 3D ELBOW, W/ 0.375" THICK CEMENT LINER, BARE PIPE FOR ABOVE GROUND	3
8	AERIAL MILE POST MARKERS	0
7	PIPELINE MARKERS – WARNING SIGNS	6
6	CP TEST STATIONS	1
5	24" O.D., 0.500" W.T., API 5L X-60-PSL2 PIPE W/ 0.375" THICK INTERNAL CEMENT LINER, BARE PIPE (FOR ABOVE GROUND)	30'
4	24" 45 DEG, 3D FORGED FITTING ELBOW, 0.500" W.T. TAPERED ENDS TO MATCH PIPE, MSS-SP-75 WPHY 60 W/0.375" THICK INTERNAL CEMENT LINER, 14-16 MILS FBE, 25-30 MILS ARO	5
3	24" 90 DEG, 3D FORGED FITTING ELBOW, 0.500" W.T. TAPERED ENDS TO MATCH PIPE, MSS-SP-75 WPHY 60 W/0.375" THICK INTERNAL CEMENT LINER, 14-16 MILS FBE, 25-30 MILS ARO	1
2	24" O.D., 0.500" W.T., API 5L X-60-PSL2 PIPE W/0.375" THICK INTERNAL CEMENT LINER, AND 14-16 MILS FBE, + 1" THICK CONC. OUTER COATING	240'
1	24" O.D., 0.500" W.T., API 5L X-60-PSL2 PIPE W/0.375" THICK INTERNAL CEMENT LINER, AND 14-16 MILS FBE, 25-30 MILS ARO	2830'

NO.	CHANGE DESCRIPTION	DRAWN BY	CHECKED BY	PROJECT ENGINEER	ENGINEERING MANAGER	D.O.E. APPROVAL	DATE

REGISTRATION STAMP

REVISION NUMBER

DESIGNED BY:
DRAWN BY:
CHECKED BY:
SURVEYOR OF RECORD:
SIGNATURE:
DATE:

PIPELINE ALIGNMENT SHEET

24" BRINE PIPELINE
WEST HACKBERRY SPR FACILITY
TO BRINE DISPOSAL WELL SITE
STA. 0+00 TO STA. 31+00

WEST HACKBERRY
CAMERON PARISH, LOUISIANA

OFFICE OF SYSTEMS AND PROJECTS
STRATEGIC PETROLEUM RESERVE

APPROVED FOR CONSTRUCTION
DATE

TASK NUMBER: WH-MM-826
DISCIPLINE: MAPPING
SCALE: HORIZONTAL: 1" = 100' PROFILE BY: 1" = 20'
DRAWING NUMBER: WH-C-501-103
SHEET C2 OF 15
REV. 0

ACAD FILENAME:

TERRAIN	FLAT FARM LAND	FLAT RESIDENTIAL (YARD)	FLAT PASTURE
VEGETATION	OPEN HAY FIELD	OPEN GRASSY AREA	OPEN GRASSY AREA
OWNER	GEORGE ELERY SHOVE, ET UX	RONALD JOSEPH RICHARD, ET UX	MRS. LAURA JOHNSON, ET AL
RODS			
PARISH-STATE	CAMERON PARISH, LOUISIANA	CAMERON PARISH, LOUISIANA	CAMERON PARISH, LOUISIANA

S&B INFRASTRUCTURE, LTD. — S&B JOB NO. U-2505 — Texas Firm Registration Number: F-1582

CHANGE NOTICE

PREPARED BY	CHECKED BY	APPROVED BY	TDC/ERU
J.M. AVENT	C.BRIDENSTINE	H. NICHOLS	

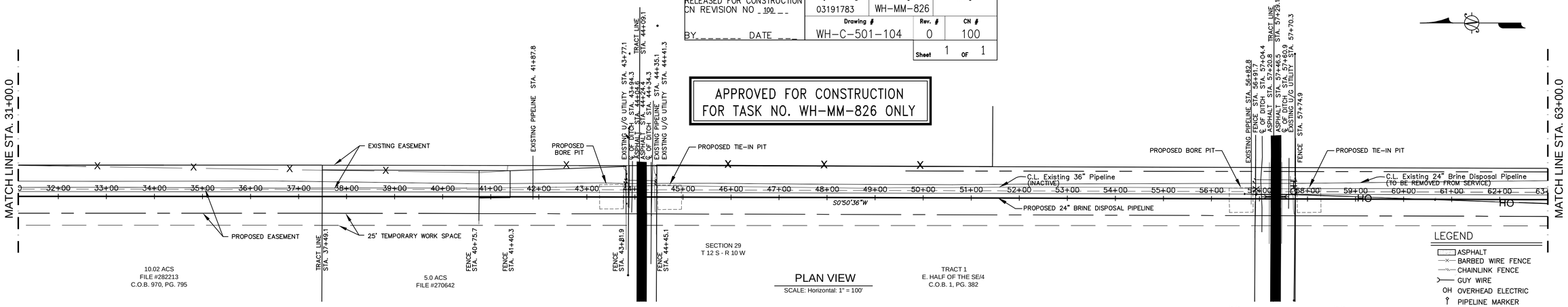
RELEASED FOR CONSTRUCTION
CN REVISION NO 100
BY _____ DATE _____

Project Auth. #	Task #	RFI #
03191783	WH-MM-826	

Drawing #	Rev. #	CN #
WH-C-501-104	0	100

Sheet 1 OF 1

APPROVED FOR CONSTRUCTION
FOR TASK NO. WH-MM-826 ONLY

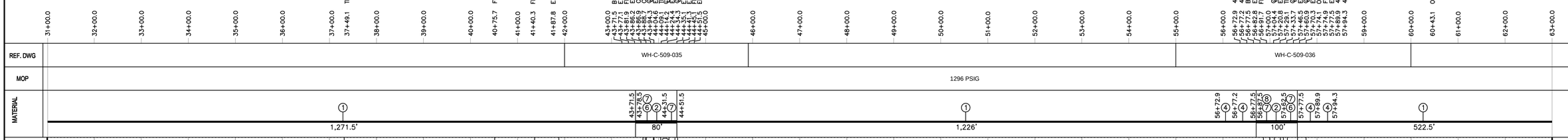


PLAN VIEW
SCALE: Horizontal: 1" = 100'

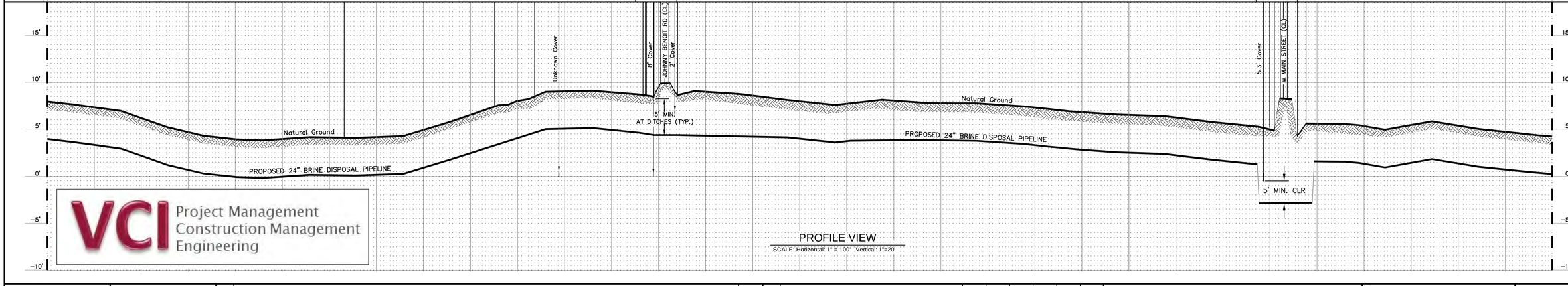
NOTE:
CONTRACTOR TO FIELD VERIFY ALL DIMENSIONS AND DEPTHS OF EXISTING PIPELINES AND UTILITIES PRIOR TO CONSTRUCTION.

CN 100 ISSUE INCLUDES ALL DETAILS ON THIS DOCUMENT

LEGEND
- ASPHALT
- BARBED WIRE FENCE
- CHAINLINK FENCE
- GUY WIRE
- OH OVERHEAD ELECTRIC
- PIPELINE MARKER
- POWER POLE
- PROPERTY LINE
- SET 5/8" I.R. W/CAP
- SET COTTON SPINDLE
- SET IRON ROD & T POST
- VENT PIPE RISER
- TELEPHONE MARKER
- TELEPHONE PEDESTAL



REF. DWG	WH-C-509-035 / WH-C-509-036
MOP	1296 PSIG
MATERIAL	① 1,271.5' — 43+71.5 ⑧ ⑦ ⑥ ② ① 44+51.5 ⑦ 44+51.5 — 80' — ① 1,226' — 56+72.9 ④ 56+77.2 ④ 56+77.5 ⑧ ⑦ ② 57+52.5 ⑥ 57+77.5 ④ 57+89.9 ④ 57+94.3 — 100' — ① 522.5'



PROFILE VIEW
SCALE: Horizontal: 1" = 100' Vertical: 1"=20'

VCI Project Management Construction Management Engineering

REGISTRATION STAMP

REVISION _____
NUMBER _____

DESIGNED BY:
DRAWN BY:
CHECKED BY:
SURVEYOR OF RECORD:
SIGNATURE:
DATE:

NO.	MATERIAL DESCRIPTION	QUANTITY
8	AERIAL MILE POST MARKERS	1
7	PIPELINE MARKERS – WARNING SIGNS	4
6	CP TEST STATIONS	2
5	NOT USED	
4	24" 45 DEG, 3D FORGED FITTING ELBOW, 0.500" W.T. TAPERED ENDS TO MATCH PIPE, MSS-SP-75 WPHY 60 W/0.375" THICK INTERNAL CEMENT LINER, 14-16 MILS FBE, 25-30 MILS ARO	4
3	24" 90 DEG, 3D FORGED FITTING ELBOW, 0.500" W.T. TAPERED ENDS TO MATCH PIPE, MSS-SP-75 WPHY 60 W/0.375" THICK INTERNAL CEMENT LINER, 14-16 MILS FBE, 25-30 MILS ARO	0
2	24" O.D., 0.500" W.T., API 5L X-60-PSL2 PIPE W/0.375" THICK INTERNAL CEMENT LINER, AND 14-16 MILS FBE, + 1" THICK CONC. OUTER COATING	180'
1	24" O.D., 0.500" W.T., API 5L X-60-PSL2 PIPE W/0.375" THICK INTERNAL CEMENT LINER, AND 14-16 MILS FBE, 25-30 MILS ARO	3,020'

NO.	CHANGE DESCRIPTION	DRAWN BY	CHECKED BY	PROJECT ENGINEER	ENGINEERING MANAGER	D.O.E. APPROVAL	DATE

PIPELINE ALIGNMENT SHEET

24" BRINE PIPELINE
WEST HACKBERRY SPR FACILITY
TO BRINE DISPOSAL WELL SITE
STA. 31+00 TO STA. 63+00

WEST HACKBERRY
CAMERON PARISH, LOUISIANA

OFFICE OF SYSTEMS AND PROJECTS
STRATEGIC PETROLEUM RESERVE
APPROVED FOR CONSTRUCTION _____
DATE _____

TASK NUMBER: WH-MM-826
DISCIPLINE: MAPPING
SCALE: HORIZONTAL: 1" = 100' PROFILE BY: 1" = 20'
DRAWING NUMBER: WH-C-501-104
SHEET C3 OF 15
REV. 0

ACAD FILENAME

TERRAIN	FLAT PASTURE	FLAT PASTURE	FLAT TREED AREA WITH WATER CROSSING			FLAT PASTURE
VEGETATION	OPEN GRASSY AREA	OPEN GRASSY AREA	HEAVY TREED AREA AREA	WET-WATER CROSSING	OPEN GRASSY AREA	OPEN GRASSY AREA
OWNER	MRS. LAURA JOHNSON, ET AL	UNKNOWN	CARL P. JOHNSON PRESTON J. JOHNSON			VINCENT HEIRS, INC. (E/2 OF W/2, E/2, W/2 OF SW4, SW4 OF NW4 SECTION 32) COB 227, PG. 565 COB 181, PG. 422 COB 395, PG. 58
RODS						
PARISH-STATE	CAMERON PARISH, LOUISIANA	CAMERON PARISH, LA	CAMERON PARISH, LOUISIANA			CAMERON PARISH, LOUISIANA

S&B INFRASTRUCTURE, LTD. S&B JOB NO. U-2505
Texas Firm Registration Number: F-1582

CHANGE NOTICE

PREPARED BY	CHECKED BY	APPROVED BY	TDC/ERU
J.M. AVENT	C.BRIDENSTINE	H. NICHOLS	

Project Auth. #	Task #	RFI #
03191783	WH-MM-826	

Drawing #	Rev. #	CN #
WH-C-501-105	0	100

Sheet 1 OF 1

RELEASED FOR CONSTRUCTION
CN REVISION NO _100_ _
BY______ DATE ___

NO.	MATERIAL DESCRIPTION	QUANTITY
8	AERIAL MILE POST MARKERS	0
7	PIPELINE MARKERS – WARNING SIGNS	7
6	CP TEST STATIONS	2
5	NOT USED	
4	24" 45 DEG, 3D FORGED FITTING ELBOW, 0.500" W.T. TAPERED ENDS TO MATCH PIPE, MSS-SP-75 WPHY 60 W/0.375" THICK INTERNAL CEMENT LINER, 14-16 MILS FBE, 25-30 MILS ARO	8
3	24" 90 DEG, 3D FORGED FITTING ELBOW, 0.500" W.T. TAPERED ENDS TO MATCH PIPE, MSS-SP-75 WPHY 60 W/0.375" THICK INTERNAL CEMENT LINER, 14-16 MILS FBE, 25-30 MILS ARO	0
2	24" O.D., 0.500" W.T., API 5L X-60-PSL2 PIPE W/0.375" THICK INTERNAL CEMENT LINER, AND 14-16 MILS FBE, + 1" THICK CONC. OUTER COATING	100'
1	24" O.D., 0.500" W.T., API 5L X-60-PSL2 PIPE W/0.375" THICK INTERNAL CEMENT LINER, AND 14-16 MILS FBE, 25-30 MILS ARO	3100'

NO.	CHANGE DESCRIPTION	DRAWN BY	CHECKED BY	PROJECT ENGINEER	ENGINEERING MANAGER	D.O.E. APPROVAL	DATE

REGISTRATION STAMP
REVISION NUMBER
DESIGNED BY:
DRAWN BY:
CHECKED BY:
SURVEYOR OF RECORD:
SIGNATURE:
DATE:

PIPELINE ALIGNMENT SHEET

24" BRINE PIPELINE
WEST HACKBERRY SPR FACILITY
TO BRINE DISPOSAL WELL SITE
STA. 63+00 TO STA. 95+00

WEST HACKBERRY
CAMERON PARISH, LOUISIANA

OFFICE OF SYSTEMS AND PROJECTS
DEPARTMENT OF ENERGY · UNITED STATES OF AMERICA
STRATEGIC PETROLEUM RESERVE
APPROVED FOR CONSTRUCTION
DATE

TASK NUMBER: WH-MM-826
DISCIPLINE: MAPPING
SCALE: HORIZONTAL: 1' = 100' PROFILE BY: 1" = 20'
DRAWING NUMBER: WH-C-501-105
SHEET C4 OF 15
REV. 0
ACAD FILENAME:

TERRAIN	FLAT PASTURE	FLAT WATER CROSSING
VEGETATION	OPEN GRASSY AREA	WET/OPEN WATER
OWNER	VINCENT HEIRS, INC. (E/2 OF W/2, E/2, W/2 OF SW4, SW4 OF NW4 SECTION 32) COB 227, PG. 565 COB 181, PG. 422 COB 395, PG. 58	UNITED STATES OF AMERICA
RODS		
PARISH-STATE	CAMERON PARISH, LOUISIANA	CAMERON PARISH, LOUISIANA

S&B JOB NO. U-2505

S&B INFRASTRUCTURE, LTD. Texas Firm Registration Number: F-1582

CHANGE NOTICE

PREPARED BY	CHECKED BY	APPROVED BY	TDC/ERU
J.M. AVENT	C.BRIDENSTINE	H. NICHOLS	

RELEASED FOR CONSTRUCTION
CN REVISION NO 100

BY______ DATE ___

Project Auth. #	Task #	RFI #
03191783	WH-MM-826	

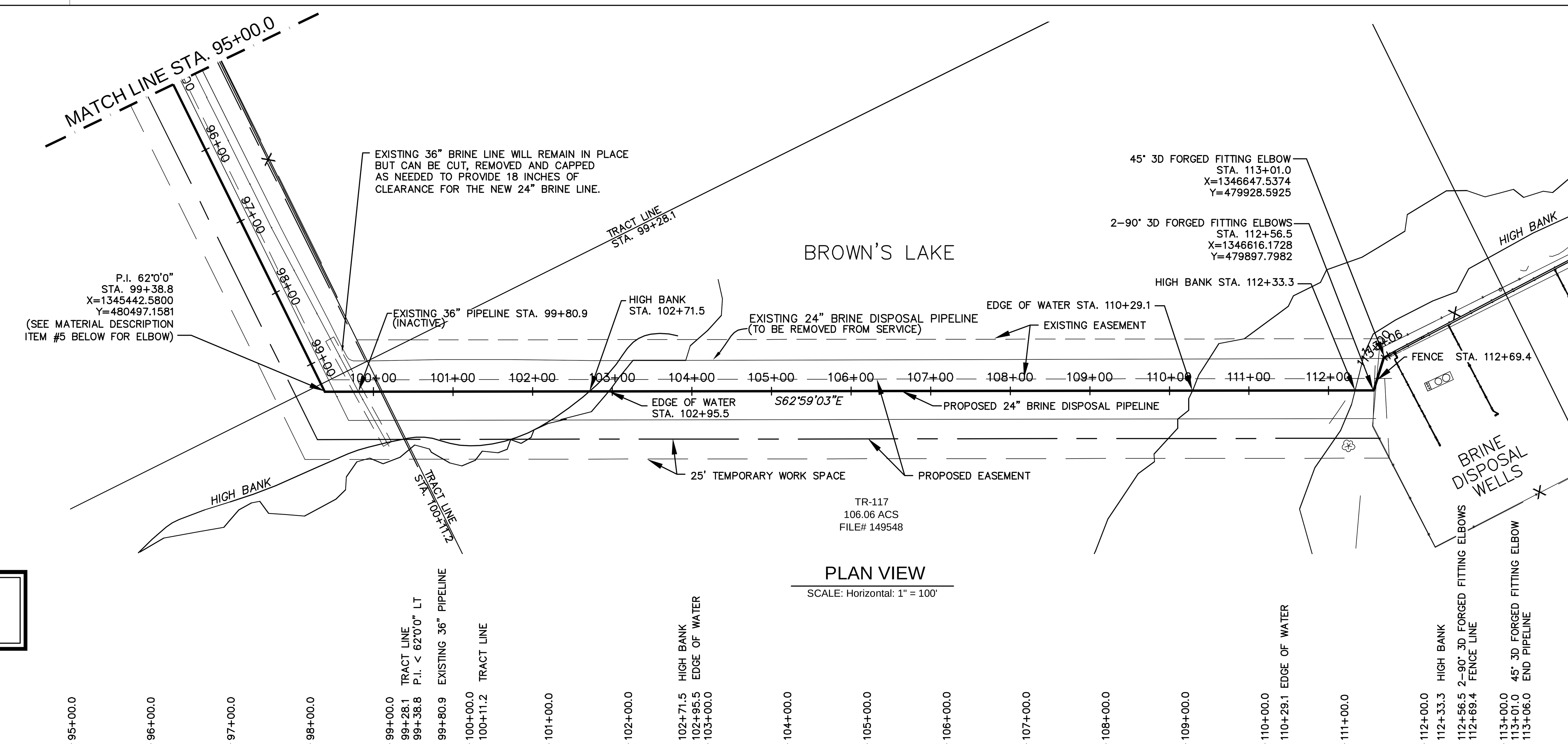
Drawing #	Rev. #	CN #
WH-C-501-106	0	100

Sheet 1 OF 1

APPROVED FOR CONSTRUCTION FOR TASK NO. WH-MM-826 ONLY

NOTE:
CONTRACTOR TO FIELD VERIFY ALL DIMENSIONS AND DEPTHS OF EXISTING PIPELINES AND UTILITIES PRIOR TO CONSTRUCTION.

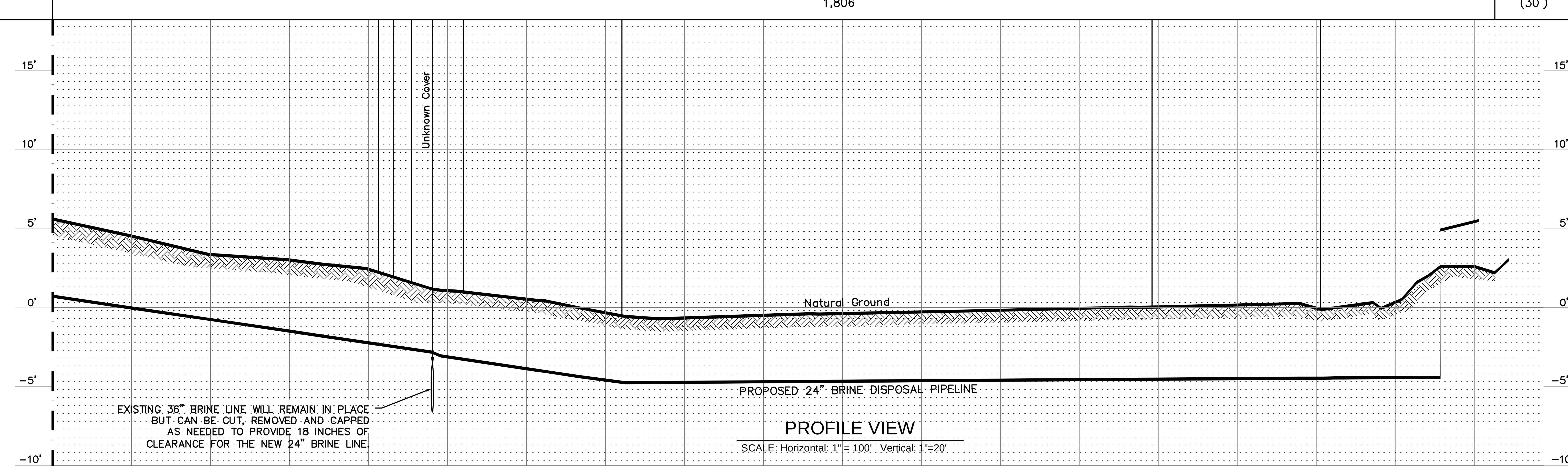
CN 100 ISSUE INCLUDES ALL DETAILS ON THIS DOCUMENT



LEGEND
- ASPHALT
- BARBED WIRE FENCE
- CHAINLINK FENCE
- GUY WIRE
- OH OVERHEAD ELECTRIC
- PIPELINE MARKER
- POWER POLE
- PROPERTY LINE
- SET 5/8" I.R. W/CAP
- SET COTTON SPINDLE
- SET IRON ROD & T POST
- VENT PIPE RISER
- TELEPHONE MARKER
- TELEPHONE PEDESTAL

REF. DWG		WH-C-509-039	WH-M-107-074
MOP		1296 PSIG	
MATERIAL	⑦⑤ 99+38.8	① 1,806'	112+56.5 ⑩③ 113+01.0 ④ 113+06.0 ⑨ ⑧⑦ 113+16.5 113+36.0 (30')

Project Management
Construction Management
Engineering



NOTE:
FOR ABOVE GROUND PIPE BETWEEN STA. 113+06.0 AND 113+36.0, SEE DWG. WH-M-107-074 FOR DESIGN AND MATERIAL.

NO.	MATERIAL DESCRIPTION	QUANTITY
10	24" X 0.500" W.T., 90 DEG, 3D FORGED FITTING ELBOW W/0.375" THICK INTERNAL CEMENT LINER, BARE PIPE (FOR ABOVE GROUND)	1
9	24" O.D., 0.500" W.T., API 5L-X60-PSL2 PIPE W/0.375" THICK INTERNAL CEMENT LINER, BARE PIPE (FOR ABOVE GROUND)	30'
8	AERIAL MILE POST MARKERS	1
7	PIPELINE MARKERS – WARNING SIGNS	2
6	CP TEST STATIONS	0
5	24" 90 DEG SEGMENTED TRIMMED TO 62 DEG, 3D FORGED FITTING ELBOW W/0.375" THICK INTERNAL CEMENT LINER, 14-16 MILS FBE, 25-30 MILS ARO	1
4	24" 45 DEG, 3D FORGED FITTING ELBOW, 0.500" W.T. TAPERED ENDS TO MATCH PIPE, MSS-SP-75 WPHY 60 W/0.375" THICK INTERNAL CEMENT LINER, BARE PIPE	1
3	24" 90 DEG, 3D FORGED FITTING ELBOW, 0.500" W.T. TAPERED ENDS TO MATCH PIPE, MSS-SP-75 WPHY 60 W/0.375" THICK INTERNAL CEMENT LINER, 14-16 MILS FBE, 25-30 MILS ARO	1
2	24" O.D., 0.500" W.T., API 5L X-60-PSL2 PIPE W/0.375" THICK INTERNAL CEMENT LINER, AND 14-16 MILS FBE, + 1" THICK CONC. OUTER COATING	0'
1	24" O.D., 0.500" W.T., API 5L X-60-PSL2 PIPE W/0.375" THICK INTERNAL CEMENT LINER, AND 14-16 MILS FBE, 25-30 MILS ARO	1806'

NO.	CHANGE DESCRIPTION	DRAWN BY	CHECKED BY	PROJECT ENGINEER	ENGINEERING MANAGER	D.O.E. APPROVAL	DATE

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SURVEYOR OF RECORD:
SIGNATURE:
DATE:

REVISION ____
NUMBER ____

PIPELINE ALIGNMENT SHEET

24" BRINE PIPELINE WEST HACKBERRY SPR FACILITY TO BRINE DISPOSAL WELL SITE STA. 95+00 TO STA. 113+06

WEST HACKBERRY
CAMERON PARISH, LOUISIANA

OFFICE OF SYSTEMS AND PROJECTS

STRATEGIC PETROLEUM RESERVE

APPROVED FOR CONSTRUCTION ____
DATE ____

TASK NUMBER: WH-MM-826
DISCIPLINE: MAPPING
SCALE: HORIZONTAL: 1' = 100' PROFILE BY: 1" = 20'
DRAWING NUMBER: WH-C-501-106
SHEET C5 OF 15
REV. 0

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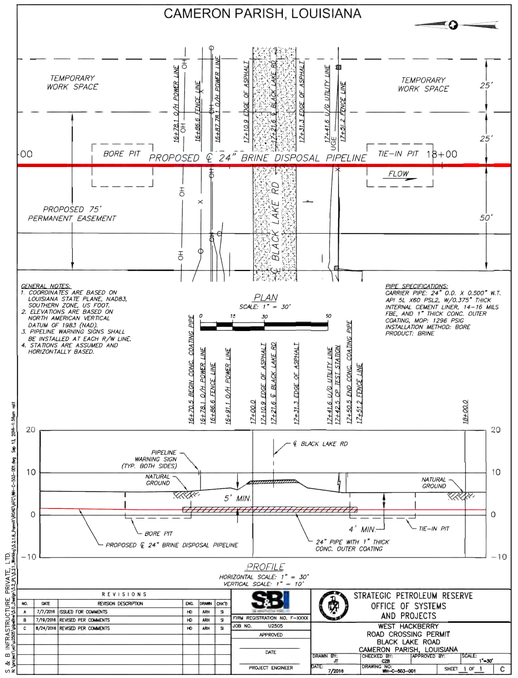

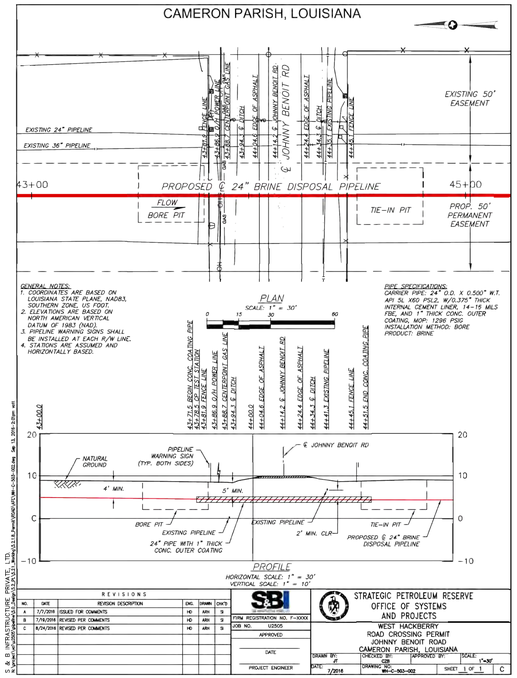

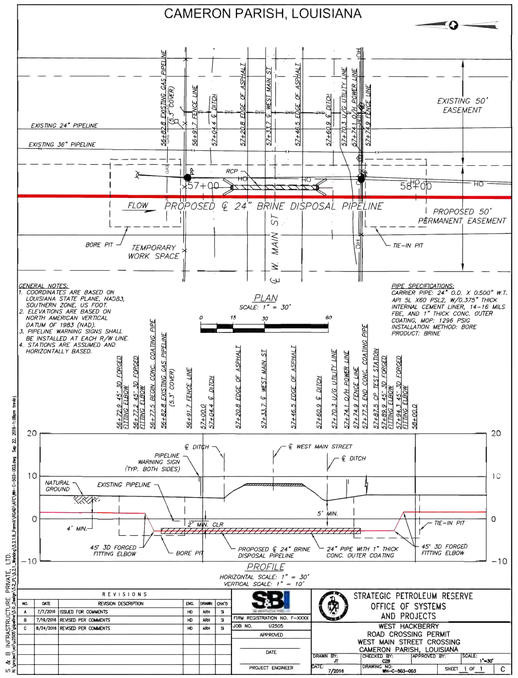

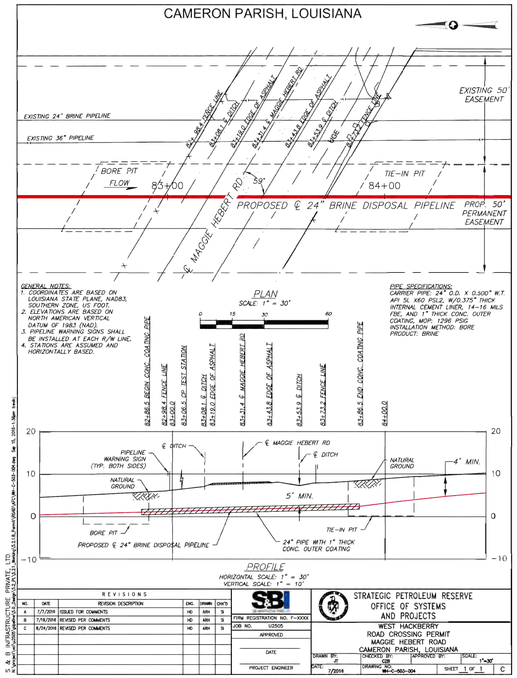

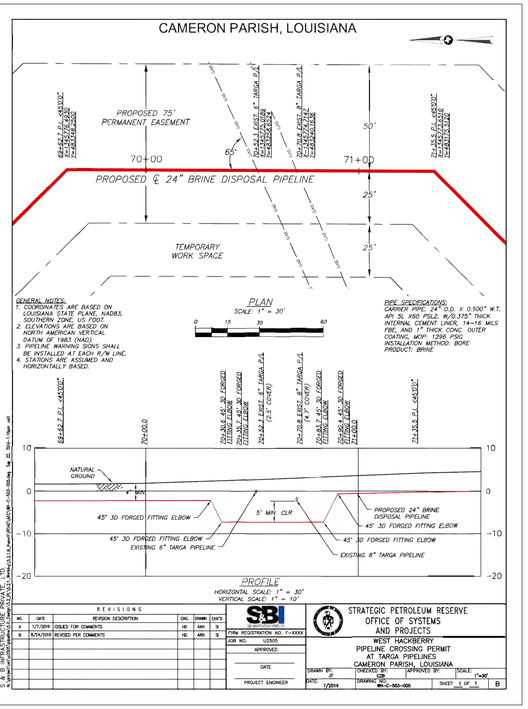

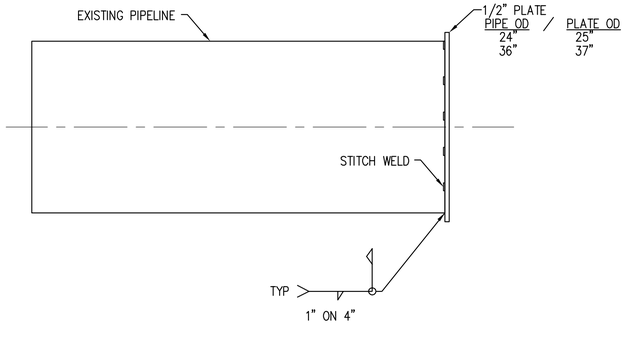

PIPELINE CAP ABANDONMENT DETAIL
SCALE: N.T.S

APPROVED FOR CONSTRUCTION
FOR TASK NO. WH-MM-826 ONLY

CN 100 ISSUE INCLUDES ALL
DETAILS ON THIS DOCUMENT

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CN REVISION NO. 100
BY _____ DATE ___

S&B INFRASTRUCTURE, LTD.
S&B JOB NO. U-2505
Texas Firm Registration Number: F-1582

CHANGE NOTICE

PREPARED BY	CHECKED BY	APPROVED BY	TDC/ERU
J.M. AVENT	C.BRIDENSTINE	H. NICHOLS	

Project Auth. #	Task #	RFI #
03191783	WH-MM-826	

Drawing #	Rev. #	CN #
WH-C-506-001	0	100

Sheet 1 OF 1

VCI Project Management Construction Management Engineering

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DATE:

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MISCELLANEOUS PERMITS

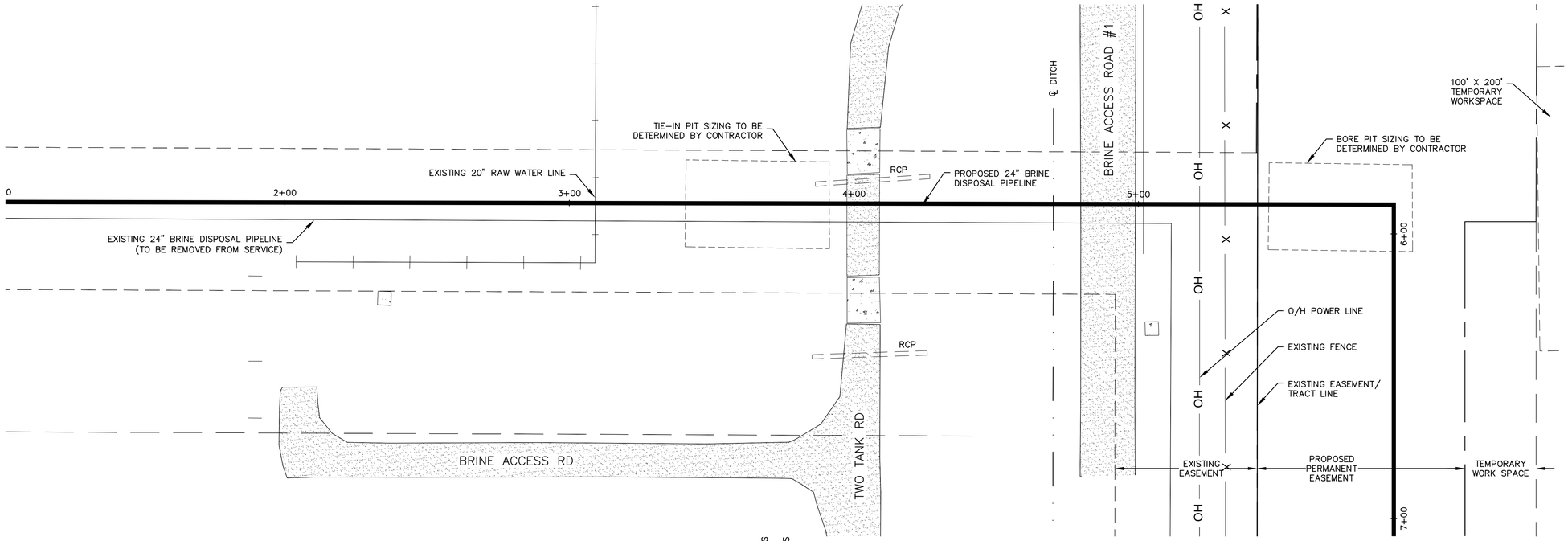
24" BRINE PIPELINE
WEST HACKBERRY SPR FACILITY
TO BRINE DISPOSAL WELL SITE
PERMITS

WEST HACKBERRY
CAMERON PARISH, LOUISIANA

OFFICE OF SYSTEMS AND PROJECTS
STRATEGIC PETROLEUM RESERVE
APPROVED FOR CONSTRUCTION
DATE

TASK NUMBER: WH-MM-826
DISCIPLINE: MAPPING
SCALE: NONE
DRAWING NUMBER: WH-C-506-001
SHEET C6 OF 15
REV. 0

ACAD FILENAME:



PLAN VIEW

20 10 0 20

SCALE: 1" = 20'

RELEASED FOR CONSTRUCTION
CN REVISION NO 100
BY _____ DATE _____

S&B INFRASTRUCTURE, LTD.
S&B JOB NO. U-2505
Texas Firm Registration Number: F-1582

CHANGE NOTICE

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J.M. AVENT	C.BRIDENSTINE	H. NICHOLS	

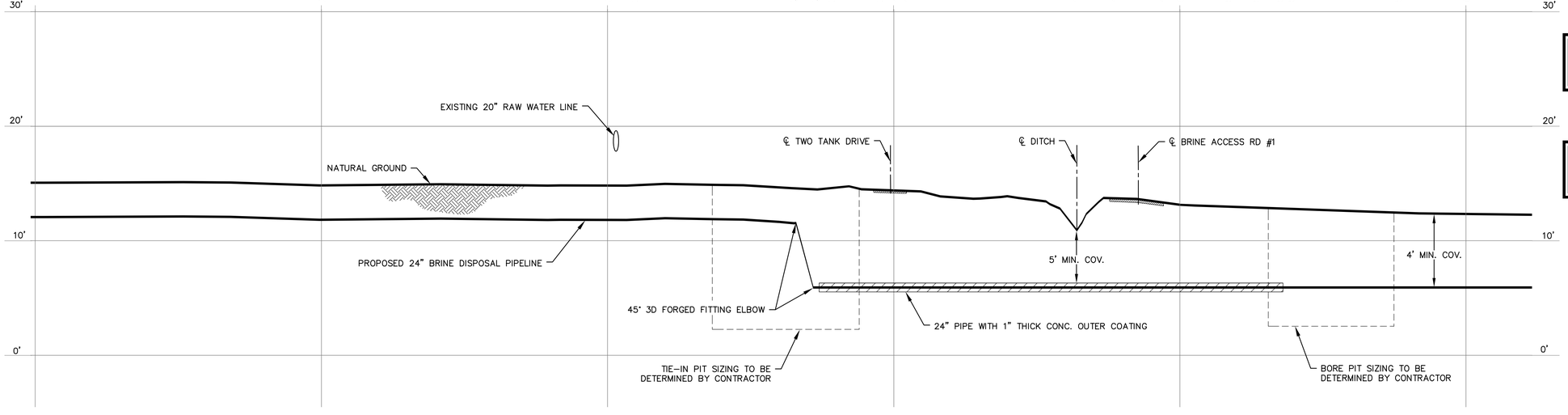
Project Auth. #	Task #	RFI #
03191783	WH-MM-826	

Drawing #	Rev. #	CN #
WH-C-509-033	0	100

Sheet 1 OF 1

VCI Project Management Construction Management Engineering

1+00.0	2+00.0	3+00.0	3+09.0	3+69.4	3+75.4	3+77.5	3+97.4	4+00.0	4+08.9	4+67.5	4+80.3	4+98.8	5+00.0	5+21.4	5+30.2	5+37.5	5+41.7	5+90.0	6+00.0
			EXISTING 20" RAW WATER LINE	45° 3D FORGED FITTING ELBOWS	45° 3D FORGED FITTING ELBOWS	BEGIN CONC. COATED PIPE	EDGE OF ASPHALT		EDGE OF ASPHALT	℄ OF DITCH	EDGE OF ASPHALT	EDGE OF ASPHALT		O/H POWER LINE	FENCE LINE	END CONC. COATED PIPE	TRACT LINE/EASEMENT	P.I. < 90°0'0" RT	



PROFILE

20 10 0 20

HORIZONTAL SCALE: 1" = 20'

5 2.5 0 5

VERTICAL SCALE: 1" = 5'

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REVISION _____
NUMBER _____

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SURVEYOR OF RECORD:	
SIGNATURE:	
DATE:	

NOTES:
1. CONTRACTOR TO FIELD VERIFY DIMENSION AND DEPTHS OF EXISTING PIPELINES AND UTILITIES PRIOR TO CONSTRUCTION.
2. NEW 24" x 0.500" W.T. API-5L X-60 PIPELINE LIMITED TO 1296 PSIG MOP BY DESIGN.

NO.	CHANGE DESCRIPTION	DRAWN BY	CHECKED BY	PROJECT ENGINEER	ENGINEERING MANAGER	D.O.E. APPROVAL	DATE

NO.	CHANGE DESCRIPTION	DRAWN BY	CHECKED BY	PROJECT ENGINEER	ENGINEERING MANAGER	D.O.E. APPROVAL	DATE

PIPELINE DRAWINGS

24" BRINE PIPELINE
WEST HACKBERRY SPR FACILITY
TO BRINE DISPOSAL WELL SITE
PLANT SERVICE DRIVEWAYS

WEST HACKBERRY
CAMERON PARISH, LOUISIANA

OFFICE OF SYSTEMS AND PROJECTS
STRATEGIC PETROLEUM RESERVE

APPROVED FOR CONSTRUCTION _____
DATE _____

TASK NUMBER: WH-MM-826
DISCIPLINE: CIVIL
SCALE: PLAN: 1"=20' PROFILE HORIZONTAL: 1"=20' PROFILE VERTICAL: 1"=5'
DRAWING NUMBER: WH-C-509-033
SHEET C7 OF 15
REV. 0

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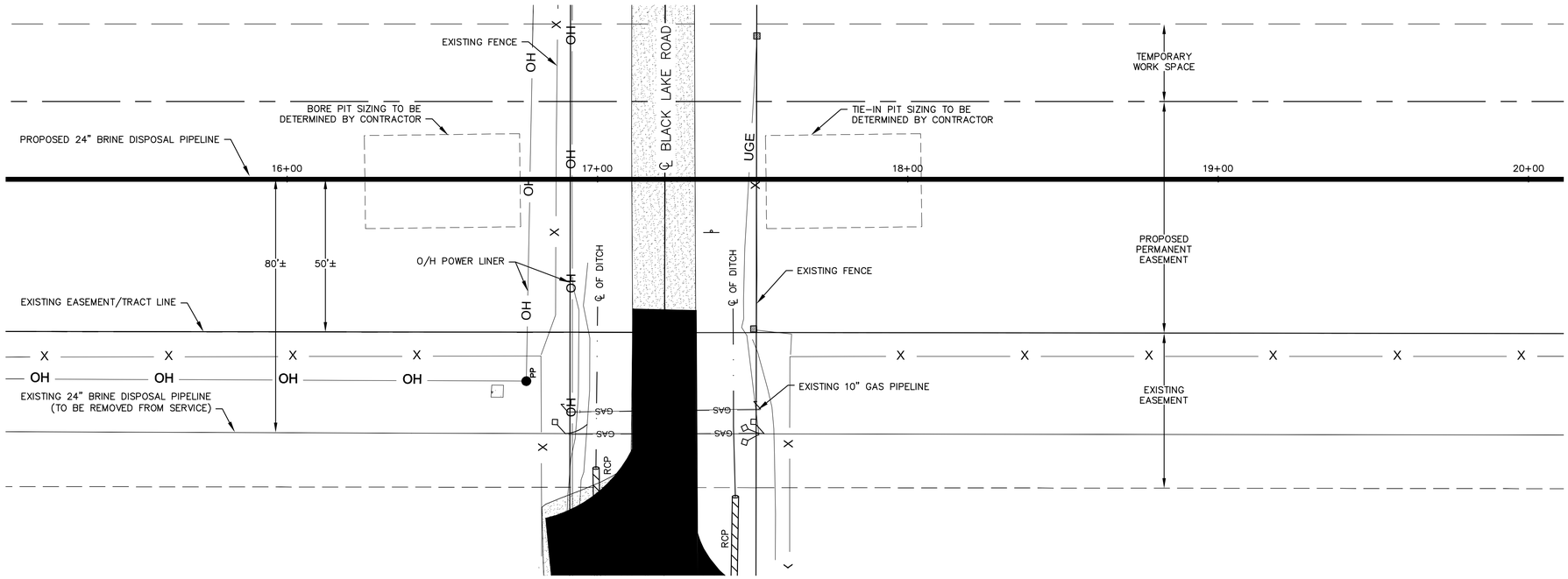
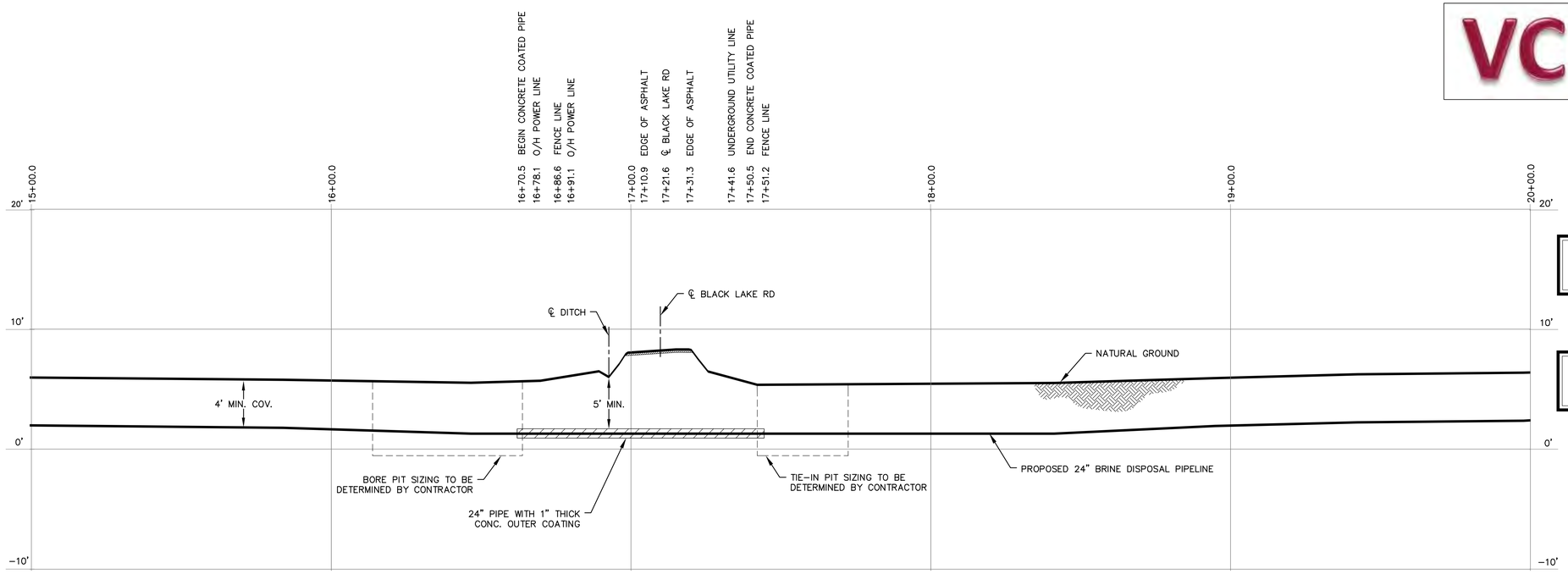


PLAN VIEW

20 10 0 20

SCALE: 1" = 20'



PROFILE

20 10 0 20

HORIZONTAL SCALE: 1" = 20'

5 2.5 0 5

VERTICAL SCALE: 1" = 5'

RELEASED FOR CONSTRUCTION
CN REVISION NO 100
BY _____ DATE _____

S&B INFRASTRUCTURE, LTD.
S&B JOB NO. U-2505
Texas Firm Registration Number: F-1582

CHANGE NOTICE

PREPARED BY	CHECKED BY	APPROVED BY	TDC/ERU
J.M. AVENT	C.BRIDENSTINE	H. NICHOLS	

Project Auth. #	Task #	RFI #
03191783	WH-MM-826	

Drawing #	Rev. #	CN #
WH-C-509-034	0	100

Sheet 1 OF 1

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VCI Project Management Construction Management Engineering

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SIGNATURE:
DATE:

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NUMBER

NOTES:

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2. NEW 24" x 0.500" W.T. API-5L X-60 PIPELINE LIMITED TO 1296 PSIG MAOP BY DESIGN.

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PIPELINE DRAWINGS

24" BRINE PIPELINE
WEST HACKBERRY SPR FACILITY
TO BRINE DISPOSAL WELL SITE
BLACK LAKE ROAD

WEST HACKBERRY
CAMERON PARISH, LOUISIANA

OFFICE OF SYSTEMS AND PROJECTS

STRATEGIC PETROLEUM RESERVE

APPROVED FOR CONSTRUCTION
DATE

TASK NUMBER: WH-MM-826
DISCIPLINE: CIVIL
SCALE: PLAN: 1"=20' PROFILE HORIZONTAL: 1"=20' PROFILE VERTICAL: 1"=5'
DRAWING NUMBER: WH-C-509-034
SHEET C8 OF 15
REV. 0

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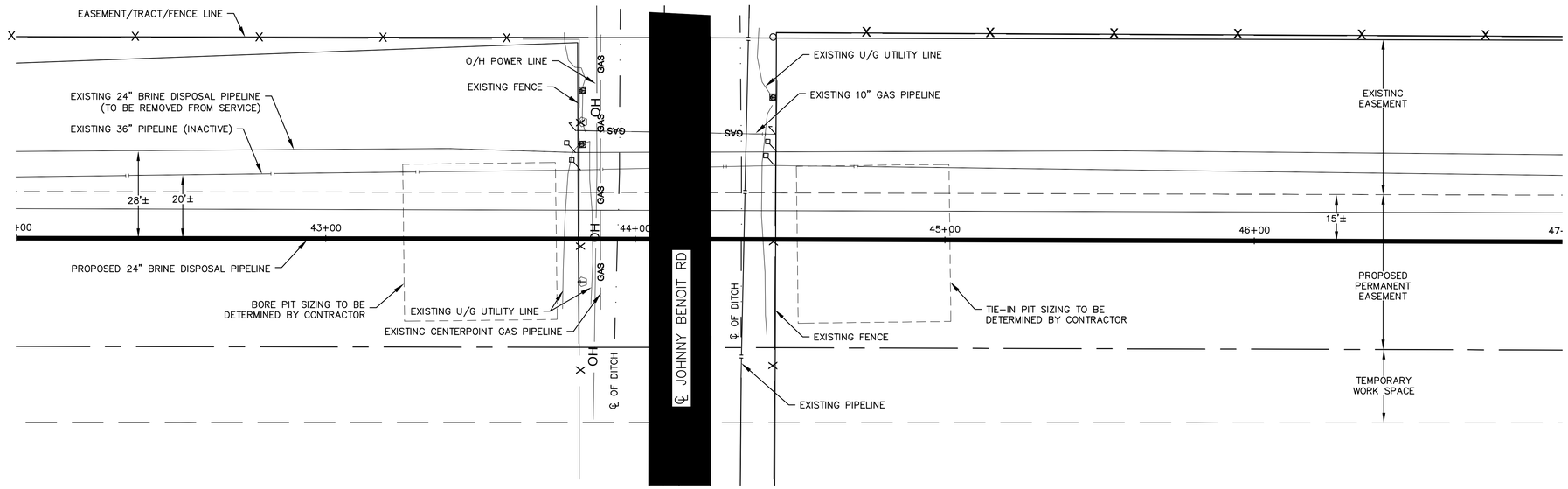


PLAN VIEW

20 10 0 20

SCALE: 1" = 20'

S&B JOB NO.	U-2505
S&B INFRASTRUCTURE, LTD.	Texas Firm Registration Number: F-1582

CHANGE NOTICE

PREPARED BY	CHECKED BY	APPROVED BY	TDC/ERU
J.M. AVENT	C.BRIDENSTINE	H. NICHOLS	

RELEASED FOR CONSTRUCTION
CN REVISION NO 100

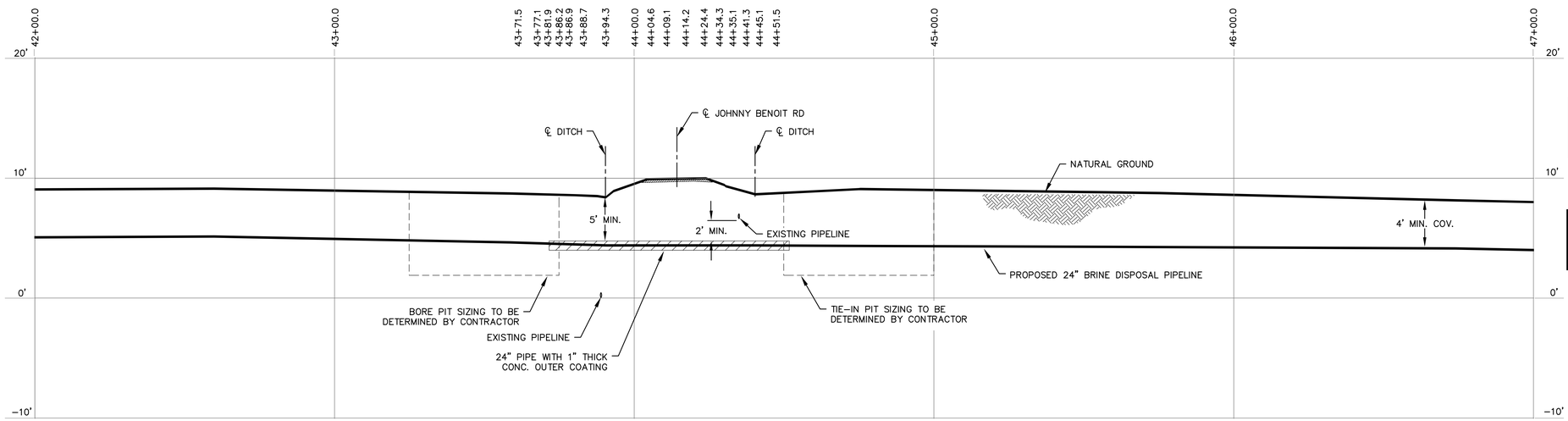
BY _____ DATE ___

Project Auth. #	Task #	RFI #
03191783	WH-MM-826	

Drawing #	Rev. #	CN #
WH-C-509-035	0	100

Sheet 1 OF 1

VCI Project Management Construction Management Engineering



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APPROVED FOR CONSTRUCTION FOR TASK NO. WH-MM-826 ONLY

PROFILE

20 10 0 20

HORIZONTAL SCALE: 1" = 20'

5 2.5 0 5

VERTICAL SCALE: 1" = 5'

REGISTRATION STAMP

REVISION _____

NUMBER _____

DESIGNED BY:	
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CHECKED BY:	
SURVEYOR OF RECORD:	
SIGNATURE:	
DATE:	

NOTES:

1. CONTRACTOR TO FIELD VERIFY DIMENSION AND DEPTHS OF EXISTING PIPELINES AND UTILITIES PRIOR TO CONSTRUCTION.
2. NEW 24" x 0.500" W.T. API-5L X-60 PIPELINE LIMITED TO 1296 PSIG MAOP BY DESIGN.

NO.	CHANGE DESCRIPTION	DRAWN BY	CHECKED BY	PROJECT ENGINEER	ENGINEERING MANAGER	D.O.E. APPROVAL	DATE

NO.	CHANGE DESCRIPTION	DRAWN BY	CHECKED BY	PROJECT ENGINEER	ENGINEERING MANAGER	D.O.E. APPROVAL	DATE

PIPELINE DRAWINGS

24" BRINE PIPELINE
WEST HACKBERRY SPR FACILITY
TO BRINE DISPOSAL WELL SITE
JOHNNY BENOIT ROAD

WEST HACKBERRY

CAMERON PARISH, LOUISIANA

OFFICE OF SYSTEMS AND PROJECTS

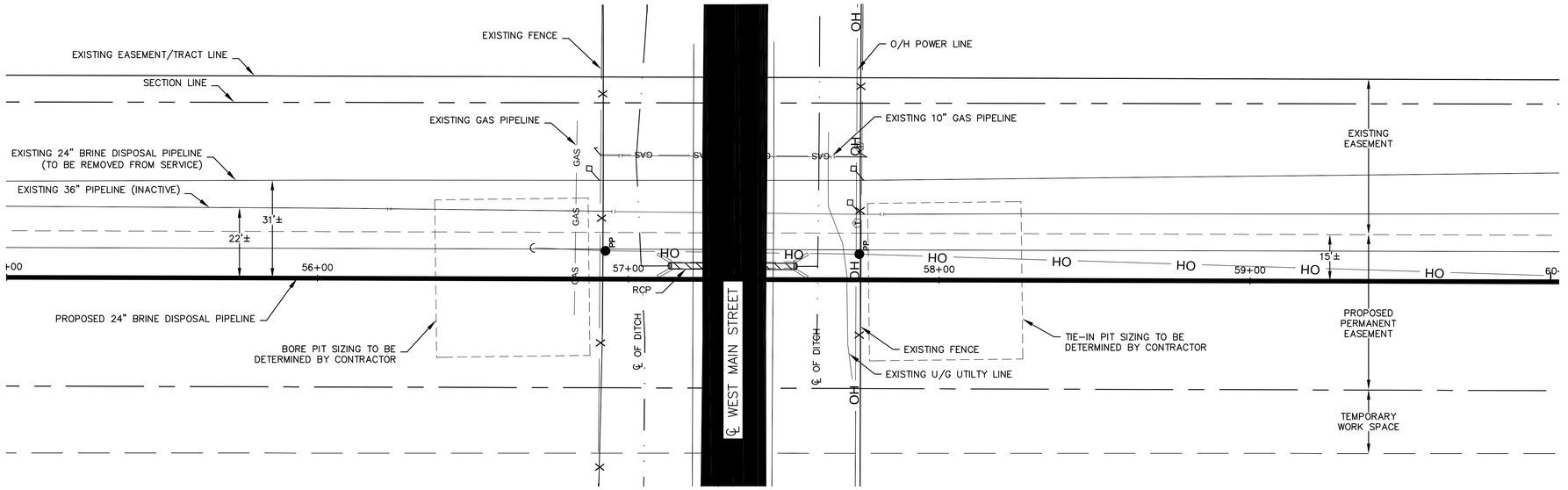
STRATEGIC PETROLEUM RESERVE

APPROVED FOR CONSTRUCTION _____

DATE _____

TASK NUMBER:	WH-MM-826
DISCIPLINE:	CIVIL
SCALE: PLAN: 1"=20' PROFILE HORIZONTAL: 1"=20' PROFILE VERTICAL: 1"=5'	
DRAWING NUMBER:	WH-C-509-035
SHEET	C9 OF 15
REV.	0

ACAD FILENAME



PLAN VIEW

20 10 0 20

SCALE: 1" = 20'

S&B JOB NO.	U-2505
	S&B INFRASTRUCTURE, LTD.
	Texas Firm Registration Number: F-1582

CHANGE NOTICE

PREPARED BY	CHECKED BY	APPROVED BY	TDC/ERU
J.M. AVENT	C.BRIDENSTINE	H. NICHOLS	

RELEASED FOR CONSTRUCTION
CN REVISION NO. 100
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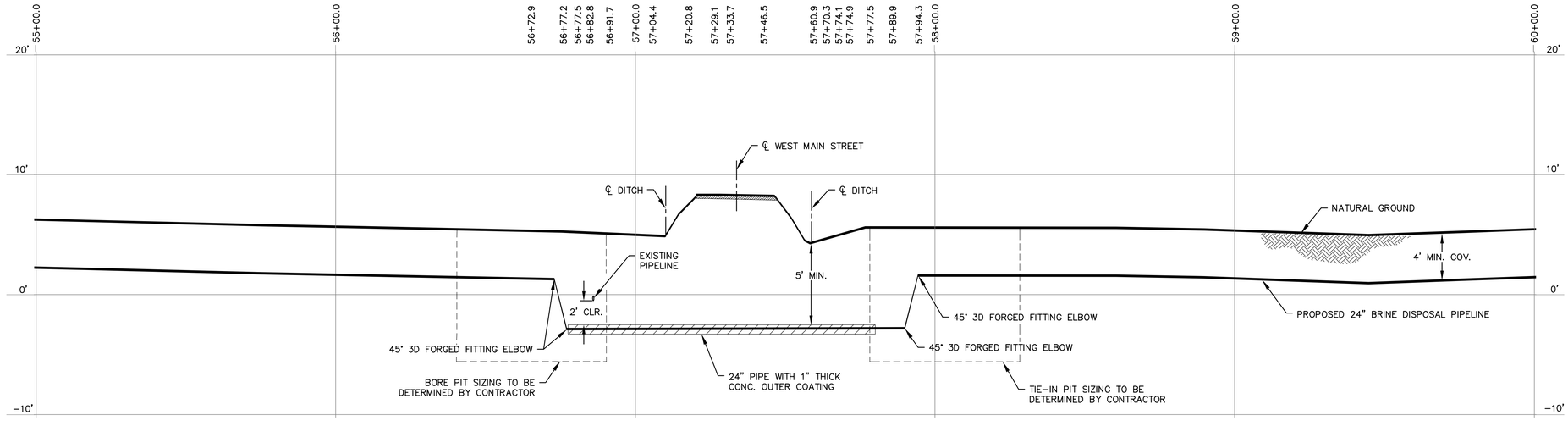
Project Auth. #	Task #	RFI #
03191783	WH-MM-826	

Drawing #	Rev. #	CN #
WH-C-509-036	0	100

Sheet 1 OF 1

VCI Project Management Construction Management Engineering

STA	
56+72.9	45° 3D FORGED FITTING ELBOW
56+77.2	45° 3D FORGED FITTING ELBOW
56+77.5	BEGIN CONCRETE COATED PIPE
56+82.8	EXISTING GAS PIPELINE
56+91.7	FENCE LINE
57+00.0	℄ OF DITCH
57+04.4	℄ OF DITCH
57+20.8	EDGE OF ASPHALT
57+29.1	TRACT LINE
57+33.7	℄ OF WEST MAIN STREET
57+46.5	EDGE OF ASPHALT
57+60.9	℄ OF DITCH
57+70.3	EXISTING UNDERGROUND UTILITY LINE
57+74.1	O/H POWER LINE
57+74.9	FENCE LINE
57+77.5	END CONCRETE COATED PIPE
57+89.9	45° 3D FORGED FITTING ELBOW
57+94.3	45° 3D FORGED FITTING ELBOW
58+00.0	



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APPROVED FOR CONSTRUCTION FOR TASK NO. WH-MM-826 ONLY

PROFILE

20 10 0 20

HORIZONTAL SCALE: 1" = 20'

5 2.5 0 5

VERTICAL SCALE: 1" = 5'

REGISTRATION STAMP

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2. NEW 24" x 0.500" W.T. API-5L X-60 PIPELINE LIMITED TO 1296 PSIG MAOP BY DESIGN.

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NO.	CHANGE DESCRIPTION	DRAWN BY	CHECKED BY	PROJECT ENGINEER	ENGINEERING MANAGER	D.O.E. APPROVAL	DATE

PIPELINE DRAWINGS

24" BRINE PIPELINE
WEST HACKBERRY SPR FACILITY
TO BRINE DISPOSAL WELL SITE
WEST MAIN STREET

WEST HACKBERRY
CAMERON PARISH, LOUISIANA

OFFICE OF SYSTEMS AND PROJECTS

STRATEGIC PETROLEUM RESERVE

APPROVED FOR CONSTRUCTION _____
DATE _____

TASK NUMBER: WH-MM-826
DISCIPLINE: CIVIL
SCALE: PLAN: 1"=20' PROFILE HORIZONTAL: 1"=20' PROFILE VERTICAL: 1"=5'
DRAWING NUMBER: WH-C-509-036
SHEET C10 OF 15
REV. 0

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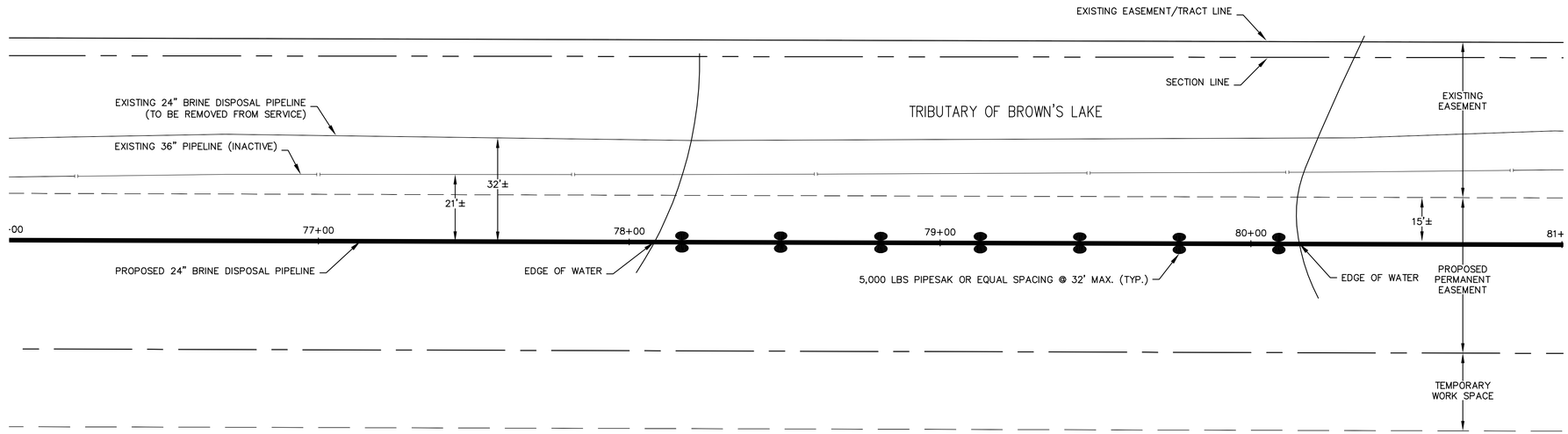
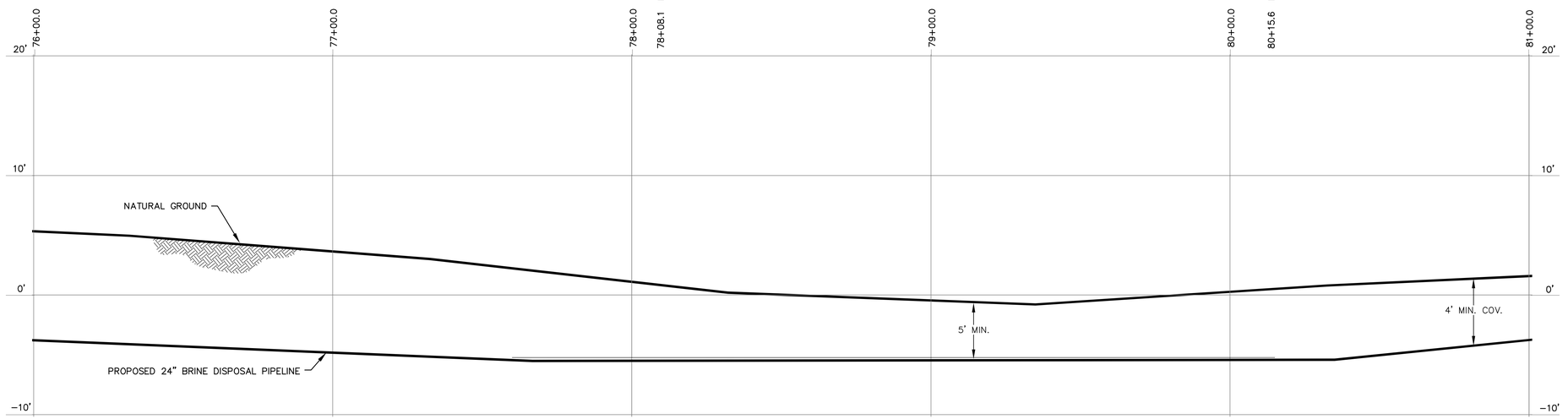


PLAN VIEW

20 10 0 20

SCALE: 1" = 20'

	S&B INFRASTRUCTURE, LTD.	S&B JOB NO. U-2505		
	Texas Firm Registration Number: F-1582			
	CHANGE NOTICE			
	PREPARED BY: J.M. AVENT	CHECKED BY: C.BRIDENSTINE	APPROVED BY: H. NICHOLS	TDC/ERU:
RELEASED FOR CONSTRUCTION CN REVISION NO 100	Project Auth. #: 03191783	Task #: WH-MM-826		RFI #:
BY_____ DATE ___	Drawing #: WH-C-509-037		Rev. #: 0	CN #: 100
			Sheet 1 OF 1	



PROFILE

20 10 0 20

HORIZONTAL SCALE: 1" = 20'

5 2.5 0 5

VERTICAL SCALE: 1" = 5'

CN 100 ISSUE INCLUDES ALL DETAILS ON THIS DOCUMENT

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VCI Project Management Construction Management Engineering

REGISTRATION STAMP

REVISION ____

NUMBER ____

DESIGNED BY:

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SURVEYOR OF RECORD:

SIGNATURE:

DATE:

NOTES:

1. CONTRACTOR TO FIELD VERIFY DIMENSION AND DEPTHS OF EXISTING PIPELINES AND UTILITIES PRIOR TO CONSTRUCTION.
2. NEW 24" x 0.500" W.T. API-5L X-60 PIPELINE LIMITED TO 1296 PSIG MAOP BY DESIGN.

NO.	CHANGE DESCRIPTION	DRAWN BY	CHECKED BY	PROJECT ENGINEER	ENGINEERING MANAGER	D.O.E. APPROVAL	DATE

NO.	CHANGE DESCRIPTION	DRAWN BY	CHECKED BY	PROJECT ENGINEER	ENGINEERING MANAGER	D.O.E. APPROVAL	DATE

PIPELINE DRAWINGS

24" BRINE PIPELINE
WEST HACKBERRY SPR FACILITY
TO BRINE DISPOSAL WELL SITE
TRIBUTARY OF BROWN'S LAKE

WEST HACKBERRY

CAMERON PARISH, LOUISIANA

OFFICE OF SYSTEMS AND PROJECTS

STRATEGIC PETROLEUM RESERVE

APPROVED FOR CONSTRUCTION _____

DATE _____

TASK NUMBER: WH-MM-826

DISCIPLINE: CIVIL

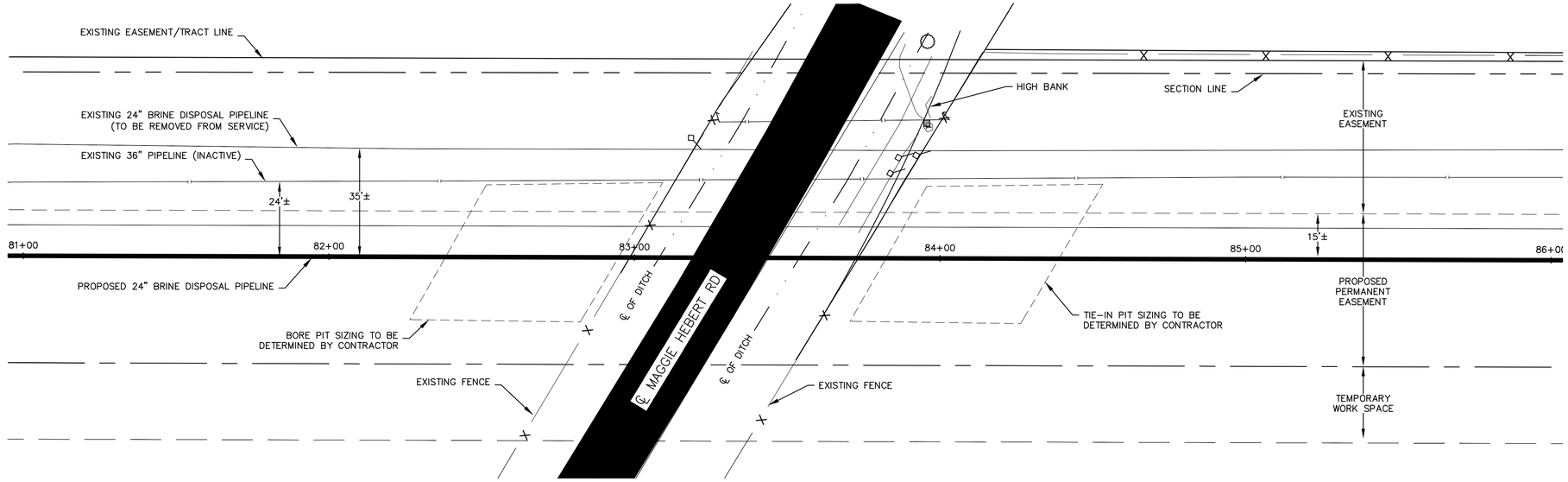
SCALE: PLAN: 1"=20' PROFILE HORIZONTAL: 1"=20' PROFILE VERTICAL: 1"=5'

DRAWING NUMBER: WH-C-509-037

SHEET C11 OF 15

REV. 0

ACAD FILENAME:



PLAN VIEW

20 10 0 20

SCALE: 1" = 20'

S&B INFRASTRUCTURE, LTD.

S&B JOB NO. U-2505

Texas Firm Registration Number: F-1582

CHANGE NOTICE

PREPARED BY	CHECKED BY	APPROVED BY	TDC/ERU
J.M. AVENT	C.BRIDENSTINE	H. NICHOLS	

RELEASED FOR CONSTRUCTION
CN REVISION NO 100

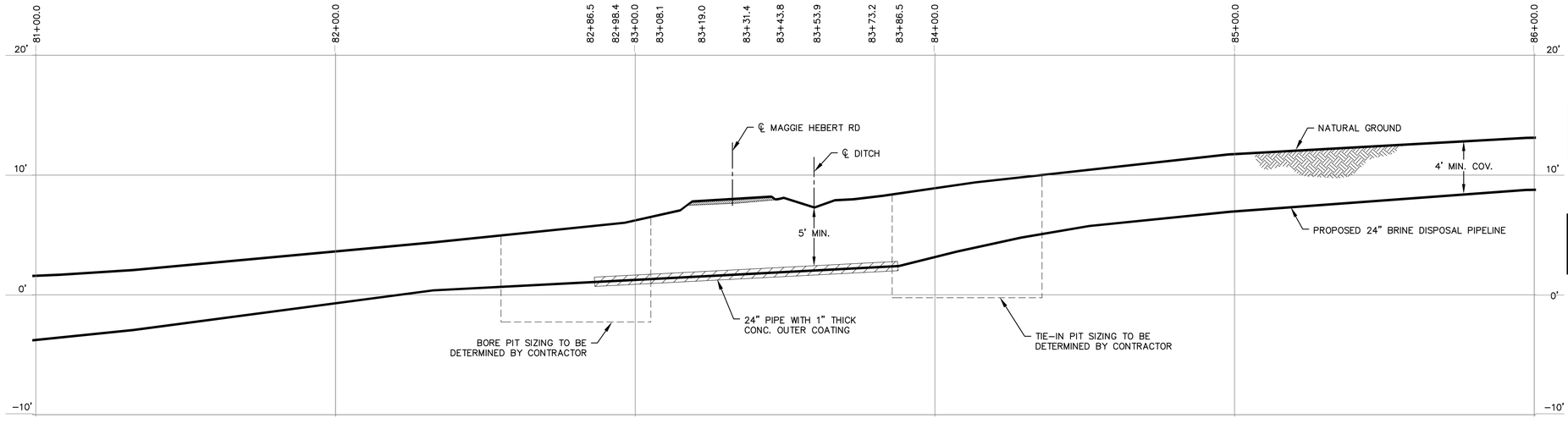
BY _____ DATE ___

Project Auth. #	Task #	RFI #
03191783	WH-MM-826	

Drawing #	Rev. #	CN #
WH-C-509-038	0	100

Sheet 1 OF 1

VCI Project Management Construction Management Engineering



CN 100 ISSUE INCLUDES ALL DETAILS ON THIS DOCUMENT

APPROVED FOR CONSTRUCTION FOR TASK NO. WH-MM-826 ONLY

PROFILE

20 10 0 20

HORIZONTAL SCALE: 1" = 20'

5 2.5 0 5

VERTICAL SCALE: 1" = 5'

REGISTRATION STAMP

REVISION ____

NUMBER ____

DESIGNED BY:

DRAWN BY:

CHECKED BY:

SURVEYOR OF RECORD:

SIGNATURE:

DATE:

NOTES:

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NO.	CHANGE DESCRIPTION	DRAWN BY	CHECKED BY	PROJECT ENGINEER	ENGINEERING MANAGER	D.O.E. APPROVAL	DATE

PIPELINE DRAWINGS

24" BRINE PIPELINE
WEST HACKBERRY SPR FACILITY
TO BRINE DISPOSAL WELL SITE
MAGGIE HEBERT ROAD

WEST HACKBERRY
CAMERON PARISH, LOUISIANA

OFFICE OF SYSTEMS AND PROJECTS

STRATEGIC PETROLEUM RESERVE

APPROVED FOR CONSTRUCTION _____

DATE _____

TASK NUMBER: WH-MM-826

DISCIPLINE: CIVIL

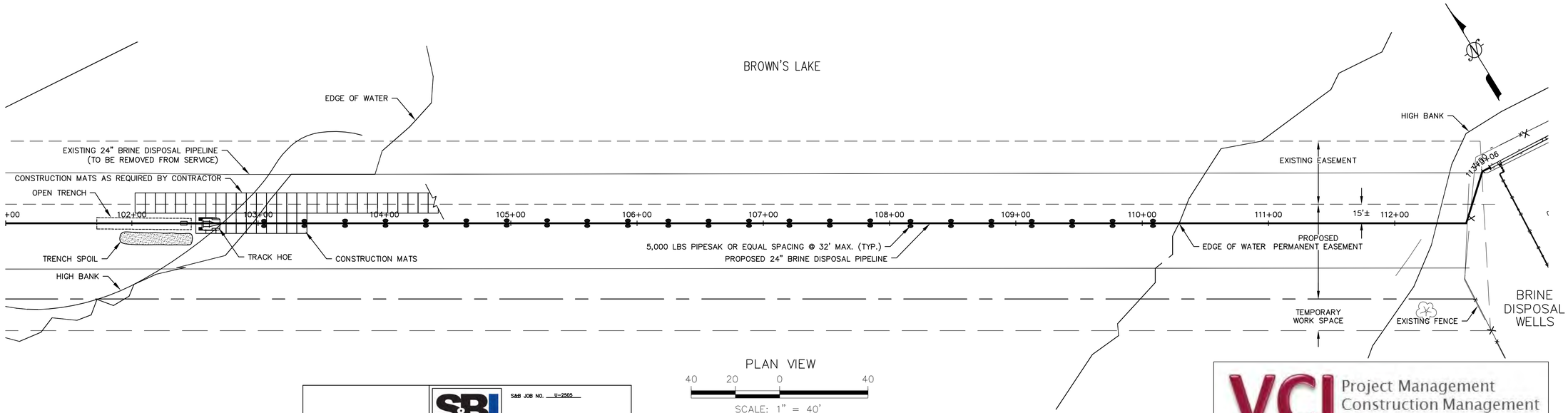
SCALE: PLAN: 1"=20' PROFILE HORIZONTAL: 1"=20' PROFILE VERTICAL: 1"=5'

DRAWING NUMBER: WH-C-509-038

SHEET C12 OF 15

REV. 0

ACAD FILENAME



PLAN VIEW

40 20 0 40

SCALE: 1" = 40'

PROFILE

40 20 0 40

HORIZONTAL SCALE: 1" = 40'

10 5 0 10

VERTICAL SCALE: 1" = 10'

APPROVED FOR CONSTRUCTION
FOR TASK NO. WH-MM-826 ONLY

CN 100 ISSUE INCLUDES ALL
DETAILS ON THIS DOCUMENT

S&B INFRASTRUCTURE, LTD.

S&B JOB NO. U-2505

Texas Firm Registration Number: F-1582

CHANGE NOTICE

PREPARED BY	CHECKED BY	APPROVED BY	TDC/ERU
J.M. AVENT	C.BRIDENSTINE	H. NICHOLS	

RELEASED FOR CONSTRUCTION
CN REVISION NO. 100

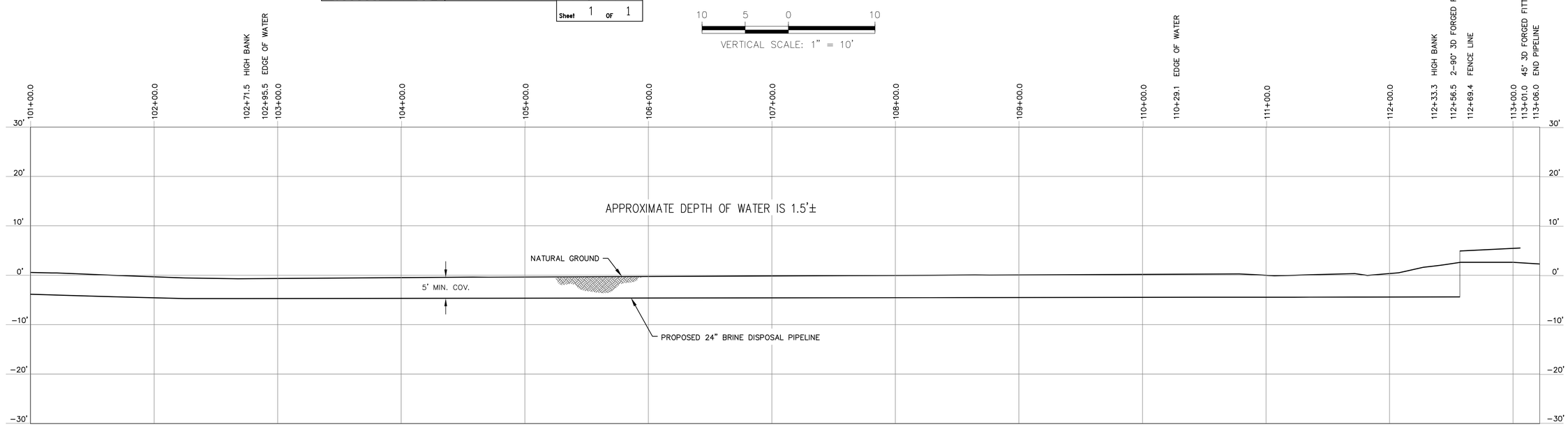
BY_____ DATE ___

Project Auth. #	Task #	RFI #
03191783	WH-MM-826	

Drawing #	Rev. #	CN #
WH-C-509-039	0	100

Sheet 1 OF 1

VCI Project Management
Construction Management
Engineering



REGISTRATION STAMP

REVISION ____
NUMBER ____

DESIGNED BY:	
DRAWN BY:	
CHECKED BY:	
SURVEYOR OF RECORD:	
SIGNATURE:	
DATE:	

NOTES:

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NO.	CHANGE DESCRIPTION	DRAWN BY	CHECKED BY	PROJECT ENGINEER	ENGINEERING MANAGER	D.O.E. APPROVAL	DATE

PIPELINE DRAWINGS

24" BRINE PIPELINE
WEST HACKBERRY SPR FACILITY
TO BRINE DISPOSAL WELL SITE
BROWN'S LAKE

WEST HACKBERRY
CAMERON PARISH, LOUISIANA

OFFICE OF SYSTEMS
AND PROJECTS

STRATEGIC
PETROLEUM
RESERVE

APPROVED FOR CONSTRUCTION _____
DATE _____

TASK NUMBER: WH-MM-826
DISCIPLINE: CIVIL
SCALE: PLAN: 1"=40'
PROFILE HORIZONTAL: 1"=40'
PROFILE VERTICAL: 1"=10'
DRAWING NUMBER: WH-C-509-039
SHEET C13 OF 15
REV. 0

ACAD FILENAME

APPENDIX B

SITE PHOTOGRAPHS

The following photographs are representative of the general area of the proposed brine disposal pipeline. Unless noted, the photographs reflect the project area from north to south.

View looking east at the temporary construction area near the northern project limits.

View looking north from Johnny Benoit Road.

View looking south from the temporary construction area.

View looking south from Johnny Benoit Road.

View looking south from Black Lake Road.

Zoomed view looking south from Johnny Benoit Road.

Zoomed view looking north from West Main Street.

View looking north from Johnson Lane.

View looking north from West Main Street.

View looking south from the wooded area east of Johnson Lane.

View looking south from West Main Street.

Another view looking south from the wooded area east of Johnson Lane.

View looking south toward the wooded area of the Hackberry Recreation Area.

View looking southwest through the wooded area of the Hackberry Recreation Area.

View looking south at the wooded area of the Hackberry Recreation Area.

View looking south; the Hackberry Recreation Area is located on the left side of the photograph.

View looking southwest through the wooded area of the Hackberry Recreation Area.

View looking south.

View looking south approaching the wetland area located north of Maggie Hebert Road.

View looking south from the wetland area located north of Maggie Hebert Road.

Another view looking south approaching the wetland area located north of Maggie Hebert Road.

View looking north from Maggie Hebert Road.

Reverse view of the previous photograph. View looking north at the wetland area located north of Maggie Hebert Road.

View looking south from Maggie Hebert Road.

View of a typical sign located along the existing brine disposal pipeline.

View looking south.

View looking south, south of Maggie Hebert Road.

View looking south.

View looking south.

View looking south.

View looking southeast.

View looking northwest from the southern end of the project limits.

View looking southeast.

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View looking southeast.

APPENDIX C

AGENCY INFORMATION AND CORRESPONDENCE

August 2, 2016

«CONTACT»
«AGENCY»
«DIVISION»
«ADDRESS LINE1»
«ADDRESS LINE2»

Subject: Brine Disposal Pipeline Replacement Project, Strategic Petroleum Reserve, West Hackberry Facility, Cameron Parish, Louisiana

Dear «GREETING» «CONTACT»:

Pursuant to the National Environmental Policy Act, the United States Department of Energy (DOE) intends to prepare an Environmental Assessment (EA) for the proposed replacement of the existing brine disposal pipeline (the Pipeline) between the Strategic Petroleum Reserve (SPR) West Hackberry (WH) facility and the associated brine injection wells near Hackberry, Cameron Parish, Louisiana. Both the existing and proposed brine disposal pipelines are approximately 2.1 miles in length. The potential environmental impacts of this proposed project would be evaluated in conformance with DOE and Council on Environmental Quality (CEQ) regulations and provisions. A description of the WH facility and the proposed project are provided below.

The WH storage facility includes approximately 2.29 square kilometers (565 acres) of land atop the WH salt dome. The WH salt dome was selected as a storage site early in the SPR program as the existing brine caverns could be readily converted to oil storage as well as the site's optimal proximity to commercial marine and pipeline crude oil distribution facilities. The WH facility was developed by the DOE in 1977 to store petroleum products that may be presidentially ordered into the marketplace to alleviate the effects of a supply disruption to the United States. The WH facility has operated continuously since 1979. Brine is injected into and/or pumped out of the WH salt dome utilizing the Pipeline and brine injection wells when deemed necessary to fulfill oil/petroleum requirements. The Pipeline which connects the WH facility to the brine injection wells was constructed in 1978, began operation in 1979, and is near the end of the Pipeline's functional lifespan. The Pipeline is proposed to be replaced to allow for continued, optimum operations at the WH facility.

As part of the brine pipeline replacement project (proposed action), the DOE proposes to replace the Pipeline by installing a new brine disposal pipeline; the existing Pipeline would be abandoned-in-place. The new Pipeline would be installed adjacent to the existing pipeline except near Johnson Lane in which the current Pipeline traverses property between two single-family residences.

Implementation of the proposed action would require the acquisition of land. The associated land acquisition would consist of both the fee simple acquisition of land as required for the proposed Pipeline as well as the temporary acquisition of land as required for construction activities. Approximately 50-100 feet of land adjacent to the Pipeline would be acquired via fee simple acquisition to enable the replacement of the Pipeline in support of the proposed action. One

construction staging area would be located on a temporary construction easement contiguous to the Pipeline near the northern project limits. Additionally, a 25 foot temporary construction easement would be required along the Pipeline corridor.

The Pipeline would traverse lands within the 100-year floodplain, wetlands and open water habitats associated with Black Lake. In accordance with 10 Code of Federal Regulations (CFR) Part 1022 (Compliance with Floodplain and Wetland Environmental Review Requirements), the DOE would prepare a floodplain and wetlands assessment as well as a statement of findings and would perform this proposed action in a manner so as to avoid or minimize potential harm to or within the affected floodplain or wetlands. The floodplain and wetlands assessment would be included in the EA prepared for the proposed action.

The «AGENCY» has been identified as part of an outreach effort under NEPA for a review of resources under your agency's jurisdiction. In this regard, DOE respectfully requests your comments regarding any potential impacts of this proposed project that should be considered during the preparation of the Environmental Assessment for this action. In your response to this request for input from your agency, please indicate if your agency would like to be notified of the availability of the draft EA for review.

Please direct any written comments or requests for additional information to Mr. Will Woods, Environmental Specialist, U.S. Department of Energy, Strategic Petroleum Reserve, Project Management Office, Environment, Safety, and Health Division, 900 Commerce Road East, New Orleans, LA 70123 or by email at Will.Woods@spr.doe.gov. You may also contact Mr. Gabriel Adams, Fluor Federal Petroleum Operations (FFPO), Management and Operations Contractor, U.S. Department of Energy, Strategic Petroleum Reserve, Project Management Office at 504-734-4503 or by email at Gabriel.Adams@spr.doe.gov.

Thank you in advance for your expeditious attention to this project.

Sincerely,

William C. Gibson, Jr.

Project Manager
Strategic Petroleum Reserve

cc: K. Batiste, DOE
G. Adams, FFPO
B. Castille, S&B Infrastructure, Ltd.

PATH: N:\SPRIDESIGN\GIS\MAPS\WEST_HACKBERRY\WH_VICINITY_MAP_032216.mxd

SOURCE: ESRI StreetMap USA

N

5 2.5 0 5 Miles

EXHIBIT 1
VICINITY MAP

Brine Disposal Pipeline Replacement Project
West Hackberry, Strategic Petroleum Reserve
Cameron Parish, Louisiana

Resource Agency Coordination List for the Proposed West Hackberry Brine Disposal Pipeline Project (updated through August 30, 2016)

Department/Office	Division	Name – Title (Phone Number)	Address
Federal Resource Agencies			
US Army Corps of Engineers	Regulatory Branch, New Orleans District	David Frank – Regulatory Branch Chief (504.862.2255)	P.O. Box 60267 New Orleans, LA 70160
US Army Corps of Engineers	Western Evaluation Section	Darrell Barbara – Chief (504.862.2261)	P.O. Box 60267 New Orleans, LA 70160
US Army Corps of Engineers	Southwest Waterways	Tracy Falk – Operations Manager (504.862.2971)	P.O. Box 60267 New Orleans, LA 70160
US Fish and Wildlife Service	Louisiana Ecological Services Field Office	Brad Rieck – Acting Field Supervisor (337.291.3116)	646 Cajundome Boulevard, Suite 400 Lafayette, LA 70506
US Fish and Wildlife Service	Sabine National Wildlife Refuge	Terrance Delaine – Manager (337.762.3816)	3000 Holly Beach Highway Hackberry, LA 70645
US Environmental Protection Agency	Office of Planning & Coordination	Keith Hayden – Acting Section Chief (800.887.6063 or 214.665.2760)	1445 Ross Avenue Dallas, TX 75202
US Department of Homeland Security	US Coast Guard, Eighth District	Rear Admiral David R. Callahan – District Commander (504.589.6295)	Hale Boggs Federal Building 500 Poydras Street New Orleans, LA 70130
US Department of Transportation	US Maritime Administration	Maritime Administration (855.368.4200)	1200 New Jersey Avenue, SE Washington, D.C. 20590
National Oceanic and Atmospheric Administration	National Marine Fisheries Service	Protected Resources Division (727.824.5312)	263 13th Avenue South Saint Petersburg, FL 33701
National Oceanic and Atmospheric Administration	National Marine Fisheries Service, Habitat Conservation Division	Richard Hartman – Team Leader (225.389.0508)	c/o LSU, Military Science Building, Room 266, South Stadium Drive Baton Rouge, LA 70803
US Department of Agriculture	Natural Resources Conservation Service	Kevin Norton – State Conservationist (318.473.7751)	3737 Government Street Alexandria, LA 71303
State Resource Agencies			
Louisiana Department of Culture, Recreation & Tourism	State Historic Preservation Officer	Phil Boggan – Assistant Secretary (225.342.8200)	P.O. Box 44247 Baton Rouge, LA 70804
Louisiana Department of Natural Resources (LDNR)	Office of the Secretary	Thomas Harris – Secretary (225.342.2710)	P.O. Box 94396 Baton Rouge, LA 70804
LDNR Office of Coastal Management	Interagency Affairs & Field Services	Donald Haydel – Administrator (225.342.8953)	P.O. Box 44487 Baton Rouge, LA 70821-4487
LDNR Office of Coastal Management	Permits/Mitigation Division	Karl Morgan – Permits & Mitigation Administrator (225.342.6470)	P.O. Box 44487 Baton Rouge, LA 70821-4487
LDNR Office of Conservation	Environmental Division	Gary Snellgrove – Division Director (225.342.5540)	P.O. Box 94275 Baton Rouge, LA 70804

Department/Office	Division	Name – Title (Phone Number)	Address
State Resource Agencies Continued			
LDNR Office of Conservation	Pipeline Division	Steven Giambrone – Director (225.342.5505)	P.O. Box 94275 Baton Rouge, LA 70804
Louisiana Department of Wildlife and Fisheries	Office of the Secretary	Charlie Melancon – Secretary (225.765.2800)	P.O Box 98000 Baton Rouge, LA 70898
Louisiana Department of Wildlife and Fisheries	Louisiana Natural Heritage Program	Carolyn Michon – Biologist (225.765.2357)	P.O Box 98000 Baton Rouge, LA 70898
Louisiana Department of Environmental Quality	Office of the Secretary	Chuck Carr Brown, Ph.D. – Secretary (225.219.3935)	P.O. Box 4301 Baton Rouge, LA 70821-4301
Louisiana Office of State Lands	Administration Section	Spencer Robinson – Administrator (225.342.4578)	P.O. Box 44124 Baton Rouge, LA 70704
Louisiana Department of Transportation and Development	Floodplain Management Office	Chief, Floodplain Management & Engineering (225.379.3014)	1201 Capital Access Road Baton Rouge, LA 70802
Local Resource Agencies			
Cameron Parish	Permitting	Myles Hebert – Floodplain Administrator Kara Bonsall – Coastal Zone Administrator (377.775.2800)	P.O Box 1280 Cameron, LA 70631
Cameron Parish	Parks and Recreation (Hackberry Recreation District)	Dwayne Sanner – Director (377.762.7402)	1095 Poncho Sanner Lane Hackberry, LA 70645

Notice of Proposed Wetlands Involvement for the Proposed Brine Disposal Pipeline Replacement Project at the Strategic Petroleum Reserve West Hackberry Facility, Hackberry, Louisiana

Agency: U.S. Department of Energy Strategic Petroleum Reserve

Action: Notice of Floodplains and Wetlands Involvement

Summary: This notice announces the U.S. Department of Energy's (DOE's) intention to prepare an Environmental Assessment (EA) on a proposed action involving the proposed brine disposal pipeline replacement project.

The purpose of the proposed project would be to replace an existing brine disposal pipeline which is functionally obsolete. The proposed project would involve the installation of approximately 2.1 miles of 24 inch pipeline by open cut trenching and jack and bore techniques to replace the existing brine disposal pipeline which would be removed from service. The brine disposal pipeline would support the activities associated with the SPR WH facility located near Hackberry, in Cameron Parish, Louisiana.

The need for the proposed project is to replace the existing, aging brine disposal pipeline with a new pipeline that meets current industry standards for brine transport. The brine disposal pipeline that would be replaced is located between the SPR WH facility and the associated brine injection wells, a distance of approximately 2.1 miles. The proposed pipeline would be installed using open cut methods except at road crossings and environmentally sensitive areas where jack and bore techniques would be utilized as needed.

Implementation of the proposed action would require the acquisition of a permanent right-of-way (ROW) along the length of the pipeline corridor in addition to the existing ROW occupied by the current brine disposal pipeline. A temporary construction easement would additionally be required throughout the duration of the proposed pipeline installation activities. No residential or business relocations or displacements would result from the implementation of the proposed project and the property acquired could still be utilized as, for example, pastureland after the installation of the proposed brine disposal pipeline.

Due to the location of the existing and proposed brine disposal pipeline, some areas of the proposed pipeline installation project would occur within the 100-year floodplain associated with the Gulf Intracoastal Waterway as well as within wetlands associated with Browns Lake. In accordance with 10 Code of Federal Regulations Part 1022, DOE will prepare a floodplain and wetlands assessment and statement of findings and will perform this proposed action in a manner so as to avoid or minimize potential harm to or within the affected floodplain or wetlands. The floodplain and wetlands assessment will be included in the EA being prepared for the proposed action.

Dates: Comments on the proposed action due on or before [insert date], 2017.

Addresses: Comments regarding this assessment should be addressed to Mr. Will Woods, NEPA Compliance Officer, U.S. Department of Energy, Strategic Petroleum Reserve, Project Management Office, Environment, Safety, Health and Quality Division, 900 Commerce Road East, Mail Stop FE-4441, New Orleans, LA 70123. Comments may also be submitted via facsimile at (504) 818-5329 or electronically at will.woods@spr.doe.gov. For further information, contact Mr. Woods at (504) 734-4400.

Issued in New Orleans, Louisiana, on [insert date], 2016.

West Hackberry Brine Disposal Pipeline Communication Log

Document Title	West Hackberry Brine Disposal Pipeline Replacement Project - EA	**Preparer**	Barbara Castille/Josh Geyer	**Date:** 11-18-16	
Document Date	August 30, 2016	**Firm**	S&B Infrastructure, Ltd.		
Commenter	Resource Agencies				

Item	Resource Agency or Contractor	Address	Commenter and Contact Information	Comment Log	Comment or Request for Information	How Addressed (or why not addressed)	Log Check
1	USDA-NRCS Soils Section	3737 Government Street Alexandria, LA 71302	Mitchell Mouton Assistant State Soil Scientist mitchell.mouton@la.usda.gov Phone: (318) 473-7789 Cell: (337) 412-9304	Request by email to Will Woods (DOE); August 8, 2016; 9:56 am.	Do you have a GIS Shape file that will have the location of the 50-100 feet of land adjacent to the existing pipeline that will be permanently converted to additional right-of-way? I need to be able to determine the soil type and acreage for this area.	See #5, #6 and #7.	✓ 08-08-16
2	Office of State Lands		Adam Cox adam.cox@la.gov Phone: (225) 342-4567	Request by email to Gabriel Adams (FFPO); August 8, 2016; 2:53 pm.	Per our phone conversation, I am requesting that you send the State Land Office detailed plats regarding the brine disposal replacement project in Cameron Parish.	See #3 and #4.	✓ 08-08-16
3	S&B Infrastructure, Ltd.	3535 Sage Road Houston, TX 77056	Barbara Castille blcastille@sbinfra.com Phone: (713) 845-5392	Telephone call to Adam Cox; August 8, 2016; 3:30 pm.	Mr. Cox requested a detailed map of the pipeline project area. Maps will be transmitted via email if less than 10MB. Maps are being finalized and will be transmitted in 1-2 days.	See #2 and #4.	✓ 08-08-16
4	S&B Infrastructure, Ltd. (S&BI)	3535 Sage Road Houston, TX 77056	Barbara Castille blcastille@sbinfra.com Phone: (713) 845-5392	Email to Adam Cox; August 9, 2016; 4:23 pm.	See #2 and #3.	The detailed designs for the brine disposal pipeline replacement project were emailed as requested. Two files were provided. The first file consisted of an overview map of the pipeline alignment on an aerial photograph. The second file consisted of the proposed pipeline design drawings.	✓ 08-09-16
5	S&B Infrastructure, Ltd.	3535 Sage Road Houston, TX 77056	Barbara Castille blcastille@sbinfra.com Phone: (713) 845-5392	Email to Mitchell Mouton; August 9, 2016; 5:11 pm.	See #1, #6 and #7.	The GIS shape files for the brine disposal pipeline replacement project were emailed as requested. Four files were provided. The 1st file contained an overview map for use with the GIS shape files. The 2nd file contained the GIS shape files. The 3rd file contained the Web Soil Survey soil information for the project area. The 4th file contained the Web Soil Survey prime farmland soils for the project area.	✓ 08-09-16

Document Title	West Hackberry Brine Disposal Pipeline Replacement Project - EA	**Preparer**	Barbara Castille/Josh Geyer	**Date:** 11-18-16	
Document Date	August 30, 2016	**Firm**	S&B Infrastructure, Ltd.		
Commenter	Resource Agencies				

Item	Resource Agency or Contractor	Address	Commenter and Contact Information	Comment Log	Comment or Request for Information	How Addressed (or why not addressed)	Log Check
6	USDA-NRCS Soils Section	3737 Government Street Alexandria, LA 71302	Mitchell Mouton Assistant State Soil Scientist mitchell.mouton@la.usda.gov Phone: (318) 473-7789 Cell: (337) 412-9304	Email to Barbara Castille (S&BI); August 10, 2016; 2:30 pm.	Thanked Ms. Castille for the emailed information on August 9, 2016.	See #1, #5 and #7.	✓ 08-10-16
7	USDA-NRCS Soils Section	3737 Government Street Alexandria, LA 71302	Kevin Norton State Conservationist Phone: (318) 473-7751	Letter to Will Woods; August 10, 2016. Forwarded to Barbara Castille on August 16, 2016.	Provided information on the Farmland Protection Policy Act and attached the NRCS-CPA-106 form for Farmland Conversion Impact Rating for Corridor Type Projects.	The requisite areas of the NRCS-CPA-106 form will be completed and returned to the NRCS.	✓ 08-16-16
8	S&B Infrastructure, Ltd.	3535 Sage Road Houston, TX 77056	Barbara Castille blcastille@sbinfra.com Phone: (713) 845-5392	Email to Kevin Norton; August 30, 2016; 4:02 pm.	Provided the information which was necessary to finalize the NRCS-CPA_106 form. See #1, #5, #6 and #7.	Addressed the requisite areas of the NRCS-CPA-106 form for Farmland Conversion Impact Rating for Corridor Type Projects.	✓ 08-30-16
9	NOAA-NMFS	PO Box 44487 Baton Rouge, LA 70802	Virginia M. Fay Assistant Regional Administrator via Jan Koellen jan.koellen@noaa.gov Phone: (225) 389-0508x202	Email to Will Woods; September 12, 2016. 11:32 am. Forwarded to Barbara Castille on September 12, 2016.	Provided Comment Letter. Recommended adding sections titled "Essential Fish Habitat", "Fishery Resources" and 'Mitigation'. EA should include a monitoring plan for wetlands and not assume all impacts would be "temporary'.	The EA has and "Essential Fish Habitat" section and will include "Fishery Resources" and "Mitigation" sections if deemed necessary.	✓ 09-12-16
10	OCM-LDNR	PO Box 44487 Baton Rouge, LA 70802	Jeff Harris Consistency Section Jeff.Harris@la.gov Phone: (225) 342-7949	Email to Hoot Gibson; September 15, 2016. 7:30 am. Forwarded to Barbara Castille on September 15, 2016.	Provided Comment Letter. OCM is concerned with any foreseeable effects on the land use, water use or natural resources of the coastal zone. OCM policy is to remove all pipelines in the coastal zone upon decommission.	A conference call was scheduled for October 5, 2016 between OCM-LDNR, DOE, FFPO, VCI and S&BI to discuss the proposed project and how it pertains to coastal areas.	✓ 09-15-16
11	OCM-LDNR	PO Box 44487 Baton Rouge, LA 70802	Jeff Harris Consistency Section Jeff.Harris@la.gov Phone: (225) 342-7949	Email to Gabriel Adams September 27, 2016. 2:04 pm.	Stated that the OCM would like a plat showing existing and proposed pipeline routes ahead of the conference call.	Gabriel Adams replied with an email on September 27, 2016 with the detailed alignments. Additional emails between Jeff and Gabriel discussed the location in which the proposed pipeline would diverge from the existing pipeline alignment.	✓ 09-27-16

Document Title	West Hackberry Brine Disposal Pipeline Replacement Project - EA	**Preparer**	Barbara Castille/Josh Geyer	**Date:** 11-18-16	
Document Date	August 30, 2016	**Firm**	S&B Infrastructure, Ltd.		
Commenter	Resource Agencies				

Item	Resource Agency or Contractor	Address	Commenter and Contact Information	Comment Log	Comment or Request for Information	How Addressed (or why not addressed)	Log Check
12	OCM-LDNR	PO Box 44487 Baton Rouge, LA 70802	Jeff Harris Consistency Section Jeff.Harris@la.gov Phone: (225) 342-7949	Conference call. October 5, 2016	A conference call between OCM-LDNR, DOE, FFPO, VCI and S&BI was conducted to discuss the proposed project and how the project pertains to coastal areas. A point of clarification was made that the existing pipeline would not be abandoned-in-place but removed from service and retained if use was required in the future. Pipelines would be removed from the ground upon decommissioning of the WH facility at a later date.	The EA was updated to state that the existing pipeline would be removed from service but would remain in place.	✓ 10-05-16
13	OCM-LDNR	PO Box 44487 Baton Rouge, LA 70802	Jeff Harris Consistency Section Jeff.Harris@la.gov Phone: (225) 342-7949	Email to Gabriel Adams October 6, 2016. 7:00 pm. Forwarded to Barbara Castille on October 6, 2016.	This was a courtesy email showing the location of soil borings in close proximity to the project area which were depicted on DNR's SONRIS GIS system.	Areas of boring locations were reviewed and determined that such locations would have no impact on the proposed project.	✓ 10-06-16
14	US Army Corps of Engineers, New Orleans District	7400 Leake Avenue New Orleans, LA 70118	Darrell Barbara Chief, Western Evaluation Section Regulatory Branch Darrell.Barbara@usace.army.mil Phone: (504) 862-2260	Email to Gabriel Adams September 23, 2016. 9:57 am. Forwarded to Barbara Castille on September 23, 2016.	Based on initial assessments a Department of Army permit under Section 10 of the Rivers and Harbors Act of 1899 and/or Section 404 of the Clean Water Act will likely be required. Recommends receiving an Approved Jurisdiction prior to submittal of the Joint Permit Application. The project may be located within an existing US Army Corps of Engineers Civil Works Project.	Section 10 and Section 404 permit applications will be completed by the FFPO for USACE permit authorization at a later date. The EA was updated to state that the existing pipeline would be removed from service but would remain in place.	✓ 09-23-16
15	Floodplain Management Program-LDOT	PO Box 94245 Baton Rouge, LA 70804	Jennifer Rachal, CFM National Flood Insurance Program Coordinator Jennifer.Rachal@la.gov Phone: (225) 379-3005	Email to Gabriel Adams and Will Woods September 19, 2016. 1:27 pm. Forwarded to Barbara Castille on September 19, 2016.	The map provided does not offer enough information or detail to accurate create a firmette. Please respond with a map or location zoomed in, so that I may accurately respond to the request.	S&B Infrastructure, Ltd. (S&BI), provided the Floodplain Exhibit which was utilized for the EA (FEMA 1999, FIRM Panel No. 22023C0400H).	✓ 09-19-16
16	S&B Infrastructure, Ltd.	3535 Sage Road Houston, TX 77056	Barbara Castille blcastille@sbinfra.com Phone: (713) 845-5392	Email to Jennifer Rachal; September 19, 2016; 2:02 pm.	Provided the Floodplain Exhibit which was utilized for the EA (FEMA 1999, FIRM Panel No. 22023C0400H).	S&BI provided the Floodplain Exhibit which was utilized for the EA (FEMA 1999, FIRM Panel No. 22023 C0400H).	✓ 09-19-16

Document Title	West Hackberry Brine Disposal Pipeline Replacement Project - EA	**Preparer**	Barbara Castille/Josh Geyer	**Date:** 11-18-16	
Document Date	August 30, 2016	**Firm**	S&B Infrastructure, Ltd.		
Commenter	Resource Agencies				

Item	Resource Agency or Contractor	Address	Commenter and Contact Information	Comment Log	Comment or Request for Information	How Addressed (or why not addressed)	Log Check
17	Floodplain Management Program-LDOT	PO Box 94245 Baton Rouge, LA 70804	Jennifer Rachal, CFM National Flood Insurance Program Coordinator Jennifer.Rachal@la.gov Phone: (225) 379-3005	Telephone Call to Barbara Castille; September 19, 2016; 2:10 pm.	Jennifer explained that FEMA data had been updated and she wanted the Floodplain Exhibit updated with the new data and submitted for review.	Provided the updated Floodplain Exhibit which would be utilized for the EA (FEMA 2012, FIRM Panel No. 22023C0375H).	✓ 09-19-16
18	S&B Infrastructure, Ltd.	3535 Sage Road Houston, TX 77056	Barbara Castille blcastille@sbinfra.com Phone: (713) 845-5392	Email to Jennifer Rachal; September 19, 2016; 4:13 pm.	Provided the updated Floodplain Exhibit which would be utilized for the EA (FEMA 2012, FIRM Panel No. 22023C0375H).	Provided the updated Floodplain Exhibit which would be utilized for the EA (FEMA 2012, FIRM Panel No. 22023C0375H).	✓ 09-19-16
19	Floodplain Management Program-LDOT	PO Box 94245 Baton Rouge, LA 70804	Jennifer Rachal, CFM National Flood Insurance Program Coordinator Jennifer.Rachal@la.gov Phone: (225) 379-3005	Email to Barbara Castille October 18, 2016. 1:54 pm.	Attached the Solicitation of Views for Floodplains stating adequate water flow must occur during improvements and construction with assurance no back up of water occurs.	Acknowledged.	✓ 10-18-16
20	S&B Infrastructure, Ltd.	3535 Sage Road Houston, TX 77056	Barbara Castille blcastille@sbinfra.com Phone: (713) 845-5392	Email to Jennifer Rachal; September 18, 2016; 2:25 pm.	Acknowledged that the Solicitation of Views had been received for the West Hackberry Brine Disposal Pipeline Replacement Project.	New floodplain data would be used in the EA.	✓ 10-18-16
21	US Coast Guard 8th District	Unknown	Unknown	Email to Barbara Castille September 26, 2016; 11:18 am.	Email was in regard to a telephone conversation between Gabriel Adams and an individual from the US Coast Guard 8th District stating they had no comments on the EA at this time, but would like to review the Draft EA when available.	Acknowledged. The US Coast Guard would receive a copy of the Draft EA during the Public Comment Period.	✓ 09-26-16
22	US Coast Guard	MSU Lake Charles, LA	Roderick Bawar Waterways Management Roderick.C.Bawar@uscg.mil	Email to Gabriel Adams October 10, 2016. 3:15 pm. Forwarded to Barbara Castille on October 10, 2016.	Email was in regard to the availability of the Draft EA and when the project would go to construction.	Acknowledged. The US Coast Guard would receive a copy of the Draft EA during the Public Comment Period.	✓ 10-10-16
23	LDEQ	PO Box 4301 Baton Rouge, LA 70821-4301	Linda Hardy Office of the Secretary linda.hardy@la.gov Phone: (225) 219-3954	Email to Will Woods October 3, 2016. 1:15 pm. Forwarded to Gabriel Adams and Barbara Castille on October 4, 2016.	LDEQ has no objections based on the information provided but has general comments including permits which may be necessary for the proposed project.	Acknowledged.	✓ 10-04-16

Document Title	West Hackberry Brine Disposal Pipeline Replacement Project - EA	**Preparer**	Barbara Castille/Josh Geyer	**Date:** 11-18-16	
Document Date	August 30, 2016	**Firm**	S&B Infrastructure, Ltd.		
Commenter	Resource Agencies				

Item	Resource Agency or Contractor	Address	Commenter and Contact Information	Comment Log	Comment or Request for Information	How Addressed (or why not addressed)	Log Check
24	US Army Corps of Engineers, New Orleans District	7400 Leake Avenue New Orleans, LA 70118	Karen Clement Assistant Operations Manager, Completed Works karen.l.clement@usace.army.mil Phone: (504) 862-2313	Email to Gabriel Adams and Will Woods October 14, 2016. 10:43 am. Forwarded to Barbara Castille on October 14, 2016.	Official response to Solicitation of Views request. The proposed project is not anticipated to impact any Corps of Engineers projects but a Department of the Army permit under Section 404 of the Clean Water Act or Section 10 of the Rivers and Harbors Act will be required. Application of permit should be well in advance of the work to be performed.	Section 10 and Section 404 permit applications will be completed by the FFPO for USACE permit authorization at a later date.	✓ 10-14-16

✓ = Completed

P = Pending

Castille, Barbara

From: Castille, Barbara
Sent: Tuesday, August 09, 2016 4:23 PM
To: 'adam.cox@la.gov'
Cc: Woods, Will; Batiste, Katherine; 'Adams, Gabriel'; Joshua Geyer (jageyer@sbinfra.com)
Subject: West Hackberry Pipeline Replacement Project, Cameron Parish
Attachments: 1_WestHackberry_EA_AerialMap_ForUseWithDesignFiles_ToOfficeOfStateLands_ACox_080916.pdf; 2_WestHackberry_EA_DesignFiles_ToOfficeOfStateLands_ACox_080916.pdf

Mr. Cox—

We are pleased to provide you with the detailed designs for the brine disposal pipeline replacement project as requested. We have attached two files for your review. The first file consists of an overview map of the pipeline alignment on an aerial photograph. The second file consists of the proposed pipeline design drawings. Please note that minor changes to the design drawings may occur as the project progresses.

If you have any questions following your review of the attached information, please let me know or feel free to contact Gabriel Adams.

Thank you for your review of this important project.

Sincerely,

Barbara

Barbara Castille
Manager, Environmental Planning
S&B Infrastructure, Ltd.
530 Wells Fargo Drive
Houston, Texas 77090
Direct: (713) 845-5392
Main: (713) 845-5401
Cell: (281) 960-6421
blcastille@sbinfra.com

From: Adams, Gabriel [mailto:Gabriel.Adams@spr.doe.gov]
Sent: Monday, August 08, 2016 3:04 PM
To: Castille, Barbara; Fogle, William
Cc: Woods, Will; Batiste, Katherine; Sevcik, Bob; Wesley, Louis
Subject: FW: Pipeline Replacement Project, Cameron Parish

Barbara,

Could you please provide Mr. Cox the additional information he has requested?

Please advise.

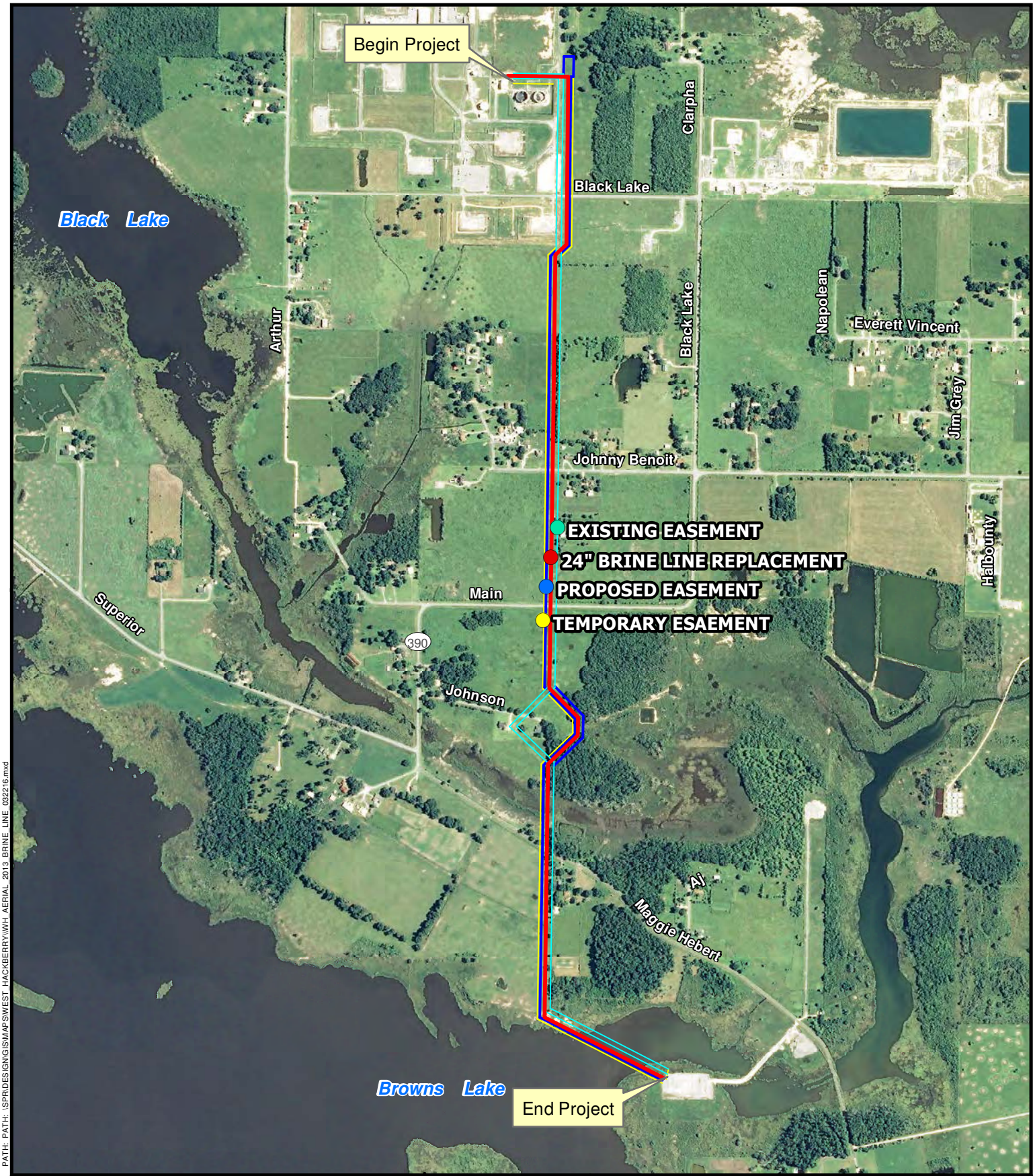
Gabriel Adams, REM | **Fluor Federal Petroleum Operations, LLC** | Pollution Prevention Specialist, Environmental Department |
Contractor to the U. S. Department of Energy SPR | gabriel.adams@spr.doe.gov|O 504.734.4503|F 504.818.5503

From: Adam Cox [mailto:Adam.Cox@LA.GOV]
Sent: Monday, August 08, 2016 2:53 PM
To: Adams, Gabriel <Gabriel.Adams@SPR.DOE.GOV>
Subject: Pipeline Replacement Project, Cameron Parish

Mr. Adams,

Per our phone conversation, I am requesting that you send the State Land Office detailed plats regarding the brine disposal replacement project in Cameron Parish.

Thank you,
Adam Cox
Office of State Lands
Phone: (225) 342-4567
E-mail: adam.cox@la.gov



PATH: PATH: \SPRIDESIGN\GIS\MAP\SWEST_HACKBERRY\\WH_AERIAL_2013_BRINE_LINE_032216.mxd

SOURCE: USDA-NAIP, 2013

N

1,000 500 0 1,000

Feet

AERIAL PHOTOGRAPH, 2013

Brine Disposal Pipeline Replacement Project
West Hackberry, Strategic Petroleum Reserve
Cameron Parish, Louisiana

TERRAIN	GRASSY AREA	GRASSY AREA	GRASSY AREA	GRASSY AREA				
VEGETATION								
OWNER	UNITED STATES OF AMERICA	UNITED STATES OF AMERICA	UNITED STATES OF AMERICA	UNITED STATES OF AMERICA	TRIDENT ENERGY GROUP	U.R. GASSEN ET AL	DONALD B. DEROUEN ESTATE DOROTHY MAE DEROUEN LYONS	
RODS								
PARISH-STATE	CAMERON PARISH, LOUISIANA	CAMERON PARISH, LOUISIANA	CAMERON PARISH, LOUISIANA	CAMERON PARISH, LOUISIANA	CAMERON PARISH, LOUISIANA	CAMERON PARISH, LA	CAMERON PARISH, LOUISIANA	

NO.	MATERIAL DESCRIPTION	QUANTITY
5	24" 22.5 DEG, 3D FORGED BEND W/0.375" THICK INTERNAL CONC. LINER, AND 14–16 MILS FBE	4
4	24" 45 DEG, 3D FORGED BEND W/0.375" THICK INTERNAL CONC. LINER, AND 14–16 MILS FBE	2
3	24" 90 DEG, 3D FORGED BEND W/0.375" THICK INTERNAL CONC. LINER, AND 14–16 MILS FBE	1
2	24" O.D., 0.500" W.T., API 5L X–52 PIPE W/0.375" THICK INTERNAL CONC. LINER, AND 14–16 MILS FBE, 30 MILS ARO, + 2.5" THICK CONC. OUTER COATING	80'
1	24" O.D., 0.500" W.T., API 5L X–52 PIPE W/0.375" THICK INTERNAL CONC. LINER, AND 14–16 MILS FBE	3020'

NO.	CHANGE DESCRIPTION	DRAWN BY	CHECKED BY	PROJECT ENGINEER	ENGINEERING MANAGER	D.O.E. APPROVAL	DATE
A	ISSUED FOR REVIEW	JT	CZB	ER			6/15/16

REGISTRATION STAMP

DESIGNED BY:
DRAWN BY:
CHECKED BY:
SURVEYOR OF RECORD:
SIGNATURE:
DATE:

REVISION
NUMBER

PROPOSED 24" PIPELINE

WEST HACKBERRY S.P.R. FACILITY TO BRINE DISPOSAL WELL SITE

EXHIBIT 8-1

WEST HACKBERRY
CAMERON PARISH, LOUISIANA

OFFICE OF SYSTEMS AND PROJECTS

DEPARTMENT OF ENERGY · UNITED STATES OF AMERICA

STRATEGIC PETROLEUM RESERVE

APPROVED FOR CONSTRUCTION
DATE

TASK NUMBER:
DISCIPLINE:
DATE: JUNE 15, 2016
SCALE: HORIZONTAL: 1" = 100' PROFILE BY: 1" = 20'
DRAWING NUMBER: XXXXXXXXXXXX
SHEET 1 OF 4
REV. A

ACAD FILENAME:

TERRAIN			
VEGETATION			
OWNER	GEORGE ELERY SHOVE, ET UX	RONALD JOSEPH RICHARD, ET UX	MRS. LAURA JOHNSON, ET AL
RODS			
PARISH-STATE	CAMERON PARISH, LOUISIANA	CAMERON PARISH, LOUISIANA	CAMERON PARISH, LOUISIANA

NO.	MATERIAL DESCRIPTION	QUANTITY
5	24" 22.5 DEG, 3D FORGED BEND W/0.375" THICK INTERNAL CONC. LINER, AND 14–16 MILS FBE	4
4	24" 45 DEG, 3D FORGED BEND W/0.375" THICK INTERNAL CONC. LINER, AND 14–16 MILS FBE	0
3	24" 90 DEG, 3D FORGED BEND W/0.375" THICK INTERNAL CONC. LINER, AND 14–16 MILS FBE	0
2	24" O.D., 0.500" W.T., API 5L X–52 PIPE W/0.375" THICK INTERNAL CONC. LINER, AND 14–16 MILS FBE, 30 MILS ARO, + 2.5" THICK CONC. OUTER COATING	160'
1	24" O.D., 0.500" W.T., API 5L X–52 PIPE W/0.375" THICK INTERNAL CONC. LINER, AND 14–16 MILS FBE	3,040'

NO.	CHANGE DESCRIPTION	DRAWN BY	CHECKED BY	PROJECT ENGINEER	ENGINEERING MANAGER	D.O.E. APPROVAL	DATE
A	ISSUED FOR REVIEW	JT	CZB	ER			6/15/16

REGISTRATION STAMP

REVISION NUMBER

DESIGNED BY:

DRAWN BY:

CHECKED BY:

SURVEYOR OF RECORD:

SIGNATURE:

DATE:

PROPOSED 24" PIPELINE

WEST HACKBERRY S.P.R. FACILITY TO BRINE DISPOSAL WELL SITE

EXHIBIT 8-2

WEST HACKBERRY

CAMERON PARISH, LOUISIANA

OFFICE OF SYSTEMS AND PROJECTS

STRATEGIC PETROLEUM RESERVE

APPROVED FOR CONSTRUCTION

DATE

TASK NUMBER:

DISCIPLINE:

DATE: JUNE 15, 2016

SCALE: HORIZONTAL: 1" = 100' PROFILE BY: 1" = 20'

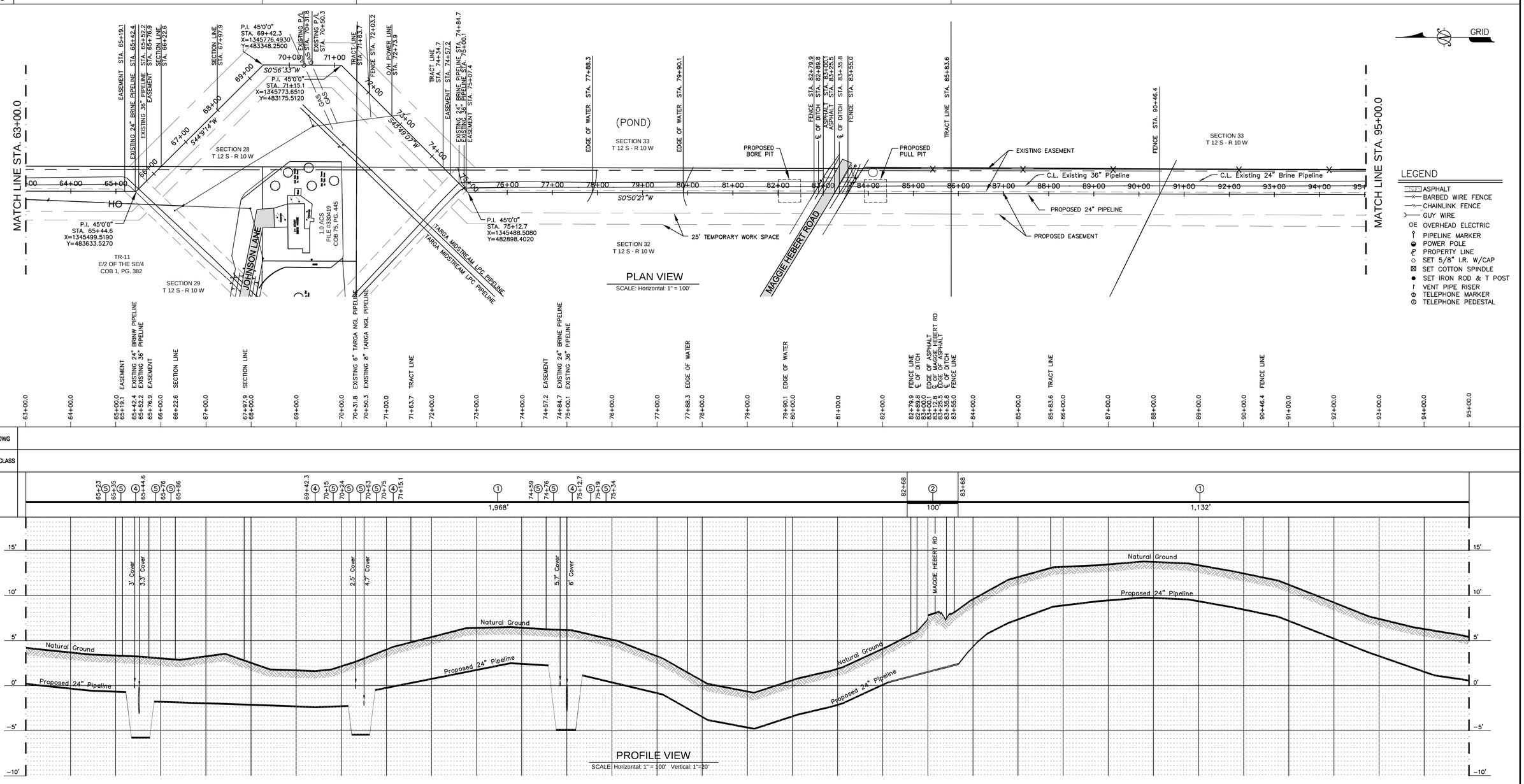
DRAWING NUMBER: XXXXXXXXXXXX

SHEET 2 OF 4

REV. A

ACAD FILENAME:

TERRAIN				
VEGETATION				
OWNER	MRS. LAURA JOHNSON, ET AL	CARL BLAINE JOHNSON ET UX	CARL P. JOHNSON PRESTON J. JOHNSON	VINCENT HEIRS, INC. (E/2 OF W/2, E/2, W/2 OF SW4, SW4 OF NW4 SECTION 32) COB 227, PG. 565 COB 181, PG. 422 COB 395, PG. 58
RODS				
PARISH-STATE	CAMERON PARISH, LOUISIANA	CAMERON PARISH, LA	CAMERON PARISH, LOUISIANA	CAMERON PARISH, LOUISIANA



NO.	MATERIAL DESCRIPTION	QUANTITY
5	24" 22.5 DEG, 3D FORGED BEND W/0.375" THICK INTERNAL CONC. LINER, AND 14–16 MILS FBE	12
4	24" 45 DEG, 3D FORGED BEND W/0.375" THICK INTERNAL CONC. LINER, AND 14–16 MILS FBE	4
3	24" 90 DEG, 3D FORGED BEND W/0.375" THICK INTERNAL CONC. LINER, AND 14–16 MILS FBE, 30 MILS ARO, + 2.5" THICK CONC. OUTER COATING	0
2	24" O.D., 0.500" W.T., API 5L X–52 PIPE W/0.375" THICK INTERNAL CONC. LINER, AND 14–16 MILS FBE, 30 MILS ARO, + 2.5" THICK CONC. OUTER COATING	100'
1	24" O.D., 0.500" W.T., API 5L X–52 PIPE W/0.375" THICK INTERNAL CONC. LINER, AND 14–16 MILS FBE	3,100'

NO.	CHANGE DESCRIPTION	DRAWN BY	CHECKED BY	PROJECT ENGINEER	ENGINEERING MANAGER	D.O.E. APPROVAL	DATE
A	ISSUED FOR REVIEW	JT	CZB	ER			6/15/16

REGISTRATION STAMP

DESIGNED BY:
DRAWN BY:
CHECKED BY:
SURVEYOR OF RECORD:
SIGNATURE:
DATE:
REVISION
NUMBER

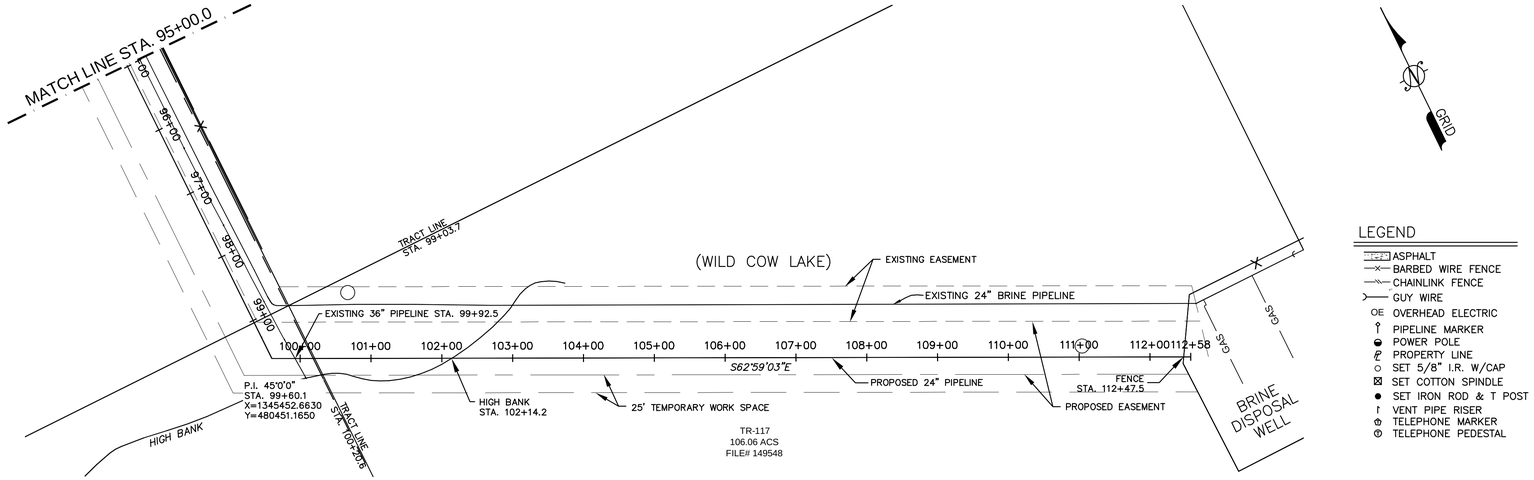
PROPOSED 24" PIPELINE
WEST HACKBERRY S.P.R. FACILITY TO BRINE DISPOSAL WELL SITE
EXHIBIT 8-3
WEST HACKBERRY
CAMERON PARISH, LOUISIANA

OFFICE OF SYSTEMS AND PROJECTS
STRATEGIC PETROLEUM RESERVE
APPROVED FOR CONSTRUCTION
DATE

TASK NUMBER:
DISCIPLINE:
DATE: JUNE 15, 2016
SCALE: HORIZONTAL: 1" = 100'
PROFILE BY: 1" = 20'
DRAWING NUMBER:
XXXXXXXXXXX
SHEET 3 OF 4
REV. A

ACAD FILENAME:

TERRAIN		
VEGETATION		
OWNER	VINCENT HEIRS, INC. (E/2 OF W/2, E/2, W/2 OF SW4, SW4 OF NW4 SECTION 32) COB 227, PG. 565 COB 181, PG. 422 COB 395, PG. 58	UNITED STATES OF AMERICA
RODS		
PARISH-STATE	CAMERON PARISH, LOUISIANA	CAMERON PARISH, LOUISIANA



PLAN VIEW
SCALE: Horizontal: 1" = 100'

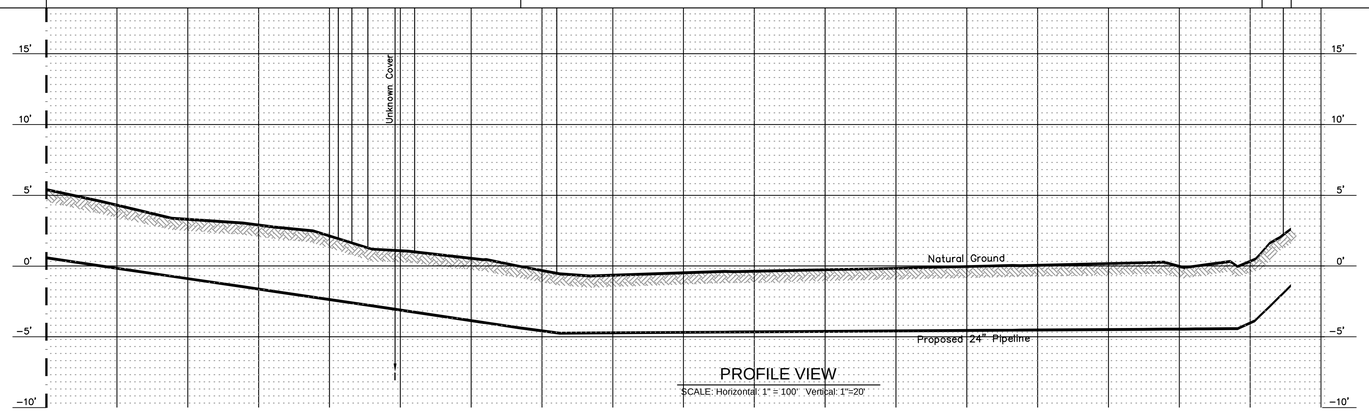
95+00.0 96+00.0 97+00.0 98+00.0 99+00.0 TRACT LINE 99+03.7 EASEMENT 99+26.8 EASEMENT 99+58.4 99+92.5 EXISTING 36" PIPELINE 100+00.0 100+20.6 TRACT LINE 101+00.0 102+00.0 HIGH BANK 102+14.2 103+00.0 104+00.0 105+00.0 106+00.0 107+00.0 108+00.0 109+00.0 110+00.0 111+00.0 112+00.0 112+47.5 FENCE LINE 113+00.0

REF. DWG

CODE/CLASS

MATERIAL

① 670' ④ 99+60.1 101+70 ② 1,080' 112+50 ① 112+58 8'



PROFILE VIEW
SCALE: Horizontal: 1" = 100' Vertical: 1"=20'

REGISTRATION STAMP

REVISION ____
NUMBER ____

DESIGNED BY:
DRAWN BY:
CHECKED BY:
SURVEYOR OF RECORD:
SIGNATURE:
DATE:

NO.	MATERIAL DESCRIPTION	QUANTITY
4	24" 45 DEG, 3D FORGED BEND W/0.375" THICK INTERNAL CONC. LINER, AND 14-16 MILS FBE	1
3	24" 90 DEG, 3D FORGED BEND W/0.375" THICK INTERNAL CONC. LINER, AND 14-16 MILS FBE	0
2	24" O.D., 0.500" W.T., API 5L X-52 PIPE W/0.375" THICK INTERNAL CONC. LINER, AND 14-16 MILS FBE, 30 MILS ARO, + 2.5" THICK CONC. OUTER COATING	1,080'
1	24" O.D., 0.500" W.T., API 5L X-52 PIPE W/0.375" THICK INTERNAL CONC. LINER, AND 14-16 MILS FBE	678'

NO.	CHANGE DESCRIPTION	DRAWN BY	CHECKED BY	PROJECT ENGINEER	ENGINEERING MANAGER	D.O.E. APPROVAL	DATE
A	ISSUED FOR REVIEW	JT	CZB	ER			6/15/16

PROPOSED 24" PIPELINE

WEST HACKBERRY S.P.R. FACILITY TO BRINE DISPOSAL WELL SITE

EXHIBIT 8-4

WEST HACKBERRY
CAMERON PARISH, LOUISIANA

OFFICE OF SYSTEMS AND PROJECTS

STRATEGIC PETROLEUM RESERVE

APPROVED FOR CONSTRUCTION ____
DATE ____

TASK NUMBER:
DISCIPLINE:
DATE: JUNE 15, 2016
SCALE: HORIZONTAL: 1" = 100' PROFILE BY: 1" = 20'
DRAWING NUMBER:
XXXXXXXXXXX
SHEET 4 OF 4
REV. A

ACAD FILENAME:

Castille, Barbara

From: Castille, Barbara
Sent: Tuesday, August 09, 2016 5:11 PM
To: 'mitchell.mouton@la.usda.gov'
Cc: Woods, Will; Batiste, Katherine; 'Adams, Gabriel'; Joshua Geyer (jageyer@sbinfra.com)
Subject: RE: Brine Disposal Pipeline Replacement Project - Strategic Petroleum Reserve - West Hackberry Facility - Cameron Parish, Louisiana
Attachments: 1a_WestHackberry_EA_MaximumROW_OverviewMap_ForUseWithGISShapeFile_ToNRCS_MMouton_080916.pdf; 2a_WestHackberry_EA_MaximumROW_GISShapeFile_ToNRCS_MMouton_080916.zip; 3a_WestHackberry_EA_WebSoilSurvey_ToNRCS_MMouton_080916.pdf; 4a_WestHackberry_EA_PrimeFarmland_ToNRCS_MMouton_080916.pdf

Tracking:

Recipient	Delivery	Read
'mitchell.mouton@la.usda.gov'		
Woods, Will		
Batiste, Katherine		
'Adams, Gabriel'		
Joshua Geyer (jageyer@sbinfra.com)	Delivered: 8/9/2016 5:11 PM	
Geyer, Joshua		Read: 8/9/2016 5:14 PM

Mr. Mouton—

We are pleased to provide you with the GIS shape files for the brine disposal pipeline replacement project as requested. For your review, we have attached 4 files. The 1st file contains an overview map for use with the GIS shape files. The 2nd file contains the GIS shape files. The shape files represent the maximum area of proposed disturbance along the pipeline corridor which includes the existing pipeline easement, the immediately adjacent proposed pipeline easement and a temporary construction easement. The 3rd file contains the Web Soil Survey soil information for the project area. The 4th file contains the Web Soil Survey prime farmland soils for the project area.

If you have any questions following your review of the attached information, please let me know or feel free to contact Gabriel Adams.

Thank you for your review of this important project.

Sincerely,

Barbara

Barbara Castille
Manager, Environmental Planning
S&B Infrastructure, Ltd.
530 Wells Fargo Drive
Houston, Texas 77090
Direct: (713) 845-5392
Main: (713) 845-5401
Cell: (281) 960-6421
blcastille@sbinfra.com

From: Adams, Gabriel [mailto:Gabriel.Adams@spr.doe.gov]
Sent: Monday, August 08, 2016 10:49 AM
To: Castille, Barbara; Fogle, William
Cc: Woods, Will; Batiste, Katherine; Wesley, Louis; Sevcik, Bob
Subject: FW: Brine Disposal Pipeline Replacement Project - Strategic Petroleum Reserve - West Hackberry Facility - Camercon Parish, Louisiana
Importance: High

Barbara,

Please see the email below from the NRCS for Louisiana.

Please advise.

Gabriel Adams, REM | **Fluor Federal Petroleum Operations, LLC** | Pollution Prevention Specialist, Environmental Department |
Contractor to the U. S. Department of Energy SPR | gabriel.adams@spr.doe.gov|O 504.734.4503|F 504.818.5503

From: Woods, Will
Sent: Monday, August 08, 2016 10:25 AM
To: Adams, Gabriel <Gabriel.Adams@SPR.DOE.GOV>
Subject: FW: Brine Disposal Pipeline Replacement Project - Strategic Petroleum Reserve - West Hackberry Facility - Camercon Parish, Louisiana

Gabe: Please forward as appropriate and cc me.

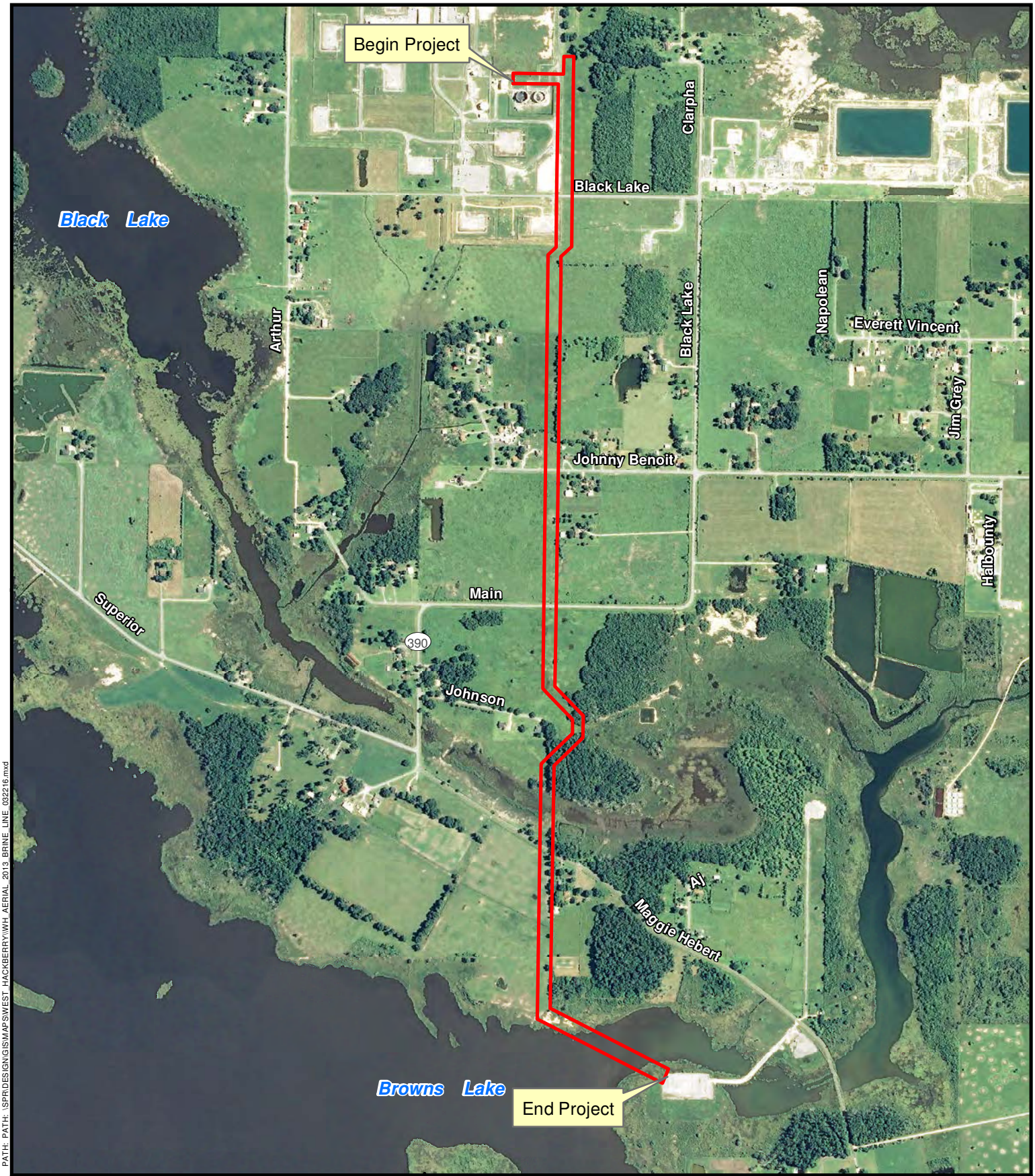
From: Mouton, Mitchell - NRCS, ALEXANDRIA, LA [mailto:mitchell.mouton@la.usda.gov]
Sent: Monday, August 08, 2016 9:56 AM
To: Woods, Will <Will.Woods@SPR.DOE.GOV>
Subject: Brine Disposal Pipeline Replacement Project - Strategic Petroleum Reserve - West Hackberry Facility - Camercon Parish, Louisiana

Mr. Woods,

For the above referenced project do you have a GIS Shapefile that will have the location of the 50-100 feet of land adjacent to the existing pipeline that will be permanently converted to additional right-of-way? I need to be able to determine the soil type and acreage for this area.

Thanks,

Mitchell Mouton
Assistant State Soil Scientist
USDA-NRCS Soils Section
3737 Government Street
Work (318) 473-7789
Work Cell (337) 412-9304
Email: mitchell.mouton@la.usda.gov



PATH: PATH: \SPRIDESIGN\GIS\MAPS\WEST_HACKBERRY\\WH_AERIAL_2013_BRINE_LINE_032216.mxd

SOURCE: USDA-NAIP, 2013

N

1,000 500 0 1,000

Feet

AERIAL PHOTOGRAPH, 2013

Brine Disposal Pipeline Replacement Project
West Hackberry, Strategic Petroleum Reserve
Cameron Parish, Louisiana

West Hackberry Brine Disposal Pipeline Replacement Project – GIS Shape Files

Name	Type	Compressed size	Size	Ratio	Date modified
NEW_ROW_080916.cpg	CPG File	1 KB	1 KB	0%	8/9/2016 10:28 AM
NEW_ROW_080916.dbf	DBF File	1 KB	1 KB	50%	8/9/2016 10:28 AM
NEW_ROW_080916.prj	PRJ File	1 KB	1 KB	17%	8/9/2016 10:15 AM
NEW_ROW_080916.sbn	SBN File	1 KB	1 KB	50%	8/9/2016 10:28 AM
NEW_ROW_080916.sbx	SBX File	1 KB	1 KB	50%	8/9/2016 10:28 AM
NEW_ROW_080916.shp	DWG TrueView Shape Source	1 KB	1 KB	29%	8/9/2016 10:28 AM
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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 Cameron Parish, Louisiana

West Hackberry Brine Disposal Pipeline Replacement Project

May 4, 2016

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 (http://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.

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Contents

How Soil Surveys Are Made

Soil surveys are made to provide information about the soils and miscellaneous areas in a specific area. They include a description of the soils and miscellaneous areas and their location on the landscape and tables that show soil properties and limitations affecting various uses. Soil scientists observed the steepness, length, and shape of the slopes; the general pattern of drainage; the kinds of crops and native plants; and the kinds of bedrock. They observed and described many soil profiles. A soil profile is the sequence of natural layers, or horizons, in a soil. The profile extends from the surface down into the unconsolidated material in which the soil formed or from the surface down to bedrock. The unconsolidated material is devoid of roots and other living organisms and has not been changed by other biological activity.

Currently, soils are mapped according to the boundaries of major land resource areas (MLRAs). MLRAs are geographically associated land resource units that share common characteristics related to physiography, geology, climate, water resources, soils, biological resources, and land uses (USDA, 2006). Soil survey areas typically consist of parts of one or more MLRA.

The soils and miscellaneous areas in a survey area occur in an orderly pattern that is related to the geology, landforms, relief, climate, and natural vegetation of the area. Each kind of soil and miscellaneous area is associated with a particular kind of landform or with a segment of the landform. By observing the soils and miscellaneous areas in the survey area and relating their position to specific segments of the landform, a soil scientist develops a concept, or model, of how they were formed. Thus, during mapping, this model enables the soil scientist to predict with a considerable degree of accuracy the kind of soil or miscellaneous area at a specific location on the landscape.

Commonly, individual soils on the landscape merge into one another as their characteristics gradually change. To construct an accurate soil map, however, soil scientists must determine the boundaries between the soils. They can observe only a limited number of soil profiles. Nevertheless, these observations, supplemented by an understanding of the soil-vegetation-landscape relationship, are sufficient to verify predictions of the kinds of soil in an area and to determine the boundaries.

Soil scientists recorded the characteristics of the soil profiles that they studied. They noted soil color, texture, size and shape of soil aggregates, kind and amount of rock fragments, distribution of plant roots, reaction, and other features that enable them to identify soils. After describing the soils in the survey area and determining their properties, the soil scientists assigned the soils to taxonomic classes (units). Taxonomic classes are concepts. Each taxonomic class has a set of soil characteristics with precisely defined limits. The classes are used as a basis for comparison to classify soils systematically. Soil taxonomy, the system of taxonomic classification used in the United States, is based mainly on the kind and character of soil properties and the arrangement of horizons within the profile. After the soil scientists classified and named the soils in the survey area, they compared the

individual soils with similar soils in the same taxonomic class in other areas so that they could confirm data and assemble additional data based on experience and research.

The objective of soil mapping is not to delineate pure map unit components; the objective is to separate the landscape into landforms or landform segments that have similar use and management requirements. Each map unit is defined by a unique combination of soil components and/or miscellaneous areas in predictable proportions. Some components may be highly contrasting to the other components of the map unit. The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The delineation of such landforms and landform segments on the map provides sufficient information for the development of resource plans. If intensive use of small areas is planned, onsite investigation is needed to define and locate the soils and miscellaneous areas.

Soil scientists make many field observations in the process of producing a soil map. The frequency of observation is dependent upon several factors, including scale of mapping, intensity of mapping, design of map units, complexity of the landscape, and experience of the soil scientist. Observations are made to test and refine the soil-landscape model and predictions and to verify the classification of the soils at specific locations. Once the soil-landscape model is refined, a significantly smaller number of measurements of individual soil properties are made and recorded. These measurements may include field measurements, such as those for color, depth to bedrock, and texture, and laboratory measurements, such as those for content of sand, silt, clay, salt, and other components. Properties of each soil typically vary from one point to another across the landscape.

Observations for map unit components are aggregated to develop ranges of characteristics for the components. The aggregated values are presented. Direct measurements do not exist for every property presented for every map unit component. Values for some properties are estimated from combinations of other properties.

While a soil survey is in progress, samples of some of the soils in the area generally are collected for laboratory analyses and for engineering tests. Soil scientists interpret the data from these analyses and tests as well as the field-observed characteristics and the soil properties to determine the expected behavior of the soils under different uses. Interpretations for all of the soils are field tested through observation of the soils in different uses and under different levels of management. Some interpretations are modified to fit local conditions, and some new interpretations are developed to meet local needs. Data are assembled from other sources, such as research information, production records, and field experience of specialists. For example, data on crop yields under defined levels of management are assembled from farm records and from field or plot experiments on the same kinds of soil.

Predictions about soil behavior are based not only on soil properties but also on such variables as climate and biological activity. Soil conditions are predictable over long periods of time, but they are not predictable from year to year. For example, soil scientists can predict with a fairly high degree of accuracy that a given soil will have a high water table within certain depths in most years, but they cannot predict that a high water table will always be at a specific level in the soil on a specific date.

After soil scientists located and identified the significant natural bodies of soil in the survey area, they drew the boundaries of these bodies on aerial photographs and identified each as a specific map unit. Aerial photographs show trees, buildings, fields, roads, and rivers, all of which help in locating boundaries accurately.

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: 1:18,000 if printed on A portrait (8.5" x 11") sheet.

N

Meters: 0 250 500 1000 1500

Feet: 0 500 1000 2000 3000

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.

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

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL: http://websoilsurvey.nrcs.usda.gov
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: Cameron Parish, Louisiana
Survey Area Data: Version 13, Sep 28, 2015

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

Date(s) aerial images were photographed: Feb 7, 2011—May 26, 2011

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

Cameron Parish, Louisiana (LA023)			
Map Unit Symbol	**Map Unit Name**	**Acres in AOI**	**Percent of AOI**
Cw	Crowley-Vidrine complex, 0 to 1 percent slopes	35.4	54.4%
GB	Ged mucky clay	1.6	2.4%
GC	Gentilly muck, 0 to 0.5 percent slopes, very frequently flooded	7.6	11.7%
Mr	Edgerly loam, 0 to 1 percent slopes	5.3	8.2%
Mt	Mowata-Vidrine complex, 0 to 1 percent slopes	15.2	23.3%
Totals for Area of Interest		**65.0**	**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.

Cameron Parish, Louisiana

Cw—Crowley-Vidrine complex, 0 to 1 percent slopes

Map Unit Setting

National map unit symbol: 2thq2
Elevation: 10 to 80 feet
Mean annual precipitation: 59 to 65 inches
Mean annual air temperature: 67 to 70 degrees F
Frost-free period: 240 to 300 days
Farmland classification: All areas are prime farmland

Map Unit Composition

Crowley and similar soils: 55 percent
Vidrine and similar soils: 35 percent
Minor components: 10 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Crowley

Setting

Landform: Terraces
Landform position (three-dimensional): Riser
Microfeatures of landform position: Bars
Down-slope shape: Convex
Across-slope shape: Linear
Parent material: Pleistocene age clayey fluviomarine deposits derived from igneous, metamorphic and sedimentary rock

Typical profile

Ap - 0 to 7 inches: silt loam
Eg - 7 to 17 inches: silt loam
Btg1 - 17 to 40 inches: silty clay
Btg2 - 40 to 80 inches: clay loam

Properties and qualities

Slope: 0 to 1 percent
Depth to restrictive feature: More than 80 inches
Natural drainage class: Somewhat poorly drained
Runoff class: High
Capacity of the most limiting layer to transmit water (Ksat): Moderately low (0.01 to 0.06 in/hr)
Depth to water table: About 6 to 9 inches
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum in profile: 2 percent
Salinity, maximum in profile: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)
Sodium adsorption ratio, maximum in profile: 10.0
Available water storage in profile: High (about 10.1 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 3w
Hydrologic Soil Group: D

Description of Vidrine

Setting

Landform: Flats
Landform position (three-dimensional): Rise
Microfeatures of landform position: Mounds
Down-slope shape: Convex
Across-slope shape: Convex
Parent material: Loamy eolian deposits over clayey fluviomarine deposits of pleistocene age

Typical profile

A - 0 to 6 inches: silt loam
E - 6 to 14 inches: silt loam
Bt/E - 14 to 18 inches: silty clay
Btg - 18 to 65 inches: silty clay
BCtg - 65 to 80 inches: silty clay loam

Properties and qualities

Slope: 0 to 2 percent
Depth to restrictive feature: More than 80 inches
Natural drainage class: Somewhat poorly drained
Runoff class: Very high
Capacity of the most limiting layer to transmit water (Ksat): Very low to moderately low (0.00 to 0.01 in/hr)
Depth to water table: About 14 to 24 inches
Frequency of flooding: None
Frequency of ponding: None
Salinity, maximum in profile: Nonsaline (0.0 to 1.0 mmhos/cm)
Sodium adsorption ratio, maximum in profile: 8.0
Available water storage in profile: High (about 9.9 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 2e
Hydrologic Soil Group: D

Minor Components

Edgerly

Percent of map unit: 3 percent
Landform: Flats
Landform position (three-dimensional): Dip
Down-slope shape: Linear
Across-slope shape: Concave

Acadiana

Percent of map unit: 3 percent
Landform: Stream terraces
Landform position (three-dimensional): Riser
Down-slope shape: Linear
Across-slope shape: Convex

Frost

Percent of map unit: 2 percent
Landform: Depressions
Landform position (three-dimensional): Dip

Down-slope shape: Concave
Across-slope shape: Concave

Mowata
Percent of map unit: 2 percent
Landform: Depressions
Landform position (three-dimensional): Dip
Down-slope shape: Linear
Across-slope shape: Concave

GB—Ged mucky clay

Map Unit Setting
National map unit symbol: 1vvgb
Mean annual precipitation: 43 to 61 inches
Mean annual air temperature: 59 to 77 degrees F
Frost-free period: 259 to 313 days
Farmland classification: Not prime farmland

Map Unit Composition
Ged and similar soils: 80 percent
Minor components: 20 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Ged

Setting
Landform: Marshes
Down-slope shape: Linear
Across-slope shape: Linear
Parent material: Fluid clayey alluvium

Typical profile
H1 - 0 to 14 inches: mucky clay
H2 - 14 to 44 inches: clay
H3 - 44 to 60 inches: clay

Properties and qualities
Slope: 0 to 1 percent
Depth to restrictive feature: More than 80 inches
Natural drainage class: Very 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 0 inches
Frequency of flooding: Frequent
Frequency of ponding: Frequent
Available water storage in profile: High (about 9.6 inches)

Interpretive groups
Land capability classification (irrigated): None specified

Land capability classification (nonirrigated): 7w
Hydrologic Soil Group: D

Minor Components

Minor components
Percent of map unit: 20 percent

GC—Gentilly muck, 0 to 0.5 percent slopes, very frequently flooded

Map Unit Setting
National map unit symbol: 2tpnh
Elevation: 0 feet
Mean annual precipitation: 59 to 67 inches
Mean annual air temperature: 63 to 79 degrees F
Frost-free period: 219 to 365 days
Farmland classification: Not prime farmland

Map Unit Composition
Gentilly, very frequently flooded, and similar soils: 80 percent
Minor components: 20 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Gentilly, Very Frequently Flooded

Setting
Landform: Marshes
Landform position (three-dimensional): Dip
Down-slope shape: Linear
Across-slope shape: Linear
Parent material: Thin herbaceous organic material over semifluid clayey over consolidated clayey alluvium

Typical profile
Oa - 0 to 10 inches: muck
Cg1 - 10 to 40 inches: clay
Cg2 - 40 to 79 inches: clay

Properties and qualities
Slope: 0 to 1 percent
Depth to restrictive feature: More than 80 inches
Natural drainage class: Very poorly drained
Runoff class: Negligible
Capacity of the most limiting layer to transmit water (Ksat): Low to moderately low (0.01 to 0.06 in/hr)
Depth to water table: About 0 inches
Frequency of flooding: Very frequent
Frequency of ponding: Frequent
Salinity, maximum in profile: Slightly saline to strongly saline (4.0 to 16.0 mmhos/cm)
Sodium adsorption ratio, maximum in profile: 16.0

Available water storage in profile: High (about 10.4 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 7w
Hydrologic Soil Group: D

Minor Components

Clovelly, very frequently flooded

Percent of map unit: 15 percent
Landform: Marshes
Landform position (three-dimensional): Dip
Down-slope shape: Linear
Across-slope shape: Linear

Lafitte, very frequently flooded

Percent of map unit: 5 percent
Landform: Marshes
Landform position (three-dimensional): Dip
Down-slope shape: Linear
Across-slope shape: Linear

Mr—Edgerly loam, 0 to 1 percent slopes

Map Unit Setting

National map unit symbol: 2qrt8
Elevation: 0 to 20 feet
Mean annual precipitation: 52 to 66 inches
Mean annual air temperature: 57 to 79 degrees F
Frost-free period: 245 to 304 days
Farmland classification: All areas are prime farmland

Map Unit Composition

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

Description of Edgerly

Setting

Landform: Flats
Down-slope shape: Linear
Across-slope shape: Linear
Parent material: Loamy fluviomarine deposits of pleistocene age

Typical profile

Ap - 0 to 7 inches: loam
Bt - 7 to 31 inches: loam
Btg - 31 to 80 inches: clay loam

Properties and qualities

Slope: 0 to 1 percent
Depth to restrictive feature: More than 80 inches
Natural drainage class: Poorly drained
Runoff class: Low
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 18 to 30 inches
Frequency of flooding: Rare
Frequency of ponding: None
Salinity, maximum in profile: Nonsaline to slightly saline (0.0 to 4.0 mmhos/cm)
Sodium adsorption ratio, maximum in profile: 4.0
Available water storage in profile: High (about 12.0 inches)

Interpretive groups

Land capability classification (irrigated): 3w
Land capability classification (nonirrigated): 3w
Hydrologic Soil Group: D

Minor Components

Leton

Percent of map unit: 6 percent
Landform: Flats, drainageways

Kaplan

Percent of map unit: 4 percent
Landform: Ridges

Vidrine

Percent of map unit: 3 percent
Landform: Ridges, flats
Microfeatures of landform position: Mounds

Midland

Percent of map unit: 2 percent
Landform: Flats, depressions

Crowley

Percent of map unit: 2 percent
Landform: Ridges

Mowata

Percent of map unit: 1 percent
Landform: Drainageways, flats

Mt—Mowata-Vidrine complex, 0 to 1 percent slopes

Map Unit Setting

National map unit symbol: 2thq6
Elevation: 10 to 80 feet
Mean annual precipitation: 59 to 66 inches

Mean annual air temperature: 67 to 72 degrees F
Frost-free period: 240 to 304 days
Farmland classification: All areas are prime farmland

Map Unit Composition

Mowata and similar soils: 60 percent
Vidrine and similar soils: 30 percent
Minor components: 10 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Mowata

Setting

Landform: Drainageways
Landform position (three-dimensional): Dip
Down-slope shape: Linear
Across-slope shape: Concave
Parent material: Late pleistocene age loamy fluviomarine deposits derived from igneous, metamorphic and sedimentary rock

Typical profile

Ap - 0 to 8 inches: silt loam
Eg - 8 to 18 inches: silt loam
Btg/E - 18 to 34 inches: clay loam
Btg - 34 to 80 inches: silty clay

Properties and qualities

Slope: 0 to 1 percent
Depth to restrictive feature: More than 80 inches
Natural drainage class: Poorly drained
Runoff class: Negligible
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 0 to 24 inches
Frequency of flooding: Rare
Frequency of ponding: None
Salinity, maximum in profile: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)
Sodium adsorption ratio, maximum in profile: 2.0
Available water storage in profile: High (about 11.9 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 3w
Hydrologic Soil Group: D

Description of Vidrine

Setting

Landform: Flats
Landform position (three-dimensional): Rise
Microfeatures of landform position: Mounds
Down-slope shape: Convex
Across-slope shape: Convex
Parent material: Loamy eolian deposits over clayey fluviomarine deposits of pleistocene age

Typical profile

A - 0 to 6 inches: silt loam
E - 6 to 19 inches: silt loam
Bt/E - 19 to 22 inches: silt loam
Btg - 22 to 60 inches: silty clay
BCtg - 60 to 80 inches: silty clay loam

Properties and qualities

Slope: 0 to 2 percent
Depth to restrictive feature: More than 80 inches
Natural drainage class: Somewhat poorly drained
Runoff class: Very high
Capacity of the most limiting layer to transmit water (Ksat): Very low to moderately low (0.00 to 0.01 in/hr)
Depth to water table: About 14 to 24 inches
Frequency of flooding: None
Frequency of ponding: None
Salinity, maximum in profile: Nonsaline (0.0 to 1.0 mmhos/cm)
Sodium adsorption ratio, maximum in profile: 8.0
Available water storage in profile: High (about 10.0 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 2e
Hydrologic Soil Group: D

Minor Components

Crowley

Percent of map unit: 3 percent
Landform: Terraces
Landform position (three-dimensional): Riser
Microfeatures of landform position: Bars
Down-slope shape: Convex
Across-slope shape: Linear

Leton

Percent of map unit: 3 percent
Landform: Depressions
Landform position (three-dimensional): Dip
Down-slope shape: Concave
Across-slope shape: Concave

Edgerly

Percent of map unit: 2 percent
Landform: Flats
Landform position (three-dimensional): Dip
Down-slope shape: Linear
Across-slope shape: Concave

Midland

Percent of map unit: 2 percent
Landform: Terraces
Landform position (three-dimensional): Tread
Microfeatures of landform position: Open depressions
Down-slope shape: Linear
Across-slope shape: Concave

References

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Geyer, Joshua

From: Mouton, Mitchell - NRCS, ALEXANDRIA, LA <mitchell.mouton@la.usda.gov>
Sent: Wednesday, August 10, 2016 2:30 PM
To: Castille, Barbara
Cc: Woods, Will; Batiste, Katherine; Adams, Gabriel; Geyer, Joshua
Subject: RE: Brine Disposal Pipeline Replacement Project - Strategic Petroleum Reserve - West Hackberry Facility - Cameron Parish, Louisiana

Thank you very much.

-Mitchell

From: Castille, Barbara [mailto:blcastille@sbinfra.com]
Sent: Tuesday, August 09, 2016 5:11 PM
To: Mouton, Mitchell - NRCS, ALEXANDRIA, LA <mitchell.mouton@la.usda.gov>
Cc: Woods, Will <Will.Woods@spr.doe.gov>; Batiste, Katherine <Katherine.Batiste@spr.doe.gov>; Adams, Gabriel <Gabriel.Adams@spr.doe.gov>; Geyer, Joshua <jageyer@sbinfra.com>
Subject: RE: Brine Disposal Pipeline Replacement Project - Strategic Petroleum Reserve - West Hackberry Facility - Cameron Parish, Louisiana

Mr. Mouton—

We are pleased to provide you with the GIS shape files for the brine disposal pipeline replacement project as requested. For your review, we have attached 4 files. The 1st file contains an overview map for use with the GIS shape files. The 2nd file contains the GIS shape files. The shape files represent the maximum area of proposed disturbance along the pipeline corridor which includes the existing pipeline easement, the immediately adjacent proposed pipeline easement and a temporary construction easement. The 3rd file contains the Web Soil Survey soil information for the project area. The 4th file contains the Web Soil Survey prime farmland soils for the project area.

If you have any questions following your review of the attached information, please let me know or feel free to contact Gabriel Adams.

Thank you for your review of this important project.

Sincerely,

Barbara

Barbara Castille
Manager, Environmental Planning
S&B Infrastructure, Ltd.
530 Wells Fargo Drive
Houston, Texas 77090
Direct: (713) 845-5392
Main: (713) 845-5401
Cell: (281) 960-6421
blcastille@sbinfra.com

named recipient, or have reason to believe you are not or should not be one of the named recipients, please notify sender accordingly by reply e-mail and delete all copies of this message prior to forwarding, copying or otherwise reproducing this message or attachments thereto. Thank you.

From: Adams, Gabriel [mailto:Gabriel.Adams@spr.doe.gov]
Sent: Monday, August 08, 2016 10:49 AM
To: Castille, Barbara; Fogle, William
Cc: Woods, Will; Batiste, Katherine; Wesley, Louis; Sevcik, Bob
Subject: FW: Brine Disposal Pipeline Replacement Project - Strategic Petroleum Reserve - West Hackberry Facility - Camercon Parish, Louisiana
Importance: High

Barbara,

Please see the email below from the NRCS for Louisiana.

Please advise.

Gabriel Adams, REM | **Fluor Federal Petroleum Operations, LLC** | Pollution Prevention Specialist, Environmental Department |
Contractor to the U. S. Department of Energy SPR | gabriel.adams@spr.doe.gov|O 504.734.4503|F 504.818.5503

From: Woods, Will
Sent: Monday, August 08, 2016 10:25 AM
To: Adams, Gabriel <Gabriel.Adams@SPR.DOE.GOV>
Subject: FW: Brine Disposal Pipeline Replacement Project - Strategic Petroleum Reserve - West Hackberry Facility - Camercon Parish, Louisiana

Gabe: Please forward as appropriate and cc me.

From: Mouton, Mitchell - NRCS, ALEXANDRIA, LA [mailto:mitchell.mouton@la.usda.gov]
Sent: Monday, August 08, 2016 9:56 AM
To: Woods, Will <Will.Woods@SPR.DOE.GOV>
Subject: Brine Disposal Pipeline Replacement Project - Strategic Petroleum Reserve - West Hackberry Facility - Camercon Parish, Louisiana

Mr. Woods,

For the above referenced project do you have a GIS Shapefile that will have the location of the 50-100 feet of land adjacent to the existing pipeline that will be permanently converted to additional right-of-way? I need to be able to determine the soil type and acreage for this area.

Thanks,

Mitchell Mouton
Assistant State Soil Scientist
USDA-NRCS Soils Section
3737 Government Street
Work (318) 473-7789
Work Cell (337) 412-9304
Email: mitchell.mouton@la.usda.gov

Castille, Barbara

From: Adams, Gabriel <Gabriel.Adams@spr.doe.gov>
Sent: Tuesday, August 16, 2016 6:23 AM
To: Castille, Barbara
Cc: Fogle, William; Geyer, Joshua
Subject: FW: USDA Natural Resources Conservation Service - WH Brine Pipeline Replacement Project
Attachments: FFPA Review Depart of Natural REsources Conservation Service.pdf

Barbara,

Another agency response.

Regards,

Gabriel Adams, REM | **Fluor Federal Petroleum Operations, LLC** | Pollution Prevention Specialist, Environmental Department |
Contractor to the U. S. Department of Energy SPR | gabriel.adams@spr.doe.gov|O 504.734.4503|F 504.818.5503

From: Woods, Will
Sent: Monday, August 15, 2016 1:18 PM
To: Adams, Gabriel <Gabriel.Adams@SPR.DOE.GOV>
Cc: Batiste, Katherine <Katherine.Batiste@SPR.DOE.GOV>
Subject: USDA Natural Resources Conservation Service - WH Brine Pipeline Replacement Project

For your action as appropriate.

I received the attached documents this morning from the USDA, Natural Resources Conservation Service, regarding the WH Brine Pipeline Replacement Project.

Farmland Classification—Cameron Parish, Louisiana
(Prime Farmland)

Map Scale: 1:18,000 if printed on A portrait (8.5" x 11") sheet.

N

Meters
0 250 500 1000 1500

Feet
0 500 1000 2000 3000

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

- Not prime farmland
- All areas are prime farmland
- Prime farmland if drained
- Prime farmland if protected from flooding or not frequently flooded during the growing season
- Prime farmland if irrigated
- Prime farmland if drained and either protected from flooding or not frequently flooded during the growing season
- Prime farmland if irrigated and drained
- Prime farmland if irrigated and either protected from flooding or not frequently flooded during the growing season
- Prime farmland if subsoiled, completely removing the root inhibiting soil layer
- Prime farmland if irrigated and the product of I (soil erodibility) x C (climate factor) does not exceed 60
- Prime farmland if irrigated and reclaimed of excess salts and sodium
- Farmland of statewide importance
- Farmland of local importance
- Farmland of unique importance
- Not rated or not available

Soil Rating Lines

- Not prime farmland
- All areas are prime farmland
- Prime farmland if drained
- Prime farmland if protected from flooding or not frequently flooded during the growing season
- Prime farmland if irrigated
- Prime farmland if drained and either protected from flooding or not frequently flooded during the growing season
- Prime farmland if irrigated and drained
- Prime farmland if irrigated and either protected from flooding or not frequently flooded during the growing season
- Prime farmland if subsoiled, completely removing the root inhibiting soil layer
- Prime farmland if irrigated and the product of I (soil erodibility) x C (climate factor) does not exceed 60
- Prime farmland if irrigated and reclaimed of excess salts and sodium
- Farmland of statewide importance
- Farmland of local importance
- Farmland of unique importance
- Not rated or not available

Soil Rating Points

- Not prime farmland
- All areas are prime farmland
- Prime farmland if drained
- Prime farmland if protected from flooding or not frequently flooded during the growing season
- Prime farmland if irrigated
- Prime farmland if drained and either protected from flooding or not frequently flooded during the growing season
- Prime farmland if irrigated and drained
- Prime farmland if irrigated and either protected from flooding or not frequently flooded during the growing season
- Prime farmland if subsoiled, completely removing the root inhibiting soil layer
- Prime farmland if irrigated and the product of I (soil erodibility) x C (climate factor) does not exceed 60
- Prime farmland if irrigated and reclaimed of excess salts and sodium
- Farmland of statewide importance
- Farmland of local importance
- Farmland of unique importance
- Not rated or not available

Water Features

MAP INFORMATION

Streams and Canals

Transportation


Rails


Interstate Highways


US Routes

Major Roads

Local Roads

Background


Aerial Photography

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

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

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL: http://websoilsurvey.nrcs.usda.gov
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: Cameron Parish, Louisiana
Survey Area Data: Version 13, Sep 28, 2015

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

Date(s) aerial images were photographed: Feb 7, 2011—May 26, 2011

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.

Farmland Classification

Farmland Classification— Summary by Map Unit — Cameron Parish, Louisiana (LA023)				
Map unit symbol	**Map unit name**	**Rating**	**Acres in AOI**	**Percent of AOI**
Cw	Crowley-Vidrine complex, 0 to 1 percent slopes	All areas are prime farmland	35.4	54.4%
GB	Ged mucky clay	Not prime farmland	1.6	2.4%
GC	Gentilly muck, 0 to 0.5 percent slopes, very frequently flooded	Not prime farmland	7.6	11.7%
Mr	Edgerly loam, 0 to 1 percent slopes	All areas are prime farmland	5.3	8.2%
Mt	Mowata-Vidrine complex, 0 to 1 percent slopes	All areas are prime farmland	15.2	23.3%
Totals for Area of Interest			**65.0**	**100.0%**

Description

Farmland classification identifies map units as prime farmland, farmland of statewide importance, farmland of local importance, or unique farmland. It identifies the location and extent of the soils that are best suited to food, feed, fiber, forage, and oilseed crops. NRCS policy and procedures on prime and unique farmlands are published in the "Federal Register," Vol. 43, No. 21, January 31, 1978.

Rating Options

Aggregation Method: No Aggregation Necessary

Tie-break Rule: Lower

USDA

United States Department of Agriculture

August 10, 2016

Mr. Will Woods
Environmental Specialist - Department of Energy
SPR Project Management Office
Environmental, Safety, and Health Division
900 Commerce Road East
New Orleans, LA 70123

RE: Brine Disposal Pipeline Replacement Project - Strategic Petroleum Reserve
West Hackberry Facility, Cameron Parish, Louisiana

Dear Mr. Woods:

I have reviewed the above referenced project for potential requirements of the Farmland Protection Policy Act (FPPA) and potential impact to Natural Resource Conservation Service projects in the immediate vicinity.

Projects are subject to FPPA requirements if they may irreversibly convert farmland (directly or indirectly) to nonagricultural use and are completed by a federal agency or with assistance from a federal agency. For the purpose of FPPA, farmland includes prime farmland, unique farmland, and land of statewide or local importance. Farmland subject to FPPA requirements can be forest land, pastureland, cropland, or other land, but not water or urban built-up land.

The project map and narrative submitted with your request indicates that the proposed new pipeline will potentially impact the following prime or unique farmland soils:

Soil Mapunit Symbol and Name	Acres	RV
Cw – Crowley-Vidrine complex, 0 to 1 percent slopes	17.5	87
Mr – Edgerly loam, 0 to 1 percent slopes	0.5	100
Mt – Mowata-Vidrine complex, 0 to 1 percent slopes	8.3	87
	26.3	Avg. RV 87

Please find attached a CPA-106 'Farmland Conversion Impact Rating for Corridor Type Projects' form with our agencies information completed. Furthermore, we do not predict impacts to NRCS work in the vicinity.

For specific information about the soils found in the project area, please visit our Web Soil Survey at the following location: http://websoilsurvey.nrcs.usda.gov/. Also, for more information on FPPA requirements or the process to receive a Farmland Conversion Impact Rating (Form AD-1006 or CPA-106) please visit the following location: http://www.nrcs.usda.gov/wps/portal/nrcs/main/national/landuse/fppa/

Please direct all future correspondence to me at the address shown below.

Respectfully,

Acting for: Kevin Norton
State Conservationist

Attachment

Natural Resources Conservation Service
State Office
3737 Government Street
Alexandria, Louisiana 71302
Voice: (318) 473-7751 Fax: 1-844-325-6947

U.S. DEPARTMENT OF AGRICULTURE
Natural Resources Conservation Service

NRCS-CPA-106
(Rev. 1-91)

FARMLAND CONVERSION IMPACT RATING FOR CORRIDOR TYPE PROJECTS

PART I *(To be completed by Federal Agency)*	3. Date of Land Evaluation Request 8/5/16	4. Sheet 1 of _____
1. Name of Project **Brine Disposal Pipeline Replacement Project**	5. Federal Agency Involved **Department of Energy**	
2. Type of Project **New Pipeline**	6. County and State **Cameron Parish, Louisiana**	

PART II *(To be completed by NRCS)*	1. Date Request Received by NRCS 8/6/16	2. Person Completing Form M. Mouton
3. Does the corridor contain prime, unique statewide or local important farmland? (If no, the FPPA does not apply - Do not complete additional parts of this form). YES ☑ NO ☑		4. Acres Irrigated / Average Farm Size 590
5. Major Crop(s) **Rice and Soybeans**	6. Farmable Land in Government Jurisdiction Acres: 566,352 % 76	7. Amount of Farmland As Defined in FPPA Acres: 500,847 % 72
8. Name Of Land Evaluation System Used **Cameron Parish LESA**	9. Name of Local Site Assessment System **N/A**	10. Date Land Evaluation Returned by NRCS 8/10/16

PART III *(To be completed by Federal Agency)*	Alternative Corridor For Segment			
	Corridor A	Corridor B	Corridor C	Corridor D
A. Total Acres To Be Converted Directly				
B. Total Acres To Be Converted Indirectly, Or To Receive Services				
C. Total Acres In Corridor				
PART IV *(To be completed by NRCS) Land Evaluation Information*				
A. Total Acres Prime And Unique Farmland	26.3			
B. Total Acres Statewide And Local Important Farmland				
C. Percentage Of Farmland in County Or Local Govt. Unit To Be Converted	<0.0001			
D. Percentage Of Farmland in Govt. Jurisdiction With Same Or Higher Relative Value	16.3			
PART V *(To be completed by NRCS) Land Evaluation Information Criterion Relative value of Farmland to Be Serviced or Converted (Scale of 0 - 100 Points)*	87			

PART VI *(To be completed by Federal Agency) Corridor Assessment Criteria (These criteria are explained in 7 CFR 658.5(c))*	Maximum Points				
1. Area in Nonurban Use	15				
2. Perimeter in Nonurban Use	10				
3. Percent Of Corridor Being Farmed	20				
4. Protection Provided By State And Local Government	20				
5. Size of Present Farm Unit Compared To Average	10				
6. Creation Of Nonfarmable Farmland	25				
7. Availablility Of Farm Support Services	5				
8. On-Farm Investments	20				
9. Effects Of Conversion On Farm Support Services	25				
10. Compatibility With Existing Agricultural Use	10				
TOTAL CORRIDOR ASSESSMENT POINTS	160	0	0	0	0
PART VII *(To be completed by Federal Agency)*					
Relative Value Of Farmland (From Part V)	100	87	0	0	0
Total Corridor Assessment (From Part VI above or a local site assessment)	160	0	0	0	0
TOTAL POINTS *(Total of above 2 lines)*	260	87	0	0	0

1. Corridor Selected:	2. Total Acres of Farmlands to be Converted by Project:	3. Date Of Selection:	4. Was A Local Site Assessment Used? YES ☐ NO ☐

5. Reason For Selection:

Signature of Person Completing this Part: | DATE

NOTE: Complete a form for each segment with more than one Alternate Corridor

CORRIDOR - TYPE SITE ASSESSMENT CRITERIA

The following criteria are to be used for projects that have a linear or corridor - type site configuration connecting two distant points, and crossing several different tracts of land. These include utility lines, highways, railroads, stream improvements, and flood control systems. Federal agencies are to assess the suitability of each corridor - type site or design alternative for protection as farmland along with the land evaluation information.

(1) How much land is in nonurban use within a radius of 1.0 mile from where the project is intended?
More than 90 percent - 15 points
90 to 20 percent - 14 to 1 point(s)
Less than 20 percent - 0 points

(2) How much of the perimeter of the site borders on land in nonurban use?
More than 90 percent - 10 points
90 to 20 percent - 9 to 1 point(s)
Less than 20 percent - 0 points

(3) How much of the site has been farmed (managed for a scheduled harvest or timber activity) more than five of the last 10 years?
More than 90 percent - 20 points
90 to 20 percent - 19 to 1 point(s)
Less than 20 percent - 0 points

(4) Is the site subject to state or unit of local government policies or programs to protect farmland or covered by private programs to protect farmland?
Site is protected - 20 points
Site is not protected - 0 points

(5) Is the farm unit(s) containing the site (before the project) as large as the average - size farming unit in the County ? (Average farm sizes in each county are available from the NRCS field offices in each state. Data are from the latest available Census of Agriculture, Acreage or Farm Units in Operation with $1,000 or more in sales.)
As large or larger - 10 points
Below average - deduct 1 point for each 5 percent below the average, down to 0 points if 50 percent or more below average - 9 to 0 points

(6) If the site is chosen for the project, how much of the remaining land on the farm will become non-farmable because of interference with land patterns?
Acreage equal to more than 25 percent of acres directly converted by the project - 25 points
Acreage equal to between 25 and 5 percent of the acres directly converted by the project - 1 to 24 point(s)
Acreage equal to less than 5 percent of the acres directly converted by the project - 0 points

(7) Does the site have available adequate supply of farm support services and markets, i.e., farm suppliers, equipment dealers, processing and storage facilities and farmer's markets?
All required services are available - 5 points
Some required services are available - 4 to 1 point(s)
No required services are available - 0 points

(8) Does the site have substantial and well-maintained on-farm investments such as barns, other storage building, fruit trees and vines, field terraces, drainage, irrigation, waterways, or other soil and water conservation measures?
High amount of on-farm investment - 20 points
Moderate amount of on-farm investment - 19 to 1 point(s)
No on-farm investment - 0 points

(9) Would the project at this site, by converting farmland to nonagricultural use, reduce the demand for farm support services so as to jeopardize the continued existence of these support services and thus, the viability of the farms remaining in the area?
Substantial reduction in demand for support services if the site is converted - 25 points
Some reduction in demand for support services if the site is converted - 1 to 24 point(s)
No significant reduction in demand for support services if the site is converted - 0 points

(10) Is the kind and intensity of the proposed use of the site sufficiently incompatible with agriculture that it is likely to contribute to the eventual conversion of surrounding farmland to nonagricultural use?
Proposed project is incompatible to existing agricultural use of surrounding farmland - 10 points
Proposed project is tolerable to existing agricultural use of surrounding farmland - 9 to 1 point(s)
Proposed project is fully compatible with existing agricultural use of surrounding farmland - 0 points

Geyer, Joshua

From: Castille, Barbara
Sent: Tuesday, August 30, 2016 4:02 PM
To: kevin.norton@la.usda.gov
Cc: Adams, Gabriel (Gabriel.Adams@spr.doe.gov); Batiste, Katherine (Katherine.Batiste@spr.doe.gov); Woods, Will (Will.Woods@spr.doe.gov); Geyer, Joshua
Subject: FW: USDA Natural Resources Conservation Service - WH Brine Pipeline Replacement Project
Attachments: FFPA Review Depart of Natural REsources Conservation Service.pdf; NRCS_CPA_106 Form_toKNorton_083016_FINAL.pdf

Mr. Norton—

Attached for your review is the completed Farmland Conversion Impact Rating Form For Corridor Type Projects (NRCS-CPA-106). This form was completed for the proposed West Hackberry Brine Disposal Pipeline Replacement Project located in Hackberry, Louisiana.

If you have any questions as you review the form, please feel free to contact Mr. Will Woods or Mr. Gabriel Adams at the email addresses listed on this email.

Many thanks,

Barbara

Barbara Castille
Manager, Environmental Planning
S&B Infrastructure, Ltd.
530 Wells Fargo Drive
Houston, Texas 77090
Direct: (713) 845-5392
Main: (713) 845-5401
Cell: (281) 960-6421
blcastille@sbinfra.com

From: Adams, Gabriel [mailto:Gabriel.Adams@spr.doe.gov]
Sent: Tuesday, August 16, 2016 6:23 AM
To: Castille, Barbara
Cc: Fogle, William; Geyer, Joshua
Subject: FW: USDA Natural Resources Conservation Service - WH Brine Pipeline Replacement Project

Barbara,

Another agency response.

Regards,

Gabriel Adams, REM | **Fluor Federal Petroleum Operations, LLC** | Pollution Prevention Specialist, Environmental Department |
Contractor to the U. S. Department of Energy SPR | gabriel.adams@spr.doe.gov|O 504.734.4503|F 504.818.5503

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To: Adams, Gabriel <Gabriel.Adams@SPR.DOE.GOV>
Cc: Batiste, Katherine <Katherine.Batiste@SPR.DOE.GOV>
Subject: USDA Natural Resources Conservation Service - WH Brine Pipeline Replacement Project

For your action as appropriate.

I received the attached documents this morning from the USDA, Natural Resources Conservation Service, regarding the WH Brine Pipeline Replacement Project.

U.S. DEPARTMENT OF AGRICULTURE
Natural Resources Conservation Service

NRCS-CPA-106
(Rev. 1-91)

FARMLAND CONVERSION IMPACT RATING FOR CORRIDOR TYPE PROJECTS

PART I *(To be completed by Federal Agency)*	3. Date of Land Evaluation Request **8/5/16**	4. Sheet 1 of _____
1. Name of Project **Brine Disposal Pipeline Replacement Project**	5. Federal Agency Involved **Department of Energy**	
2. Type of Project **New Pipeline**	6. County and State **Cameron Parish, Louisiana**	

PART II *(To be completed by NRCS)*	1. Date Request Received by NRCS **8/6/16**	2. Person Completing Form **M. Mouton**
3. Does the corridor contain prime, unique statewide or local important farmland? (If no, the FPPA does not apply - Do not complete additional parts of this form). YES ☑ NO ☐		4. Acres Irrigated | Average Farm Size **590**
5. Major Crop(s) **Rice and Soybeans**	6. Farmable Land in Government Jurisdiction **Acres: 566,352 % 76**	7. Amount of Farmland As Defined in FPPA **Acres: 500,847 % 72**
8. Name Of Land Evaluation System Used **Cameron Parish LESA**	9. Name of Local Site Assessment System **N/A**	10. Date Land Evaluation Returned by NRCS **8/10/16**

PART III *(To be completed by Federal Agency)*	Alternative Corridor For Segment _____			
	Corridor A	**Corridor B**	**Corridor C**	**Corridor D**
A. Total Acres To Be Converted Directly	**0**			
B. Total Acres To Be Converted Indirectly, Or To Receive Services	**0**			
C. Total Acres In Corridor	**32.93**			
PART IV *(To be completed by NRCS) Land Evaluation Information*				
A. Total Acres Prime And Unique Farmland	**26.3**			
B. Total Acres Statewide And Local Important Farmland				
C. Percentage Of Farmland in County Or Local Govt. Unit To Be Converted	**<0.0001**			
D. Percentage Of Farmland in Govt. Jurisdiction With Same Or Higher Relative Value	**16.3**			
PART V *(To be completed by NRCS) Land Evaluation Information Criterion Relative value of Farmland to Be Serviced or Converted (Scale of 0 - 100 Points)*	87			

PART VI *(To be completed by Federal Agency) Corridor Assessment Criteria (These criteria are explained in 7 CFR 658.5(c))*	**Maximum Points**				
1. Area in Nonurban Use	**15**	**13**			
2. Perimeter in Nonurban Use	**10**	**9**			
3. Percent Of Corridor Being Farmed	**20**	**0**			
4. Protection Provided By State And Local Government	**20**	**0**			
5. Size of Present Farm Unit Compared To Average	**10**	**0**			
6. Creation Of Nonfarmable Farmland	**25**	**0**			
7. Availablility Of Farm Support Services	**5**	**5**			
8. On-Farm Investments	**20**	**0**			
9. Effects Of Conversion On Farm Support Services	**25**	**0**			
10. Compatibility With Existing Agricultural Use	**10**	**0**			
TOTAL CORRIDOR ASSESSMENT POINTS	**160**	**27**	**0**	**0**	**0**
PART VII *(To be completed by Federal Agency)*					
Relative Value Of Farmland (From Part V)	**100**	**87**	**0**	**0**	**0**
Total Corridor Assessment (From Part VI above or a local site assessment)	**160**	**27**	**0**	**0**	**0**
TOTAL POINTS *(Total of above 2 lines)*	**260**	**114**	**0**	**0**	**0**

1. Corridor Selected:	2. Total Acres of Farmlands to be Converted by Project:	3. Date Of Selection:	4. Was A Local Site Assessment Used?
Corridor A	**0.00**	**8/30/16**	YES ☐ NO ☐

5. Reason For Selection:

The Build Alternative and the No Build Alternative were the only alternatives advanced for study. The No Build Alternative would not meet the purpose and need of the proposed brine disposal pipeline replacement project. The proposed pipeline will be located immediately adjacent to the existing pipeline. All Prime and Unique Farmland within the project area is utilized for pastureland, transportation corridors, residential structures and the SPR Facility. No property designated as Prime and Unique Farmland, within the project area, is actively utilized for crop production or farming.

Signature of Person Completing this Part: **Josh Geyer and Barbara Castille** DATE **8/30/16**

NOTE: Complete a form for each segment with more than one Alternate Corridor

Clear Form

CORRIDOR - TYPE SITE ASSESSMENT CRITERIA

The following criteria are to be used for projects that have a linear or corridor - type site configuration connecting two distant points, and crossing several different tracts of land. These include utility lines, highways, railroads, stream improvements, and flood control systems. Federal agencies are to assess the suitability of each corridor - type site or design alternative for protection as farmland along with the land evaluation information.

(1) How much land is in nonurban use within a radius of 1.0 mile from where the project is intended?
More than 90 percent - 15 points
90 to 20 percent - 14 to 1 point(s)
Less than 20 percent - 0 points

(2) How much of the perimeter of the site borders on land in nonurban use?
More than 90 percent - 10 points
90 to 20 percent - 9 to 1 point(s)
Less than 20 percent - 0 points

(3) How much of the site has been farmed (managed for a scheduled harvest or timber activity) more than five of the last 10 years?
More than 90 percent - 20 points
90 to 20 percent - 19 to 1 point(s)
Less than 20 percent - 0 points

(4) Is the site subject to state or unit of local government policies or programs to protect farmland or covered by private programs to protect farmland?
Site is protected - 20 points
Site is not protected - 0 points

(5) Is the farm unit(s) containing the site (before the project) as large as the average - size farming unit in the County ? (Average farm sizes in each county are available from the NRCS field offices in each state. Data are from the latest available Census of Agriculture, Acreage or Farm Units in Operation with $1,000 or more in sales.)
As large or larger - 10 points
Below average - deduct 1 point for each 5 percent below the average, down to 0 points if 50 percent or more below average - 9 to 0 points

(6) If the site is chosen for the project, how much of the remaining land on the farm will become non-farmable because of interference with land patterns?
Acreage equal to more than 25 percent of acres directly converted by the project - 25 points
Acreage equal to between 25 and 5 percent of the acres directly converted by the project - 1 to 24 point(s)
Acreage equal to less than 5 percent of the acres directly converted by the project - 0 points

(7) Does the site have available adequate supply of farm support services and markets, i.e., farm suppliers, equipment dealers, processing and storage facilities and farmer's markets?
All required services are available - 5 points
Some required services are available - 4 to 1 point(s)
No required services are available - 0 points

(8) Does the site have substantial and well-maintained on-farm investments such as barns, other storage building, fruit trees and vines, field terraces, drainage, irrigation, waterways, or other soil and water conservation measures?
High amount of on-farm investment - 20 points
Moderate amount of on-farm investment - 19 to 1 point(s)
No on-farm investment - 0 points

(9) Would the project at this site, by converting farmland to nonagricultural use, reduce the demand for farm support services so as to jeopardize the continued existence of these support services and thus, the viability of the farms remaining in the area?
Substantial reduction in demand for support services if the site is converted - 25 points
Some reduction in demand for support services if the site is converted - 1 to 24 point(s)
No significant reduction in demand for support services if the site is converted - 0 points

(10) Is the kind and intensity of the proposed use of the site sufficiently incompatible with agriculture that it is likely to contribute to the eventual conversion of surrounding farmland to nonagricultural use?
Proposed project is incompatible to existing agricultural use of surrounding farmland - 10 points
Proposed project is tolerable to existing agricultural use of surrounding farmland - 9 to 1 point(s)
Proposed project is fully compatible with existing agricultural use of surrounding farmland - 0 points

Geyer, Joshua

From: Adams, Gabriel <Gabriel.Adams@spr.doe.gov>
Sent: Monday, September 12, 2016 11:49 AM
To: Castille, Barbara
Subject: FW: NMFS letter drsp Sep 12, 2016, RE: EA for proposed "Brine Disposal Pipeline Project, West Hackberry Facility" (Docket No. 16-ESH-006) by undated letter
Attachments: NMFS letter drsp Sep 12, 2016, EA for proposed "Brine Disposal Pipeline Project, West Hackberry Facility" (Docket No. 16-ESH-006) by undated letter.pdf

Importance: High

Follow Up Flag: Follow up
Flag Status: Flagged

Here is a new letter.

Gabriel Adams, REM | **Fluor Federal Petroleum Operations, LLC** | Pollution Prevention Specialist, Environmental Department |
Contractor to the U. S. Department of Energy SPR | gabriel.adams@spr.doe.gov|O 504.734.4503|F 504.818.5503

From: Jan Koellen - NOAA Federal [mailto:jan.koellen@noaa.gov]
Sent: Monday, September 12, 2016 11:32 AM
To: Woods, Will <Will.Woods@SPR.DOE.GOV>
Cc: Adams, Gabriel <Gabriel.Adams@SPR.DOE.GOV>; Rusty Swafford <rusty.swafford@noaa.gov>; David Dale <david.dale@noaa.gov>; Sharon Rolfes <Sharon.Rolfes@noaa.gov>
Subject: NMFS letter drsp Sep 12, 2016, RE: EA for proposed "Brine Disposal Pipeline Project, West Hackberry Facility" (Docket No. 16-ESH-006) by undated letter

See attached.

--
Jan Koellen
Office Automation
Baton Rouge Office
NOAA NMFS HCD
225-389-0508x202
jan.koellen@noaa.gov

UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
NATIONAL MARINE FISHERIES SERVICE
Southeast Regional Office
263 13th Avenue South
St. Petersburg, Florida 33701-5505
http://sero.nmfs.noaa.gov

September 12, 2016 F/SER46/BH:jk
225/389-0508

Mr. Will Woods, Project Manager
U.S. Department of Energy
900 Commerce East
New Orleans, Louisiana 70123

Dear Mr. Woods:

NOAA's National Marine Fisheries Service (NMFS) has received an undated letter from Mr. William Gibson of the Department of Energy (DOE) announcing their plans to prepare an Environmental Assessment (EA) for the proposed **"Brine Disposal Pipeline Project, West Hackberry Facility"** (Docket No. 16-ESH-006). The DOE proposes to replace an existing brine disposal pipeline between the Strategic Petroleum Reserve West Hackberry facility and associated brine injection well near Hackberry in Cameron Parish, Louisiana. The DOE is requesting comments on resources and issues to be addressed in the EA for this proposed action.

Wetlands potentially impacted by construction of the project consist of saline to brackish marsh vegetated with saltgrass, smooth cordgrass, and marshhay cordgrass. Depending on the tidal connectivity and location of the wetlands in the project area, they could be categorized as essential fish habitat (EFH) for postlarval and/or juvenile life stages of white shrimp, brown shrimp, gray snapper, lane snapper, and red drum. Primary categories of EFH which may be in the project area include estuarine emergent wetlands, estuarine water column, and estuarine mud bottoms. Detailed information on EFH for federally managed fishery species is provided in the 2005 generic amendment of the Fishery Management Plans for the Gulf of Mexico prepared by the Gulf of Mexico Fishery Management Council (GMFMC). The generic amendment was prepared as required by the Magnuson-Stevens Fishery Conservation and Management Act (Magnuson-Stevens Act; P.L. 104-297).

In addition to being designated as EFH, wetlands in the project area provide nursery and foraging habitats supportive of a variety of economically important marine fishery species, including striped mullet, Atlantic croaker, gulf menhaden, spotted and sand seatrout, southern flounder, and blue crab. Some of these species serve as prey for other fish species managed under the Magnuson-Stevens Act by the GMFMC (e.g., mackerels, snappers, and groupers) and highly migratory species managed by the NMFS (e.g., billfishes and sharks). These wetlands also produce nutrients and detritus, important components of the aquatic food web, which contribute to the overall productivity of the Calcasieu Lake estuary. We recommend the EA fully describe the use of various habitats in the project area by these species.

To fully address EFH and estuarine-dependent fisheries of the project area, we recommend the EA include sections titled "Essential Fish Habitat" and "Fishery Resources" which describe the potential impacts of the proposed project on the various categories of EFH and non-tidal wetlands and on marine fishery species within the project area. The EFH section should analyze the

potential impacts of the proposed project on federally managed species and life stages utilizing these categories of EFH and fully evaluate alternative measures to avoid, minimize, and offset adverse impacts to EFH and marine fishery species. Descriptive and analytical information, coupled with a statement of the DOE's conclusions regarding the effects of the action on EFH and marine fishery species would provide the basic details necessary for an EFH assessment pursuant to the requirements of 50 CFR 600.920(e).

The NMFS recommends a section titled "Mitigation" be included in the EA which discusses measures to avoid, minimize, and offset impacts to EFH and non-tidal wetlands. The EA should not assume all wetland areas disturbed "temporarily" by installation of the pipeline will return to pre-existing conditions. Rather, the EA should include a monitoring plan to evaluate the degree to which areas impacted by project implementation recover from construction activities. Additionally, the EA should discuss compensatory mitigation alternatives for all wetland areas which do not fully recover from project implementation. If specifics of the mitigation plan are not included in the draft EA, the document should clearly state any compensatory mitigation plan to offset impacts to EFH or non-tidal wetlands would be developed in consultation with NMFS, and would include monitoring components, success criteria, and an identification of additional steps which might be necessary to ensure mitigation success.

We appreciate your consideration of our comments and request notification once the EA is published. If you wish to discuss this project further or have questions concerning our recommendations, please contact Brandon Howard at (225) 389-0508, extension 207.

Sincerely,

Virginia M. Fay

Virginia M. Fay
Assistant Regional Administrator
Habitat Conservation Division

c:
DOE, Gabriel Adams
F/SER46, Swafford
F/SER4, Dale, Rolfes
Files

Geyer, Joshua

From: Adams, Gabriel <Gabriel.Adams@spr.doe.gov>
Sent: Thursday, September 15, 2016 7:35 AM
To: Westbrook, Thomas; Wesley, Louis; Sevcik, Bob; Castille, Barbara
Cc: Woods, Will; Batiste, Katherine
Subject: FW: C20160130 DOE Strategic Petroleum Reserve
Attachments: C20160130 let DOE SPR.pdf

Follow Up Flag: Follow up
Flag Status: Flagged

Please see.

Gabriel Adams, REM | **Fluor Federal Petroleum Operations, LLC** | Pollution Prevention Specialist, Environmental Department |
Contractor to the U. S. Department of Energy SPR | gabriel.adams@spr.doe.gov|O 504.734.4503|F 504.818.5503

From: Jeff Harris [mailto:Jeff.Harris@LA.GOV]
Sent: Thursday, September 15, 2016 7:30 AM
To: Gibson, Hoot <Hoot.Gibson@SPR.DOE.GOV>
Cc: Woods, Will <Will.Woods@SPR.DOE.GOV>; Adams, Gabriel <Gabriel.Adams@SPR.DOE.GOV>; darrell.barbara@usace.army.mil; Rod Pierce <Rod.Pierce@LA.GOV>; kb_cppj@camtel.net; Dave Butler <dbutler@wlf.la.gov>
Subject: C20160130 DOE Strategic Petroleum Reserve

Mr. Gibson—

In response to your request, please find the attached comment letter from the Louisiana Department of Natural Resources, Office of Coastal Management, in regards to the proposed replacement of a brine disposal pipeline at the West Hackberry SPR facility.

Please write or call if there are any questions.

Thank you,

--Jeff

Jeff Harris
Consistency Section
Office of Coastal Management
Louisiana Department of Natural Resources
(225) 342-7949

communication and destroy all copies.

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JOHN BEL EDWARDS
GOVERNOR

THOMAS F. HARRIS
SECRETARY

State of Louisiana

DEPARTMENT OF NATURAL RESOURCES

OFFICE OF COASTAL MANAGEMENT

September 15, 2016

William C. Gibson, Jr.
Department of Energy
Strategic Petroleum Reserve
Project Management Office
900 Commerce East
New Orleans, LA 70123
Via e-mail: william.gibson@spr.doe.gov

Re: **C20160130 Coastal Zone Consistency**
Department of Energy Strategic Petroleum Reserve (SPR)
Direct Federal Action
Brine Disposal Pipeline Replacement Project, Strategic Petroleum Reserve, West Hackberry Facility, **Cameron Parish**

Dear Mr. Gibson:

The Louisiana Department of Natural Resources, Office of Coastal Management (OCM), has reviewed your letter, received August 8, 2016, requesting comments on the referenced project (copy attached for your reference).

The Department of Energy (DOE) intends to prepare anEnvironmental Assessment (EA) for the replacement of an existing brine disposal pipeline near Hackberry, Louisiana. The proposed activity includes abandonment-in-place of the existing 2.1-mile brine pipeline; installation of a new pipeline along an adjacent path; and acquisition of permanent and temporary Rights of Way for the pipeline and construction activities, respectively.

These actions will occur within the Louisiana coastal zone and so will, at the appropriate planning stage, require consistency review by OCM pursuant to the Coastal Zone Management Act of 1970, as amended (CZMA).
Broadly, OCM is concerned with any reasonably foreseeable effects on the land use, water use, or natural resources of the coastal zone. Of particular concern is the prevention of the loss of wetlands. Your consistency determination and EA should address the measures to be taken to avoid and minimize the adverse impacts to coastal wetlands. Compensatory mitigation will be required for any unavoidable losses to habitat value, including indirect and cumulative losses.

It is the policy of OCM that all pipelines in the coastal zone are to be removed upon decommissioning; therefore the proposed abandonment in place of the existing brine pipeline is

unlikely to be found to be consistent with the Louisiana Coastal Resources Program. DOE should instead plan to remove the pipeline, and evaluate the resulting environmental impacts as well as those of the installation of its replacement.

OCM appreciates the opportunity to provide comments at this early stage of project planning. Please notify our office of the availability of the draft EA for review. If you should have any questions on this matter, please contact Jeff Harris of the Consistency Section at (225) 342-7949 or Jeff.Harris@LA.gov.

Sincerely yours,

/S/ Don Haydel
Acting Administrator
Interagency Affairs/Field Services Division

DH/SK/jdh

ATTACHMENT

cc: Will Woods, PMO
Gabriel Adams, FFPO
Darrell Barbara, COE-NOD
Rod Peirce, OCM/FI
Kara Bonsall, Cameron Parish
Dave Butler, LDWF

C20160130
SOV
JDH

Department of Energy
Strategic Petroleum Reserve Project Management Office
900 Commerce East
New Orleans, Louisiana 70123

16-ESH-006

Mr. Karl Morgan
Louisiana Department of Natural Resources
Office of Coastal Management
Permits/Mitigation Division
P.O. Box 44487
Baton Rouge, LA 70821-4487

BRINE DISPOSAL PIPELINE REPLACEMENT PROJECT, STRATEGIC PETROLEUM RESERVE, WEST HACKBERRY FACILITY, CAMERON PARISH, LOUISIANA

Dear Mr. Morgan:

Pursuant to the National Environmental Policy Act, the United States Department of Energy (DOE) intends to prepare an Environmental Assessment (EA) for the proposed replacement of the existing brine disposal pipeline (the Pipeline) between the Strategic Petroleum Reserve (SPR) West Hackberry (WH) facility and the associated brine injection wells near Hackberry, Cameron Parish, Louisiana. Both the existing and proposed brine disposal pipelines are approximately 2.1 miles in length. The potential environmental impacts of this proposed project would be evaluated in conformance with DOE and Council on Environmental Quality (CEQ) regulations and provisions. A description of the WH facility and the proposed project are provided below.

The WH storage facility includes approximately 2.29 square kilometers (565 acres) of land atop the WH salt dome. The WH salt dome was selected as a storage site early in the SPR program as the existing brine caverns could be readily converted to oil storage as well as the site's optimal proximity to commercial marine and pipeline crude oil distribution facilities. The WH facility was developed by the DOE in 1977 to store petroleum products that may be presidentially ordered into the marketplace to alleviate the effects of a supply disruption to the United States. Brine is injected into and/or pumped out of the WH salt dome utilizing the Pipeline and brine injection wells when deemed necessary to fulfill mission requirements. The Pipeline which connects the WH facility to the brine injection wells was permitted in 1978 and began operation upon completion, and is near the end of the Pipeline's functional lifespan. The Pipeline is proposed to be replaced to allow for continued, optimum operations at the WH facility.

As part of the brine pipeline replacement project (proposed action), the DOE proposes to replace the Pipeline by installing a new brine disposal pipeline; the existing Pipeline would be abandoned-in-place. The new Pipeline would be installed adjacent to the existing pipeline except near Johnson Lane in which the current Pipeline traverses' property between two single-family residences.

Implementation of the proposed action would require the acquisition of new rights-of-way. The associated new land acquisition effort would consist of both perpetual pipeline easements required for the proposed replacement Pipeline, as well as temporary construction easements required for construction activities. Approximately 50-100 feet of land adjacent to the Pipeline would be required to install, operate, and maintain the replacement of Pipeline. One construction staging area would be located on a temporary construction easement contiguous to the Pipeline near the northern project limits. Additionally, a 25-foot temporary construction easement would be required along the Pipeline corridor.

The pipeline would traverse lands within the 100-year floodplain, wetlands and open water habitats associated with Black Lake. In accordance with 10 Code of Federal Regulations (CFR) Part 1022 (Compliance with Floodplain and Wetland Environmental Review Requirements), the DOE would prepare a floodplain and wetlands assessment as well as a statement of findings and would perform this proposed action in a manner so as to avoid or minimize potential harm to or within the affected floodplain or wetlands. The floodplain and wetlands assessment would be included in the EA prepared for the proposed action.

The Louisiana Department of Natural Resources has been identified as part of an outreach effort under National Environmental Protection Agency (NEPA) for a review of resources under your agency's jurisdiction. In this regard, DOE respectfully requests your comments regarding any potential impacts of this proposed project that should be considered during the preparation of the Environmental Assessment for this action. In your response to this request for input from your agency, please indicate if your agency would like to be notified of the availability of the draft EA for review.

Please direct any written comments or requests for additional information to Mr. Will Woods, Environmental Specialist, DOE, SPR Project Management Office (PMO), Environmental, Safety, and Health Division, 900 Commerce Road East, New Orleans, Louisiana 70123, or by email at Will.Woods@spr.doe.gov. You may also contact Mr. Gabriel Adams, Fluor Federal Petroleum Operations (FFPO), Management and Operating Contractor, DOE, SPRPMO at (504) 734-4503, or by email at Gabriel.Adams@spr.doe.gov.

Thank you in advance for your expeditious attention to this project.

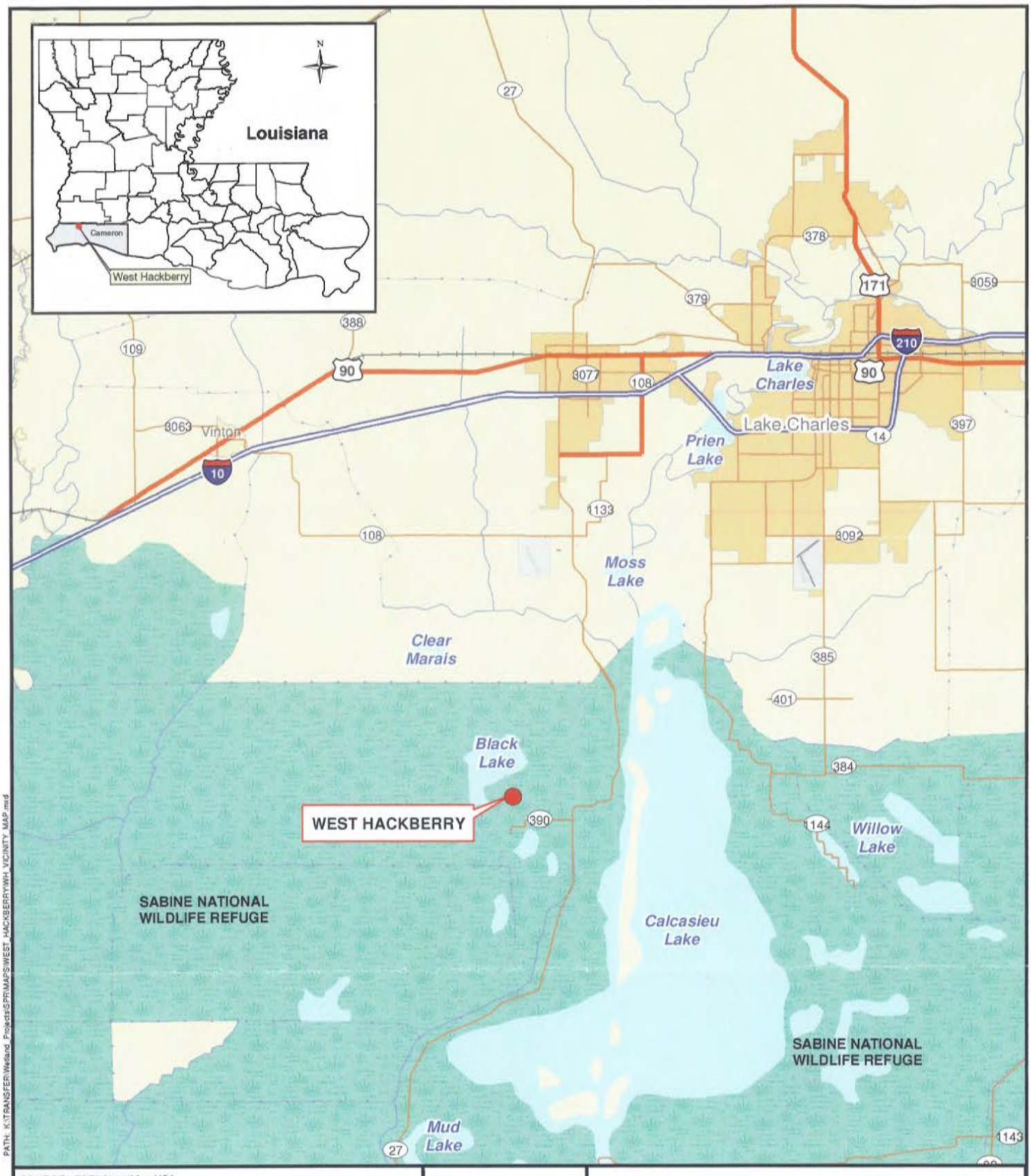
Sincerely,

William C. Gibson, Jr.
Project Manager

FE-4441 (KBatiste)

Enclosure

cc:
G. Adams, FFPO
B. Castille, S&B



PATH: K:\TRANSFER\Wetland_Projects\SPR\MAPS\WEST_HACKBERRY\WH_VICINITY_MAP.mxd

SOURCE: ESRI StreetMap USA

N

5 2.5 0 5 Miles

EXHIBIT 1
VCINITY MAP

Brine Line Replacement Pipe Route Project
West Hackberry, Strategic Petroleum Reserve
Cameron Parish, Louisiana

Geyer, Joshua

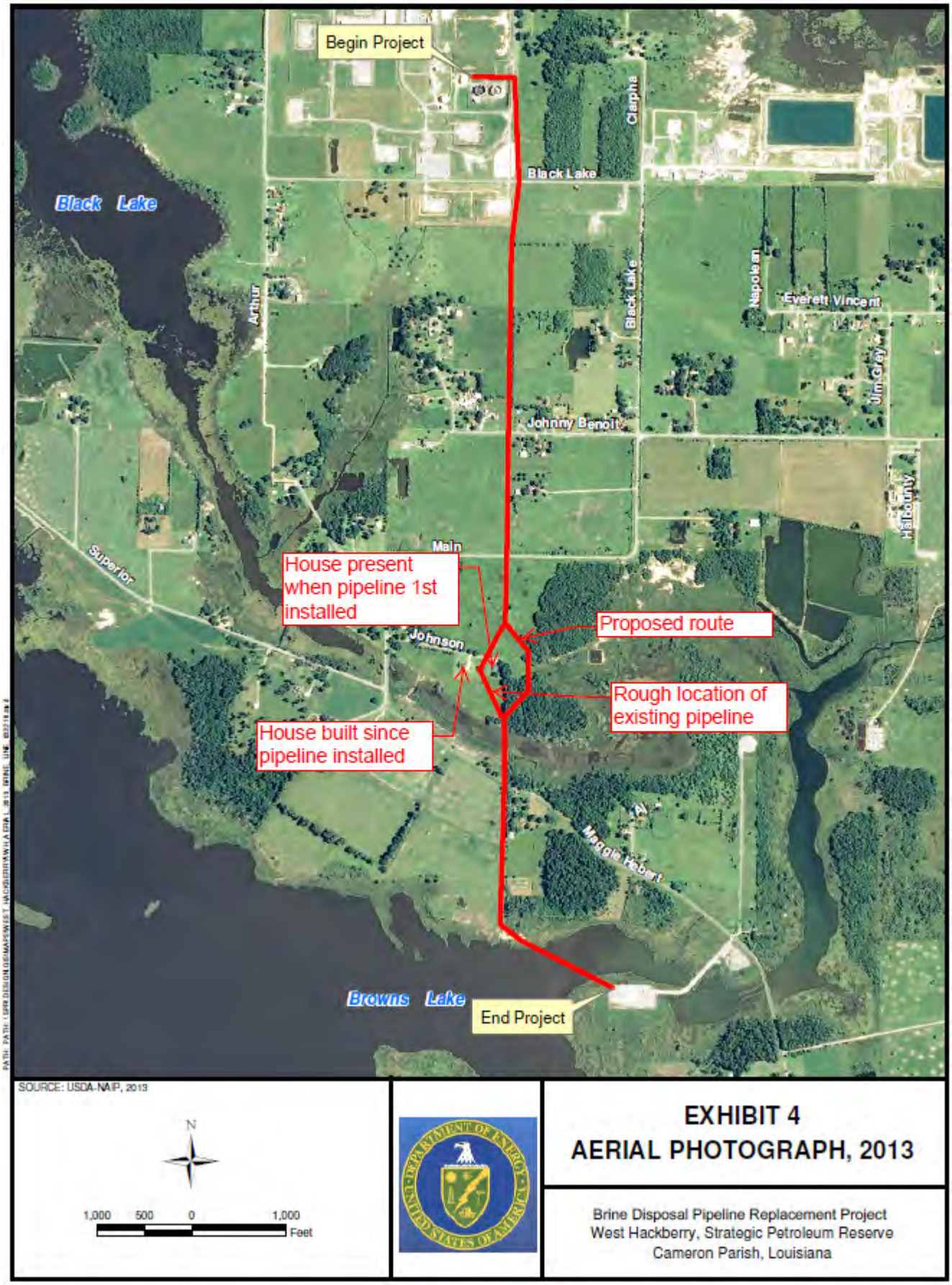
From: Adams, Gabriel <Gabriel.Adams@spr.doe.gov>
Sent: Tuesday, October 04, 2016 1:40 PM
To: Harris, Jeff
Cc: Castille, Barbara; Fogle, William; Sevcik, Bob
Subject: RE: DOE EA 2039 WH Brine Line Replacement LA DNR OCM C20160130

Importance: High

Jeff,

When you look at the red line route on the maps, that is the proposed route. Where the route jogs to the east of a house is where we propose to change from the original route. When the pipeline was originally installed, there was only one house and the pipeline jogged to the west of the house. Since that time a second house was built and that put a house on both sides of the pipeline, leading to the change to go to the east away from both houses.

Do you understand what I have said? If not, please let me know.


Begin Project
Black Lake
Black Lake
Clarina
Arthur
Black Lake
Napoleon
Everett Vincent
Jim Gray
Johnny Benoit
Hal County
Main
Superior
House present when pipeline 1st installed
Proposed route
Johnson
Rough location of existing pipeline
House built since pipeline installed
Maggie Hebert
Browns Lake
End Project
SOURCE: USDA-NAIP, 2013
N
1,000 500 0 1,000
Feet
EXHIBIT 4
AERIAL PHOTOGRAPH, 2013
Brine Disposal Pipeline Replacement Project
West Hackberry, Strategic Petroleum Reserve
Cameron Parish, Louisiana

Regards,

Gabriel Adams, REM | **Fluor Federal Petroleum Operations, LLC** | Pollution Prevention Specialist, Environmental Department |
Contractor to the U. S. Department of Energy SPR | gabriel.adams@spr.doe.gov|O 504.734.4503|F 504.818.5503

From: Jeff Harris [mailto:Jeff.Harris@LA.GOV]
Sent: Tuesday, September 27, 2016 3:29 PM
To: Adams, Gabriel <Gabriel.Adams@SPR.DOE.GOV>
Subject: RE: DOE EA 2039 WH Brine Line Replacement LA DNR OCM C20160130

More than enough, thanks. One question, though – As I recall the replacement would diverge from the route of the existing pipeline, for a part of the route. Have those details been worked out yet?

--Jeff

From: Adams, Gabriel [mailto:Gabriel.Adams@SPR.DOE.GOV]
Sent: Tuesday, September 27, 2016 2:22 PM
To: Jeff Harris
Cc: Castille, Barbara; Sevcik, Bob
Subject: RE: DOE EA 2039 WH Brine Line Replacement LA DNR OCM C20160130

Jeff,

Does this give you enough detail?

Please advise.

Gabriel Adams, REM | **Fluor Federal Petroleum Operations, LLC** | Pollution Prevention Specialist, Environmental Department |
Contractor to the U. S. Department of Energy SPR | gabriel.adams@spr.doe.gov|O 504.734.4503|F 504.818.5503

From: Jeff Harris [mailto:Jeff.Harris@LA.GOV]
Sent: Tuesday, September 27, 2016 2:09 PM
To: Adams, Gabriel <Gabriel.Adams@SPR.DOE.GOV>
Subject: RE: DOE EA 2039 WH Brine Line Replacement LA DNR OCM C20160130

6-7 MB for certain; maybe as much as 15? I'm not sure.

From: Adams, Gabriel [mailto:Gabriel.Adams@SPR.DOE.GOV]
Sent: Tuesday, September 27, 2016 2:08 PM
To: Jeff Harris
Subject: RE: DOE EA 2039 WH Brine Line Replacement LA DNR OCM C20160130

What is the size limit on your email server for attachments?

Thanks,

Gabriel Adams, REM | **Fluor Federal Petroleum Operations, LLC** | Pollution Prevention Specialist, Environmental Department |
Contractor to the U. S. Department of Energy SPR | gabriel.adams@spr.doe.gov|O 504.734.4503|F 504.818.5503

From: Jeff Harris [mailto:Jeff.Harris@LA.GOV]
Sent: Tuesday, September 27, 2016 2:04 PM
To: Adams, Gabriel <Gabriel.Adams@SPR.DOE.GOV>
Subject: Re: DOE EA 2039 WH Brine Line Replacement LA DNR OCM C20160130

Thanks, Gabriel.

If there's no objection, I'll be inviting the Consistency Section supervisor, Sara Krupa, and the Interagency Affairs Program Administrator Charles Reulet, to sit in as well.

It would be helpful if we had a plat showing the route of the current and proposed pipelines ahead of time, if those are available.

--Jeff

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Geyer, Joshua

From: Adams, Gabriel <Gabriel.Adams@spr.doe.gov>
Sent: Thursday, October 06, 2016 7:02 AM
To: Fogle, William; Castille, Barbara; Sevcik, Bob; Woods, Will; Vedros, Chris
Subject: FW: Brine pipeline route

Importance: High

FYI!!!!!!!!!!!!

Gabriel Adams, REM | **Fluor Federal Petroleum Operations, LLC** | Program Manager, Sustainability, Environmental & Sustainability Department |
Contractor to the U. S. Department of Energy SPR | gabriel.adams@spr.doe.gov|O 504.734.4503|F 504.818.5503

From: Jeff Harris [mailto:Jeff.Harris@LA.GOV]
Sent: Thursday, October 06, 2016 7:00 AM
To: Adams, Gabriel <Gabriel.Adams@SPR.DOE.GOV>
Subject: Brine pipeline route

Gabriel—

To follow up on our teleconference yesterday, I'm forwarding an image from DNR's SONRIS GIS system showing the location of the soil borings I mentioned, in case it has implications to your planning and/or your NEPA documents.

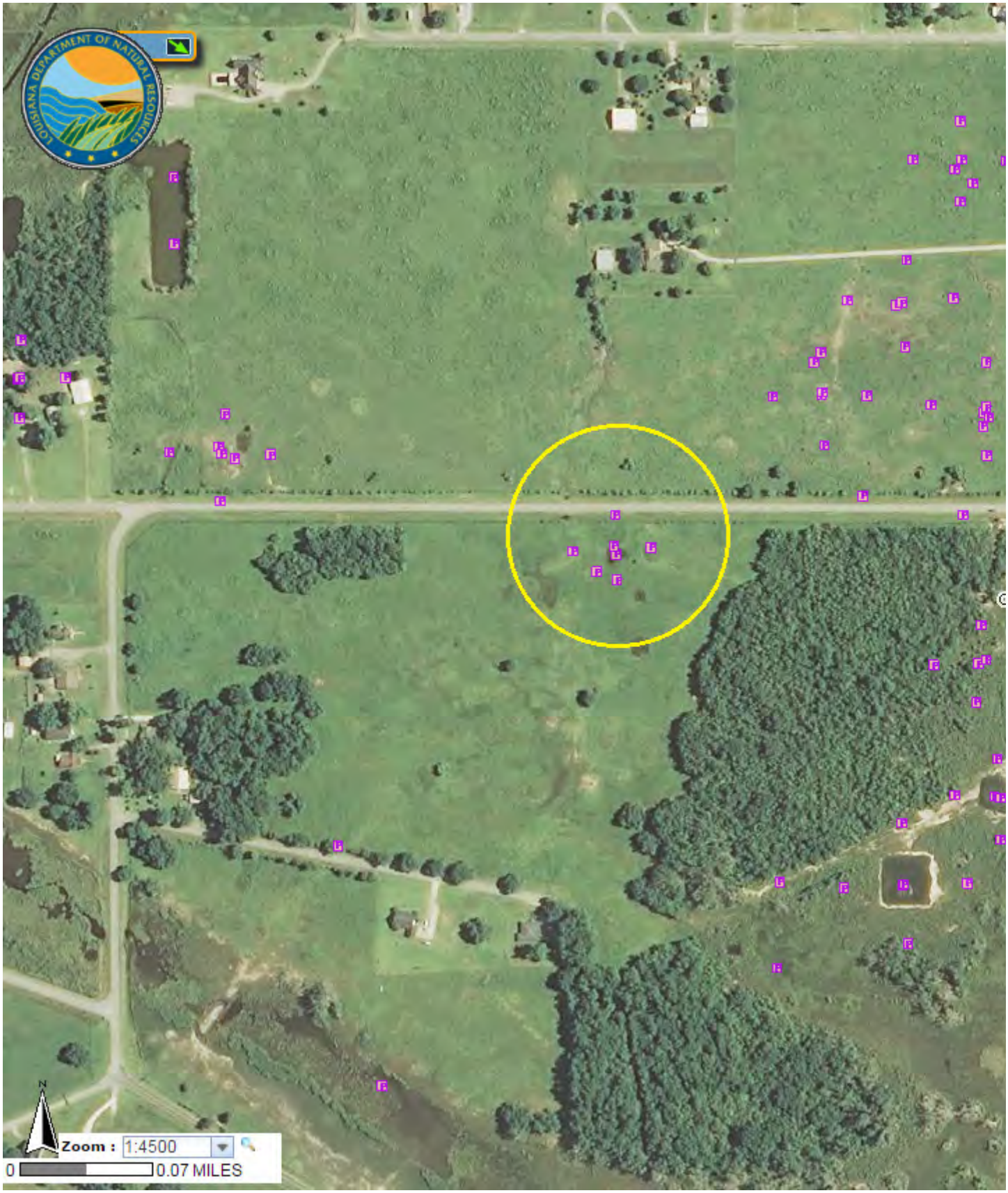
The small purple icons on the image are all locations of Coastal Use Permits issued by the Office of Coastal Management. Most of them seem to be soil borings related to a law suit regarding oil & gas contamination; the yellow circle calls out those along the pipeline route. The Permit documents can be viewed at the following links.

P20141128
http://ucmwww.dnr.state.la.us/ucmsearch/FindDocuments.aspx?idx=xrefnum&val=P20141128&qtype=eq

P20130716
http://ucmwww.dnr.state.la.us/ucmsearch/FindDocuments.aspx?idx=xrefnum&val=P20130716&qtype=eq

P20130141
http://ucmwww.dnr.state.la.us/ucmsearch/FindDocuments.aspx?idx=xrefnum&val=P20130141&qtype=eq

--Jeff



Geyer, Joshua

From: Adams, Gabriel <Gabriel.Adams@spr.doe.gov>
Sent: Friday, September 23, 2016 10:07 AM
To: Castille, Barbara
Cc: Fogle, William
Subject: FW: DOE- Brine Disposal Pipeline Replacement Project, Strategic Petroleum Reserve
Attachments: DOE Brine Disposal Pipeline Project.pdf; DOE letter .pdf; 408 buffer areas.JPG; C20160130 DOE SPR.pdf

Follow Up Flag: Follow up
Flag Status: Flagged

Gabriel Adams, REM | Fluor Federal Petroleum Operations, LLC | Pollution Prevention Specialist, Environmental Department | Contractor to the U. S. Department of Energy SPR | gabriel.adams@spr.doe.gov|O 504.734.4503|F 504.818.5503

-----Original Message-----
From: Barbara, Darrell MVN [mailto:Darrell.Barbara@usace.army.mil]
Sent: Friday, September 23, 2016 9:57 AM
To: Woods, Will <Will.Woods@SPR.DOE.GOV>; Adams, Gabriel <Gabriel.Adams@SPR.DOE.GOV>
Cc: Jeff Harris <Jeff.Harris@LA.GOV>; Heffner, Robert A MVN <Robert.A.Heffner@usace.army.mil>; Falk, Tracy A MVN <Tracy.A.Falk@usace.army.mil>; Little, James MVN <James.Little@usace.army.mil>; Archer, Brenda A MVN <Brenda.A.Archer@usace.army.mil>
Subject: DOE- Brine Disposal Pipeline Replacement Project, Strategic Petroleum Reserve

DARRELL S. BARBARA
Chief, Western Evaluation Section, Regulatory Branch U.S. Army Corps of Engineers, New Orleans District
(504) 862-2261 / fax: (504) 862-2574
darrell.barbara@usace.army.mil

DEPARTMENT OF THE ARMY
CORPS OF ENGINEERS, NEW ORLEANS DISTRICT
7400 LEAKE AVENUE
NEW ORLEANS, LOUISIANA 70118

REPLY TO ATTENTION OF

9/23/2016

Western Evaluation Section
Operations Division

SUBJECT: MVN-2016-1237-EFF
16-ESH-006 (DOE) Strategic Petroleum Reserve-Brine Disposal Pipeline Replacement Project

William C. Gibson, Jr.
Department of Energy
Strategic Petroleum Reserve
Project management Office
900 Commerce East
New Orleans, LA 70123

Dear Mr. Gibson:

Reference is made to your letter 16-ESH-006, requesting initial remarks and/or observations on your project to replace an existing brine disposal pipeline near Hackberry, Louisiana, in Cameron Parish. Work associated with this project will include abandonment in place of the existing 2.1 mile brine pipeline, installation of a new pipeline along an adjacent path, and acquisition of permanent and temporary rights of way for the pipeline and construction activities.

Based on your descriptions of the project and its locations, it is our initial assessment that a Department of the Army permit under Section 10 of the Rivers and Harbors Act of 1899 and/or Section 404 of the Clean Water Act (33 U.S.C. 1344) from this office will likely be required for the subject work. With that, it is recommended that you look to acquire a Jurisdictional Determination from our Surveillance and Enforcement Section (CEMVN-OD-SS) prior to submittal of your Joint Permit Application, as to help us properly assess impacts associated with the work, during our review of your application. Be aware that upon our review of your application, our permit decision reflects the national concern for both protecting and utilizing important resources such as those potentially affected by your proposal. According to the Section 404(b)(1) Guidelines, a permit cannot be issued for a non-water dependent activity if there is a feasible less damaging alternative available. Since the proposed activity may be located within a wetland, it must comply with criteria outlined on our Guidelines for Specification of Disposal Sites for Dredge or Fill Material (40 CFR Part 230). Specifically, Section 230.10 (a) requires that no discharge of dredge or fill material shall be granted if there is a less damaging practicable alternative to the proposed discharge. Where the applicant can demonstrate a lack of practicable alternatives, reveal the public and/or private benefit of the proposed project, and the authorization is not contrary to the overall public interest, a permit can usually be issued. Prior to permit issuance we must determine that impacts have been avoided to the maximum extent practicable, remaining unavoidable impacts are minimized, and a mitigation plan is developed to compensate any unavoidable loss of aquatic resources.

Your enclosed EXIBIT 1 Vicinity Map provides minimal location information, however be aware that the subject work may be located within an area that may alter or occupy an existing US Army Corps of Engineers Civil Works Project (see attached plat)**.** Upon receipt of your Joint Permit Application, a copy will be forwarded to the appropriate Operations Manager with this District for their review, pursuant to 33 USC 408 (Section 408).

We look forward to being notified of the availability of a draft EA for review, and will provide any information or recommendations that we can to aid in processing your Department of the Army permit for the project. If you have any questions, feel free to contact Darrell S. Barbara with this office at (504) 862-2261 or at darrell.barbara@usace.army.mil.

Sincerely,

Darrell S. Barbara
Chief, Western Evaluation Section
Regulatory Branch

C20160130
SDV
SDH

Department of Energy
Strategic Petroleum Reserve Project Management Office
900 Commerce East
New Orleans, Louisiana 70123

16-ESH-006

Mr. Karl Morgan
Louisiana Department of Natural Resources
Office of Coastal Management
Permits/Mitigation Division
P.O. Box 44487
Baton Rouge, LA 70821-4487

BRINE DISPOSAL PIPELINE REPLACEMENT PROJECT, STRATEGIC PETROLEUM RESERVE, WEST HACKBERRY FACILITY, CAMERON PARISH, LOUISIANA

Dear Mr. Morgan:

Pursuant to the National Environmental Policy Act, the United States Department of Energy (DOE) intends to prepare an Environmental Assessment (EA) for the proposed replacement of the existing brine disposal pipeline (the Pipeline) between the Strategic Petroleum Reserve (SPR) West Hackberry (WH) facility and the associated brine injection wells near Hackberry, Cameron Parish, Louisiana. Both the existing and proposed brine disposal pipelines are approximately 2.1 miles in length. The potential environmental impacts of this proposed project would be evaluated in conformance with DOE and Council on Environmental Quality (CEQ) regulations and provisions. A description of the WH facility and the proposed project are provided below.

The WH storage facility includes approximately 2.29 square kilometers (565 acres) of land atop the WH salt dome. The WH salt dome was selected as a storage site early in the SPR program as the existing brine caverns could be readily converted to oil storage as well as the site's optimal proximity to commercial marine and pipeline crude oil distribution facilities. The WH facility was developed by the DOE in 1977 to store petroleum products that may be presidentially ordered into the marketplace to alleviate the effects of a supply disruption to the United States. Brine is injected into and/or pumped out of the WH salt dome utilizing the Pipeline and brine injection wells when deemed necessary to fulfill mission requirements. The Pipeline which connects the WH facility to the brine injection wells was permitted in 1978 and began operation upon completion, and is near the end of the Pipeline's functional lifespan. The Pipeline is proposed to be replaced to allow for continued, optimum operations at the WH facility.

As part of the brine pipeline replacement project (proposed action), the DOE proposes to replace the Pipeline by installing a new brine disposal pipeline; the existing Pipeline would be abandoned-in-place. The new Pipeline would be installed adjacent to the existing pipeline except near Johnson Lane in which the current Pipeline traverses' property between two single-family residences.

Implementation of the proposed action would require the acquisition of new rights-of-way. The associated new land acquisition effort would consist of both perpetual pipeline easements required for the proposed replacement Pipeline, as well as temporary construction easements required for construction activities. Approximately 50-100 feet of land adjacent to the Pipeline would be required to install, operate, and maintain the replacement of Pipeline. One construction staging area would be located on a temporary construction easement contiguous to the Pipeline near the northern project limits. Additionally, a 25-foot temporary construction easement would be required along the Pipeline corridor.

The pipeline would traverse lands within the 100-year floodplain, wetlands and open water habitats associated with Black Lake. In accordance with 10 Code of Federal Regulations (CFR) Part 1022 (Compliance with Floodplain and Wetland Environmental Review Requirements), the DOE would prepare a floodplain and wetlands assessment as well as a statement of findings and would perform this proposed action in a manner so as to avoid or minimize potential harm to or within the affected floodplain or wetlands. The floodplain and wetlands assessment would be included in the EA prepared for the proposed action.

The Louisiana Department of Natural Resources has been identified as part of an outreach effort under National Environmental Protection Agency (NEPA) for a review of resources under your agency's jurisdiction. In this regard, DOE respectfully requests your comments regarding any potential impacts of this proposed project that should be considered during the preparation of the Environmental Assessment for this action. In your response to this request for input from your agency, please indicate if your agency would like to be notified of the availability of the draft EA for review.

Please direct any written comments or requests for additional information to Mr. Will Woods, Environmental Specialist, DOE, SPR Project Management Office (PMO), Environmental, Safety, and Health Division, 900 Commerce Road East, New Orleans, Louisiana 70123, or by email at Will.Woods@spr.doe.gov. You may also contact Mr. Gabriel Adams, Fluor Federal Petroleum Operations (FFPO), Management and Operating Contractor, DOE, SPRPMO at (504) 734-4503, or by email at Gabriel.Adams@spr.doe.gov.

Thank you in advance for your expeditious attention to this project.

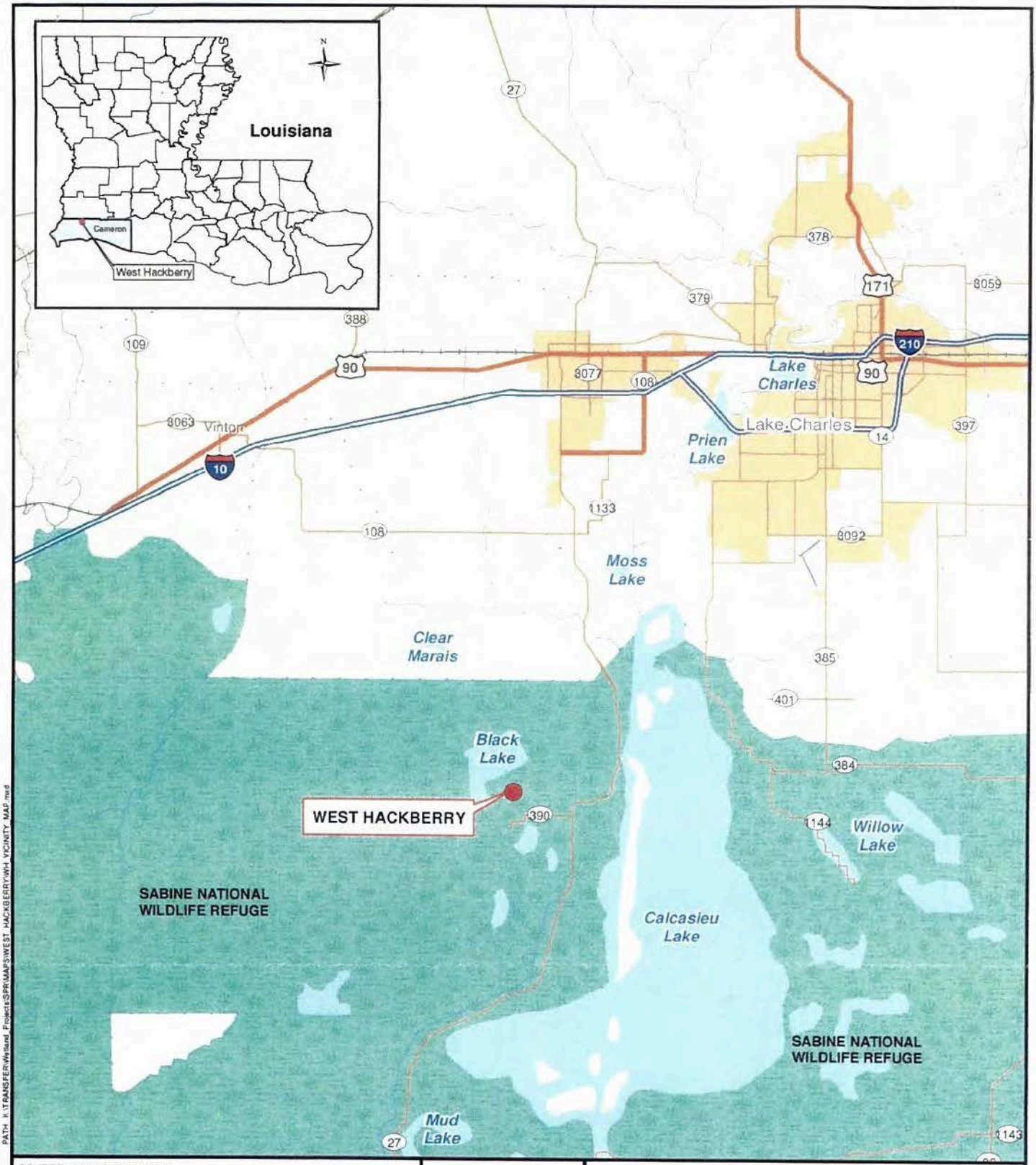
Sincerely,

William C. Gibson, Jr.
Project Manager

FE-4441 (KBatiste)

Enclosure

cc:
G. Adams, FFPO
B. Castille, S&B



PATH: K:\TRANSFER\Welland_Projects\SPR\MAPS\WEST_HACKBERRY\WH_VICINITY_MAP.mxd

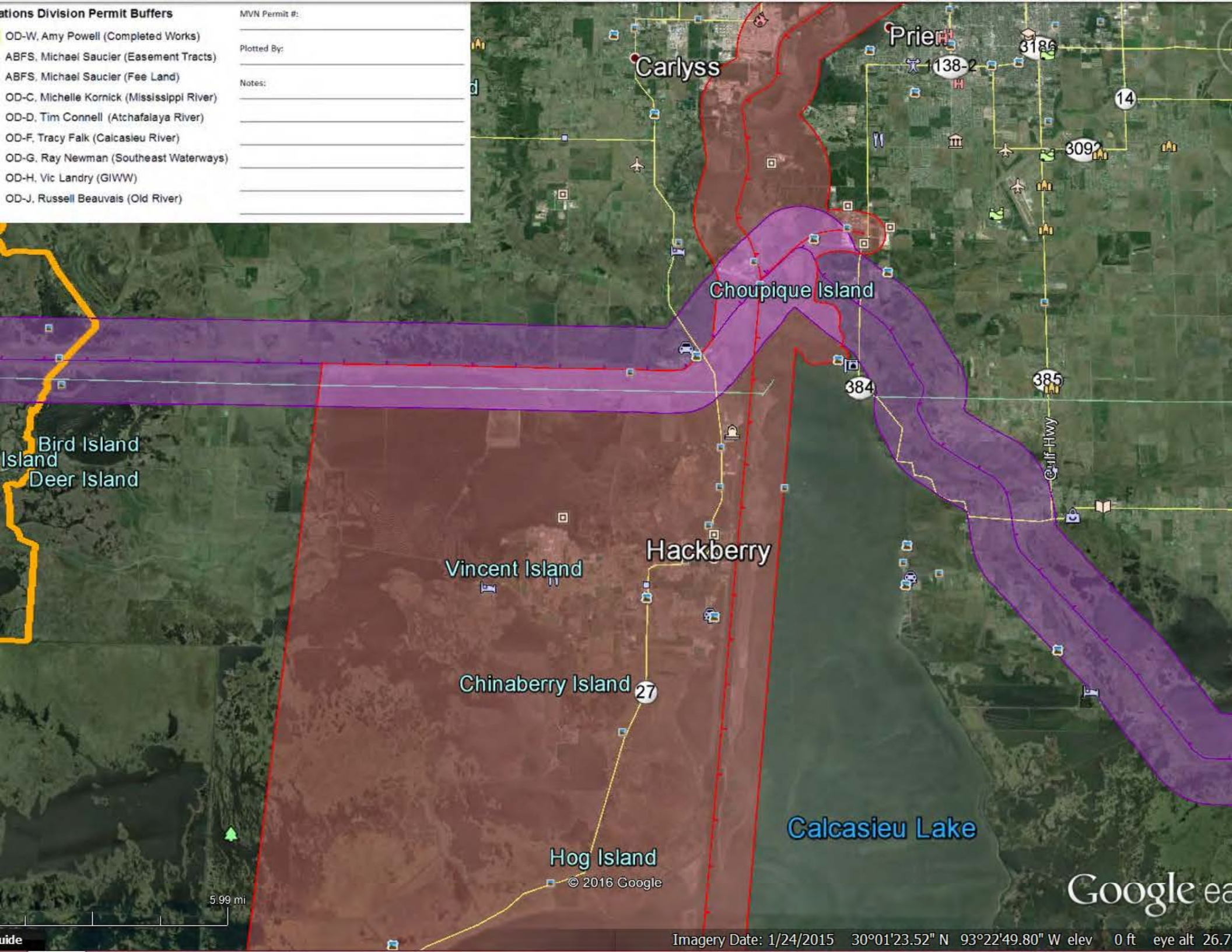
SOURCE: ESRI StreetMap USA

N

5 2.5 0 5 Miles

EXHIBIT 1
VCINITY MAP

Brine Line Replacement Pipe Route Project
West Hackberry, Strategic Petroleum Reserve
Cameron Parish, Louisiana


ations Division Permit Buffers
OD-W, Amy Powell (Completed Works)
ABFS, Michael Saucier (Easement Tracts)
ABFS, Michael Saucier (Fee Land)
OD-C, Michelle Kornick (Mississippi River)
OD-D, Tim Connell (Atchafalaya River)
OD-F, Tracy Falk (Calcasieu River)
OD-G, Ray Newman (Southeast Waterways)
OD-H, Vic Landry (GIWW)
OD-J, Russell Beauvais (Old River)
MVN Permit #:
Plotted By:
Notes:
Carlyss
Prien
3186
1138-2
14
3092
Choupique Island
384
385
Gulf Hwy
Bird Island
Island
Deer Island
Vincent Island
Hackberry
Chinaberry Island
27
Hog Island
Calcasieu Lake
© 2016 Google
5.99 mi
Google ea
Imagery Date: 1/24/2015 30°01'23.52" N 93°22'49.80" W elev 0 ft eye alt 26.7

JOHN BEL EDWARDS
GOVERNOR

THOMAS F. HARRIS
SECRETARY

State of Louisiana

DEPARTMENT OF NATURAL RESOURCES

OFFICE OF COASTAL MANAGEMENT

September 15, 2016

William C. Gibson, Jr.
Department of Energy
Strategic Petroleum Reserve
Project Management Office
900 Commerce East
New Orleans, LA 70123
Via e-mail: william.gibson@spr.doe.gov

Re: **C20160130 Coastal Zone Consistency**
Department of Energy Strategic Petroleum Reserve (SPR)
Direct Federal Action
Brine Disposal Pipeline Replacement Project, Strategic Petroleum Reserve, West Hackberry Facility, **Cameron Parish**

Dear Mr. Gibson:

The Louisiana Department of Natural Resources, Office of Coastal Management (OCM), has reviewed your letter, received August 8, 2016, requesting comments on the referenced project (copy attached for your reference).

The Department of Energy (DOE) intends to prepare anEnvironmental Assessment (EA) for the replacement of an existing brine disposal pipeline near Hackberry, Louisiana. The proposed activity includes abandonment-in-place of the existing 2.1-mile brine pipeline; installation of a new pipeline along an adjacent path; and acquisition of permanent and temporary Rights of Way for the pipeline and construction activities, respectively.

These actions will occur within the Louisiana coastal zone and so will, at the appropriate planning stage, require consistency review by OCM pursuant to the Coastal Zone Management Act of 1970, as amended (CZMA).
Broadly, OCM is concerned with any reasonably foreseeable effects on the land use, water use, or natural resources of the coastal zone. Of particular concern is the prevention of the loss of wetlands. Your consistency determination and EA should address the measures to be taken to avoid and minimize the adverse impacts to coastal wetlands. Compensatory mitigation will be required for any unavoidable losses to habitat value, including indirect and cumulative losses.

It is the policy of OCM that all pipelines in the coastal zone are to be removed upon decommissioning; therefore the proposed abandonment in place of the existing brine pipeline is

unlikely to be found to be consistent with the Louisiana Coastal Resources Program. DOE should instead plan to remove the pipeline, and evaluate the resulting environmental impacts as well as those of the installation of its replacement.

OCM appreciates the opportunity to provide comments at this early stage of project planning. Please notify our office of the availability of the draft EA for review. If you should have any questions on this matter, please contact Jeff Harris of the Consistency Section at (225) 342-7949 or Jeff.Harris@LA.gov.

Sincerely yours,

/S/ Don Haydel
Acting Administrator
Interagency Affairs/Field Services Division

DH/SK/jdh

ATTACHMENT

cc: Will Woods, PMO
Gabriel Adams, FFPO
Darrell Barbara, COE-NOD
Rod Peirce, OCM/FI
Kara Bonsall, Cameron Parish
Dave Butler, LDWF

Geyer, Joshua

From: Adams, Gabriel <Gabriel.Adams@spr.doe.gov>
Sent: Monday, September 19, 2016 1:46 PM
To: Castille, Barbara
Cc: Woods, Will; Batiste, Katherine; Fogle, William
Subject: FW: Solicitation of Views for floodplains for the West Hackberry Facility

Importance: High

Follow Up Flag: Follow up
Flag Status: Flagged

Barbara,

Here is a request for additional information.

Regards,

Gabriel Adams, REM | **Fluor Federal Petroleum Operations, LLC** | Pollution Prevention Specialist, Environmental Department |
Contractor to the U. S. Department of Energy SPR | gabriel.adams@spr.doe.gov|O 504.734.4503|F 504.818.5503

From: Jennifer Rachal [mailto:Jennifer.Rachal@la.gov]
Sent: Monday, September 19, 2016 1:27 PM
To: Adams, Gabriel <Gabriel.Adams@SPR.DOE.GOV>; Woods, Will <Will.Woods@SPR.DOE.GOV>
Subject: Solicitation of Views for floodplains for the West Hackberry Facility

Hi Will and Gabriel,

I am reviewing a request for a Solicitation of Views for floodplains for the West Hackberry Facility in regards to the Brine Disposal Pipeline Replacement Project. The map provided does not offer enough information or detail to accurate create a firmette. Please respond with a map or location zoomed in, so that I may accurately respond to the request.

Jennifer D. Rachal, CFM
National Flood Insurance Program Coordinator
Floodplain Management Program
Louisiana Department of Transportation and Development
P.O. Box 94245
Baton Rouge, Louisiana 70804
Office: (225)379-3005
Fax: (225)379-3002

Geyer, Joshua

From: Castille, Barbara
Sent: Monday, September 19, 2016 2:02 PM
To: 'Jennifer.Rachal@la.gov'
Cc: Woods, Will; 'Adams, Gabriel'; Batiste, Katherine; Fogle, William; Joshua Geyer (jageyer@sbinfra.com)
Subject: RE: Solicitation of Views for floodplains for the West Hackberry Facility
Attachments: WestHackberry_EA_FEMA_MAP_ToFloodplainManagementProgram_JRachal_091916.pdf

Follow Up Flag: Follow up
Flag Status: Flagged

Tracking:

Recipient	Delivery	Read
'Jennifer.Rachal@la.gov'		
Woods, Will		
'Adams, Gabriel'		
Batiste, Katherine		
Fogle, William		
Joshua Geyer (jageyer@sbinfra.com)	Delivered: 9/19/2016 2:02 PM	
Geyer, Joshua		Read: 9/19/2016 2:03 PM

Ms. Rachal—

As requested, attached is a map of the Brine Disposal Pipeline Replacement Project location which illustrates the designated FEMA floodplain within and adjacent to the project area.

If you need any supplemental information, please contact Will Woods or Gabriel Adams and we will be pleased to provide additional information to you for your review of this important project.

Sincerely,

Barbara

Barbara Castille
Manager, Environmental Planning
S&B Infrastructure, Ltd.
530 Wells Fargo Drive
Houston, Texas 77090
Direct: (713) 845-5392
Main: (713) 845-5401
Cell: (281) 960-6421
blcastille@sbinfra.com

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Importance: High

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Contractor to the U. S. Department of Energy SPR | gabriel.adams@spr.doe.gov|O 504.734.4503|F 504.818.5503

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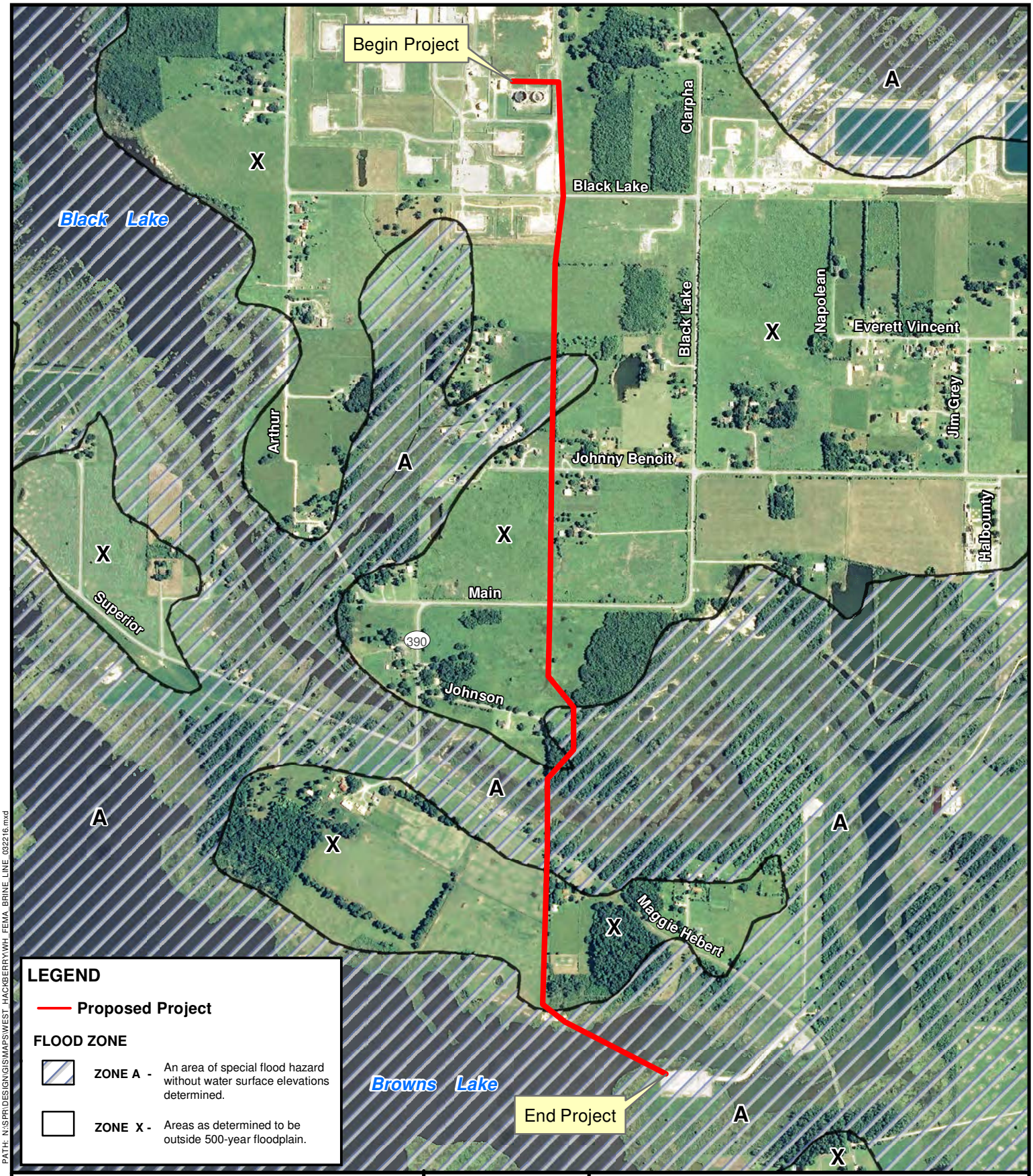
P.O. Box 94245
Baton Rouge, Louisiana 70804
Office: (225)379-3005
Fax: (225)379-3002



PATH: N:\SPR\DESIGN\GIS\MAPS\WEST_HACKBERRY\WH_FEMA_BRINE_LINE_032216.mxd

SOURCE: FEMA 1999, Panel No. 22023C0400H,
USDA-NAIP, 2013

N

1,000 500 0 1,000
Feet

EXHIBIT 6
FLOODPLAIN MAP

Brine Disposal Pipeline Replacement Project
West Hackberry, Strategic Petroleum Reserve
Cameron Parish, Louisiana

Geyer, Joshua

From: Castille, Barbara
Sent: Monday, September 19, 2016 4:13 PM
To: 'Jennifer.Rachal@la.gov'
Cc: 'Woods, Will'; 'Adams, Gabriel'; 'Batiste, Katherine'; 'Fogle, William'; Joshua Geyer (jageyer@sbinfra.com)
Subject: RE: Solicitation of Views for floodplains for the West Hackberry Facility
Attachments: WestHackberry_EA_FEMA_RevisedMap_2012 _ToFloodplainManagementProgram_JRachal_091916.pdf

Follow Up Flag: Follow up
Flag Status: Flagged

Tracking:

Recipient	Delivery	Read
'Jennifer.Rachal@la.gov'		
'Woods, Will'		
'Adams, Gabriel'		
'Batiste, Katherine'		
'Fogle, William'		
Joshua Geyer (jageyer@sbinfra.com)	Delivered: 9/19/2016 4:13 PM	
Geyer, Joshua		Read: 9/19/2016 4:13 PM

Ms. Rachal—

As requested, attached is an updated FEMA Map of the proposed Brine Disposal Pipeline project area for your review and comment.

If you have any questions or need any additional information, please let us know.

Many thanks,

Barbara

Barbara Castille
S&B Infrastructure, Ltd.
Direct: (713) 845-5392
blcastille@sbinfra.com

From: Castille, Barbara
Sent: Monday, September 19, 2016 2:02 PM
To: 'Jennifer.Rachal@la.gov'

Cc: Woods, Will; 'Adams, Gabriel'; Batiste, Katherine; Fogle, William; Joshua Geyer (jageyer@sbinfra.com)
Subject: RE: Solicitation of Views for floodplains for the West Hackberry Facility

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As requested, attached is a map of the Brine Disposal Pipeline Replacement Project location which illustrates the designated FEMA floodplain within and adjacent to the project area.

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Sincerely,

Barbara

Barbara Castille
Manager, Environmental Planning
S&B Infrastructure, Ltd.
530 Wells Fargo Drive
Houston, Texas 77090
Direct: (713) 845-5392
Main: (713) 845-5401
Cell: (281) 960-6421
blcastille@sbinfra.com

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To: Castille, Barbara
Cc: Woods, Will; Batiste, Katherine; Fogle, William
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Importance: High

Barbara,

Here is a request for additional information.

Regards,

Gabriel Adams, REM | **Fluor Federal Petroleum Operations, LLC** | Pollution Prevention Specialist, Environmental Department |
Contractor to the U. S. Department of Energy SPR | gabriel.adams@spr.doe.gov|O 504.734.4503|F 504.818.5503

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Jennifer D. Rachal, CFM
National Flood Insurance Program Coordinator
Floodplain Management Program
Louisiana Department of Transportation and Development
P.O. Box 94245
Baton Rouge, Louisiana 70804
Office: (225)379-3005
Fax: (225)379-3002

PATH: N:\SPR\DESIGN\GIS\MAPS\WEST_HACKBERRY\WH_FEMA_BRINE_LINE_032216.mxd

SOURCE: FEMA 11/16/2012, Panel No. 22023C0375H, USDA-NAIP, 2013

N

1,000 500 0 1,000 Feet

EXHIBIT 6
FLOODPLAIN MAP

Brine Disposal Pipeline Replacement Project
West Hackberry, Strategic Petroleum Reserve
Cameron Parish, Louisiana

Geyer, Joshua

From: Jennifer Rachal <Jennifer.Rachal@la.gov>
Sent: Tuesday, October 18, 2016 1:54 PM
To: Castille, Barbara
Subject: RE: Solicitation of Views for floodplains for the West Hackberry Facility
Attachments: Brine Disposal Pipeline Replacement Project West Hackberry Facility.pdf

Follow Up Flag: Follow up
Flag Status: Flagged

Attached is the Solicitation of Views for the Brine Disposal Pipeline Replacement Project West Hackberry Facility. If you have further questions or concerns, please feel free to contact me.

Jennifer D. Rachal, CFM
National Flood Insurance Program Coordinator
Floodplain Management Program
Louisiana Department of Transportation and Development
P.O. Box 94245
Baton Rouge, Louisiana 70804
Office: (225)379-3005
Fax: (225)379-3002

From: Castille, Barbara [mailto:blcastille@sbinfra.com]
Sent: Monday, September 19, 2016 4:13 PM
To: Jennifer Rachal
Cc: Woods, Will; Adams, Gabriel; Batiste, Katherine; Fogle, William; Geyer, Joshua
Subject: RE: Solicitation of Views for floodplains for the West Hackberry Facility

Ms. Rachal—

As requested, attached is an updated FEMA Map of the proposed Brine Disposal Pipeline project area for your review and comment.

If you have any questions or need any additional information, please let us know.

Many thanks,

Barbara

Barbara Castille
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Direct: (713) 845-5392
blcastille@sbinfra.com

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Sent: Monday, September 19, 2016 2:02 PM
To: 'Jennifer.Rachal@la.gov'
Cc: Woods, Will; 'Adams, Gabriel'; Batiste, Katherine; Fogle, William; Joshua Geyer (jageyer@sbinfra.com)
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Houston, Texas 77090
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Main: (713) 845-5401
Cell: (281) 960-6421
blcastille@sbinfra.com

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Cc: Woods, Will; Batiste, Katherine; Fogle, William
Subject: FW: Solicitation of Views for floodplains for the West Hackberry Facility
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Contractor to the U. S. Department of Energy SPR | gabriel.adams@spr.doe.gov|O 504.734.4503|F 504.818.5503

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Jennifer D. Rachal, CFM
National Flood Insurance Program Coordinator
Floodplain Management Program
Louisiana Department of Transportation and Development
P.O. Box 94245
Baton Rouge, Louisiana 70804
Office: (225)379-3005
Fax: (225)379-3002

Geyer, Joshua

From: Castille, Barbara
Sent: Tuesday, October 18, 2016 2:24 PM
To: Jennifer.Rachal@la.gov
Cc: Fogle, William (William.Fogle@SPR.DOE.GOV); Woods, Will (Will.Woods@spr.doe.gov); Adams, Gabriel (Gabriel.Adams@spr.doe.gov); Batiste, Katherine (Katherine.Batiste@spr.doe.gov); Joshua Geyer (jageyer@sbinfra.com)
Subject: FW: Solicitation of Views for floodplains for the West Hackberry Facility
Attachments: Brine Disposal Pipeline Replacement Project West Hackberry Facility.pdf

Tracking:

Recipient	Delivery	Read
Jennifer.Rachal@la.gov		
Fogle, William (William.Fogle@SPR.DOE.GOV)		
Woods, Will (Will.Woods@spr.doe.gov)		
Adams, Gabriel (Gabriel.Adams@spr.doe.gov)		
Batiste, Katherine (Katherine.Batiste@spr.doe.gov)		
Joshua Geyer (jageyer@sbinfra.com)	Delivered: 10/18/2016 2:24 PM	
Geyer, Joshua		Read: 10/18/2016 2:25 PM

Ms. Rachal—

Thank you. I received you Solicitation of Views for the West Hackberry Brine Disposal Pipeline Replacement Project.

We appreciate your attention to this important project.

Sincerely,

Barbara

Barbara Castille
Manager, Environmental Planning
S&B Infrastructure, Ltd.
530 Wells Fargo Drive
Houston, Texas 77090
Direct: (713) 845-5392
Main: (713) 845-5401
Cell: (281) 960-6421
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Floodplain Management Program
Louisiana Department of Transportation and Development
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Office: (225)379-3005
Fax: (225)379-3002

From: Castille, Barbara [mailto:blcastille@sbinfra.com]
Sent: Monday, September 19, 2016 4:13 PM
To: Jennifer Rachal
Cc: Woods, Will; Adams, Gabriel; Batiste, Katherine; Fogle, William; Geyer, Joshua
Subject: RE: Solicitation of Views for floodplains for the West Hackberry Facility

Ms. Rachal—

As requested, attached is an updated FEMA Map of the proposed Brine Disposal Pipeline project area for your review and comment.

If you have any questions or need any additional information, please let us know.

Many thanks,

Barbara

Barbara Castille
S&B Infrastructure, Ltd.
Direct: (713) 845-5392
blcastille@sbinfra.com

From: Castille, Barbara
Sent: Monday, September 19, 2016 2:02 PM
To: 'Jennifer.Rachal@la.gov'
Cc: Woods, Will; 'Adams, Gabriel'; Batiste, Katherine; Fogle, William; Joshua Geyer (jageyer@sbinfra.com)
Subject: RE: Solicitation of Views for floodplains for the West Hackberry Facility

Ms. Rachal—

As requested, attached is a map of the Brine Disposal Pipeline Replacement Project location which illustrates the designated FEMA floodplain within and adjacent to the project area.

If you need any supplemental information, please contact Will Woods or Gabriel Adams and we will be pleased to provide additional information to you for your review of this important project.

Sincerely,

Barbara

Barbara Castille
Manager, Environmental Planning
S&B Infrastructure, Ltd.
530 Wells Fargo Drive
Houston, Texas 77090
Direct: (713) 845-5392
Main: (713) 845-5401
Cell: (281) 960-6421
blcastille@sbinfra.com

From: Adams, Gabriel [mailto:Gabriel.Adams@spr.doe.gov]
Sent: Monday, September 19, 2016 1:46 PM
To: Castille, Barbara
Cc: Woods, Will; Batiste, Katherine; Fogle, William
Subject: FW: Solicitation of Views for floodplains for the West Hackberry Facility
Importance: High

Barbara,

Here is a request for additional information.

Regards,

Gabriel Adams, REM | **Fluor Federal Petroleum Operations, LLC** | Pollution Prevention Specialist, Environmental Department |
Contractor to the U. S. Department of Energy SPR | gabriel.adams@spr.doe.gov|O 504.734.4503|F 504.818.5503

From: Jennifer Rachal [mailto:Jennifer.Rachal@la.gov]
Sent: Monday, September 19, 2016 1:27 PM
To: Adams, Gabriel <Gabriel.Adams@SPR.DOE.GOV>; Woods, Will <Will.Woods@SPR.DOE.GOV>
Subject: Solicitation of Views for floodplains for the West Hackberry Facility

Hi Will and Gabriel,

I am reviewing a request for a Solicitation of Views for floodplains for the West Hackberry Facility in regards to the Brine Disposal Pipeline Replacement Project. The map provided does not offer enough information or detail to accurate create a firmette. Please respond with a map or location zoomed in, so that I may accurately respond to the request.

Jennifer D. Rachal, CFM
National Flood Insurance Program Coordinator
Floodplain Management Program
Louisiana Department of Transportation and Development
P.O. Box 94245
Baton Rouge, Louisiana 70804
Office: (225)379-3005
Fax: (225)379-3002

Geyer, Joshua

From: Adams, Gabriel <Gabriel.Adams@spr.doe.gov>
Sent: Monday, September 26, 2016 11:18 AM
To: Castille, Barbara
Cc: Fogle, William; Woods, Will; Sevcik, Bob; Vedros, Chris
Subject: EA 2039 WH Brine Line US Coast Guard

Importance: High

Follow Up Flag: Follow up
Flag Status: Flagged

Barbara,

I just received a phone call from the US Coast Guard 8th District in New Orleans. They do not have any comments at this time on the EA. However, they wish to review the Draft EA when it is available.

Regards,

Gabriel Adams, REM | **Fluor Federal Petroleum Operations, LLC** | Pollution Prevention Specialist, Environmental Department |
C*ontractor to the U. S. Department of Energy SPR* | gabriel.adams@spr.doe.gov|O 504.734.4503|F 504.818.5503

Geyer, Joshua

From: Adams, Gabriel <Gabriel.Adams@spr.doe.gov>
Sent: Thursday, October 20, 2016 3:30 PM
To: Castille, Barbara
Cc: Woods, Will; Sevcik, Bob; Fogle, William
Subject: FW: DOE West Hackberry SPR Brine Disposal Pipeline Replacement

Greetings,

This gentleman from the USCG wishes to be informed of the availability of the Draft EA for the brine line replacement project and when the project goes to construction.

Regards,

Gabriel Adams, REM | Fluor Federal Petroleum Operations, LLC | Program Manager, Sustainability, Environmental & Sustainability Department | Contractor to the U. S. Department of Energy SPR | gabriel.adams@spr.doe.gov|O 504.734.4503|F 504.818.5503

-----Original Message-----
From: Bawar, Roderick C MST2 [mailto:Roderick.C.Bawar@uscg.mil]
Sent: Thursday, October 20, 2016 3:15 PM
To: Adams, Gabriel <Gabriel.Adams@SPR.DOE.GOV>
Cc: Flanagan, Lindsey N MST1 <Lindsey.N.Flanagan@uscg.mil>; Taylor, Jaime K MST3 <Jaime.K.Taylor@uscg.mil>; Oyler, Michael S MSTC <Michael.S.Oyler@uscg.mil>; Robinson, Nathaniel L LCDR <Nathaniel.L.Robinson@uscg.mil>; Cost, Daniel H CDR <Daniel.H.Cost@uscg.mil>
Subject: RE: DOE West Hackberry SPR Brine Disposal Pipeline Replacement

Good Afternoon Mr. Adams,

Just connecting with you on this project, to start sometime in January. If you have new details, please provide. Also on our phone conversation, you mentioned another upcoming project. Those details would be greatly appreciated. Thank you.

VR
Roderick C. Bawar, MST2
Waterways Management
Facilities Inspection
MSU Lake Charles, LA
U.S. Coast Guard

-----Original Message-----
From: Wiener, Dimitrios N LT
Sent: Wednesday, September 28, 2016 12:14 PM
To: Bawar, Roderick C MST2; Taylor, Jaime K MST3
Cc: Cost, Daniel H CDR; Bizzaro, Peter A LT; Robinson, Nathaniel L LCDR; Oyler, Michael S MSTC
Subject: FW: DOE West Hackberry SPR Brine Disposal Pipeline Replacement
Importance: High

WWM Team,

This is another one. Brine Pipe replacement for the SPR. Seems like Mr. Wright does not believe it will conflict with our mission.

V/R,

LT Wiener

-----Original Message-----
From: Wright, Rusty H. CIV
Sent: Monday, September 26, 2016 12:46 PM
To: Wiener, Dimitrios N LT
Subject: FW: DOE West Hackberry SPR Brine Disposal Pipeline Replacement
Importance: High

LT Bizzaro is out of the office.

FYI

v/r

Rusty Wright
USCG
504.671.2138
504.559.1514 cell

-----Original Message-----
From: Wright, Rusty H. CIV
Sent: Monday, September 26, 2016 11:19 AM
To: Bizzaro, Peter A LT
Cc: Dittman, Paul E CAPT; Tuckey, Christopher B LCDR; Miller, Shelley R CIV
Subject: DOE West Hackberry SPR Brine Disposal Pipeline Replacement
Importance: High

LT,

We are in receipt of the attached letter from DOE.

My discussion with DOE leads me to think there will not be any impact to our mission. I did ask to be kept informed as the project progresses.

Let me know if you have any questions.

Respectfully,

Rusty Wright
Energy Projects Program Manager
Eighth Coast Guard District
Hale Boggs Federal Building
500 Poydras Street
Room 1230
New Orleans, Louisiana 70130
Work: 504-671-2138
Cell: 504-559-1514

"With honor and integrity, we will safeguard the American people, our homeland, and our values."

Geyer, Joshua

From: Adams, Gabriel <Gabriel.Adams@spr.doe.gov>
Sent: Tuesday, October 04, 2016 8:04 AM
To: Castille, Barbara; Fogle, William
Cc: Woods, Will; Sevcik, Bob
Subject: FW: DEQ SOV 160825/0945 Brine Disposal Pipeline Replacement, Strategic Petroleum Reserve

Follow Up Flag: Follow up
Flag Status: Flagged

Received today.

Gabriel Adams, REM | **Fluor Federal Petroleum Operations, LLC** | Program Manager, Sustainability, Environmental & Sustainability Department |
Contractor to the U. S. Department of Energy SPR | gabriel.adams@spr.doe.gov|O 504.734.4503|F 504.818.5503

From: Woods, Will
Sent: Tuesday, October 04, 2016 7:26 AM
To: Adams, Gabriel <Gabriel.Adams@SPR.DOE.GOV>; Wesley, Louis <Louis.Wesley@SPR.DOE.GOV>; Sevcik, Bob <Bob.Sevcik@SPR.DOE.GOV>
Subject: FW: DEQ SOV 160825/0945 Brine Disposal Pipeline Replacement, Strategic Petroleum Reserve

Received today.

From: Linda (Brown) Hardy [mailto:Linda.Hardy@la.gov]
Sent: Monday, October 03, 2016 1:15 PM
To: Woods, Will <Will.Woods@SPR.DOE.GOV>
Cc: Yasoob Zia <Yasoob.Zia@LA.GOV>
Subject: DEQ SOV 160825/0945 Brine Disposal Pipeline Replacement, Strategic Petroleum Reserve

October 3, 2016

Will Woods, Environmental Specialist
DOE, SPR Management Office (PMO)
900 Commerce Road East
New Orleans, LA 70123
Will.Woods@spr.doe.gov

RE: 160825/0945 Brine Disposal Pipeline Replacement, Strategic Petroleum Reserve
Dept. of Energy SPR Funding
Cameron Parish

Dear Mr. Woods:

The Department of Environmental Quality (LDEQ), Business and Community Outreach Division has received your request for comments on the above referenced project.

After reviewing your request, the Department has no objections based on the information provided in your submittal. However, for your information, the following general comments have been included. Please be advised that if you

should encounter a problem during the implementation of this project, you should immediately notify LDEQ's Single-Point-of-contact (SPOC) at (225) 219-3640.

- Please take any necessary steps to obtain and/or update all necessary approvals and environmental permits regarding this proposed project.
- If your project results in a discharge to waters of the state, submittal of a Louisiana Pollutant Discharge Elimination System (LPDES) application may be necessary.
- If the project results in a discharge of wastewater to an existing wastewater treatment system, that wastewater treatment system may need to modify its LPDES permit before accepting the additional wastewater.
- All precautions should be observed to control nonpoint source pollution from construction activities. LDEQ has stormwater general permits for construction areas equal to or greater than one acre. It is recommended that you contact the LDEQ Water Permits Division at (225) 219-9371 to determine if your proposed project requires a permit.
- If your project will include a sanitary wastewater treatment facility, a Sewage Sludge and Biosolids Use or Disposal Permit is required. An application or Notice of Intent will be required if the sludge management practice includes preparing biosolids for land application or preparing sewage sludge to be hauled to a landfill. Additional information may be obtained on the LDEQ website at http://www.deq.louisiana.gov/portal/tabid/2296/Default.aspx or by contacting the LDEQ Water Permits Division at (225) 219- 9371.
- If any of the proposed work is located in wetlands or other areas subject to the jurisdiction of the U.S. Army Corps of Engineers, you should contact the Corps directly regarding permitting issues. If a Corps permit is required, part of the application process may involve a water quality certification from LDEQ.
- All precautions should be observed to protect the groundwater of the region.
- Please be advised that water softeners generate wastewaters that may require special limitations depending on local water quality considerations. Therefore if your water system improvements include water softeners, you are advised to contact the LDEQ Water Permits to determine if special water quality-based limitations will be necessary.
- Any renovation or remodeling must comply with LAC 33:III.Chapter 28, Lead-Based Paint Activities; LAC 33:III.Chapter 27, Asbestos-Containing Materials in Schools and State Buildings (includes all training and accreditation); and LAC 33:III.5151, Emission Standard for Asbestos for any renovations or demolitions.
- If any solid or hazardous wastes, or soils and/or groundwater contaminated with hazardous constituents are encountered during the project, notification to LDEQ's Single-Point-of-Contact (SPOC) at (225) 219-3640 is required. Additionally, precautions should be taken to protect workers from these hazardous constituents.

Currently, Cameron Parish is classified as attainment with the National Ambient Air Quality Standards and has no general conformity determination obligations.

Please send all future requests to my attention. If you have any questions, please feel free to contact me at (225) 219-3954 or by email at linda.hardy@la.gov.

Sincerely,

Linda M. Hardy

Louisiana Dept. of Environmental Quality
Office of the Secretary
P.O. Box 4301
Baton Rouge, LA 70821-4301
Phone: (225) 219-3954
Fax: (225) 219-3971
Email: linda.hardy@la.gov

Geyer, Joshua

From: Adams, Gabriel <Gabriel.Adams@spr.doe.gov>
Sent: Thursday, October 06, 2016 2:27 PM
To: Castille, Barbara
Cc: Fogle, William; Sevcik, Bob; Woods, Will; Vedros, Chris
Subject: FW: Brine Dispoal PRP
Attachments: Brine Dispoal PRP.pdf

Importance: High

Barbara,

Here is a letter from LA DNR Office of Conservation.

Regards,

Gabriel Adams, REM | Fluor Federal Petroleum Operations, LLC | Program Manager, Sustainability, Environmental & Sustainability Department | Contractor to the U. S. Department of Energy SPR | gabriel.adams@spr.doe.gov|O 504.734.4503|F 504.818.5503

-----Original Message-----
From: Woods, Will
Sent: Thursday, October 06, 2016 2:24 PM
To: Adams, Gabriel <Gabriel.Adams@SPR.DOE.GOV>
Subject: FW: Brine Dispoal PRP

Gabe,

Please forward as required.

-----Original Message-----
From: Mike Kline [mailto:Mike.Kline@LA.GOV]
Sent: Thursday, October 06, 2016 2:21 PM
To: Woods, Will <Will.Woods@SPR.DOE.GOV>
Subject: FW: Brine Dispoal PRP

Mr. Woods, please let me know that you have received this SOV response.

Thanks,

Mike Kline
Geologist
Office of Conservation
Department of Natural Resources

-----Original Message-----
From: geodatainc@bellsouth.net [mailto:geodatainc@bellsouth.net]
Sent: Thursday, October 06, 2016 2:16 PM
To: Mike Kline
Subject: Brine Dispoal PRP

Please open the attached document.

_____

JOHN BEL EDWARDS
GOVERNOR

State of Louisiana
DEPARTMENT OF NATURAL RESOURCES
OFFICE OF CONSERVATION

THOMAS F. HARRIS
SECRETARY

RICHARD P. IEYOUB
COMMISSIONER OF CONSERVATION

September 26, 2016

TO: Mr. Will Woods, Environmental Specialist - DOE
SPR Project Management Office
900 Commerce Road East
New Orleans, Louisiana 70123

RE: Solicitation of Views
Brine Disposal PRP
SPR – West Hackberry Facility
Cameron Parish

Dear Mr. Woods:

In response to your letter dated August 1, 2016, concerning the referenced matter, please be advised that the Office of Conservation collects and maintains many types of information regarding oil and gas exploration, production, distribution, and other data relative to the petroleum industry as well as related and non-related injection well information, surface mining and ground water information and other natural resource related data. Most information concerning oil, gas and injection wells for any given area of the state, including the subject area of your letter can be obtained through records search via the SONRIS data access application available at:

http://www.dnr.louisiana.gov

A review of our computer records for the referenced project area indicates that there are oil, gas and injection wells located in the vicinity of the project area. The DNR water well database indicates that there are registered water wells in the vicinity of the project area. Additionally, unregistered water wells may be located in the area.

The Office of Conservation maintains records of all activities within its jurisdiction in paper, microfilm or electronic format. These records may be accessed during normal business hours, Monday through Friday, except on State holidays or emergencies that require the Office to be closed. Please call 225-342-5540 for specific contact information or for directions to the Office of Conservation, located in the LaSalle Building, 617 North Third Street, Baton Rouge, Louisiana. For pipelines and other underground hazards, please contact Louisiana One Call at 1-800-272-3020 prior to commencing operations. Should you need to direct your inquiry to any of our Divisions, you may use the following contact information:

Division	Contact	Phone No.	E-mail Address
Engineering	Jeff Wells	225-342-5638	jeff.wells@la.gov
Pipeline	Steven Giambrone	225-342-2989	steven.giambrone@la.gov
Injection & Mining	Brad Bourgoyne	225-342-4286	brad.bourgoyne@la.gov
Geological	Mike Kline	225-342-3335	mike.kline@la.gov
Environmental	Gary Snellgrove	225-342-7222	gary.snellgrove@la.gov

If you have difficulty in accessing the data via the referenced website because of computer related issues, you may obtain assistance from our technical support section by selecting Help on the SONRIS tool bar and submitting an email describing your problems and including a telephone number where you may be reached.

Sincerely,

Richard P. Ieyoub
Commissioner of Conservation

RPI:MSK:msk

Geyer, Joshua

From: Adams, Gabriel <Gabriel.Adams@spr.doe.gov>
Sent: Friday, October 14, 2016 11:20 AM
To: Castille, Barbara
Cc: Woods, Will; Sevcik, Bob
Subject: FW: SOV response Brine Disposal Pipeline Replacement Project (MVN-2016-01256-SB)

Here is a Corps of Engineers response.

Gabriel Adams, REM | **Fluor Federal Petroleum Operations, LLC** | Program Manager, Sustainability, Environmental & Sustainability Department |
Contractor to the U. S. Department of Energy SPR | gabriel.adams@spr.doe.gov|O 504.734.4503|F 504.818.5503

From: Woods, Will
Sent: Friday, October 14, 2016 11:07 AM
To: Adams, Gabriel <Gabriel.Adams@SPR.DOE.GOV>; Sevcik, Bob <Bob.Sevcik@SPR.DOE.GOV>
Subject: FW: SOV response Brine Disposal Pipeline Replacement Project (MVN-2016-01256-SB)

FYI

Sent from my Windows 10 phone

From: Clement, Karen L MVN
Sent: Friday, October 14, 2016 10:43 AM
To: Woods, Will
Cc: Adams, Gabriel
Subject: SOV response Brine Disposal Pipeline Replacement Project (MVN-2016-01256-SB)

Mr. Woods,

Please take this email as our official SOV response.

This is in response to your Solicitation of Views request, concerning the Brine Disposal Pipeline Replacement Project at Hackberry, Louisiana, in Cameron Parish.

We have reviewed your request for potential Department of the Army regulatory requirements and impacts on any Department of the Army projects.

We do not anticipate any adverse impacts to any Corps of Engineers projects.

We have reviewed your project as proposed and determined that a Department of the Army permit under Section 404 of the Clean Water Act and Section 10 of the Rivers and Harbors Act will be required.

Please be advised that this property is in the Louisiana Coastal Zone and a Coastal Use Permit may be required prior to initiation of any activities on this site. For additional information, contact Ms. Christine Charrier, Office of Coastal Management, Louisiana Department of Natural Resources at (225) 342 7953.

You are advised that this determination is valid for a period of 5 years from the date of this letter unless new information warrants revision prior to the expiration date or the District Commander has identified, after public notice

and comment, that specific geographic areas with rapidly changing environmental conditions merit re-verification on a more frequent basis.

Off-site locations of activities such as borrow, disposals, haul-and detour-roads and work mobilization site developments may be subject to Department of the Army regulatory requirements and may have an impact on a Department of the Army project.

You should apply for said permit well in advance of the work to be performed. The application should include sufficiently detailed maps, drawings, photographs, and descriptive text for accurate evaluation of the proposal.

Please contact Mr. Robert Heffner, of our Regulatory Branch by telephone at (504) 862-1288, or by e-mail at Robert.A.Heffner@usace.army.mil for questions concerning wetlands determinations or need for on-site evaluations. Questions concerning regulatory permit requirements may be addressed to Mr. Darrell Barbara by telephone at (504) 862-2260 or by email at Darrell.Barbara@usace.army.mil.

Future correspondence concerning this matter should reference our account number MVN-2015-01256-SB. This will allow us to more easily locate records of previous correspondence, and thus provide a quicker response.

Thanks,
Karen

Karen L. Clement
Asst Operations Manager, Completed Works
Operations Division
New Orleans District Corps of Engineers
CEMVN-OD-W
7400 Leake Avenue
New Orleans, LA 70118
(504) 862-2313

APPENDIX D

SUPPORTING DOCUMENTATION

NRCS Web Soil Survey Custom Soil Resource Report

NRCS Web Soil Prime Farmland

GeoTechnical Report

Floodplains Statement of Findings

Final 2014 Integrated Report of Water Quality in Louisiana

Wetlands Statement of Findings

Ecoregions of Louisiana Map

Plant List

U.S. Geological Service Louisiana Aquifer System Map

USFWS Custom IPaC Trust Resources Report

USFWS List of Threatened and Endangered Species

Louisiana Department of Wildlife and Fisheries Rare Species List

National Oceanic and Atmospheric Administration Essential Fish Habitat Mapper

Department of Health and Human Services 2016 Poverty Guidelines

APPENDIX D

SUPPORTING DOCUMENTATION

NRCS Web Soil Survey Custom Soil Resource Report

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 Cameron Parish, Louisiana

West Hackberry Brine Disposal Pipeline Replacement Project

May 4, 2016

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 (http://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 alternative means

for communication of program information (Braille, large print, audiotape, etc.) should contact USDA's TARGET Center at (202) 720-2600 (voice and TDD). To file a complaint of discrimination, write to USDA, Director, Office of Civil Rights, 1400 Independence Avenue, S.W., Washington, D.C. 20250-9410 or call (800) 795-3272 (voice) or (202) 720-6382 (TDD). USDA is an equal opportunity provider and employer.

Contents

How Soil Surveys Are Made

Soil surveys are made to provide information about the soils and miscellaneous areas in a specific area. They include a description of the soils and miscellaneous areas and their location on the landscape and tables that show soil properties and limitations affecting various uses. Soil scientists observed the steepness, length, and shape of the slopes; the general pattern of drainage; the kinds of crops and native plants; and the kinds of bedrock. They observed and described many soil profiles. A soil profile is the sequence of natural layers, or horizons, in a soil. The profile extends from the surface down into the unconsolidated material in which the soil formed or from the surface down to bedrock. The unconsolidated material is devoid of roots and other living organisms and has not been changed by other biological activity.

Currently, soils are mapped according to the boundaries of major land resource areas (MLRAs). MLRAs are geographically associated land resource units that share common characteristics related to physiography, geology, climate, water resources, soils, biological resources, and land uses (USDA, 2006). Soil survey areas typically consist of parts of one or more MLRA.

The soils and miscellaneous areas in a survey area occur in an orderly pattern that is related to the geology, landforms, relief, climate, and natural vegetation of the area. Each kind of soil and miscellaneous area is associated with a particular kind of landform or with a segment of the landform. By observing the soils and miscellaneous areas in the survey area and relating their position to specific segments of the landform, a soil scientist develops a concept, or model, of how they were formed. Thus, during mapping, this model enables the soil scientist to predict with a considerable degree of accuracy the kind of soil or miscellaneous area at a specific location on the landscape.

Commonly, individual soils on the landscape merge into one another as their characteristics gradually change. To construct an accurate soil map, however, soil scientists must determine the boundaries between the soils. They can observe only a limited number of soil profiles. Nevertheless, these observations, supplemented by an understanding of the soil-vegetation-landscape relationship, are sufficient to verify predictions of the kinds of soil in an area and to determine the boundaries.

Soil scientists recorded the characteristics of the soil profiles that they studied. They noted soil color, texture, size and shape of soil aggregates, kind and amount of rock fragments, distribution of plant roots, reaction, and other features that enable them to identify soils. After describing the soils in the survey area and determining their properties, the soil scientists assigned the soils to taxonomic classes (units). Taxonomic classes are concepts. Each taxonomic class has a set of soil characteristics with precisely defined limits. The classes are used as a basis for comparison to classify soils systematically. Soil taxonomy, the system of taxonomic classification used in the United States, is based mainly on the kind and character of soil properties and the arrangement of horizons within the profile. After the soil scientists classified and named the soils in the survey area, they compared the

individual soils with similar soils in the same taxonomic class in other areas so that they could confirm data and assemble additional data based on experience and research.

The objective of soil mapping is not to delineate pure map unit components; the objective is to separate the landscape into landforms or landform segments that have similar use and management requirements. Each map unit is defined by a unique combination of soil components and/or miscellaneous areas in predictable proportions. Some components may be highly contrasting to the other components of the map unit. The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The delineation of such landforms and landform segments on the map provides sufficient information for the development of resource plans. If intensive use of small areas is planned, onsite investigation is needed to define and locate the soils and miscellaneous areas.

Soil scientists make many field observations in the process of producing a soil map. The frequency of observation is dependent upon several factors, including scale of mapping, intensity of mapping, design of map units, complexity of the landscape, and experience of the soil scientist. Observations are made to test and refine the soil-landscape model and predictions and to verify the classification of the soils at specific locations. Once the soil-landscape model is refined, a significantly smaller number of measurements of individual soil properties are made and recorded. These measurements may include field measurements, such as those for color, depth to bedrock, and texture, and laboratory measurements, such as those for content of sand, silt, clay, salt, and other components. Properties of each soil typically vary from one point to another across the landscape.

Observations for map unit components are aggregated to develop ranges of characteristics for the components. The aggregated values are presented. Direct measurements do not exist for every property presented for every map unit component. Values for some properties are estimated from combinations of other properties.

While a soil survey is in progress, samples of some of the soils in the area generally are collected for laboratory analyses and for engineering tests. Soil scientists interpret the data from these analyses and tests as well as the field-observed characteristics and the soil properties to determine the expected behavior of the soils under different uses. Interpretations for all of the soils are field tested through observation of the soils in different uses and under different levels of management. Some interpretations are modified to fit local conditions, and some new interpretations are developed to meet local needs. Data are assembled from other sources, such as research information, production records, and field experience of specialists. For example, data on crop yields under defined levels of management are assembled from farm records and from field or plot experiments on the same kinds of soil.

Predictions about soil behavior are based not only on soil properties but also on such variables as climate and biological activity. Soil conditions are predictable over long periods of time, but they are not predictable from year to year. For example, soil scientists can predict with a fairly high degree of accuracy that a given soil will have a high water table within certain depths in most years, but they cannot predict that a high water table will always be at a specific level in the soil on a specific date.

After soil scientists located and identified the significant natural bodies of soil in the survey area, they drew the boundaries of these bodies on aerial photographs and identified each as a specific map unit. Aerial photographs show trees, buildings, fields, roads, and rivers, all of which help in locating boundaries accurately.

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 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.

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

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL: http://websoilsurvey.nrcs.usda.gov
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: Cameron Parish, Louisiana
Survey Area Data: Version 13, Sep 28, 2015

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

Date(s) aerial images were photographed: Feb 7, 2011—May 26, 2011

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

Cameron Parish, Louisiana (LA023)			
Map Unit Symbol	**Map Unit Name**	**Acres in AOI**	**Percent of AOI**
Cw	Crowley-Vidrine complex, 0 to 1 percent slopes	35.4	54.4%
GB	Ged mucky clay	1.6	2.4%
GC	Gentilly muck, 0 to 0.5 percent slopes, very frequently flooded	7.6	11.7%
Mr	Edgerly loam, 0 to 1 percent slopes	5.3	8.2%
Mt	Mowata-Vidrine complex, 0 to 1 percent slopes	15.2	23.3%
Totals for Area of Interest		**65.0**	**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.

Cameron Parish, Louisiana

Cw—Crowley-Vidrine complex, 0 to 1 percent slopes

Map Unit Setting

National map unit symbol: 2thq2
Elevation: 10 to 80 feet
Mean annual precipitation: 59 to 65 inches
Mean annual air temperature: 67 to 70 degrees F
Frost-free period: 240 to 300 days
Farmland classification: All areas are prime farmland

Map Unit Composition

Crowley and similar soils: 55 percent
Vidrine and similar soils: 35 percent
Minor components: 10 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Crowley

Setting

Landform: Terraces
Landform position (three-dimensional): Riser
Microfeatures of landform position: Bars
Down-slope shape: Convex
Across-slope shape: Linear
Parent material: Pleistocene age clayey fluviomarine deposits derived from igneous, metamorphic and sedimentary rock

Typical profile

Ap - 0 to 7 inches: silt loam
Eg - 7 to 17 inches: silt loam
Btg1 - 17 to 40 inches: silty clay
Btg2 - 40 to 80 inches: clay loam

Properties and qualities

Slope: 0 to 1 percent
Depth to restrictive feature: More than 80 inches
Natural drainage class: Somewhat poorly drained
Runoff class: High
Capacity of the most limiting layer to transmit water (Ksat): Moderately low (0.01 to 0.06 in/hr)
Depth to water table: About 6 to 9 inches
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum in profile: 2 percent
Salinity, maximum in profile: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)
Sodium adsorption ratio, maximum in profile: 10.0
Available water storage in profile: High (about 10.1 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 3w
Hydrologic Soil Group: D

Description of Vidrine

Setting

Landform: Flats
Landform position (three-dimensional): Rise
Microfeatures of landform position: Mounds
Down-slope shape: Convex
Across-slope shape: Convex
Parent material: Loamy eolian deposits over clayey fluviomarine deposits of pleistocene age

Typical profile

A - 0 to 6 inches: silt loam
E - 6 to 14 inches: silt loam
Bt/E - 14 to 18 inches: silty clay
Btg - 18 to 65 inches: silty clay
BCtg - 65 to 80 inches: silty clay loam

Properties and qualities

Slope: 0 to 2 percent
Depth to restrictive feature: More than 80 inches
Natural drainage class: Somewhat poorly drained
Runoff class: Very high
Capacity of the most limiting layer to transmit water (Ksat): Very low to moderately low (0.00 to 0.01 in/hr)
Depth to water table: About 14 to 24 inches
Frequency of flooding: None
Frequency of ponding: None
Salinity, maximum in profile: Nonsaline (0.0 to 1.0 mmhos/cm)
Sodium adsorption ratio, maximum in profile: 8.0
Available water storage in profile: High (about 9.9 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 2e
Hydrologic Soil Group: D

Minor Components

Edgerly

Percent of map unit: 3 percent
Landform: Flats
Landform position (three-dimensional): Dip
Down-slope shape: Linear
Across-slope shape: Concave

Acadiana

Percent of map unit: 3 percent
Landform: Stream terraces
Landform position (three-dimensional): Riser
Down-slope shape: Linear
Across-slope shape: Convex

Frost

Percent of map unit: 2 percent
Landform: Depressions
Landform position (three-dimensional): Dip

Down-slope shape: Concave
Across-slope shape: Concave

Mowata
Percent of map unit: 2 percent
Landform: Depressions
Landform position (three-dimensional): Dip
Down-slope shape: Linear
Across-slope shape: Concave

GB—Ged mucky clay

Map Unit Setting
National map unit symbol: 1vvgb
Mean annual precipitation: 43 to 61 inches
Mean annual air temperature: 59 to 77 degrees F
Frost-free period: 259 to 313 days
Farmland classification: Not prime farmland

Map Unit Composition
Ged and similar soils: 80 percent
Minor components: 20 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Ged

Setting
Landform: Marshes
Down-slope shape: Linear
Across-slope shape: Linear
Parent material: Fluid clayey alluvium

Typical profile
H1 - 0 to 14 inches: mucky clay
H2 - 14 to 44 inches: clay
H3 - 44 to 60 inches: clay

Properties and qualities
Slope: 0 to 1 percent
Depth to restrictive feature: More than 80 inches
Natural drainage class: Very 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 0 inches
Frequency of flooding: Frequent
Frequency of ponding: Frequent
Available water storage in profile: High (about 9.6 inches)

Interpretive groups
Land capability classification (irrigated): None specified

Land capability classification (nonirrigated): 7w
Hydrologic Soil Group: D

Minor Components

Minor components
Percent of map unit: 20 percent

GC—Gentilly muck, 0 to 0.5 percent slopes, very frequently flooded

Map Unit Setting
National map unit symbol: 2tpnh
Elevation: 0 feet
Mean annual precipitation: 59 to 67 inches
Mean annual air temperature: 63 to 79 degrees F
Frost-free period: 219 to 365 days
Farmland classification: Not prime farmland

Map Unit Composition
Gentilly, very frequently flooded, and similar soils: 80 percent
Minor components: 20 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Gentilly, Very Frequently Flooded

Setting
Landform: Marshes
Landform position (three-dimensional): Dip
Down-slope shape: Linear
Across-slope shape: Linear
Parent material: Thin herbaceous organic material over semifluid clayey over consolidated clayey alluvium

Typical profile
Oa - 0 to 10 inches: muck
Cg1 - 10 to 40 inches: clay
Cg2 - 40 to 79 inches: clay

Properties and qualities
Slope: 0 to 1 percent
Depth to restrictive feature: More than 80 inches
Natural drainage class: Very poorly drained
Runoff class: Negligible
Capacity of the most limiting layer to transmit water (Ksat): Low to moderately low (0.01 to 0.06 in/hr)
Depth to water table: About 0 inches
Frequency of flooding: Very frequent
Frequency of ponding: Frequent
Salinity, maximum in profile: Slightly saline to strongly saline (4.0 to 16.0 mmhos/cm)
Sodium adsorption ratio, maximum in profile: 16.0

Available water storage in profile: High (about 10.4 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 7w
Hydrologic Soil Group: D

Minor Components

Clovelly, very frequently flooded

Percent of map unit: 15 percent
Landform: Marshes
Landform position (three-dimensional): Dip
Down-slope shape: Linear
Across-slope shape: Linear

Lafitte, very frequently flooded

Percent of map unit: 5 percent
Landform: Marshes
Landform position (three-dimensional): Dip
Down-slope shape: Linear
Across-slope shape: Linear

Mr—Edgerly loam, 0 to 1 percent slopes

Map Unit Setting

National map unit symbol: 2qrt8
Elevation: 0 to 20 feet
Mean annual precipitation: 52 to 66 inches
Mean annual air temperature: 57 to 79 degrees F
Frost-free period: 245 to 304 days
Farmland classification: All areas are prime farmland

Map Unit Composition

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

Description of Edgerly

Setting

Landform: Flats
Down-slope shape: Linear
Across-slope shape: Linear
Parent material: Loamy fluviomarine deposits of pleistocene age

Typical profile

Ap - 0 to 7 inches: loam
Bt - 7 to 31 inches: loam
Btg - 31 to 80 inches: clay loam

Properties and qualities

Slope: 0 to 1 percent
Depth to restrictive feature: More than 80 inches
Natural drainage class: Poorly drained
Runoff class: Low
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 18 to 30 inches
Frequency of flooding: Rare
Frequency of ponding: None
Salinity, maximum in profile: Nonsaline to slightly saline (0.0 to 4.0 mmhos/cm)
Sodium adsorption ratio, maximum in profile: 4.0
Available water storage in profile: High (about 12.0 inches)

Interpretive groups

Land capability classification (irrigated): 3w
Land capability classification (nonirrigated): 3w
Hydrologic Soil Group: D

Minor Components

Leton

Percent of map unit: 6 percent
Landform: Flats, drainageways

Kaplan

Percent of map unit: 4 percent
Landform: Ridges

Vidrine

Percent of map unit: 3 percent
Landform: Ridges, flats
Microfeatures of landform position: Mounds

Midland

Percent of map unit: 2 percent
Landform: Flats, depressions

Crowley

Percent of map unit: 2 percent
Landform: Ridges

Mowata

Percent of map unit: 1 percent
Landform: Drainageways, flats

Mt—Mowata-Vidrine complex, 0 to 1 percent slopes

Map Unit Setting

National map unit symbol: 2thq6
Elevation: 10 to 80 feet
Mean annual precipitation: 59 to 66 inches

Mean annual air temperature: 67 to 72 degrees F
Frost-free period: 240 to 304 days
Farmland classification: All areas are prime farmland

Map Unit Composition

Mowata and similar soils: 60 percent
Vidrine and similar soils: 30 percent
Minor components: 10 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Mowata

Setting

Landform: Drainageways
Landform position (three-dimensional): Dip
Down-slope shape: Linear
Across-slope shape: Concave
Parent material: Late pleistocene age loamy fluviomarine deposits derived from igneous, metamorphic and sedimentary rock

Typical profile

Ap - 0 to 8 inches: silt loam
Eg - 8 to 18 inches: silt loam
Btg/E - 18 to 34 inches: clay loam
Btg - 34 to 80 inches: silty clay

Properties and qualities

Slope: 0 to 1 percent
Depth to restrictive feature: More than 80 inches
Natural drainage class: Poorly drained
Runoff class: Negligible
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 0 to 24 inches
Frequency of flooding: Rare
Frequency of ponding: None
Salinity, maximum in profile: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)
Sodium adsorption ratio, maximum in profile: 2.0
Available water storage in profile: High (about 11.9 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 3w
Hydrologic Soil Group: D

Description of Vidrine

Setting

Landform: Flats
Landform position (three-dimensional): Rise
Microfeatures of landform position: Mounds
Down-slope shape: Convex
Across-slope shape: Convex
Parent material: Loamy eolian deposits over clayey fluviomarine deposits of pleistocene age

Typical profile

A - 0 to 6 inches: silt loam
E - 6 to 19 inches: silt loam
Bt/E - 19 to 22 inches: silt loam
Btg - 22 to 60 inches: silty clay
BCtg - 60 to 80 inches: silty clay loam

Properties and qualities

Slope: 0 to 2 percent
Depth to restrictive feature: More than 80 inches
Natural drainage class: Somewhat poorly drained
Runoff class: Very high
Capacity of the most limiting layer to transmit water (Ksat): Very low to moderately low (0.00 to 0.01 in/hr)
Depth to water table: About 14 to 24 inches
Frequency of flooding: None
Frequency of ponding: None
Salinity, maximum in profile: Nonsaline (0.0 to 1.0 mmhos/cm)
Sodium adsorption ratio, maximum in profile: 8.0
Available water storage in profile: High (about 10.0 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 2e
Hydrologic Soil Group: D

Minor Components

Crowley

Percent of map unit: 3 percent
Landform: Terraces
Landform position (three-dimensional): Riser
Microfeatures of landform position: Bars
Down-slope shape: Convex
Across-slope shape: Linear

Leton

Percent of map unit: 3 percent
Landform: Depressions
Landform position (three-dimensional): Dip
Down-slope shape: Concave
Across-slope shape: Concave

Edgerly

Percent of map unit: 2 percent
Landform: Flats
Landform position (three-dimensional): Dip
Down-slope shape: Linear
Across-slope shape: Concave

Midland

Percent of map unit: 2 percent
Landform: Terraces
Landform position (three-dimensional): Tread
Microfeatures of landform position: Open depressions
Down-slope shape: Linear
Across-slope shape: Concave

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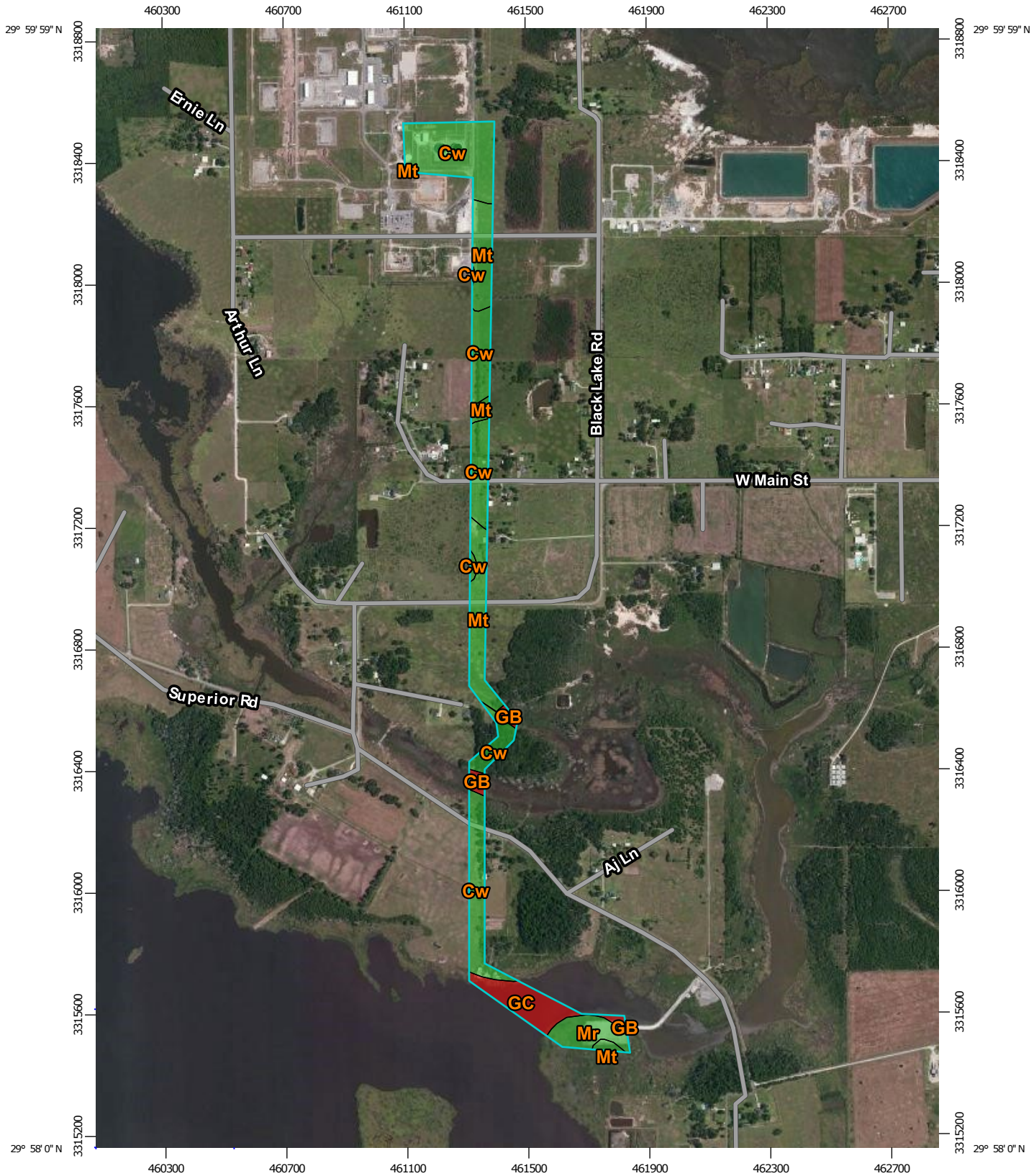
APPENDIX D

SUPPORTING DOCUMENTATION

NRCS Web Soil Prime Farmland

Farmland Classification—Cameron Parish, Louisiana
(Prime Farmland)



Map Scale: 1:18,000 if printed on A portrait (8.5" x 11") sheet.

N

Meters
0 250 500 1000 1500

Feet
0 500 1000 2000 3000

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

- Not prime farmland
- All areas are prime farmland
- Prime farmland if drained
- Prime farmland if protected from flooding or not frequently flooded during the growing season
- Prime farmland if irrigated
- Prime farmland if drained and either protected from flooding or not frequently flooded during the growing season
- Prime farmland if irrigated and drained
- Prime farmland if irrigated and either protected from flooding or not frequently flooded during the growing season
- Prime farmland if subsoiled, completely removing the root inhibiting soil layer
- Prime farmland if irrigated and the product of I (soil erodibility) x C (climate factor) does not exceed 60
- Prime farmland if irrigated and reclaimed of excess salts and sodium
- Farmland of statewide importance
- Farmland of local importance
- Farmland of unique importance
- Not rated or not available

Soil Rating Lines

- Not prime farmland
- All areas are prime farmland
- Prime farmland if drained
- Prime farmland if protected from flooding or not frequently flooded during the growing season
- Prime farmland if irrigated
- Prime farmland if drained and either protected from flooding or not frequently flooded during the growing season
- Prime farmland if irrigated and drained
- Prime farmland if irrigated and either protected from flooding or not frequently flooded during the growing season
- Prime farmland if subsoiled, completely removing the root inhibiting soil layer
- Prime farmland if irrigated and the product of I (soil erodibility) x C (climate factor) does not exceed 60
- Prime farmland if irrigated and reclaimed of excess salts and sodium
- Farmland of statewide importance
- Farmland of local importance
- Farmland of unique importance
- Not rated or not available

Soil Rating Points

- Not prime farmland
- All areas are prime farmland
- Prime farmland if drained
- Prime farmland if protected from flooding or not frequently flooded during the growing season
- Prime farmland if irrigated
- Prime farmland if drained and either protected from flooding or not frequently flooded during the growing season
- Prime farmland if irrigated and drained
- Prime farmland if irrigated and either protected from flooding or not frequently flooded during the growing season
- Prime farmland if subsoiled, completely removing the root inhibiting soil layer
- Prime farmland if irrigated and the product of I (soil erodibility) x C (climate factor) does not exceed 60
- Prime farmland if irrigated and reclaimed of excess salts and sodium
- Farmland of statewide importance
- Farmland of local importance
- Farmland of unique importance
- Not rated or not available

Water Features

MAP INFORMATION

Streams and Canals

Transportation


Rails


Interstate Highways


US Routes

Major Roads

Local Roads

Background


Aerial Photography

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

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

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL: http://websoilsurvey.nrcs.usda.gov
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: Cameron Parish, Louisiana
Survey Area Data: Version 13, Sep 28, 2015

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

Date(s) aerial images were photographed: Feb 7, 2011—May 26, 2011

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.

Farmland Classification

Farmland Classification— Summary by Map Unit — Cameron Parish, Louisiana (LA023)				
Map unit symbol	**Map unit name**	**Rating**	**Acres in AOI**	**Percent of AOI**
Cw	Crowley-Vidrine complex, 0 to 1 percent slopes	All areas are prime farmland	35.4	54.4%
GB	Ged mucky clay	Not prime farmland	1.6	2.4%
GC	Gentilly muck, 0 to 0.5 percent slopes, very frequently flooded	Not prime farmland	7.6	11.7%
Mr	Edgerly loam, 0 to 1 percent slopes	All areas are prime farmland	5.3	8.2%
Mt	Mowata-Vidrine complex, 0 to 1 percent slopes	All areas are prime farmland	15.2	23.3%
Totals for Area of Interest			**65.0**	**100.0%**

Description

Farmland classification identifies map units as prime farmland, farmland of statewide importance, farmland of local importance, or unique farmland. It identifies the location and extent of the soils that are best suited to food, feed, fiber, forage, and oilseed crops. NRCS policy and procedures on prime and unique farmlands are published in the "Federal Register," Vol. 43, No. 21, January 31, 1978.

Rating Options

Aggregation Method: No Aggregation Necessary

Tie-break Rule: Lower

APPENDIX D

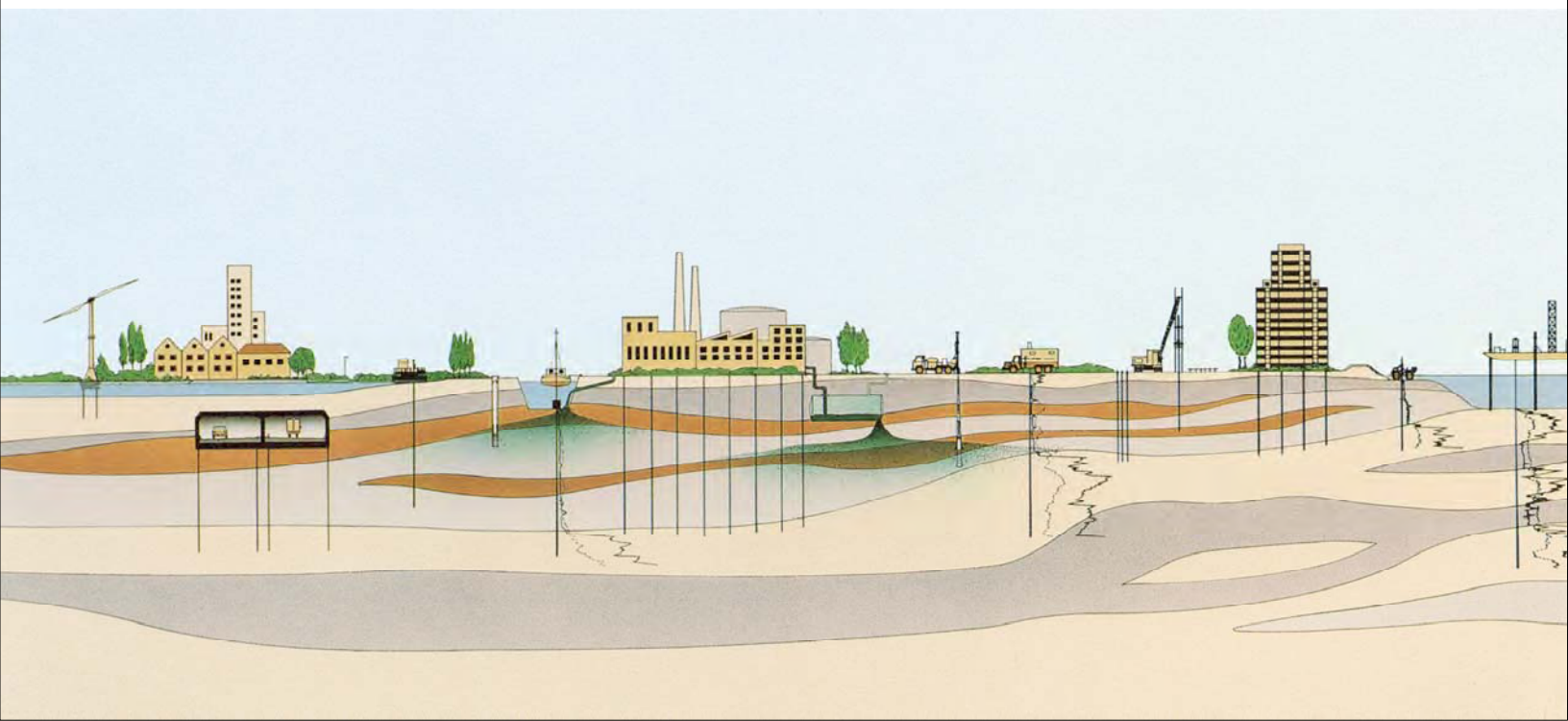
SUPPORTING DOCUMENTATION

GeoTechnical Report

FUGRO CONSULTANTS, INC.

GEOTECHNICAL STUDY
24-INCH BRINE DISPOSAL PIPELINE REPLACEMENT
STRATEGIC PETROLEUM RESERVE
HACKBERRY, LOUISIANA

VALI COOPER INTERNATIONAL
HARAHAN, LOUISIANA



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Project No. 04.50160005
July 8, 2016

VALI COOPER INTERNATIONAL
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Attention: Mr. Laren M. Tushim, P.E.

Geotechnical Study
24-Inch Brine Disposal Pipeline Replacement
Strategic Petroleum Reserve
Hackberry, Louisiana

Introduction

Fugro Consultants, Inc. (Fugro) is pleased to submit this report of our geotechnical services for the above referenced project. Authorization for these services was provided through the issuance of Vali Cooper International, LLC. (VCI) Task Order No. TO.004e.01. We performed this study in general accordance with our Proposal No. 04.50160005 (Rev. 1). This report contains discussions and results of our geotechnical field exploration and laboratory testing programs. This report also presents lateral earth pressure design parameters to guide in the design of temporary shoring and bracing or relatively shallow excavations.

Project Description

We understand that VCI is assisting with the design and installation of a 24-inch brine pipeline that will include horizontal directional drilling (HDD) methods beneath four roadway locations and possibly a segment of Black Lake. The proposed HDD locations are generally located along the pipeline replacement alignment that traverses a corridor from the eastern side of the existing West Hackberry Strategic Petroleum Reserve (SPR) facility on the north side of Black Lake Road in a southern direction for a distance of about 2.1-miles to the SPR brine disposal well area, south of Maggie Hebert Road in Hackberry, Louisiana. A *Site Vicinity Map*, showing the general project area, is provided on Plate 1 of this report.

Purposes and Scope

The purposes of this study were to: 1) explore subsurface conditions at the project site, 2) present soil boring logs containing laboratory test results, and 3) prepare a geotechnical submittal that presents a summary of our services and lateral earth pressure design parameters. We accomplished these purposes by:

- drilling seven (7) exploratory soil borings (Borings B-1 thru B-7) to explore subsurface conditions and to obtain soil samples for field and laboratory testing (Note: The proposed boring south of Black Lake Road associated with the Targa Resources Inc. property was eliminated from the scope by VCI at the time of field exploration);
- performing field and laboratory tests on selected soil samples to assess pertinent geotechnical engineering properties; and
- preparing this report summarizing our findings and recommendations.

Environmental assessment, compliance with State and Federal Regulatory requirements, assessment of potential migration, and/or environmental analyses were beyond the scope of this geotechnical study. A geological fault study was also beyond the scope of our services.

Applicability of Report

The explorations and analyses for this study, as well as the conclusions and recommendations in this report, were selected or developed based on our understanding of the project as described above and in later sections of this report. If pertinent details of the project differ from the descriptions provided in this report, we should be authorized to review the discrepancies and, if necessary, modify our conclusions and recommendations.

Fugro's scope of work does not include the investigation, detection, or design related to the presence of any biological pollutants. The term 'biological pollutants' includes, but is not limited to, mold, fungi, spores, bacteria, and viruses, and the byproducts of any such biological organisms.

We have prepared this report exclusively for VCI. We have conducted this study using the standard level of care and diligence normally practiced by recognized engineering firms performing similar services under similar circumstances. We intend for this report, including all illustrations, to be used in its entirety. The observations, conclusions, and recommendations provided in this report may not be applicable at locations not explored by borings or in areas outside the project boundaries. This report should be made available for information only and not as a warranty of subsurface conditions.

Field Exploration

Our field activities are discussed in this section. We have included a general discussion as well as discussions on drilling methods, sampling methods, and borehole completion.

General. Fugro explored subsurface conditions at the project area from May 31 thru June 2, 2016 as well as June 6 and June 7, 2016 by drilling six (6) soil borings (Borings B-1 thru B-6) to a depth of about 30 ft each below existing grade and one (1) soil boring (Boring B-7) to a depth of about 100 ft. The approximate locations of the borings performed for this project are shown on the *Plans of Borings* provided on Plates 2a, 2b, and 2c of this report. Representatives of VCI provided the proposed boring locations and boring depths. Representatives of VCI surveyed and staked the proposed pipeline right-of-way as well as the approximate locations of the borings completed for this project. Also, representatives of VCI eliminated the boring south of Black Lake Road associated with the Targa Resources Inc. property from the scope at the time of field exploration.

Drilling Methods. Borings B-1 thru B-5 were drilled with rubber-tired ATV-mounted drilling equipment using dry-auger and wet-rotary drilling techniques. We initially use dry-auger drilling methods in an effort to determine depth-to-water levels at borehole locations. Wet-rotary drilling techniques are used to efficiently remove cuttings, clean out borings, and prevent boreholes from caving. A discussion on the interpreted depth-to-water observations is provided later in this report.

Borings B-6 and B-7 were drilled with track-mounted marsh ATV equipment using wet-rotary drilling techniques. Since water was encountered at or above existing grade at Borings B-6 and B-7, dry-auger techniques were not applicable at these locations. A discussion on water depth observations is provided later in this report.

Sampling Methods. Soil sampling is conducted at about 2-ft intervals to a depth of 16 ft below existing grade and at 5-ft intervals thereafter to the completion depths. Detailed descriptions of the soils encountered in the borings drilled for this project are presented on the boring logs on Plates 3 thru 9 of this report. A key identifying the terms and symbols used on the boring logs is presented on Plates 10a and 10b herein.

Cohesionless soil samples and undisturbed samples of cohesive soils were obtained by hydraulically pushing a 3-inch diameter thin-walled tube sampler a distance of about 24 inches. Our field procedure for tube sampling was conducted in general accordance with ASTM D1587, "*Standard Practice for Thin-Walled Tube Sampling of Soils*." The samples were extruded in the field and visually classified by our Professional Geologist. We obtained field estimates of the undrained shear strength of the recovered cohesive samples using a hand penetrometer or Torvane. Where applicable, our penetrometer readings were modified for overconsolidated, natural, cohesive soils as described on Plate 10b. Portions of each recovered soil sample were placed into appropriate containers for transportation to our laboratory.

Cohesionless soil samples and disturbed samples of cohesive soils were obtained using the Standard Penetration Test (SPT), as described on Plate 10b. Our field professionals recorded the hammer blows for each sample interval. The SPT N-values are recorded on the boring logs. The soil samples obtained from the split-barrel sampler were then visually classified and placed into appropriate containers for transportation to our laboratory. Our field procedure for split-barrel soil sampling was conducted in general accordance with ASTM D1586, *"Standard Method for Penetration Test and Split-Barrel Sampling of Soils."*

Borehole Completion. The borings were backfilled with cement-bentonite grout from the bottom up using a tremie pipe upon completion of soil sampling.

Laboratory Testing

The laboratory-testing program for this study was directed primarily toward evaluating the classification properties of the subsurface soils, undrained shear strength of the cohesive soils, and the pH, chloride ion concentration, sulfate ion concentration, and electrical resistivity of the soils. The laboratory tests were performed in general accordance with applicable American Society for Testing and Materials (ASTM) standards as tabulated at the end of this section.

Classification Tests. The classification tests included tests for moisture content, liquid and plastic limits (collectively termed Atterberg Limits), unit weight, material finer than the No. 200 sieve, and particle-size analyses. These tests aid in classifying the soils and are used to correlate the results of other tests performed on samples taken from different borings and/or depths. The results of the classification tests are presented on the boring logs on Plates 3 thru 9 of this report. The particle-size distribution curves are presented in Appendix A.

Undrained Shear Strength Tests. We measured the undrained shear strength of selected undisturbed samples of cohesive soils by performing unconfined compression tests and unconsolidated-undrained triaxial compression tests. The results of the undrained shear strength tests are presented on the boring logs on Plates 3 thru 9 herein.

Soil Chemical Analyses and Electrical Resistivity Tests. A series of laboratory tests consisting of soil pH, chloride ion concentration, sulfate ion concentration, and electrical resistivity tests were performed on soil samples from the borings drilled for this project. The results of the soil chemical analyses and the electrical resistivity tests are presented in Appendix B of this report. Discussions on soil corrosion potential based on the results of the soil pH, chloride ion concentration, sulfate ion concentration, and electrical resistivity tests are presented in the *Soil Corrosion Potential* section of this report.

Summary of Laboratory Testing. The laboratory-testing program performed for this study and the applicable ASTM standards are summarized in the following table:

Type of Test	Number of Tests	Test Designation
Moisture Content	27	ASTM D2216
Atterberg Limits	27	ASTM D4318
Percent Finer than a No. 200 sieve	24	ASTM D1140
Particle-Size Analysis	14	ASTM D6913
Unit Weight	26	ASTM D2937
Unconfined Compression Test	10	ASTM D2166
UU-Triaxial Compression	16	ASTM D2850
Soil pH	10	ASTM G51
Chloride Ion Concentration	10	ASTM D512
Sulfate Ion Concentration	10	ASTM D516
Electrical Resistivity	10	ASTM G57

General Site Conditions

The interpreted site and subsurface soil conditions are discussed in this section. Our interpretation of the general site and subsurface conditions are based on the results of our field exploration and laboratory testing programs and our experience. This section also includes a discussion on the interpreted depth-to-water and water depth conditions at the time of our field exploration.

Site Location and Description. The project area is located near the Strategic Petroleum Reserve along the north side of Black Lake Road, and the proposed pipeline alignment traverses in a southern direction across four roadway locations and a portion of Black Lake to the Strategic Petroleum Reserve's brine disposal area in Hackberry, Louisiana. The *Site Vicinity Map*, provided on Plate 1 of this report, shows the approximate location of the project area. The *Plans of Borings*, provided on Plates 2a, 2b, and 2c show the approximate boring locations relative to existing features. Surficial conditions at the project site consisted of grassy, maintained vegetation at the locations of Borings B-1 thru B-6 and grassy marsh vegetation at the location of Boring B-7.

Subsurface Conditions. Subsurface conditions encountered within Boring B-1 generally consisted of natural, cohesionless soils to a depth of about 2 ft below existing grade. Below the surficial cohesionless soils, natural, firm to stiff cohesive soils were encountered to a depth of about 8 ft below existing grade. Beneath the cohesive soils, natural, medium-dense cohesionless/granular soils were encountered to a depth of about 30 ft below existing grade, the completion depth of Boring B-1.

The generalized subsurface conditions encountered within Borings B-2, B-3, B-4, and B-5 were somewhat similar and primarily consisted of natural, firm to stiff cohesive soils with intermittent

loose to medium-dense cohesionless/granular soil layers to a depth of about 30-ft, the completion depth of the borings.

Subsurface conditions encountered within Borings B-6 and B-7 primarily consisted of natural, firm to stiff cohesive soils to depths ranging from about 7 ft to 8 ft below the existing grade/mudline. Beneath the cohesive soils, natural, medium-dense cohesionless/granular soils were encountered to depths ranging from about 10 ft to 12 ft below the existing grade/mudline. Beneath the cohesionless/granular soils, natural, firm to stiff cohesive soils were encountered to a depth of about 100 ft below the existing grade/mudline, the completion depth of Boring B-7.

Based on our review of both the field observations and laboratory tests performed on the soils encountered in the borings drilled for this study and based on published correlations for similar soil types, we have generalized the subsurface conditions for each boring in Appendix C on Plates C-1 thru C-7. Material descriptions, approximate strata interfaces, total unit weight, buoyant unit weight, cohesion, friction angle, and shear modulus estimates are presented.

We have also provided a *Generalized Subsurface Profile*, representing the soil conditions of the proposed portion of the replacement pipeline crossing a portion of Black Lake, on Plate 11 of this report. This profile provides the general subsurface lithology for Borings B-6 and B-7, provides a distance scale on its horizontal axis representing the linear distance between each of the borings, and provides an elevation scale on its vertical axis relative to the borehole lithology. For the profile, we assumed elevations of 2-ft and 1-ft at the surface of Borings B-6 and B-7, respectively, based on topographic information from Google Earth.

Interpreted Depth-to-Water and Water Depth Conditions. Water was initially encountered within Borings B-1 thru B-5 at depths ranging from about 8 ft to 12 ft below existing grade at the boring locations. Subsurface water within Borings B-1 thru B-5 rose to depths ranging from about 2.5 ft to 8 ft below existing grade after a period of about 15 minutes. Water was encountered at the existing ground surface at the location of Boring B-6 and about 6-inches above the existing ground surface at the location of Boring B-7.

Short-term water levels recorded in the open boreholes should not be considered to represent a long-term condition because the water levels may not have had enough time to approach equilibrium. More accurate determinations of groundwater levels are usually made from long-term standpipe piezometer readings. It should be stated that groundwater levels will fluctuate with seasonal variations in rainfall and surface runoff, especially during extended periods of inclement weather.

Variations in Subsurface Conditions. Our interpretations of subsurface conditions, as described in this report, are based on data obtained from our visual observations, the sample borings, laboratory tests, and our experience. Although we have allowed for minor variations in the

subsurface conditions, our recommendations may not be appropriate for subsurface conditions other than those reported herein. It is likely that some variations in subsurface conditions may occur away from and between the boring locations, especially with respect to the depth, consistency, and lateral extent of the surficial soils and cohesionless layers. We recommend careful observations during construction to verify our interpretations. If variations in subsurface conditions are encountered during construction, we should be notified and authorized to evaluate what, if any, revisions should be made to our submittal.

Soil Corrosion Potential

Steel and concrete elements in contact with soil are subject to degradation due to corrosion or chemical attack. Therefore, buried steel and concrete elements should be designed to resist corrosion and degradation based on accepted practices.

Soil pH, chloride ion concentration tests, sulfate ion concentration tests and electrical resistivity tests were performed on soil samples obtained from the borings drilled for this project. The laboratory tests results are presented in Appendix B on Plate B-1 of this report. The results of the pH, chloride ion concentration, sulfate ion concentration, and electrical resistivity tests were used to generally assess the potential of the onsite soils to corrode buried steel and degrade buried concrete based on a comparison of the laboratory tests results with published guidelines as discussed herein.

Corrosion of Steel. Corrosion is a major factor in the life of steel elements in contact with soil. Corrosion is caused by migration of electrons from the steel into the surrounding soil. Three commonly measured soil properties that indicate the corrosion potential for steel in contact with soil are: 1) pH, 2) chloride ion concentration, and 3) electrical resistivity. It is generally accepted that corrosion of steel is most likely in environments that have low pH, chloride ions (even in low concentrations), and/or low resistivity.

The following table presents some general guidelines concerning the corrosion potential of a soil as a function of pH, chloride ion concentration, and electrical resistivity[1]. Each of the columns in this table should be used independently of the others when evaluating soil corrosion potential. For example, it is not necessary to have a resistivity between 0 and 1,000 ohm-cm and a pH between 0 and 4.5 to indicate a very high potential for corrosion.

[1] Palmer, J. F., "Soil Resistivity Measurements and Analysis," *Materials Performance*, Vol. 13, January 1974.

Corrosion Potential of Soil on Steel			
pH	**Chloride Content (ppm)**	**Resistivity (ohm-cm)**	**Corrosion Potential**
0 - 4.5		0 - 1,000	Very High
4.5 - 5.5	> 500	1,000 - 2,000	High
5.5 - 6.5	< 500	2,000 - 5,000	Moderate
> 6.5		> 5,000	Mild

The results of the pH tests, chloride ion concentration, and electrical resistivity tests indicate that the corrosion potential of steel in contact with the soils tested at various depths ranges from moderate to very high at the site. Based on the results of these analyses, the soils tested will generally exhibit an aggressive tendency to corrode buried steel. Fugro recommends that a Corrosion Engineer review the test results discussed herein when designing appropriate methods of protecting buried steel.

Degradation of Concrete. The degradation of concrete is caused by chemical agents in the soil or groundwater that reacts with concrete to either dissolve the cement paste or precipitate larger compounds that cause cracking and flaking. The concentration of water-soluble sulfates in the soils is a good indicator of the potential for chemical attack of concrete. Sulfate concentrations in soil can be used to evaluate the need for protection of concrete based on the following table[2]

Sulfate Concentration (ppm)	Degradation Potential
> 20,000	Very Severe
2,000 - 20,000	High
1,000 - 2,000	Moderate
0 - 1,000	Low

The results of the sulfate ion concentration tests indicate that the potential for the degradation of concrete is generally low at the site. Although the results of the sulfate ion concentration analysis indicate the soils at the site appear to exhibit a non-aggressive tendency to degrade buried concrete, Fugro recommends that a Corrosion Engineer be consulted to determine if a sulfate resistant concrete is warranted.

Shallow Excavations and Lateral Earth Pressure

This section presents discussions on shallow excavations and discussions on lateral earth pressures to aid in the design of temporary shoring.

The excavations should be designed in accordance with all applicable local, state, and federal trenching regulations, including the Federal Occupational Safety and Health Administration

[2] *ACI Manual of Concrete Practice*, Part 1, Section 201.2R-12, American Concrete Institute, 1992.

(OSHA) requirements for excavations presented in 29 CFR Part 1926, Subpart P, *Excavations*. Based on OSHA regulations, excavations deeper than 20 ft must be addressed individually and a qualified registered engineer will be required to design each excavation system. We would be pleased to review the proposed excavation system designs before construction.

Based on our interpretation of the regulations and the near-surface soil conditions encountered in the borings drilled for this study, the natural, firm to stiff cohesive soils may be classified as Type B and the natural, cohesionless (silty/sandy) soils may be classified as Type C. The OSHA regulations do not generally require shallow excavations to depths of 4 ft or less to be sloped back or shored/braced. However, if sloughing and caving is experienced, we recommend the slopes should be cut back or shored/braced. Excavations deeper than 4 ft are required to be braced or sloped back at 1-horizontal to 1-vertical for Type B soils and 1.5-horizontal to 1-vertical for Type C soils. Flatter slopes or bracing should be used if sloughing or raveling is observed.

Temporary shoring will experience lateral earth pressures resulting from a combination of soil pressure, hydrostatic water pressure, and any surcharge loads. Soil and hydrostatic water pressures behind the shoring walls will impose a triangular stress distribution on the walls while surcharge loads will impose a rectangular stress distribution. For this project, we have assumed that a braced shoring system will be utilized. If a cantilevered system is planned, we should be contacted for additional discussions and recommendations.

For the design of temporary shoring walls, we recommend a coefficient of active lateral earth pressure (ka) of 1.0 for the cohesive soils encountered onsite, 0.5 for the cohesionless/silty soils encountered onsite, and 0.35 for the granular/sandy soils encountered onsite.

For braced sheeting, the penetration of sheeting below the excavation bottom should be sufficient to provide moment equilibrium about the lowest bracing level, assuming a hinge in the wall at that level and applying the lateral pressures. In addition, the penetration of braced sheeting should be such that all vertical loads applied to the wall (*e.g.* dead weight of sheeting, vertical bracing components, wall weight) are supported by the embedded portion of the wall below excavation grade. Also, it may be beneficial to install the sheeting to a deeper penetration that will assist with any dewatering efforts.

* * *

The following illustrations and appendices are attached and complete this report:

ILLUSTRATIONS

APPENDICES

Closing

Mr. Tushim, P.E., we appreciate the opportunity to be of service on this project. Please contact us if you have any questions concerning this report or when we may be of further service.

Sincerely,
FUGRO CONSULTANTS, INC.

Michael P. Hollier, P.E.
Activity Center Manager

Trent Whitley, E.I.
Project Professional

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Hard Copies - U.S. Mail (3)

TW/MPH

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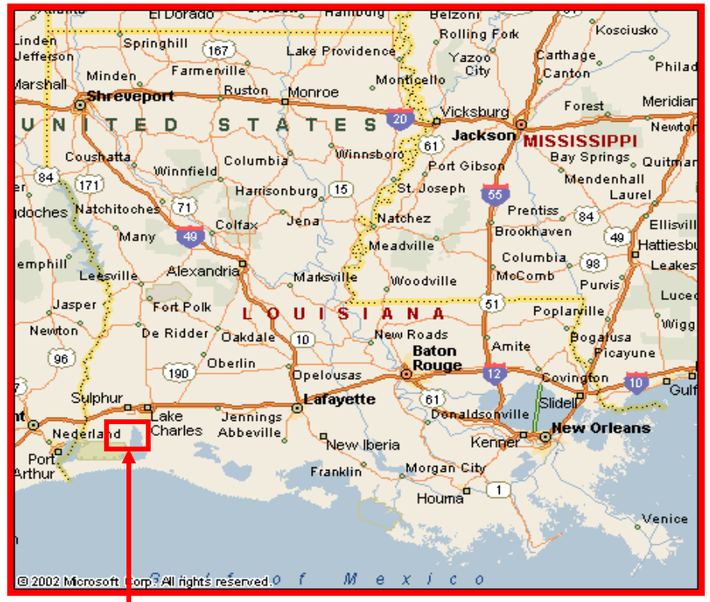
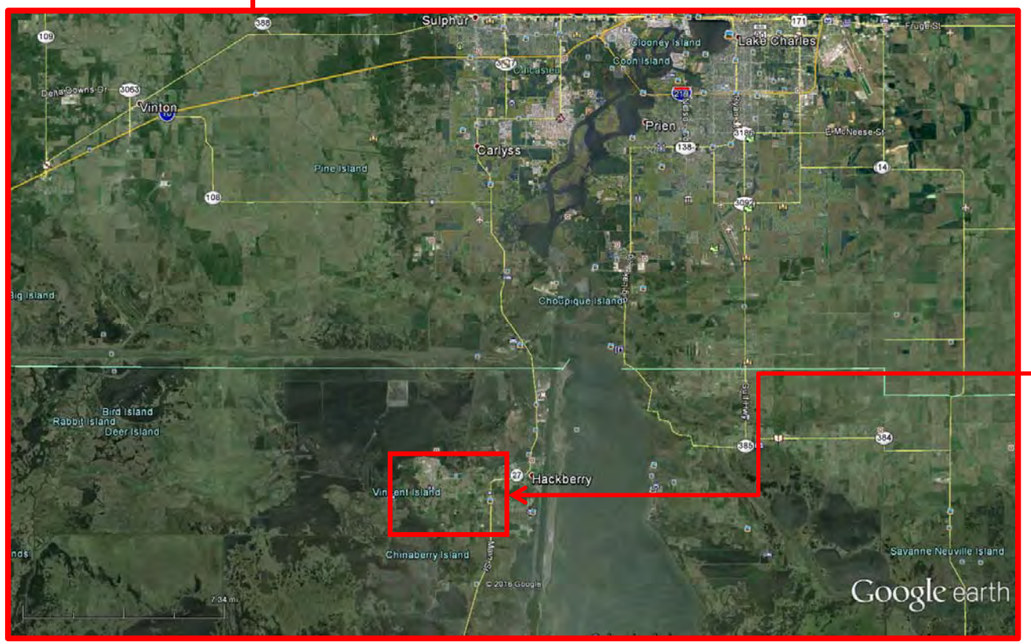
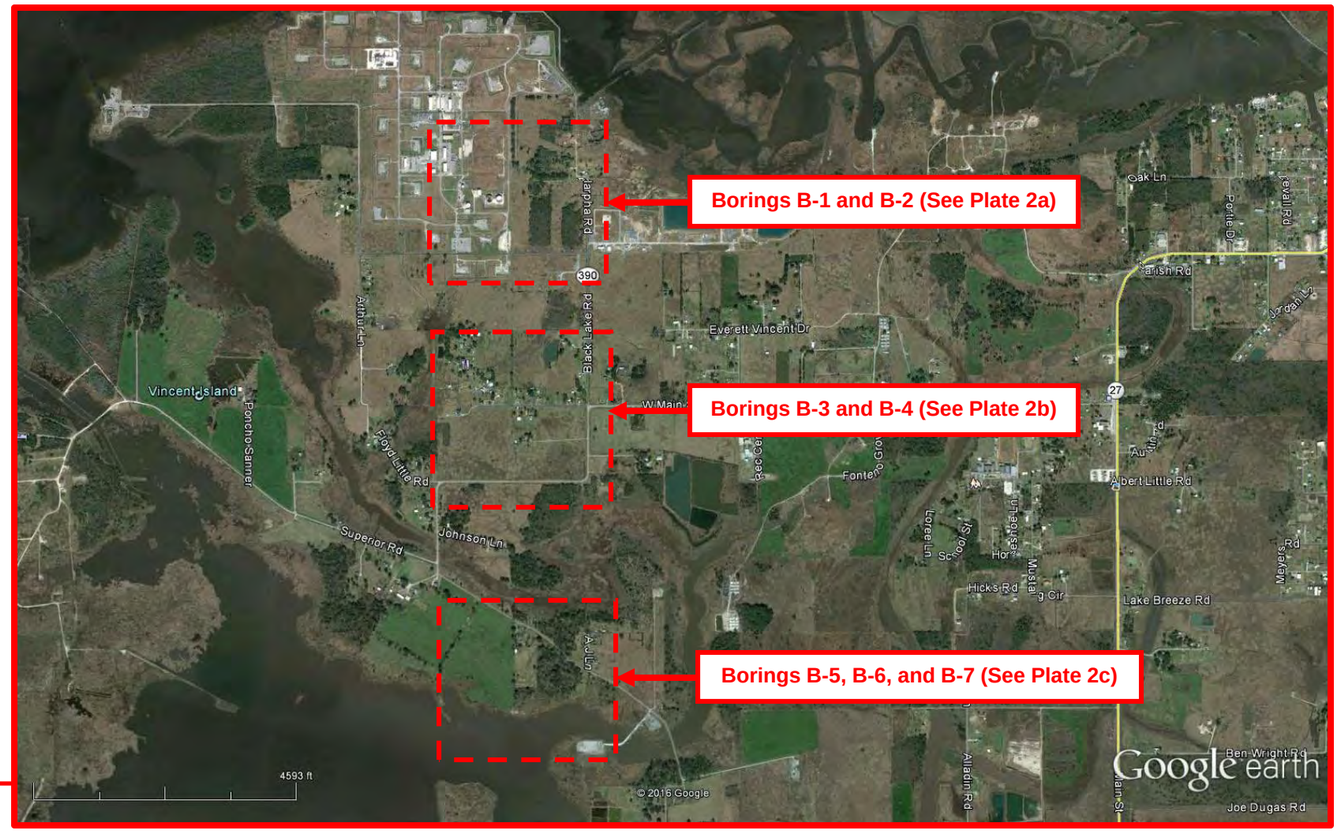
ILLUSTRATIONS







SITE VICINITY MAP
24-INCH BRINE DISPOSAL PIPELINE REPLACEMENT
STRATEGIC PETROLEUM RESERVE
HACKBERRY, LOUISIANA

PLATE 1

Image obtained from Google Earth.
Not-to-scale.
Boring locations are approximate.

PLAN OF BORINGS
24-INCH BRINE DISPOSAL PIPELINE REPLACEMENT (BORINGS B-1 AND B-2 LOCATIONS)
STRATEGIC PETROLEUM RESERVE
HACKBERRY, LOUISIANA

PLATE 2a

Image obtained from Google Earth.
Not-to-scale.
Boring locations are approximate.

PLAN OF BORINGS
24-INCH BRINE DISPOSAL PIPELINE REPLACEMENT (BORINGS B-3 AND B-4 LOCATIONS)
STRATEGIC PETROLEUM RESERVE
HACKBERRY, LOUISIANA

PLATE 2b

Image obtained from Google Earth.
Not-to-scale.
Boring locations are approximate.

PLAN OF BORINGS
24-INCH BRINE DISPOSAL PIPELINE REPLACEMENT (BORINGS B-5, B-6, AND B-7 LOCATIONS)
STRATEGIC PETROLEUM RESERVE
HACKBERRY, LOUISIANA

LOCATION: See Plate 2

COORDINATES: Not Available

SURFACE EL.: Not Available

DEPTH, FT	STRATUM DESCRIPTION	STRATUM DEPTH, FT	BLOWS PER FOOT	UNIT DRY WT, PCF	PASSING NO. 200 SIEVE, %	WATER CONTENT, %	LIQUID LIMIT	PLASTIC LIMIT	PLASTICITY INDEX (PI)
	SILT (ML), dark brown with rootlets								
	FAT CLAY with sand (CH), stiff, reddish-brown and gray	2.0			83	37	99	26	73
	- light brown with silt pockets below 4'			94		27			
5	SANDY LEAN CLAY (CL), firm to stiff, light brown with silty sand pockets	6.0				17	24	14	10
				115		17			
	SILTY CLAYEY SAND (SC-SM), medium-dense, light brown	8.0	N=12		22				
10			N=15		17				
			N=18						
15			N=24						
	SILT with sand (ML), loose, light brown with clay seams and pockets	17.0	N=7		71				
20									
			N=9						
25									
	SILTY SAND (SM), medium-dense, brown with shell fragments and clay seams	27.0	N=12						
30		30.0							
35									

SHEAR STRENGTH

□ Penetrometer ▼ Unconfined
◇ Torvane ● Triaxial
△ Field Vane ▲ Miniature Vane

KIPS PER SQ FT

0.5 1.0 1.5 2.0 2.5

NOTES:

1. ▽: Water First Noticed. ▼: Depth To Water after 15 minutes.
2. Terms and symbols defined on Plates 10a and 10b.

DATE: June 7, 2016
TOTAL DEPTH: 30'
CAVED DEPTH: Not Applicable
DRY AUGER: 0' to 10'
WET ROTARY: 10' to 30'
BACKFILL: Cement-Bentonite Grout
LOGGER: M. Allen

Fugro Consultants, Inc.

STRATEGIC PETROLEUM RESERVE

LOG OF BORING NO. B-1

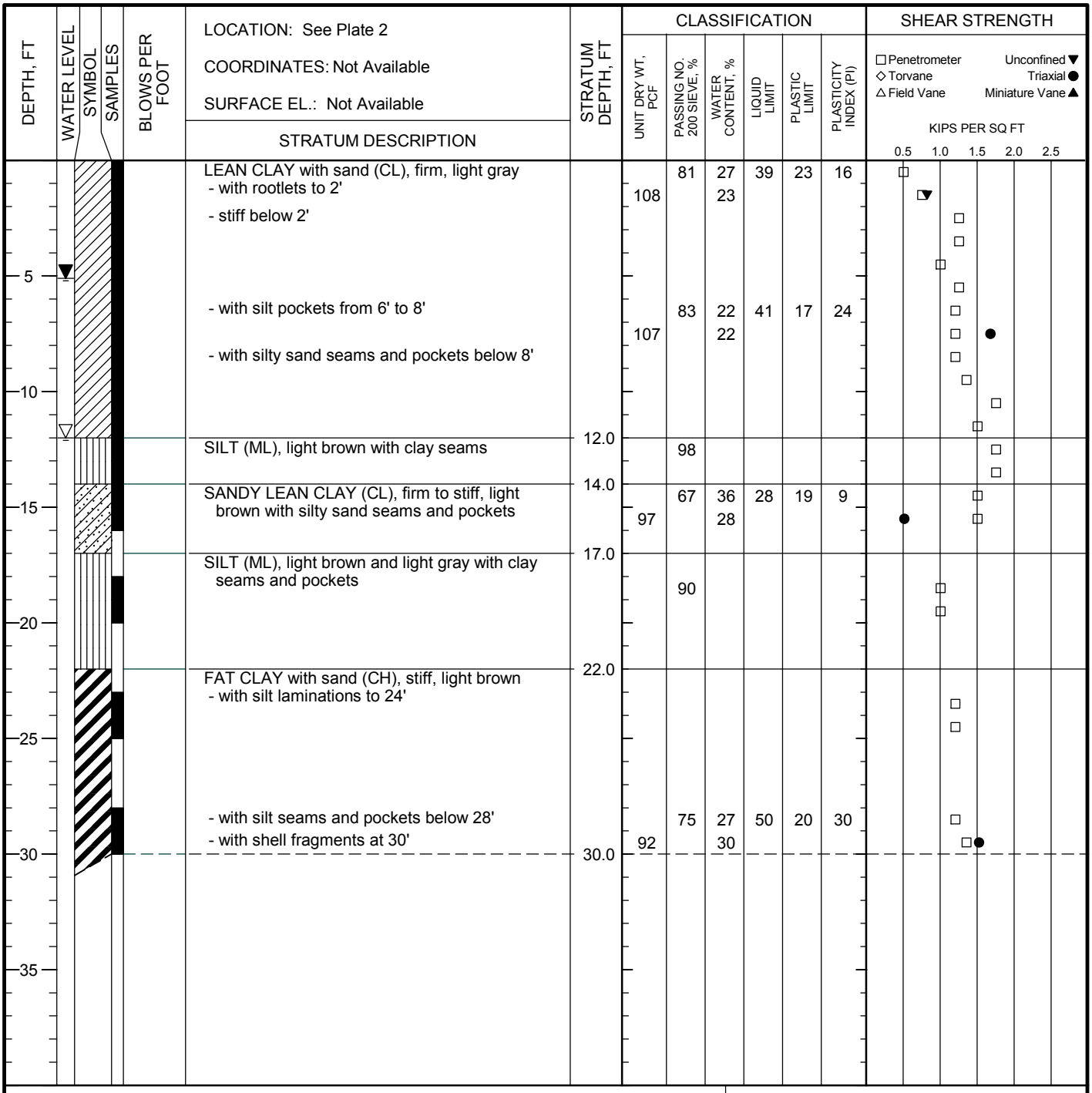
24-INCH BRINE DISPOSAL PIPELINE REPLACEMENT

HACKBERRY, LOUISIANA

Project No. 04.50160005

PLATE 3

FCLC_LOG (FINAL) REV01 04.50160005 - WH BRINE.GPJ FUGRO DATA TEMPLATE 042610.GDT 7/7/16



NOTES:

1. ▽: Water First Noticed. ▼: Depth To Water after 15 minutes.
2. Terms and symbols defined on Plates 10a and 10b.

DATE: June 7, 2016
TOTAL DEPTH: 30'
CAVED DEPTH: Not Applicable
DRY AUGER: 0' to 14'
WET ROTARY: 14' to 30'
BACKFILL: Cement-Bentonite Grout
LOGGER: M. Allen

Fugro Consultants, Inc.

STRATEGIC PETROLEUM RESERVE

LOG OF BORING NO. B-2

24-INCH BRINE DISPOSAL PIPELINE REPLACEMENT

HACKBERRY, LOUISIANA

Project No. 04.50160005

PLATE 4

FCLC_LOG (FINAL) REV01 04.50160005 - WH BRINE.GPJ FUGRO DATA TEMPLATE 042610.GDT 7/7/16

LOCATION: See Plate 2

COORDINATES: Not Available

SURFACE EL.: Not Available

DEPTH, FT	STRATUM DESCRIPTION	STRATUM DEPTH, FT	BLOWS PER FOOT	UNIT DRY WT, PCF	PASSING NO. 200 SIEVE, %	WATER CONTENT, %	LIQUID LIMIT	PLASTIC LIMIT	PLASTICITY INDEX (PI)
	SILT with sand (ML), light brown with rootlets				75				
	FAT CLAY with sand (CH), stiff, light gray and brown	2.0							
	- light brown below 4'				79	22	58	17	41
5				106		23			
	- with silt pockets below 6'								
	SILTY SAND (SM), medium-dense, brown	8.0	N=11		61				
10			N=12						
	SANDY SILT (ML), loose, brown	12.0	N=8		59	29	NP	NP	NP
	SILTY SAND (SM), medium-dense, brown with sandy clay seams and pockets	14.0	N=14						
15									
	FAT CLAY (CH), stiff, light brown	17.0							
	- with silt seams and laminations from 18' to 20'								
20									
	- light brown and gray, slickensided below 23'				94	38	90	29	61
25				93		29			
30		30.0							
35									

SHEAR STRENGTH

□ Penetrometer ▼ Unconfined
◇ Torvane ● Triaxial
△ Field Vane ▲ Miniature Vane

KIPS PER SQ FT

0.5 1.0 1.5 2.0 2.5

NOTES:

1. ▽: Water First Noticed. ▼: Depth To Water after 15 minutes.
2. Terms and symbols defined on Plates 10a and 10b.

DATE: June 7, 2016
TOTAL DEPTH: 30'
CAVED DEPTH: Not Applicable
DRY AUGER: 0' to 10'
WET ROTARY: 10' to 30'
BACKFILL: Cement-Bentonite Grout
LOGGER: M. Allen

Fugro Consultants, Inc.

STRATEGIC PETROLEUM RESERVE

LOG OF BORING NO. B-3

24-INCH BRINE DISPOSAL PIPELINE REPLACEMENT

HACKBERRY, LOUISIANA

Project No. 04.50160005

PLATE 5

FCLC_LOG (FINAL) REV01 04.50160005 - WH BRINE.GPJ FUGRO DATA TEMPLATE 042610.GDT 7/7/16

LOCATION: See Plate 2

COORDINATES: Not Available

SURFACE EL.: Not Available

DEPTH, FT	WATER LEVEL	SYMBOL	SAMPLES	BLOWS PER FOOT	STRATUM DESCRIPTION	STRATUM DEPTH, FT	UNIT DRY WT, PCF	PASSING NO. 200 SIEVE, %	WATER CONTENT, %	LIQUID LIMIT	PLASTIC LIMIT	PLASTICITY INDEX (PI)
					LEAN CLAY (CL), gray with rootlets							
					FAT CLAY with sand (CH), stiff to very stiff, light brown	2.0		84	31	71	20	51
							100		26			
5					- light brown and light gray with silty sand pockets below 4'							
					SANDY LEAN CLAY (CL), stiff, light brown and light gray with silty sand seams and pockets	6.0						
								52	23	28	16	12
					- soft to stiff at 10'		101		26			
10				N=5	SILT with sand (ML), loose, light brown with sandy clay seams	10.0		73				
					FAT CLAY (CH), stiff, light brown	12.0						
					- with silt seams and pockets from 14' to 16'							
15												
					- brown from 18' to 28'			100	34	77	26	51
					- stiff to very stiff at 20'		89		34			
20					- stiff below 20'							
					- with silty sand seams and shell fragments from 23' to 25'			96				
25							84		35			
					- brown and gray below 28'			100	38	68	23	45
					- with shell fragments at 30'		81		42			
30						30.0						
35												

SHEAR STRENGTH

□ Penetrometer ▼ Unconfined
◇ Torvane ● Triaxial
△ Field Vane ▲ Miniature Vane

KIPS PER SQ FT

0.5 1.0 1.5 2.0 2.5

NOTES:

1. ▽: Water First Noticed. ▼: Depth To Water after 15 minutes.
2. Terms and symbols defined on Plates 10a and 10b.

DATE: June 7, 2016
TOTAL DEPTH: 30'
CAVED DEPTH: Not Applicable
DRY AUGER: 0' to 12'
WET ROTARY: 12' to 30'
BACKFILL: Cement-Bentonite Grout
LOGGER: M. Allen

Fugro Consultants, Inc.

STRATEGIC PETROLEUM RESERVE

LOG OF BORING NO. B-4

24-INCH BRINE DISPOSAL PIPELINE REPLACEMENT

HACKBERRY, LOUISIANA

Project No. 04.50160005

PLATE 6

FCLC_LOG (FINAL) REV01 04.50160005 - WH BRINE.GPJ FUGRO DATA TEMPLATE 042610.GDT 7/7/16

LOCATION: See Plate 2

COORDINATES: Not Available

SURFACE EL.: Not Available

DEPTH, FT	STRATUM DESCRIPTION	STRATUM DEPTH, FT	UNIT DRY WT, PCF	PASSING NO. 200 SIEVE, %	WATER CONTENT, %	LIQUID LIMIT	PLASTIC LIMIT	PLASTICITY INDEX (PI)
	SILT (ML), dark brown with rootlets, shell fragments, and clay pockets			86				
	FAT CLAY (CH), stiff, brown with sandy silt seams and pockets	2.0		90	24	62	21	41
5	- stiff to very stiff at 6'		104		24			
	SANDY LEAN CLAY (CL), stiff, light brown - with silt pockets to 8'	6.0		69	25	33	18	15
10			102		26			
	FAT CLAY (CH), stiff, light brown	11.0						
	SANDY LEAN CLAY (CL), firm, light brown with silty sand seams and pockets	12.0						
15								
	LEAN CLAY (CL), firm to stiff, light brown with silt seams and pockets	17.0		89	27	34	21	13
20			96		28			
	SANDY SILT (ML), light brown	23.0		58	27	NP	NP	NP
25								
	LEAN CLAY (CL), stiff, gray with silt pockets	27.0						
30		30.0						
35								

SHEAR STRENGTH

□ Penetrometer ▼ Unconfined
◇ Torvane ● Triaxial
△ Field Vane ▲ Miniature Vane

KIPS PER SQ FT

0.5 1.0 1.5 2.0 2.5

3.8 □

NOTES:

1. ▽: Water First Noticed. ▼: Depth To Water after 15 minutes.
2. Terms and symbols defined on Plates 10a and 10b.

DATE: June 1, 2016
TOTAL DEPTH: 30'
CAVED DEPTH: Not Applicable
DRY AUGER: 0' to 12'
WET ROTARY: 12' to 30'
BACKFILL: Cement-Bentonite Grout
LOGGER: M. Allen

Fugro Consultants, Inc.

STRATEGIC PETROLEUM RESERVE

LOG OF BORING NO. B-5

24-INCH BRINE DISPOSAL PIPELINE REPLACEMENT

HACKBERRY, LOUISIANA

Project No. 04.50160005

PLATE 7

FCLC_LOG (FINAL) REV01 04.50160005 - WH BRINE.GPJ FUGRO DATA TEMPLATE 042610.GDT 7/7/16

LOCATION: See Plate 2

COORDINATES: Not Available

SURFACE EL.: Not Available

DEPTH, FT	STRATUM DESCRIPTION	STRATUM DEPTH, FT	BLOWS PER FOOT	UNIT DRY WT, PCF	PASSING NO. 200 SIEVE, %	WATER CONTENT, %	LIQUID LIMIT	PLASTIC LIMIT	PLASTICITY INDEX (PI)
	FAT CLAY (CH), firm, gray and brown								
	- stiff, light brown and light gray with calcareous nodules below 2'				90	27	61	17	44
	- with organic nodules below 4'			101		26			
5									
	LEAN CLAY (CL), firm, light gray with silty sand seams and pockets	6.0				32	33	21	12
				93		32			
	SILTY SAND (SM), medium-dense, brown	8.0	N=12		21				
10	- loose, with sandy clay seams and pockets below 10'		N=10						
	CLAYEY SAND (SC), brown and gray with silty sand seams and pockets	12.0			63				
	LEAN CLAY (CL), firm to stiff, brown and gray	14.0			95	28	42	19	23
15	- with silty sand seams and pockets to 16'			97		25			
	- brown with silt laminations below 18'								
20									
	SANDY LEAN CLAY (CL), firm to stiff, brown with silty sand pockets and shell fragments	22.0				25	31	18	13
25				95		28			
	FAT CLAY (CH), stiff, brown with silt laminations	27.0							
30		30.0							
35									

SHEAR STRENGTH

□ Penetrometer ▼ Unconfined
◇ Torvane ● Triaxial
△ Field Vane ▲ Miniature Vane

KIPS PER SQ FT

0.5 1.0 1.5 2.0 2.5

NOTES:

1. Terms and symbols defined on Plates 10a and 10b.
2. Water was encountered at the surface of the boring at the time of field exploration.

DATE: June 1, 2016
TOTAL DEPTH: 30'
CAVED DEPTH: Not Applicable
DRY AUGER: Not Applicable
WET ROTARY: 0' to 30'
BACKFILL: Cement-Bentonite Grout
LOGGER: M. Allen

Fugro Consultants, Inc.

STRATEGIC PETROLEUM RESERVE

LOG OF BORING NO. B-6

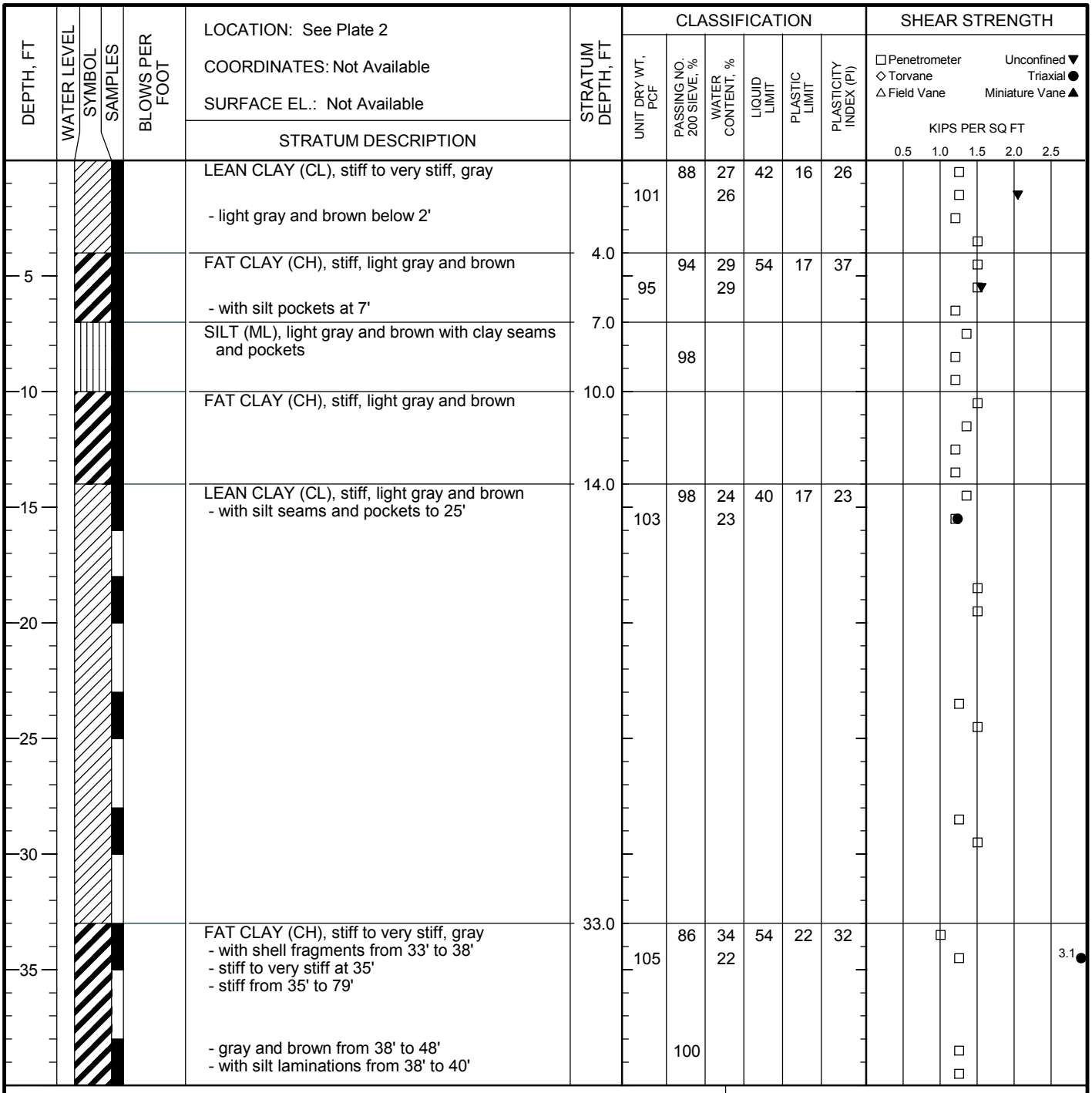
24-INCH BRINE DISPOSAL PIPELINE REPLACEMENT

HACKBERRY, LOUISIANA

Project No. 04.50160005

PLATE 8

FCLC_LOG (FINAL) REV01 04.50160005 - WH BRINE.GPJ FUGRO DATA TEMPLATE 042610.GDT 7/7/16



NOTES:

1. Terms and symbols defined on Plates 10a and 10b.
2. The water depth encountered at the boring location was on the order of 0.5-ft above the existing mudline at the time of field exploration.

DATE: May 31, 2016
TOTAL DEPTH: 100'
CAVED DEPTH: Not Applicable
DRY AUGER: Not Applicable
WET ROTARY: 0' to 100'
BACKFILL: Cement-Bentonite Grout
LOGGER: M. Allen

Fugro Consultants, Inc.

STRATEGIC PETROLEUM RESERVE

LOG OF BORING NO. B-7

24-INCH BRINE DISPOSAL PIPELINE REPLACEMENT

HACKBERRY, LOUISIANA

Project No. 04.50160005

PLATE 9a

FCLC_LOG (FINAL) REV01 04.50160005 - WH BRINE.GPJ FUGRO DATA TEMPLATE 042610.GDT 7/7/16

LOCATION: See Plate 2

COORDINATES: Not Available

SURFACE EL.: Not Available

DEPTH, FT	WATER LEVEL	SYMBOL	SAMPLES	BLOWS PER FOOT	STRATUM DESCRIPTION	STRATUM DEPTH, FT	CLASSIFICATION: UNIT DRY WT, PCF	PASSING NO. 200 SIEVE, %	WATER CONTENT, %	LIQUID LIMIT	PLASTIC LIMIT	PLASTICITY INDEX (PI)	SHEAR STRENGTH
					FAT CLAY (CH), stiff, gray and brown								
45													
					- light gray from 48' to 63'								
50													
55							100	97	25	54	18	36	
					- slickensided below 58'								
60													
					- light gray and light brown from 63' to 83'								
65													
70													
75													
					- very stiff at 79'								
					- stiff from 79' to 89'								

SHEAR STRENGTH: □ Penetrometer ▼ Unconfined; ◇ Torvane ● Triaxial; △ Field Vane ▲ Miniature Vane

KIPS PER SQ FT: 0.5 1.0 1.5 2.0 2.5

NOTES:

1. Terms and symbols defined on Plates 10a and 10b.
2. The water depth encountered at the boring location was on the order of 0.5-ft above the existing mudline at the time of field exploration.

DATE: May 31, 2016
TOTAL DEPTH: 100'
CAVED DEPTH: Not Applicable
DRY AUGER: Not Applicable
WET ROTARY: 0' to 100'
BACKFILL: Cement-Bentonite Grout
LOGGER: M. Allen

Fugro Consultants, Inc.

STRATEGIC PETROLEUM RESERVE

LOG OF BORING NO. B-7

24-INCH BRINE DISPOSAL PIPELINE REPLACEMENT

HACKBERRY, LOUISIANA

Project No. 04.50160005

PLATE 9b

FCLC_LOG (FINAL) REV01 04.50160005 - WH BRINE.GPJ FUGRO DATA TEMPLATE 042610.GDT 7/7/16

LOCATION: See Plate 2

COORDINATES: Not Available

SURFACE EL.: Not Available

DEPTH, FT	WATER LEVEL	SYMBOL	SAMPLES	BLOWS PER FOOT	STRATUM DESCRIPTION	STRATUM DEPTH, FT	CLASSIFICATION: UNIT DRY WT, PCF	PASSING NO. 200 SIEVE, %	WATER CONTENT, %	LIQUID LIMIT	PLASTIC LIMIT	PLASTICITY INDEX (PI)	SHEAR STRENGTH
					FAT CLAY (CH), stiff, light gray and light brown								
					- gray and brown from 83' to 93'								
85													
								99	36	77	27	50	
					- stiff to very stiff at 90'		82		40				
90					- very stiff below 90'								
					- gray below 93'								
95													
100						100.0							
105													
110													
115													

SHEAR STRENGTH

□ Penetrometer ▼ Unconfined
◇ Torvane ● Triaxial
△ Field Vane ▲ Miniature Vane

KIPS PER SQ FT

0.5 1.0 1.5 2.0 2.5

NOTES:

1. Terms and symbols defined on Plates 10a and 10b.
2. The water depth encountered at the boring location was on the order of 0.5-ft above the existing mudline at the time of field exploration.

DATE: May 31, 2016
TOTAL DEPTH: 100'
CAVED DEPTH: Not Applicable
DRY AUGER: Not Applicable
WET ROTARY: 0' to 100'
BACKFILL: Cement-Bentonite Grout
LOGGER: M. Allen

Fugro Consultants, Inc.

STRATEGIC PETROLEUM RESERVE

LOG OF BORING NO. B-7

24-INCH BRINE DISPOSAL PIPELINE REPLACEMENT

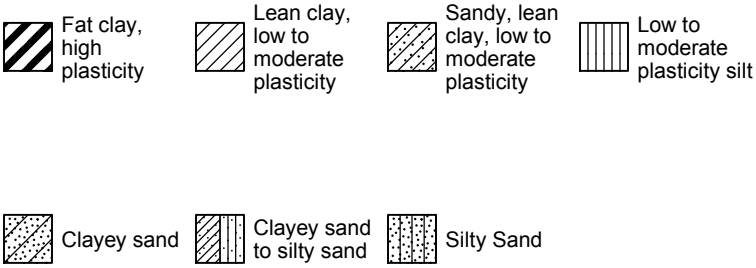
HACKBERRY, LOUISIANA

Project No. 04.50160005

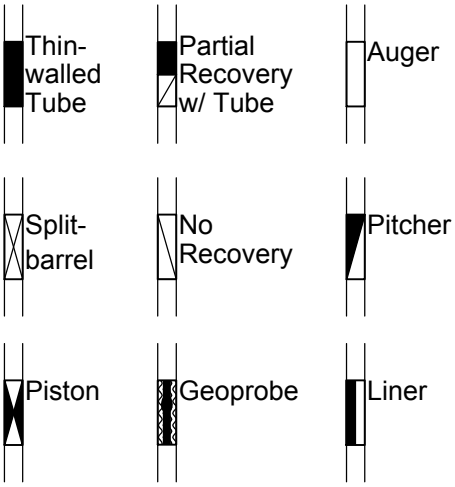
PLATE 9c

FCLC_LOG (FINAL) REV01 04.50160005 - WH BRINE.GPJ FUGRO DATA TEMPLATE 042610.GDT 7/7/16

SOIL TYPES

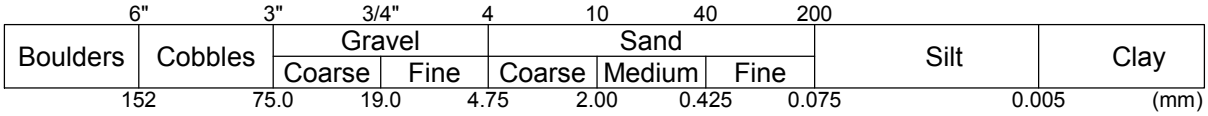


SAMPLER TYPES

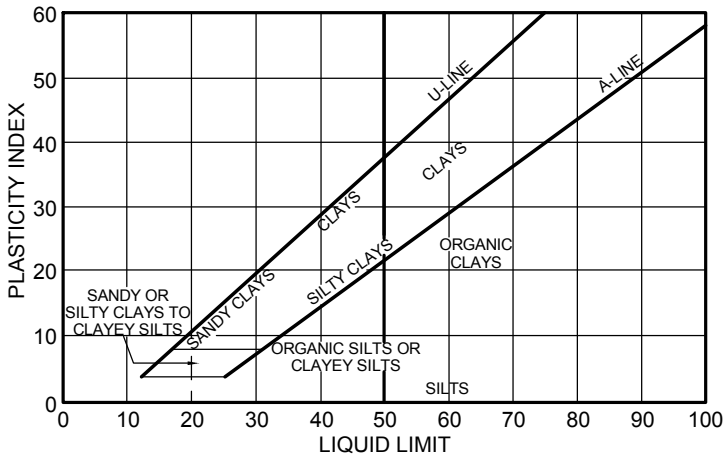


SOIL GRAIN SIZE

U.S. Standard Sieve



PLASTICITY CHART



SOIL STRUCTURE

Slickensided	Having planes of weakness that appear slick and glossy.
Fissured	Containing shrinkage or relief cracks, often filled with fine sand or silt; usually more or less vertical.
Pocket	Inclusion of material of different texture that is smaller than the diameter of the sample.
Parting	Inclusion less than 1/8 inch thick extending through the sample.
Seam	Inclusion 1/8 inch to 3 inches thick extending through the sample.
Layer	Inclusion greater than 3 inches thick extending through the sample.
Laminated	Soil sample composed of alternating partings or seams of different soil type.
Interlayered	Soil sample composed of alternating layers of different soil type.
Intermixed	Soil sample composed of pockets of different soil type and layered or laminated structure is not evident.
Calcareous	Having appreciable quantities of carbonate.
Carbonate	Having more than 50% carbonate content.

STANDARD PENETRATION TEST (SPT)

A 2-in.-OD, 1-3/8-ID split spoon sampler is driven 1.5 ft into undisturbed soil with a 140-pound hammer free falling 30 in. After the sampler is seated 6 in. into undisturbed soil, the number of blows required to drive the sampler the last 12 in. is the Standard Penetration Resistance or "N" value, which is recorded as blows per foot as described below.

SPLIT-BARREL SAMPLER DRIVING RECORD

Blows Per Foot	Description
25	25 blows drove sampler 12 inches, after initial 6 inches of seating.
50/7"	50 blows drove sampler 7 inches, after initial 6 inches of seating.
Ref/3"	50 blows drove sampler 3 inches during initial 6-inch seating interval.

NOTE: To avoid damage to sampling tools, driving is limited to 50 blows during or after seating interval.

DENSITY OF GRANULAR SOILS

Descriptive Term	*Relative Density, %	**Blows Per Foot (SPT)
Very Loose	< 15	0 to 4
Loose	15 to 35	5 to 10
Medium Dense	35 to 65	11 to 30
Dense	65 to 85	31 to 50
Very Dense	> 85	> 50

*Estimated from sampler driving record.

**Requires correction for depth, groundwater level, and grain size.

STRENGTH OF COHESIVE SOILS

Term	Undrained Shear Strength, ksf	Blows Per Foot (SPT) (approximate)
Very Soft	< 0.25	0 to 2
Soft	0.25 to 0.50	2 to 4
Firm	0.50 to 1.00	4 to 8
Stiff	1.00 to 2.00	8 to 16
Very Stiff	2.00 to 4.00	16 to 32
Hard	> 4.00	> 32

SHEAR STRENGTH TEST METHOD

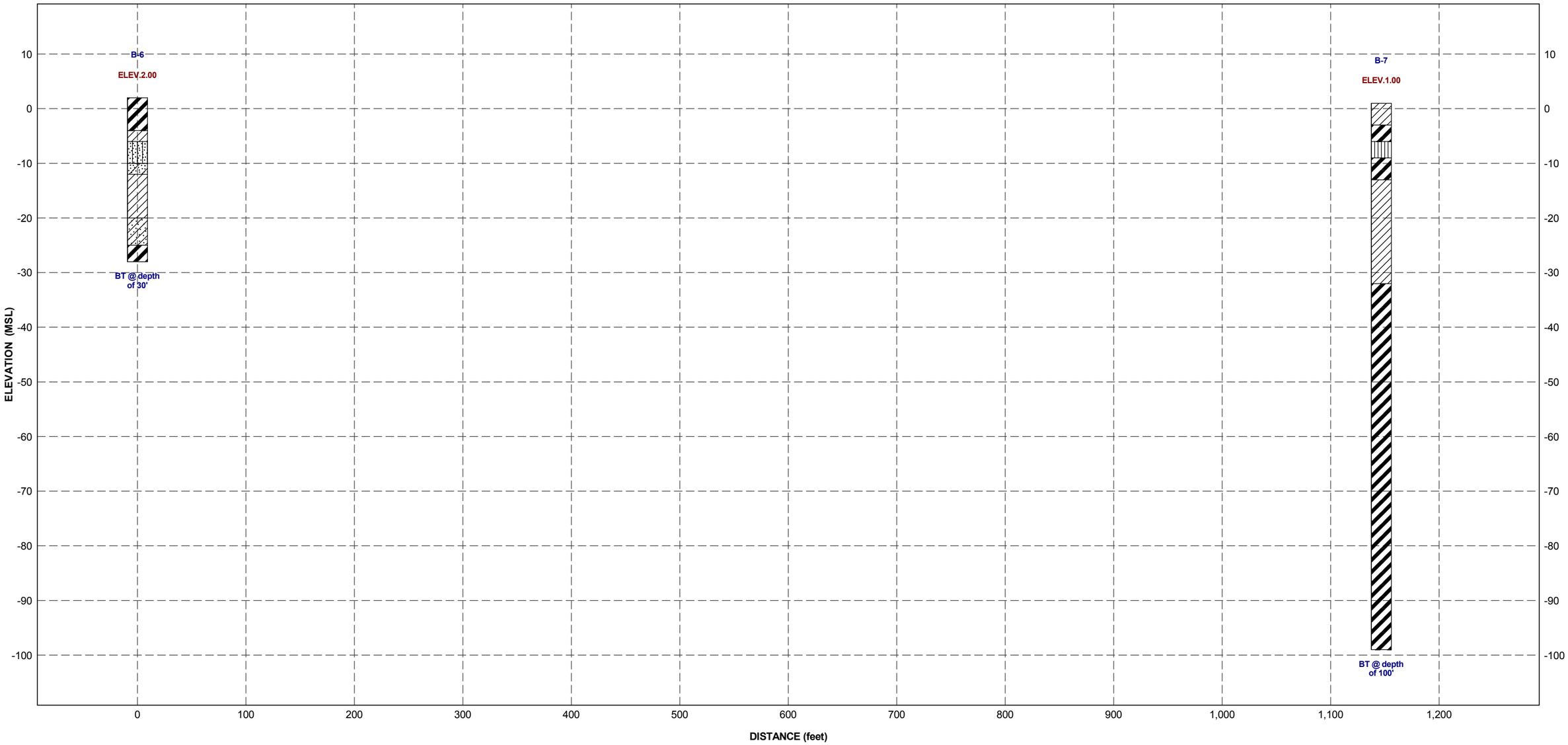
U = Unconfined Q = Unconsolidated - Undrained Triaxial

P = Pocket Penetrometer T = Torvane V = Miniature Vane F = Field Vane

HAND PENETROMETER CORRECTION

Our experience has shown that the hand penetrometer generally overestimates the in-situ undrained shear strength of over consolidated Pleistocene Gulf Coast clays. These strengths are partially controlled by the presence of macroscopic soil defects such as slickensides, which generally do not influence smaller scale tests like the hand penetrometer. Based on our experience, we have adjusted these field estimates of the undrained shear strength of natural, overconsolidated Pleistocene Gulf Coast soils by multiplying the measured penetrometer reading by a factor of 0.6. These adjusted strength estimates are recorded in the "Shear Strength" column on the boring logs. Except as described in the text, we have not adjusted estimates of the undrained shear strength for projects located outside of the Pleistocene Gulf Coast formations.

Information on each boring log is a compilation of subsurface conditions and soil or rock classifications obtained from the field as well as from laboratory testing of samples. Strata have been interpreted by commonly accepted procedures. The stratum lines on the logs may be transitional and approximate in nature. Water level measurements refer only to those observed at the time and places indicated, and can vary with time, geologic condition, or construction activity.



Note: Elevations estimated based on topographic information from Google Earth.

LITHOLOGY GRAPHICS

- Fat clay, high plasticity
- Lean clay, low to moderate plasticity
- Sandy, lean clay, low to moderate plasticity
- Low to moderate plasticity silt
- Clayey sand
- Clayey sand to silty sand
- Silty Sand

FUGRO

STRATEGIC PETROLEUM RESERVE

24-INCH BRINE DISPOSAL PIPELINE REPLACEMENT

HACKBERRY, LOUISIANA

GENERALIZED SUBSURFACE PROFILE A-A (BORINGS B-6 AND B-7)

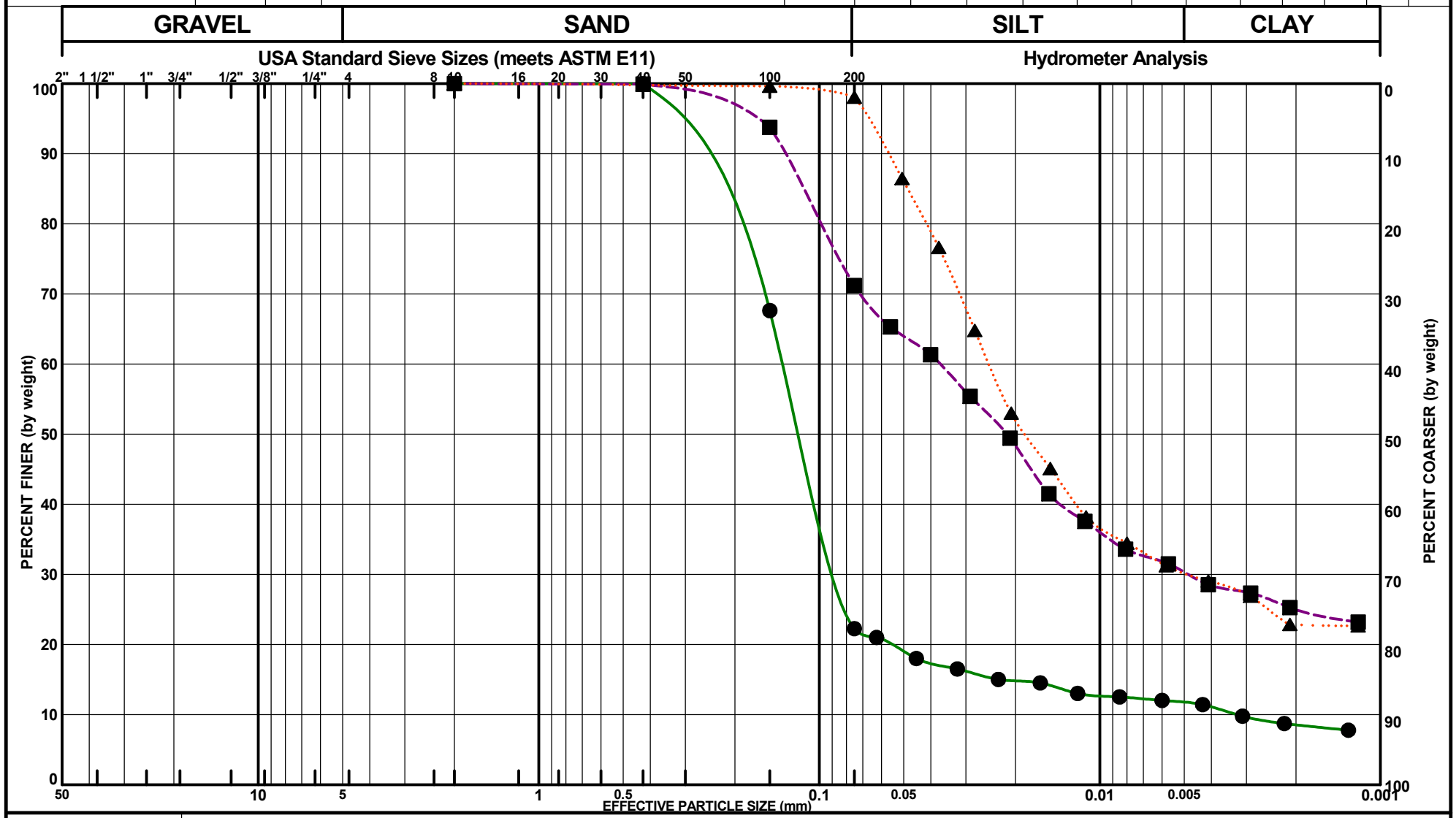
PROJECT NO. 04.50160005

SCALE	Drawn by:	Checked by:	Date:	
AS SHOWN	T. Whitley	M. Hollier	7/1/2016	PLATE 11

FCBR CPT AND BOREHOLE DATA 11X17 04.50160005 - WH BRINE.GPJ FUGRO DATA TEMPLATE 042610.GDT 7/1/16

APPENDIX A

Boring Number	Sample Number	Depth (ft)	Material Description	%Gravel	%Sand	%Silt	%Clay	D100	D60	D30	D10	Cc	Cu	LL	PL	PI
● B-1	8	8.5-10	SILTY CLAYEY SAND (SC-SM), light brown	0.0	77.7	10.6	11.7	2	0.134	0.084	0.003	16.47	41.21			
■ B-1	12	18.5-20	SILT with sand (ML), light brown with clay seams and pockets	0.0	28.8	40.9	30.3	2	0.037	0.005						
▲ B-2	13	12-13	SILT (ML), light brown with clay seams	0.0	1.9	67.8	30.3	2	0.025	0.005						



FCBR GSA LANDSCAPE 04.50160005 - WH BRINE.GPJ FUGRO DATA TEMPLATE 042610.GDT 7/1/16

Fugro Consultants, Inc

STRATEGIC PETROLEUM RESERVE

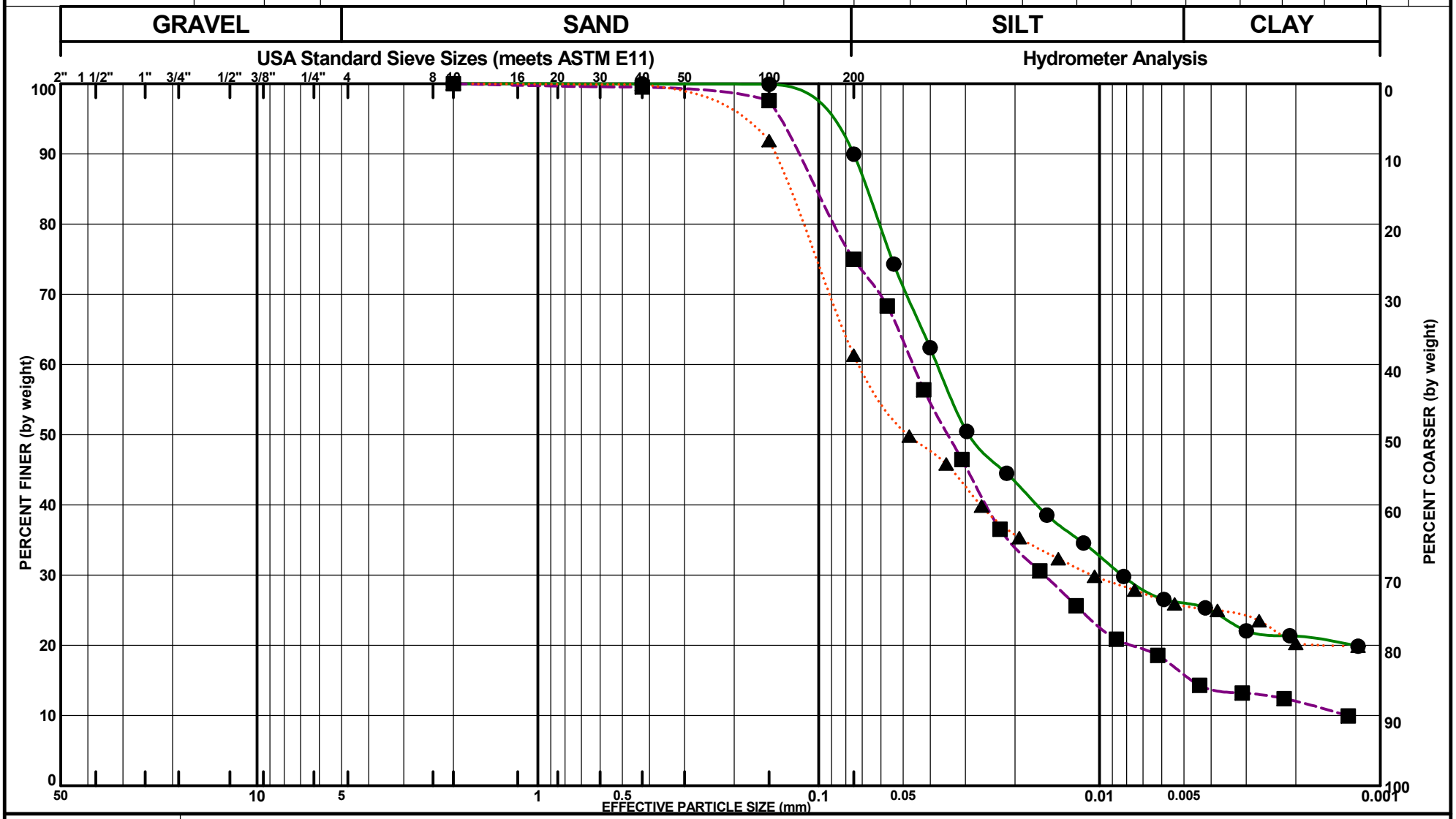
HACKBERRY, LOUISIANA

PARTICLE-SIZE ANALYSIS

ASTM D422

Tested By:	Date Tested:	Reviewed By:	Date Reviewed:	Project No.	
Gene Lindsey	6/17/2016	Gene Lindsey	6/23/2016	04.50160005	PLATE A-1

Boring Number	Sample Number	Depth (ft)	Material Description	%Gravel	%Sand	%Silt	%Clay	D100	D60	D30	D10	Cc	Cu	LL	PL	PI
● B-2	17	18-19	SILT (ML), light brown and light gray with clay seams and pockets	0.0	10.0	64.0	25.9	2	0.038	0.008						
■ B-3	1	0-1	SILT with sand (ML), light brown	0.0	25.0	59.1	15.9	2	0.046	0.016	0.001	4.06	35.02			
▲ B-3	9	8.5-10	SILTY SAND (SM), brown	0.0	38.7	35.6	25.7	2	0.071	0.011						



FUGRO
Fugro Consultants, Inc

STRATEGIC PETROLEUM RESERVE

HACKBERRY, LOUISIANA

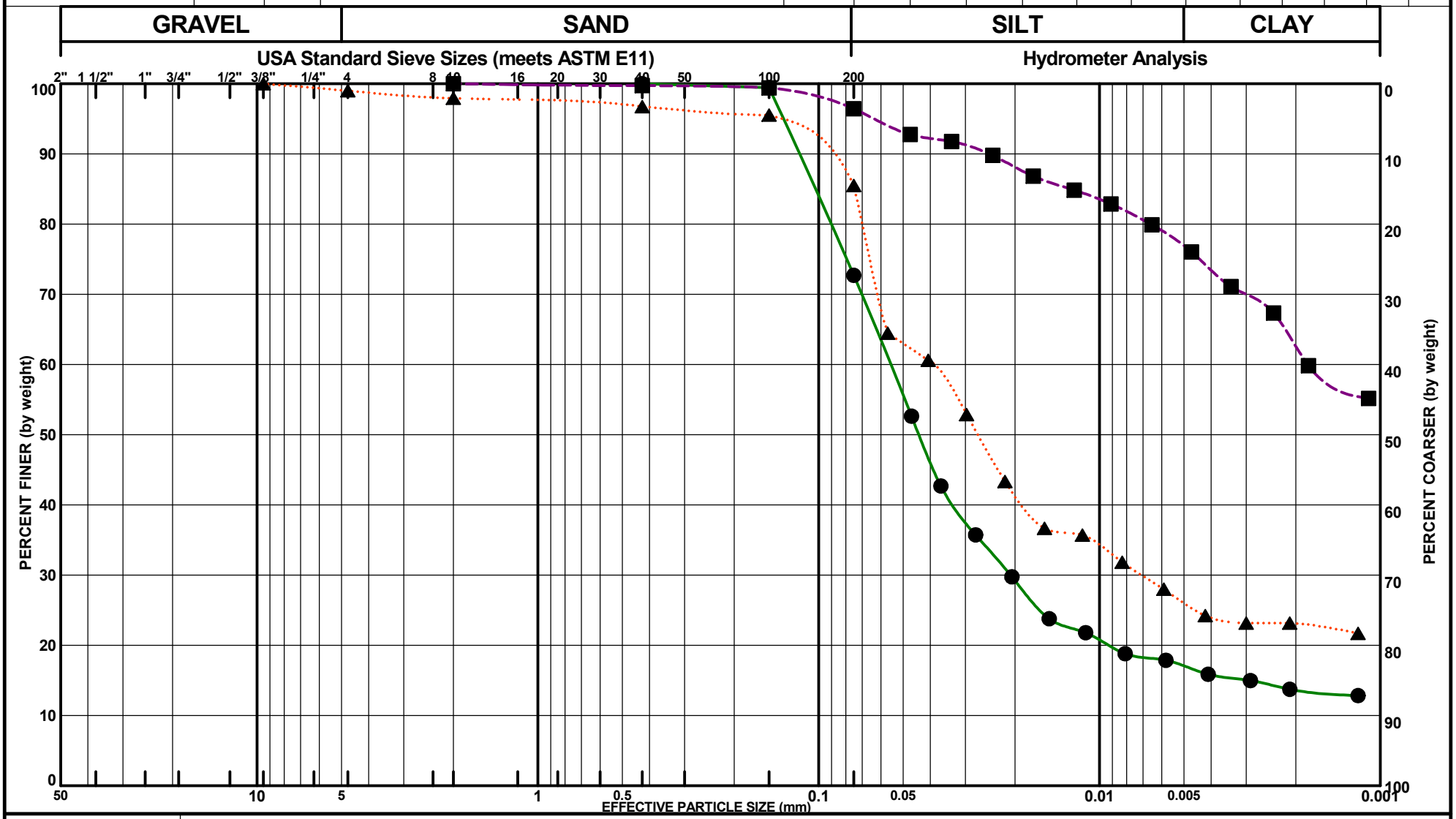
PARTICLE-SIZE ANALYSIS

ASTM D422

Tested By:	Date Tested:	Reviewed By:	Date Reviewed:	Project No.	
Judy Clayton	6/20/2016	Gene Lindsey	6/23/2016	04.50160005	PLATE A-2

FCBR GSA LANDSCAPE 04.50160005 - WH BRINE.GPJ FUGRO DATA TEMPLATE 042610.GDT 7/1/16

Boring Number	Sample Number	Depth (ft)	Material Description	%Gravel	%Sand	%Silt	%Clay	D100	D60	D30	D10	Cc	Cu	LL	PL	PI
● B-4	10	10.5-12	SILT with sand (ML), light brown with sandy clay seams	0.0	27.3	55.7	17.0	0.425	0.056	0.021						
■ B-4	17	23-24	FAT CLAY (CH), brown	0.0	3.6	19.6	76.8	2	0.002							
▲ B-5	1	0-1	SILT (ML), dark brown with shell fragments and clay pockets	1.0	13.5	59.4	26.2	9.5	0.04	0.007						



FCBR GSA LANDSCAPE 04.50160005 - WH BRINE.GPJ FUGRO DATA TEMPLATE 042610.GDT 7/1/16

Fugro Consultants, Inc

STRATEGIC PETROLEUM RESERVE

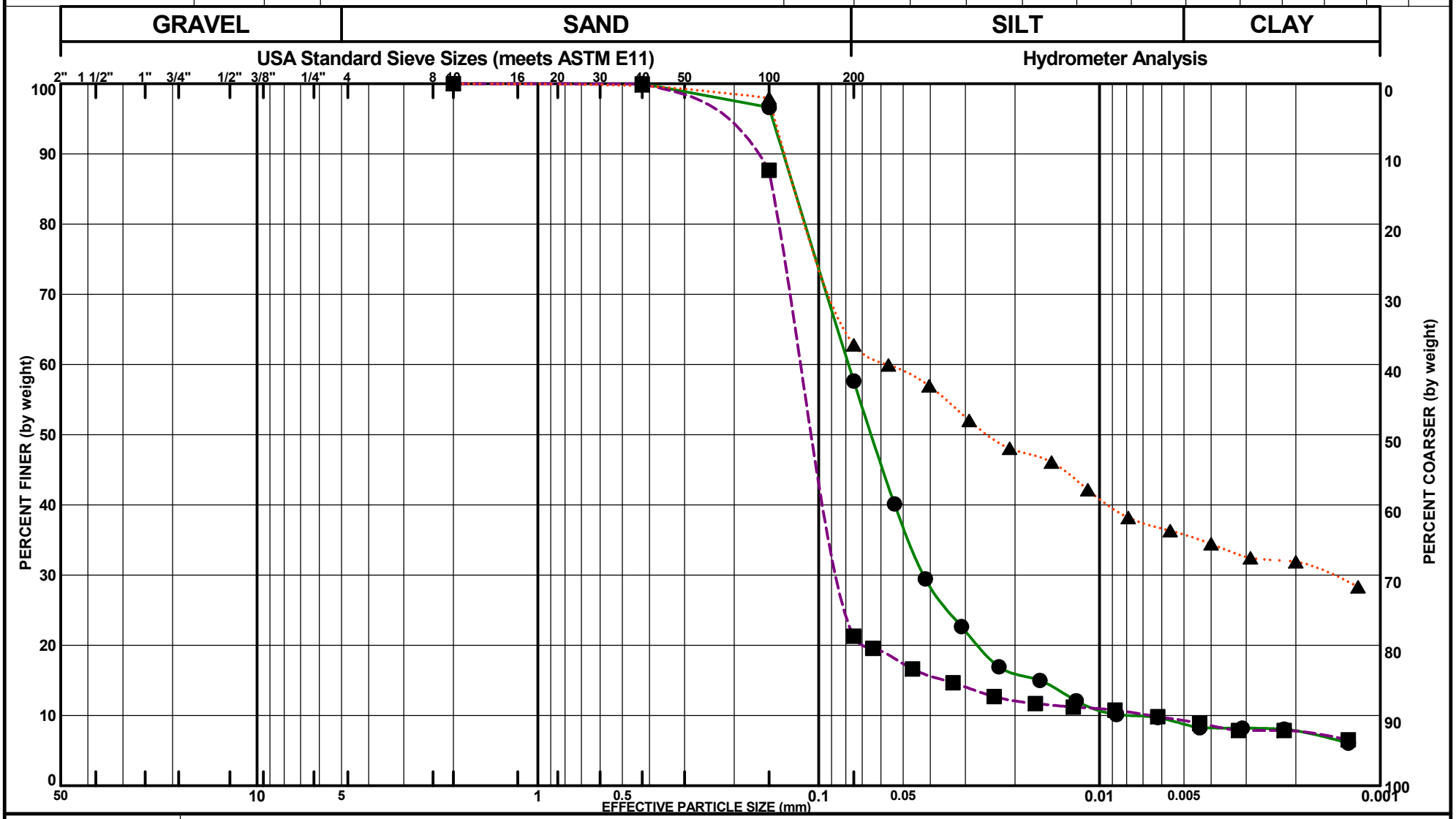
HACKBERRY, LOUISIANA

PARTICLE-SIZE ANALYSIS

ASTM D422

Tested By:	Date Tested:	Reviewed By:	Date Reviewed:	Project No.	
Judy Clayton	6/22/2016	Gene Lindsey	6/23/2016	04.50160005	PLATE A-3

Boring Number	Sample Number	Depth (ft)	Material Description	%Gravel	%Sand	%Silt	%Clay	D100	D60	D30	D10	Cc	Cu	LL	PL	PI
● B-5	18	24-25	SANDY SILT (ML), light brown	0.0	42.4	48.9	8.8	0.425	0.078	0.042	0.008	2.93	10.05	NP	NP	NP
■ B-6	9	8.5-10	SILTY SAND (SM), brown	0.0	78.7	12.1	9.2	2	0.112	0.082	0.007	9.11	17.04			
▲ B-6	11	12-13	CLAYEY SAND (SC), brown and gray	0.0	37.2	27.1	35.7	2	0.057	0.002						



FCBR GSA LANDSCAPE 04.50160005 - WH BRINE.GPJ FUGRO DATA TEMPLATE 042610.GDT 7/1/16

Fugro Consultants, Inc

STRATEGIC PETROLEUM RESERVE

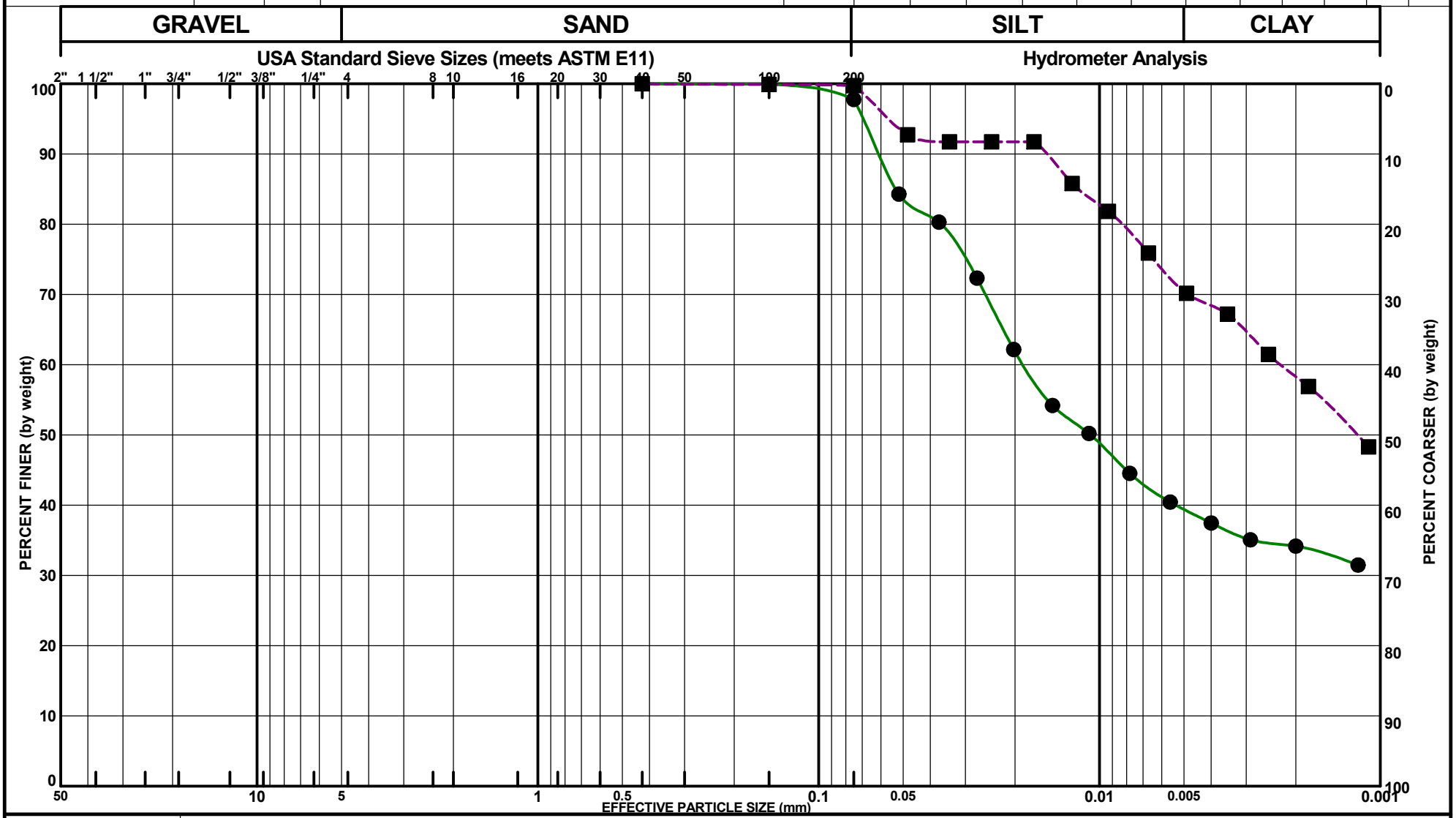
HACKBERRY, LOUISIANA

PARTICLE-SIZE ANALYSIS

ASTM D422

Tested By:	Date Tested:	Reviewed By:	Date Reviewed:	Project No.	
Judy Clayton	6/20/2016	Gene Lindsey	6/23/2016	04.50160005	PLATE A-4

Boring Number	Sample Number	Depth (ft)	Material Description	%Gravel	%Sand	%Silt	%Clay	D100	D60	D30	D10	Cc	Cu	LL	PL	PI
● B-7	9	8-9	SILT (ML), light gray and brown with clay seams and pockets	0.0	2.2	58.3	39.4	0.425	0.019							
■ B-7	25	38-39	FAT CLAY (CH), gray and brown	0.0	0.3	29.2	70.5	0.425	0.002							
▲																



FCBR GSA LANDSCAPE 04.50160005 - WH BRINE.GPJ FUGRO DATA TEMPLATE 042610.GDT 7/1/16

Fugro Consultants, Inc

STRATEGIC PETROLEUM RESERVE

HACKBERRY, LOUISIANA

PARTICLE-SIZE ANALYSIS

ASTM D422

Tested By:	Date Tested:	Reviewed By:	Date Reviewed:	Project No.	
Judy Clayton	6/20/2016	Gene Lindsey	6/23/2016	04.50160005	PLATE A-5

APPENDIX B

Boring ID	Depth (ft)	Material Description	pH	Ion Concentration (ppm)		Electrical Resistivity (ohm-cm)
				Chloride	Sulfate	
B-1	5-6	Fat Clay with sand (CH)	5.5	< 100*	< 100*	2,676
B-2	3-4	Lean Clay with sand (CL)	7.3	230*	177*	825
B-3	19-20	Fat Clay (CH)	8.0	< 100*	112*	1,424
B-4	5-6	Fat Clay with sand (CH)	7.1	< 100*	< 100*	1,643
B-4	15-16	Fat Clay (CH)	7.9	< 100*	106*	1,424
B-5	1-2	Silt (ML)	6.6	< 100*	< 100*	2,599
B-5	29-30	Lean Clay (CL)	8.3	< 100*	< 100*	2,582
B-6	29-30	Fat Clay (CH)	7.8	< 100*	676*	651
B-7	3-4	Lean Clay (CL)	7.2	790*	786*	328
B-7	74-75	Fat Clay (CH)	7.7	149*	< 100*	925

* Results based on dry weight.

LABORATORY SOIL CHEMICAL ANALYSES AND ELECTRICAL RESISTIVITY TESTS
24-INCH BRINE DISPOSAL PIPELINE REPLACEMENT
STRATEGIC PETROLEUM RESERVE
HACKBERRY, LOUISIANA

PLATE B-1

APPENDIX C

Generalized Soil Parameters (Boring B-1)

Depth (ft)	Material Description	Unit Weight (pcf)	Buoyant Unit Weight (pcf)	Cohesion (psf)	Friction Angle (degrees)	Shear Modulus[(1)] (psf)
0 to 2	Silt (ML)	120	58	-	20	437,900
2 to 6	Fat Clay with sand (CH)	119	57	1,200 to 1,500	-	400,000
6 to 8	Sandy Lean Clay (CL)	135	73	700 to 1,000	-	1,020,000
8 to 17	Silty Clayey Sand (SC-SM)	120	58	-	25	1,623,000
17 to 27	Silt with sand (ML)	120	58	-	20	1,557,000
27 to 30	Silty Sand (SM)	120	58	-	25	1,974,000

Notes:
1) In order to calculate estimated shear modulus values, we used Table 6-5 (P.234) and Table 6-6 (P. 235) from *Geotechnical Earthquake Engineering (Kramer, Steven L., 1996, Prentice-Hall, Inc.)*. For the clayey soils, we used an average cohesion based on our ranges of values, and we assumed an Overconsolidation Ratio (OCR) of about 1.0.

GENERALIZED SOIL PARAMETERS (BORING B-1)
24-INCH BRINE DISPOSAL PIPELINE REPLACEMENT
STRATEGIC PETROLEUM RESERVE
HACKBERRY, LOUISIANA

Generalized Soil Parameters (Boring B-2)

Depth (ft)	Material Description	Unit Weight (pcf)	Buoyant Unit Weight (pcf)	Cohesion (psf)	Friction Angle (degrees)	Shear Modulus[(1)] (psf)
0 to 12	Lean Clay with sand (CL)	132	70	500 to 1,700	-	990,000
12 to 14	Silt (ML)	120	58	-	20	1,302,200
14 to 17	Sandy Lean Clay (CL)	124	62	500 to 1,500	-	1,125,000
17 to 22	Silt (ML)	120	58	-	20	1,498,800
22 to 30	Fat Clay with sand (CH)	120	58	1,200 to 1,500	-	776,250

Notes:
1) In order to calculate estimated shear modulus values, we used Table 6-5 (P.234) and Table 6-6 (P. 235) from *Geotechnical Earthquake Engineering (Kramer, Steven L., 1996, Prentice-Hall, Inc.)*. For the clayey soils, we used an average cohesion based on our ranges of values, and we assumed an Overconsolidation Ratio (OCR) of about 1.0.

GENERALIZED SOIL PARAMETERS (BORING B-2)
24-INCH BRINE DISPOSAL PIPELINE REPLACEMENT
STRATEGIC PETROLEUM RESERVE
HACKBERRY, LOUISIANA

Generalized Soil Parameters (Boring B-3)

Depth (ft)	Material Description	Unit Weight (pcf)	Buoyant Unit Weight (pcf)	Cohesion (psf)	Friction Angle (degrees)	Shear Modulus[(1)] (psf)
0 to 2	Silt with sand (ML)	120	58	-	20	437,900
2 to 8	Fat Clay with sand (CH)	130	68	1,200 to 1,700	-	652,500
8 to 12	Silty Sand (SM)	120	58	-	25	1,228,000
12 to 14	Sandy Silt (ML)	120	58	-	20	1,223,000
14 to 17	Silty Sand (SM)	120	58	-	25	1,561,400
17 to 30	Fat Clay (CH)	120	58	1,400 to 1,700	-	465,000

Notes:
1) In order to calculate estimated shear modulus values, we used Table 6-5 (P.234) and Table 6-6 (P. 235) from *Geotechnical Earthquake Engineering (Kramer, Steven L., 1996, Prentice-Hall, Inc.)*. For the clayey soils, we used an average cohesion based on our ranges of values, and we assumed an Overconsolidation Ratio (OCR) of about 1.0.

GENERALIZED SOIL PARAMETERS (BORING B-3)
24-INCH BRINE DISPOSAL PIPELINE REPLACEMENT
STRATEGIC PETROLEUM RESERVE
HACKBERRY, LOUISIANA

Generalized Soil Parameters (Boring B-4)

Depth (ft)	Material Description	Unit Weight (pcf)	Buoyant Unit Weight (pcf)	Cohesion (psf)	Friction Angle (degrees)	Shear Modulus[(1)] (psf)
0 to 2	Lean Clay (CL)	127	65	500 to 1,000	-	525,000
2 to 6	Fat Clay with sand (CH)	126	64	1,000 to 2,200	-	600,000
6 to 10	Sandy Lean Clay (CL)	127	65	500 to 1,200	-	935,000
10 to 12	Silt with sand (ML)	120	58	-	20	941,300
12 to 30	Fat Clay (CH)	116	54	1,000 to 2,100		697,500

Notes:
1) In order to calculate estimated shear modulus values, we used Table 6-5 (P.234) and Table 6-6 (P. 235) from *Geotechnical Earthquake Engineering (Kramer, Steven L., 1996, Prentice-Hall, Inc.)*. For the clayey soils, we used an average cohesion based on our ranges of values, and we assumed an Overconsolidation Ratio (OCR) of about 1.0.

GENERALIZED SOIL PARAMETERS (BORING B-4)
24-INCH BRINE DISPOSAL PIPELINE REPLACEMENT
STRATEGIC PETROLEUM RESERVE
HACKBERRY, LOUISIANA

Generalized Soil Parameters (Boring B-5)

Depth (ft)	Material Description	Unit Weight (pcf)	Buoyant Unit Weight (pcf)	Cohesion (psf)	Friction Angle (degrees)	Shear Modulus[(1)] (psf)
0 to 2	Silt (ML)	120	58	-	20	437,800
2 to 6	Fat Clay (CH)	129	67	1,200 to 2,100	-	742,500
6 to 11	Sandy Lean Clay (CL)	129	67	1,000 to 1,500	-	1,375,000
11 to 12	Fat Clay (CH)	129	67	1,000	-	450,000
12 to 23	Sandy Lean Clay (CL) and Lean Clay (CL)	122	60	500 to 1,500	-	1,100,000
23 to 27	Sandy Silt (ML)	120	58	-	20	1,760,000
27 to 30	Lean Clay (CL)	122	60	1,000	-	1,100,000

Notes:
1) In order to calculate estimated shear modulus values, we used Table 6-5 (P.234) and Table 6-6 (P. 235) from *Geotechnical Earthquake Engineering (Kramer, Steven L., 1996, Prentice-Hall, Inc.)*. For the clayey soils, we used an average cohesion based on our ranges of values, and we assumed an Overconsolidation Ratio (OCR) of about 1.0.

GENERALIZED SOIL PARAMETERS (BORING B-5)
24-INCH BRINE DISPOSAL PIPELINE REPLACEMENT
STRATEGIC PETROLEUM RESERVE
HACKBERRY, LOUISIANA

PLATE C-5

Generalized Soil Parameters (Boring B-6)						
Depth (ft)	**Material Description**	**Unit Weight (pcf)**	**Buoyant Unit Weight (pcf)**	**Cohesion (psf)**	**Friction Angle (degrees)**	**Shear Modulus[(1)] (psf)**
0 to 6	Fat Clay (CH)	127	65	500 to 1,500	-	450,000
6 to 8	Lean Clay (CL)	123	61	500 to 900	-	715,000
8 to 14	Silty Sand (SM) and Clayey Sand (SC)	120	58	-	25	1,164,400
14 to 22	Lean Clay (CL)	121	59	1,000 to 1,600	-	910,000
22 to 27	Sandy Lean Clay (CL)	122	60	500 to 1,000	-	825,000
27 to 30	Fat Clay (CH)	120	58	1,500 to 1,600	-	697,500

Notes:
1) In order to calculate estimated shear modulus values, we used Table 6-5 (P.234) and Table 6-6 (P. 235) from *Geotechnical Earthquake Engineering (Kramer, Steven L., 1996, Prentice-Hall, Inc.)*. For the clayey soils, we used an average cohesion based on our ranges of values, and we assumed an Overconsolidation Ratio (OCR) of about 1.0.

GENERALIZED SOIL PARAMETERS (BORING B-6)
24-INCH BRINE DISPOSAL PIPELINE REPLACEMENT
STRATEGIC PETROLEUM RESERVE
HACKBERRY, LOUISIANA

PLATE C-6

Generalized Soil Parameters (Boring B-7)						
Depth (ft)	**Material Description**	**Unit Weight (pcf)**	**Buoyant Unit Weight (pcf)**	**Cohesion (psf)**	**Friction Angle (degrees)**	**Shear Modulus[(1)] (psf)**
0 to 4	Lean Clay (CL)	127	65	1,200 to 2,000	-	1,120,000
4 to 7	Fat Clay (CH)	123	60	1,200 to 1,500	-	607,500
7 to 10	Silt (ML)	120	58	-	20	1,276,600
10 to 14	Fat Clay (CH)	123	58	1,200 to 1,500	-	607,500
14 to 33	Lean Clay (CL)	127	65	1,200 to 1,500	-	945,000
33 to 100	Fat Clay (CH)	122	60	1,200 to 2,200	-	510,000

Notes:
1) In order to calculate estimated shear modulus values, we used Table 6-5 (P.234) and Table 6-6 (P. 235) from *Geotechnical Earthquake Engineering (Kramer, Steven L., 1996, Prentice-Hall, Inc.)*. For the clayey soils, we used an average cohesion based on our ranges of values, and we assumed an Overconsolidation Ratio (OCR) of about 1.0.

GENERALIZED SOIL PARAMETERS (BORING B-7)
24-INCH BRINE DISPOSAL PIPELINE REPLACEMENT
STRATEGIC PETROLEUM RESERVE
HACKBERRY, LOUISIANA

PLATE C-7

APPENDIX D

SUPPORTING DOCUMENTATION

Floodplain Statement of Findings

Floodplain Statement of Findings

This Floodplain Statement of Findings summarizes the potential impacts of the proposed brine disposal pipeline replacement project on floodplains with the project area which were analyzed in in accordance with 10 CFR 1022.13 and the steps to be taken to minimize potential harm to or within the associated floodplain areas.

According to the Federal Emergency Management Agency (FEMA), Flood Insurance Rate Map, FIRM Panel Number 22023C0375H, dated 2012, all but six areas of the proposed brine disposal pipeline ROW are designated within the 1% Annual Chance Flood Hazard of the Gulf Intracoastal Waterway floodplain (see Appendix A, Exhibit 6 – Floodplain Map). Land within the 1% Annual Chance Flood Hazard refers to areas determined to be in special flood hazard inundated by the 100-year flood. Four areas are located in areas within the 0.2% Annual Chance Flood Hazard (500-year floodplain) and two areas are determined to be outside of the 500-year floodplain. Cameron Parish is a participant in the National Flood Insurance Program.

The majority of the proposed project area is located within the 100-year floodplain of the Gulf Intracoastal Waterway. The proposed brine disposal pipeline generally follows the alignment of the existing brine disposal pipeline. Avoidance of floodplain areas is not possible as areas of the existing pipeline alignment are located within the 100-year floodplain of the Gulf Intracoastal Waterway. The No Build Alternative would not impact floodplain areas beyond those areas which were impacted when the existing brine disposal pipeline was originally installed.

Construction in the floodplain would be limited to open trenching along the proposed alignment and jack and bore techniques beneath roadways. Side cast soils resulting from the trenching activities would be temporary, would be returned to pre-construction grade after construction activities, and would not permanently or significantly impact water flow, boat traffic or biological productivity. Construction activities would result in negative short-term impacts which may lead to increased erosion and sedimentation to nearby waterbodies; however, Best Manageable Practices (BMPs) for erosion and sedimentation would be in place to limit such occurrences. Construction areas would be returned to the pre-construction grade after the implementation of the proposed project; therefore, no long-term impacts to local drainage or the storage capacity within the floodplain would occur.

Two areas along the proposed brine disposal pipeline (one north of Black Lake Road and one south of Maggie Hebert Road) are classified as upland habitats and is utilized primarily as pastureland for cattle or developed properties (residential or light industrial). Since these areas are located outside of the 500-year floodplain, such areas will not be further assessed in this floodplain assessment.

The potential impacts to floodplains would result from the placement of the proposed brine disposal pipeline within the proposed pipeline ROW and potential construction equipment within the adjacent temporary construction easement to support the proposed pipeline installation activities. All effects on floodplains resulting from the implementation of the proposed action are expected to consist of short-term impacts without any irreversible effects. The proposed action is limited temporally and spatially; therefore, any effects would be limited to the area comprising

the perpetual pipeline ROW and temporary construction easement. The potential for any long-term, irreversible degradation of the floodplain during implementation of the proposed action is minimal.

The impacts to floodplains by the proposed project are summarized in the following table. Impacts are categorized as positive or negative, direct or indirect, and long-term or short-term as required by 10 CFR 1022.13 (a) (2).

Floodplain Impacts – Build Alternative

	Temporary (Short-Term)	Permanent (Long-Term)
Positive	None	None
Negative (Direct)	Yes – Construction Activities	None
Negative (Indirect)	Yes – Construction Activities	None
Negative (Cumulative)	None	None

Floodplain Impacts – No Build Alternative

	Temporary (Short-Term)	Permanent (Long-Term)
Positive	Yes – Avoids Construction Impacts	None
Negative (Direct)	None	None
Negative (Indirect)	None	Negative Impact to SPR Mission
Negative (Cumulative)	None	None

Attachments

Exhibit 1 – Vicinity Map

Exhibit 2 – Floodplain Map

PATH: N:\SPRIDESIGN\GIS\MAPS\WEST_HACKBERRY\WH_VICINITY_MAP_032216.mxd

SOURCE: ESRI StreetMap USA

N

5 2.5 0 5 Miles

EXHIBIT 1
VICINITY MAP

Brine Disposal Pipeline Replacement Project
West Hackberry, Strategic Petroleum Reserve
Cameron Parish, Louisiana

PATH: N:\SPR\DESIGN\GIS\MAPS\WEST_HACKBERRY\WH_FEMA_BRINE_LINE_032216.mxd

SOURCE: FEMA 11/16/2012, Panel No. 22023C0375H,
USDA-NAIP, 2013

N

1,000 500 0 1,000
Feet

EXHIBIT 2
FLOODPLAIN MAP

Brine Disposal Pipeline Replacement Project
West Hackberry, Strategic Petroleum Reserve
Cameron Parish, Louisiana

APPENDIX D

SUPPORTING DOCUMENTATION

Final 2014 Integrated Report of Water Quality in Louisiana

Appendix A:

Final 2014 Integrated Report of Water Quality in Louisiana

Description of Codes and Acronyms:

Water Body Types: R = Rivers; L = Lakes; E = Estuaries; W = Wetlands

Water Body Sizes: R = Miles; L = Acres; E = Square Miles; W = Acres

Designated Use Descriptions:
PCR = PCR (swimming)
SCR = SCR (boating)
FWP = FWP (fishing)
DWS = DWS
ONR = Outstanding Natural Resource
OYS = OYS
AGR = Agriculture
LAL = Limited Aquatic Life and Wildlife

Use Support Codes for Designated Uses:
F = Fully supporting designated use
N = Not supporting designated use
I = Insufficient data to make reliable determination
X = No data

Follow-up Data Comments:
CTM Full: Lead = Follow-up ultra-clean metals
DOCM Full = Follow-up dissolved oxygen continuous monitoring data indicates full support.

IR Category for Suspected Causes:
IRC 5=303(d) List
IRC 5RC=303(d) List but criteria revisions (Revise Criteria (RC)) are planned
IRC 4a=TMDL completed
IRC 4b=Other corrective actions in place
IRC 3=Insufficient data to make a reliable determination
IRC 1 (No code)=No impairment, fully supporting all uses

Subsegment Number	Subsegment Description	Water Body Type	Size	Designated Water Body Uses								Follow-up Data Comments	Impaired Use for Suspected Cause	Suspected Causes of Impairment	IR Category for Suspected Causes	TMDL Priority	Suspected Sources of Impairment
				PCR	SCR	FWP	DWS	ONR	OYS	AGR	LAL						
LA010101_00	Atchafalaya River Headwaters and Floodplain-From Old River Control Structure to Simmesport; includes Old River Diversion Channel, Lower Red River, Lower Old River	W	86,400	F	F	F											
LA010201_00	Atchafalaya River Mainstem-From Simmesport to Whiskey Bay Pilot Channel at mile 54	R	51	F	F	F											
LA010301_00	West Atchafalaya Basin Floodway-From Simmesport to Butte LaRose Bay and Henderson Lake	W	199,040	F	F	N							FWP	Mercury in Fish Tissue	IRC 4a		Atmospheric Deposition - Toxics
LA010301_00	West Atchafalaya Basin Floodway-From Simmesport to Butte LaRose Bay and Henderson Lake	W	199,040	F	F	N							FWP	Mercury in Fish Tissue	IRC 4a		Source Unknown
LA010301_00	West Atchafalaya Basin Floodway-From Simmesport to Butte LaRose Bay and Henderson Lake	W	199,040	F	F	N							FWP	Oxygen, Dissolved	IRC 4a		Source Unknown

Subsegment Number	Subsegment Description	Water Body Type	Size	Designated Water Body Uses								Follow-up Data Comments	Impaired Use for Suspected Cause	Suspected Causes of Impairment	IR Category for Suspected Causes	TMDL Priority	Suspected Sources of Impairment
				PCR	SCR	FWP	DWS	ONR	OYS	AGR	LAL						
LA030306_00	Bayou Verdine--south of the Houston River Canal to the Calcasieu River (Estuarine)	R	8	N	N	N							FWP	Oxygen, Dissolved	IRC 5	L	Discharges from Municipal Separate Storm Sewer Systems (MS4)
LA030306_00	Bayou Verdine--south of the Houston River Canal to the Calcasieu River (Estuarine)	R	8	N	N	N							FWP	Oxygen, Dissolved	IRC 5	L	Sewage Discharges in Unsewered Areas
LA030306_00	Bayou Verdine--south of the Houston River Canal to the Calcasieu River (Estuarine)	R	8	N	N	N							FWP	Phenols	IRC 4a		Industrial Point Source Discharge
LA030306_00	Bayou Verdine--south of the Houston River Canal to the Calcasieu River (Estuarine)	R	8	N	N	N							FWP	Polychlorinated biphenyls	IRC 4a		Industrial Point Source Discharge
LA030306_00	Bayou Verdine--south of the Houston River Canal to the Calcasieu River (Estuarine)	R	8	N	N	N							FWP	Polychlorinated biphenyls	IRC 4a		Source Unknown
LA030306_00	Bayou Verdine--south of the Houston River Canal to the Calcasieu River (Estuarine)	R	8	N	N	N							FWP	Polycyclic Aromatic Hydrocarbons (PAHs) (Aquatic Ecosystems)	IRC 4a		Industrial Point Source Discharge
LA030306_00	Bayou Verdine--south of the Houston River Canal to the Calcasieu River (Estuarine)	R	8	N	N	N							FWP	Polycyclic Aromatic Hydrocarbons (PAHs) (Aquatic Ecosystems)	IRC 4a		Source Unknown
LA030306_00	Bayou Verdine--south of the Houston River Canal to the Calcasieu River (Estuarine)	R	8	N	N	N							PCR	1,2-Dichloroethane	IRC 4a		Industrial Point Source Discharge
LA030306_00	Bayou Verdine--south of the Houston River Canal to the Calcasieu River (Estuarine)	R	8	N	N	N							SCR	1,2-Dichloroethane	IRC 4a		Industrial Point Source Discharge
LA030401_00	Calcasieu River-From below Moss Lake to the Gulf of Mexico; includes Ship Channel and Monkey Island Loop (Estuarine)	R	26	F	F	F			F								
LA030402_00	Calcasieu Lake	E	67	F	F	F			F								
LA030403_00	Black Lake (Estuarine)	E	3	F	F	F											
LA030501_00	Whiskey Chitto Creek-From headwaters to southern boundary of Fort Polk Military Reservation	R	17	N	N	F							PCR	Fecal Coliform	IRC 4a		Wildlife Other than Waterfowl
LA030501_00	Whiskey Chitto Creek-From headwaters to southern boundary of Fort Polk Military Reservation	R	17	N	N	F							SCR	Fecal Coliform	IRC 4a		Wildlife Other than Waterfowl
LA030502_00	Whiskey Chitto Creek-From the southern boundary of Fort Polk Military Reservation to the Calcasieu River (Scenic)	R	70	F	F	F		F									
LA030503_00	Six Mile Creek-East and West Forks from headwaters to the southern boundary of Fort Polk Military Reservation	R	16	N	N	N							FWP	pH, Low	IRC 5	L	Naturally Occurring Organic Acids

APPENDIX D

SUPPORTING DOCUMENTATION

Wetland Statement of Findings

Wetland Statement of Findings

This Wetland Statement of Findings summarizes the potential impacts of the proposed brine disposal pipeline replacement project on waters of the U.S., including wetlands, with the project area which were analyzed in in accordance with 10 CFR 1022.13 and the steps to be taken to minimize potential harm to or within the associated waters of the U.S., including wetlands.

Two areas of waters of the U.S., including wetlands, would be affected by the activities included in this Wetland Statement of Findings; however, all impacts would be temporary (see Exhibit 1 – Vicinity Map and Exhibit 2 – National Wetland Inventory Map). The first area, a wetland area, is located within pastureland immediately north of Maggie Hebert Road. The pipeline would be installed utilizing open cut trenching in this area which would be returned to preconstruction grades following construction activities.

The second area, a waters of the U.S., consists of Browns Lake and two adjacent fringe wetlands located north of the brine injections wells near the southern project limits. The pipeline would be installed utilizing open cut trenching which would be returned to preconstruction grades following construction activities and would not permanently or significantly impact water flow, boat traffic (if any) or biological productivity. The water depth is approximately 1.5 feet in this area. Mobile aquatic organisms would return to the area upon completion of construction activities. Construction activities would result in negative direct and indirect, short-term impacts. After completion of the construction activity there would be no negative long-term impacts to the wetlands, primary and secondary contact recreation, and/or fish and wildlife propagation in Browns Lake.

The potential for impacts to functional waters of the U.S., including wetlands, would result from the placement of the proposed brine disposal pipeline within the proposed pipeline ROW and potential construction equipment within the temporary construction easement to support the proposed pipeline installation. This area consists of both upland habitat and wetland habitat. Acreage calculations of potential impacts to these areas would be identified during the wetland delineation activity at a later date. All permanent and temporary impacts could be calculated by utilizing the U.S. Fish and Wildlife Service (USFWS) National Wetland Inventory (NWI) maps/data. The NWI is a geospatial database which depicts potential wetland and open water habitats and was developed by the USFWS to be used for management, research, policy development, education and planning activities.

All effects on wetlands resulting from the implementation of the proposed action are expected to be negative, short-term and without any irreversible effects. The proposed action is limited temporally and spatially; therefore, any effects would be limited to the area comprising the permanent and temporary construction easement. The potential for any long-term, irreversible degradation of aquatic resources during implementation of the proposed action is minimal.

The impacts to waters of the U.S., including wetlands, by the proposed project are summarized in the following tables. Impacts are categorized as positive or negative, direct or indirect, and long-term or short-term as required by 10 CFR 1022.13 (a) (2).

Wetland Impacts – Build Alternative

	Temporary (Short-Term)	Permanent (Long-Term)
Positive	None	None
Negative (Direct)	Yes – Construction Activities	None
Negative (Indirect)	Yes – Construction Activities	None
Negative (Cumulative)	None	None

Wetland Impacts – No Build Alternative

	Temporary (Short-Term)	Permanent (Long-Term)
Positive	Yes – Avoids Construction Impacts	None
Negative (Direct)	None	None
Negative (Indirect)	None	Negative Impact to SPR Mission
Negative (Cumulative)	None	None

Attachments

Exhibit 1 – Vicinity Map

Exhibit 2 – National Wetland Inventory Map

PATH: N:\SPRIDESIGN\GIS\MAPS\WEST_HACKBERRY\WH_VICINITY_MAP_032216.mxd

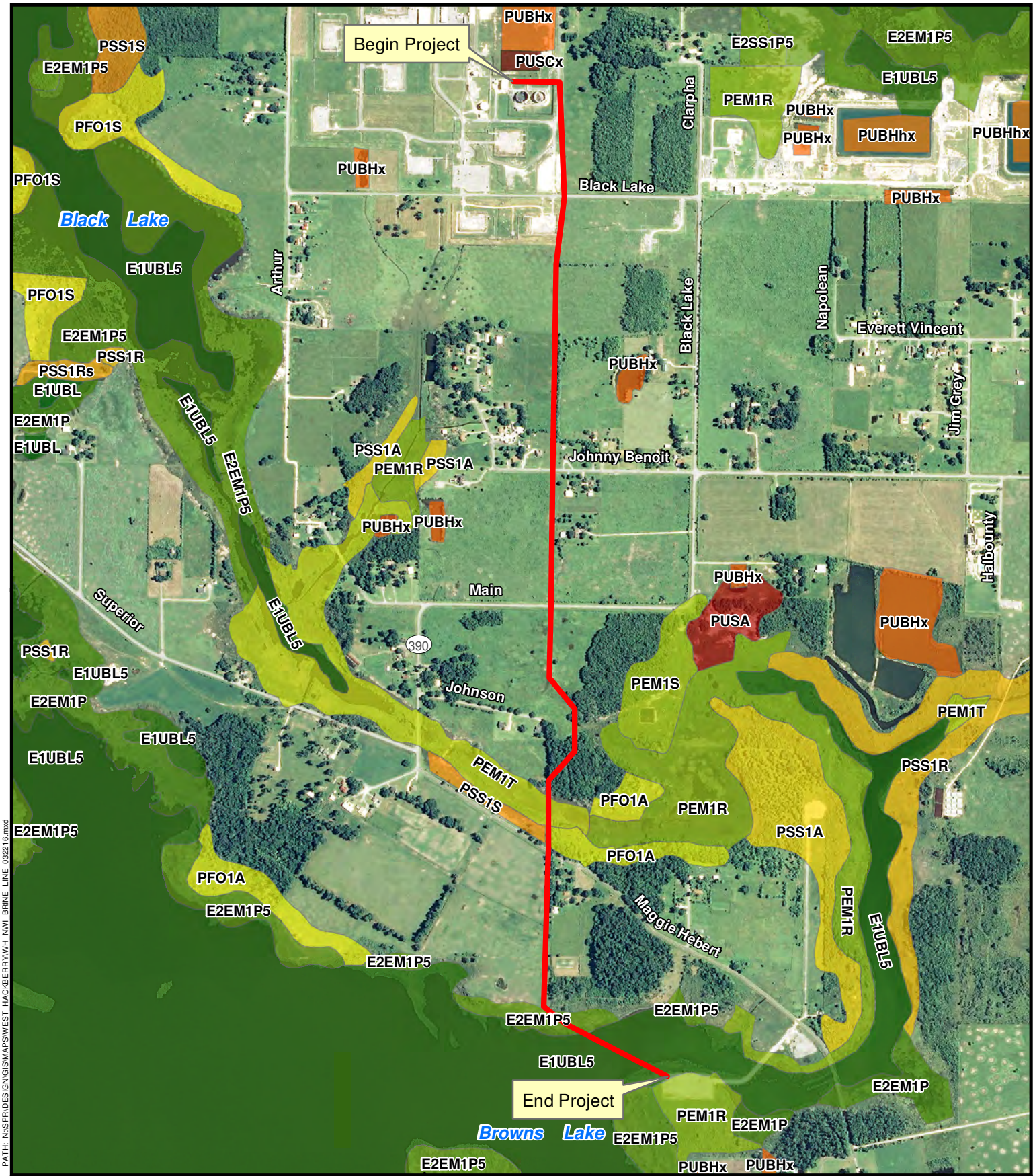
SOURCE: ESRI StreetMap USA

N

5 2.5 0 5 Miles

EXHIBIT 1
VICINITY MAP

Brine Disposal Pipeline Replacement Project
West Hackberry, Strategic Petroleum Reserve
Cameron Parish, Louisiana



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SOURCE: National Wetlands Inventory (NWI), 11-1988
USDA-NAIP, 2013

N

1,000 500 0 1,000
Feet

EXHIBIT 2
NATIONAL WETLANDS INVENTORY

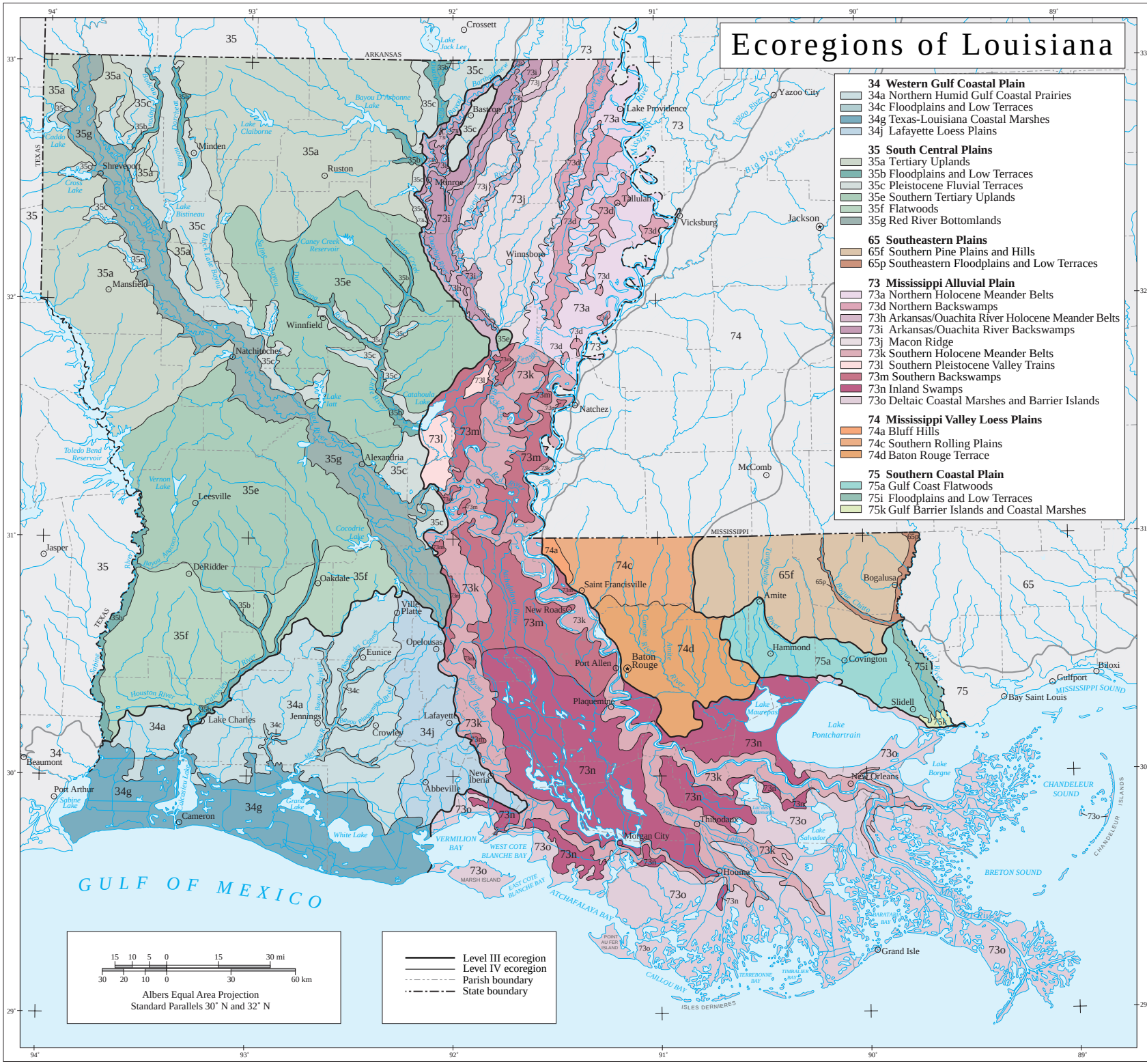
Brine Disposal Pipeline Replacement Project
West Hackberry, Strategic Petroleum Reserve
Cameron Parish, Louisiana

APPENDIX D

SUPPORTING DOCUMENTATION

Ecoregions of Louisiana Map

Ecoregions of Louisiana



Ecoregions denote areas of general similarity in ecosystems and in the type, quality, and quantity of environmental resources. They are designed to serve as a spatial framework for the research, assessment, management, and monitoring of ecosystems and ecosystem components. Ecoregions are general purpose regions that are critical for structuring and implementing ecosystem management strategies across federal agencies, state agencies, and nongovernment organizations responsible for different types of resources in the same geographical areas.

The approach used to compile the ecoregion map is based on the premise that ecological regions can be identified through analysis of the spatial patterns and the composition of biotic and abiotic characteristics that affect or reflect differences in ecosystem quality and integrity. These characteristics include geology, physiography, vegetation, climate, soils, land use, wildlife, and hydrology. The relative importance of each characteristic varies from one ecological region to another regardless of ecoregion hierarchical level.

This ecoregion map was compiled at a scale of 1:250,000, and depicts revisions and subdivisions of level III ecoregions that were originally compiled at a smaller scale. It is part of a collaborative project primarily between USEPA–National Health and Environmental Effects Research Laboratory (Corvallis, Oregon), U.S. Geological Survey (USGS), U.S. Department of Agriculture–Natural Resources Conservation Service (NRCS), Louisiana Natural Heritage Program (LNHP) within the Louisiana Department of Wildlife and Fisheries (LDWF), Louisiana Geological Survey (LGS), and Louisiana Department of Environmental Quality (LDEQ). Collaboration and consultation also occurred with the Louisiana Department of Agriculture and Forestry (LDAF), Louisiana Department of Natural Resources, U.S. Department of Agriculture–Forest Service (USFS), U.S. Army Corps of Engineers (USACE), U.S. Fish and Wildlife Service (USFWS), and USGS–Center for Earth Resources Observation and Science. This project is associated with an interagency effort to develop a common framework of ecological regions. Reaching that objective requires recognition of the differences in the conceptual approaches and mapping methodologies applied to develop the most common ecoregion-type frameworks, including those developed by the USFS, the USEPA, and the NRCS. As each of these frameworks is further refined, their differences are becoming less discernible. Each collaborative ecoregion project, such as this one in Louisiana, is a step toward attaining consensus and consistency in ecoregion frameworks for the entire nation.

PRINCIPAL AUTHORS: Jerry J. Daigle (NRCS), Glenn E. Griffith (Dynamac Corporation), James M. Omernik (USGS), Patricia L. Faulkner (LNHP-LDWF), Richard P. McCulloh (LGS), Lawrence R. Handley (USGS-NWRC), Latimore M. Smith (The Nature Conservancy), and Shannen S. Chapman (Dynamac Corporation).

COLLABORATORS AND CONTRIBUTORS: Bradley Spicer (LDAF), Sue Smith (LDEQ), Paul Heinrich (LGS), John Novosad (USFS), Bill Vermillion (USFWS), Charles Demas (USGS), Dennis Demcheck (USGS), C. Edward Proffitt (USGS-NWRC), Philip Crocker (USEPA), Barbara Kleiss (USACE, ERDC-Waterways Experiment Station), Jan Boydston (LDEQ), Alan Woods (Oregon State University), Pat O'Neil (USGS), Brian Moran (Indus Corporation), John Hutchinson (Science Applications International Corporation), Jack Wittmann (USGS), and Tom Loveland (USGS).

REVIEWERS: Martin Floyd (NRCS), Anthony Lewis (Louisiana State University), and Chris Reid (LNHP-LDWF).

CITING THIS MAP: Daigle, J.J., Griffith, G.E., Omernik, J.M., Faulkner, P.L., McCulloh, R.P., Handley, L.R., Smith, L.M., and Chapman, S.S., 2006, Ecoregions of Louisiana (color poster with map, descriptive text, summary tables, and photographs): Reston, Virginia, U.S. Geological Survey (map scale 1:1,000,000).

Electronic files of ecoregion maps are available at http://www.epa.gov/wed/pages/ecoregions.htm.

APPENDIX D

SUPPORTING DOCUMENTATION

Plants Observed Within or Near the Proposed Brine Disposal Pipeline ROW

Plants Observed Within or Near the Proposed Brine Disposal Pipeline ROW

Scientific Name	Common Name	Wetland Indicator Status
Croton capitatus	Hogwort	UPL
Lepidium virginicum	Virginia Pepperweed	UPL
Medicago lupulina	Black Medick	UPL
Oenothera speciosa	Pinkladies	UPL
Rosa bracteata	Macartney Rose	UPL
Verbena brasiliensis	Brazilian Vervain	UPL
Anagallis arvensis	Scarlet Pimpernel	FACU
Cynodon dactylon	Bermudagrass	FACU
Lolium perenne	Perennial Ryegrass	FACU
Nothoscordum bivalve	Crowpoison	FACU
Quercus virginiana	Live Oak	FACU
Rubus trivialis	Southern Dewberry	FACU
Solidago altissima	Canada Goldenrod	FACU
Trifolium repens	White Clover	FACU
Vachellia farnesiana	Sweet Acacia	FACU
Ambrosia psilostachya	Cuman Ragweed	FAC
Baccharis halimifolia	Eastern Baccharis	FAC
Cirsium horridulum	Yellow Thistle	FAC
Ilex vomitoria	Yaupon	FAC
Juncus tenuis	Poverty Rush	FAC
Morella cerifera	Wax Myrtle	FAC
Nekemias arborea	Peppervine	FAC
Rumex crispus	Curly Dock	FAC
Triadica sebifera	Chinese Tallow	FAC
Vitis rotundifolia	Muscadine	FAC
Andropogon glomeratus	Bushy Bluestem	FACW
Axonopus fissifolius	Common Carpetgrass	FACW
Celtis laevigata	Sugarberry	FACW
Hydrocotyle bonariensis	Largeleaf Pennywort	FACW
Iva frutescens	Jesuit's Bark	FACW
Juncus brachycarpus	Whiteroot Rush	FACW
Limnosciadium pinnatum	Tansy Dogshade	FACW
Phragmites australis	Common Reed	FACW
Pluchea camphorata	Camphor Pluchea	FACW
Sesbania drummondii	Poisonbean	FACW
Sesuvium protulacastrum	Shoreline Seapurslane	FACW
Setaria parviflora	Marsh Bristlegrass	FACW
Solidago sempervirens	Seaside Goldenrod	FACW
Spartina patens	Saltmeadow cordgrass	FACW

Scientific Name	Common Name	Wetland Indicator Status
Solidago sempervirens	Seaside Goldenrod	FACW
Batis maritime	Turtleweed	OBL
Bolboschoenus robustus	Sturdy Bulrush	OBL
Borrichia frutescens	Bushy Seaside Tansy	OBL
Cyperus sp.	Flatsedge	OBL/FACW
Cyperus articulates	Jointed Flatsedge	OBL
Distichlis spicata	Saltgrass	OBL
Eleocharis sp.	Spikerush	OBL
Eleocharis quadrangulata	Squarestem Spikerush	OBL
Kosteletzkya virginica	Virginia Saltmarsh Mallow	OBL
Ludwigia peploides	Floating Primrose-willow	OBL
Paspalum denticulatum	Longtom/Pull-and-be-Damned	OBL
Polygonum/Persicaria sp.	Smartweed	OBL
Schoenoplectus sp.	Bulrush	OBL
Schoenoplectus californicus	California Bulrush	OBL
Typha sp.	Cattail	OBL

Wetland Indicator Status

On June 1, 2012, the 2012 National Wetland Plant List replaced the 1988 U.S. Fish and Wildlife Service's *National list of plant species that occur in wetlands* (U.S. Fish & Wildlife Service Biological Report 88 (24)) for all wetland determinations and delineations performed for Section 404 of the Clean Water Act, the Swampbuster provisions of the Food Security Act, and the National Wetland Inventory. This list was developed by the U.S. Army Corps of Engineers, the Fish and Wildlife Service (FWS), the Environmental Protection Agency, and the Natural Resources Conservation Service using taxonomic and distribution data from the Biota of North America program (BONAP) and legacy information from the FWS, and is directed by the Corps of Engineers. The 2012 list included changes in the names of species, the recognition of new species, changes in wetland regions, and changes in the wetland indicator statuses of species. This list was updated again on July 11, 2013, and April 3, 2014. These updates included more changes in the names of species, the addition of new species, and the removal of species that were listed as Upland in all regions.

Indicator categories

Indicator Code	Indicator Status	Designation	Comment
OBL	Obligate Wetland	Hydrophyte	Almost always occur in wetlands
FACW	Facultative Wetland	Hydrophyte	Usually occur in wetlands, but may occur in non-wetlands
FAC	Facultative	Hydrophyte	Occur in wetlands and non-wetlands
FACU	Facultative Upland	Nonhydrophyte	Usually occur in non-wetlands, but may occur in wetlands
UPL	Obligate Upland	Nonhydrophyte	Almost never occur in wetlands

These indicator statuses are used to designate a plant species' preference for occurrence in a wetland or upland. The information supporting the indicator status assignments for the 1988 wetland list was qualitative, not quantitative. To better reflect the supporting information, the new category definitions are based on qualitative descriptions.

Regions and subregions

The wetland regions, the states wholly or partly in each region, and the definition of each region are listed below. Most of the regions are now defined by the boundaries of Land Resource Regions (LRRs) and Major Land Resource Areas (MLRAs) recognized by the Natural Resources Conservation Service. LRRs are groups of MLRAs.

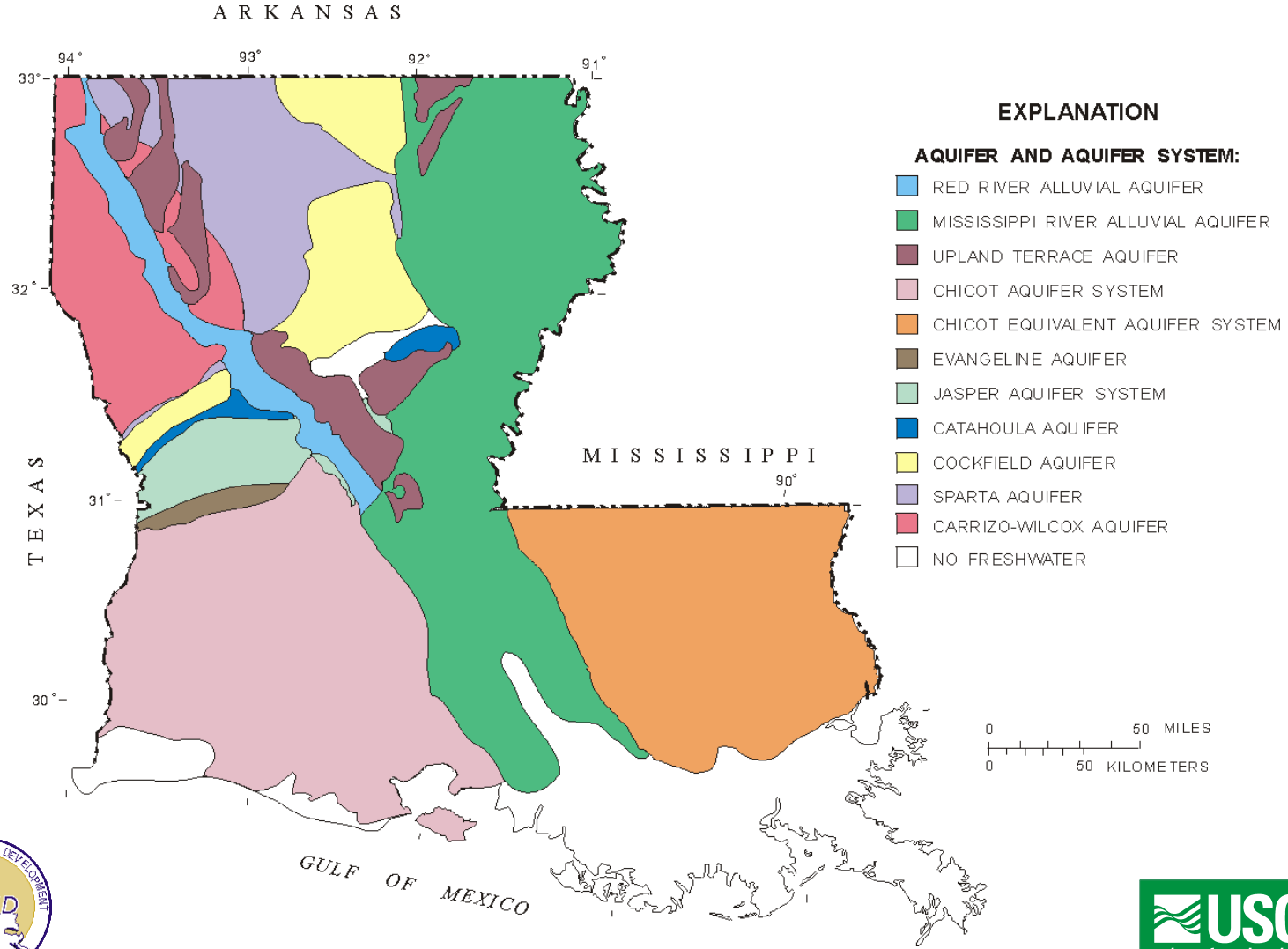
Region	Geographic areas in region	Definition of region
Atlantic and Gulf Coastal Plain	AL, AR, DC, DE, FL, GA, IL, KY, LA, MD, MS, MO, NC, NJ, OK, PA, SC, TN, TX, VA	LRR O, LRR P except MLRA 136, MLRA 149A of LRR S, LRRs T, U

APPENDIX D

SUPPORTING DOCUMENTATION

U.S. Geological Service Louisiana Aquifer System Map

Surface extent of Louisiana's aquifers and aquifer systems



DEPARTMENT OF TRANSPORTATION AND DEVELOPMENT DOTD

USGS science for a changing world

APPENDIX D

SUPPORTING DOCUMENTATION

USFWS Custom IPaC Trust Resources Report

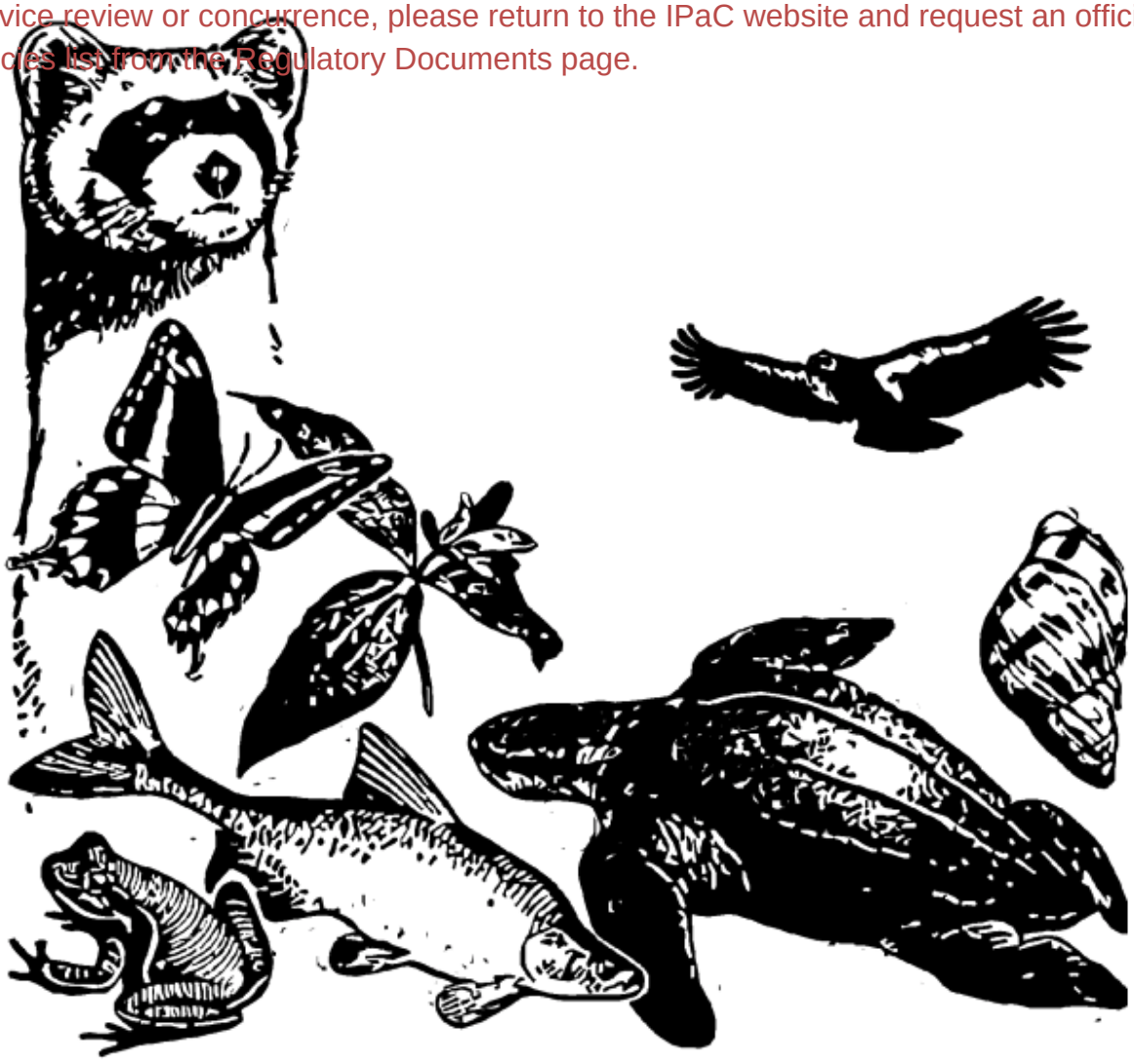
U.S. Fish & Wildlife Service

West Hackberry Brine Disposal Pipeline Replacement Project

IPaC Trust Resources Report

Generated November 18, 2016 09:50 AM MST, IPaC v3.0.9

This report is for informational purposes only and should not be used for planning or analyzing project level impacts. For project reviews that require U.S. Fish & Wildlife Service review or concurrence, please return to the IPaC website and request an official species list from the Regulatory Documents page.



IPaC - Information for Planning and Conservation (https://ecos.fws.gov/ipac/): A project planning tool to help streamline the U.S. Fish & Wildlife Service environmental review process.

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U.S. Fish & Wildlife Service

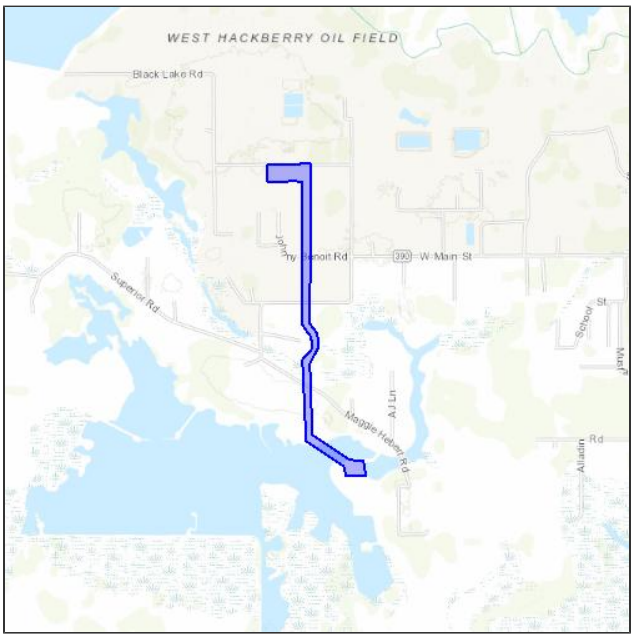
IPaC Trust Resources Report

NAME

West Hackberry Brine Disposal Pipeline Replacement Project

LOCATION

Cameron County, Louisiana



DESCRIPTION

The purpose of the project is to replace an existing brine disposal pipeline which is functionally obsolete. The proposed project would involve the installation of approximately 2.1 miles of 24-inch pipeline by open cut trench and jack and bore to replace the existing pipeline which would be removed from service but remain in place. The brine disposal pipeline would support the activities associated with the Strategic Petroleum Reserve (SPR) West Hackberry (WH) facility located near Hackberry, Cameron Parish, Louisiana.

IPAC LINK

https://ecos.fws.gov/ipac/project/S3MTR-5GJQR-HL5JI-VEKEA-4KXEFE

U.S. Fish & Wildlife Service Contact Information

Trust resources in this location are managed by:

Louisiana Ecological Services Field Office
646 Cajundome Boulevard, Suite 400
Lafayette, LA 70506-4290
(337) 291-3100

Endangered Species

Proposed, candidate, threatened, and endangered species are managed by the Endangered Species Program of the U.S. Fish & Wildlife Service.

This USFWS trust resource report is for informational purposes only and should not be used for planning or analyzing project level impacts.

For project evaluations that require USFWS concurrence/review, please return to the IPaC website and request an official species list from the Regulatory Documents section.

Section 7 of the Endangered Species Act **requires** Federal agencies to "request of the Secretary information whether any species which is listed or proposed to be listed may be present in the area of such proposed action" for any project that is conducted, permitted, funded, or licensed by any Federal agency.

A letter from the local office and a species list which fulfills this requirement can only be obtained by requesting an official species list either from the Regulatory Documents section in IPaC or from the local field office directly.

The list of species below are those that may occur or could potentially be affected by activities in this location:

Birds

Piping Plover Charadrius melodus — Threatened

CRITICAL HABITAT
There is **final** critical habitat designated for this species.
http://ecos.fws.gov/tess_public/profile/speciesProfile.action?spcode=B079

Red Knot Calidris canutus rufa — Threatened

CRITICAL HABITAT
No critical habitat has been designated for this species.
http://ecos.fws.gov/tess_public/profile/speciesProfile.action?spcode=B0DM

Fishes

Atlantic Sturgeon (gulf Subspecies) Acipenser oxyrinchus (=oxyrhynchus) desotoi — Threatened

CRITICAL HABITAT
There is **final** critical habitat designated for this species.
http://ecos.fws.gov/tess_public/profile/speciesProfile.action?spcode=E04W

Mammals

West Indian Manatee Trichechus manatus — Endangered

CRITICAL HABITAT

There is **final** critical habitat designated for this species.

http://ecos.fws.gov/tess_public/profile/speciesProfile.action?spcode=A007

Reptiles

Green Sea Turtle Chelonia mydas — Resolved Taxon

CRITICAL HABITAT

No critical habitat has been designated for this species.

Hawksbill Sea Turtle Eretmochelys imbricata — Endangered

CRITICAL HABITAT

There is **final** critical habitat designated for this species.

http://ecos.fws.gov/tess_public/profile/speciesProfile.action?spcode=C00E

Kemp's Ridley Sea Turtle Lepidochelys kempii — Endangered

CRITICAL HABITAT

No critical habitat has been designated for this species.

http://ecos.fws.gov/tess_public/profile/speciesProfile.action?spcode=C00O

Leatherback Sea Turtle Dermochelys coriacea — Endangered

CRITICAL HABITAT

There is **final** critical habitat designated for this species.

http://ecos.fws.gov/tess_public/profile/speciesProfile.action?spcode=C00F

Loggerhead Sea Turtle Caretta caretta — Threatened

CRITICAL HABITAT

There is **final** critical habitat designated for this species.

http://ecos.fws.gov/tess_public/profile/speciesProfile.action?spcode=C00U

Critical Habitats

There are no critical habitats in this location

Migratory Birds

Birds are protected by the Migratory Bird Treaty Act and the Bald and Golden Eagle Protection Act.

Any activity that results in the take of migratory birds or eagles is prohibited unless authorized by the U.S. Fish & Wildlife Service.[1] There are no provisions for allowing the take of migratory birds that are unintentionally killed or injured.

Any person or organization who plans or conducts activities that may result in the take of migratory birds is responsible for complying with the appropriate regulations and implementing appropriate conservation measures.

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1. 50 C.F.R. Sec. 10.12 and 16 U.S.C. Sec. 668(a)

Additional information can be found using the following links:

- Birds of Conservation Concern
  http://www.fws.gov/birds/management/managed-species/birds-of-conservation-concern.php
- Conservation measures for birds
  http://www.fws.gov/birds/management/project-assessment-tools-and-guidance/conservation-measures.php
- Year-round bird occurrence data
  http://www.birdscanada.org/birdmon/default/datasummaries.jsp

The following species of migratory birds could potentially be affected by activities in this location:

American Oystercatcher Haematopus palliatus — Bird of conservation concern
Season: Year-round
http://ecos.fws.gov/tess_public/profile/speciesProfile.action?spcode=B0G8

American Bittern Botaurus lentiginosus — Bird of conservation concern
Season: Wintering
http://ecos.fws.gov/tess_public/profile/speciesProfile.action?spcode=B0F3

Bald Eagle Haliaeetus leucocephalus — Bird of conservation concern
Season: Year-round
http://ecos.fws.gov/tess_public/profile/speciesProfile.action?spcode=B008

Black Rail Laterallus jamaicensis — Bird of conservation concern
Season: Year-round
http://ecos.fws.gov/tess_public/profile/speciesProfile.action?spcode=B09A

Black Skimmer Rynchops niger — Bird of conservation concern
Season: Year-round
http://ecos.fws.gov/tess_public/profile/speciesProfile.action?spcode=B0EO

Brown-headed Nuthatch Sitta pusilla — Bird of conservation concern
Season: Year-round

Dickcissel Spiza americana — Bird of conservation concern
Season: Breeding

Fox Sparrow Passerella iliaca — Bird of conservation concern
Season: Wintering

Gull-billed Tern Gelochelidon nilotica — Bird of conservation concern
Season: Year-round
http://ecos.fws.gov/tess_public/profile/speciesProfile.action?spcode=B0JV

Henslow's Sparrow Ammodramus henslowii — Bird of conservation concern
Season: Wintering
http://ecos.fws.gov/tess_public/profile/speciesProfile.action?spcode=B09D

Hudsonian Godwit Limosa haemastica — Bird of conservation concern
Season: Migrating

Le Conte's Sparrow Ammodramus leconteii — Bird of conservation concern
Season: Wintering

Least Bittern Ixobrychus exilis
Season: Breeding
http://ecos.fws.gov/tess_public/profile/speciesProfile.action?spcode=B092

Lesser Yellowlegs Tringa flavipes — Bird of conservation concern
Season: Wintering
http://ecos.fws.gov/tess_public/profile/speciesProfile.action?spcode=B0MD

Loggerhead Shrike Lanius ludovicianus — Bird of conservation concern
Season: Year-round
http://ecos.fws.gov/tess_public/profile/speciesProfile.action?spcode=B0FY

Long-billed Curlew Numenius americanus — Bird of conservation concern
Season: Wintering
http://ecos.fws.gov/tess_public/profile/speciesProfile.action?spcode=B06S

Marbled Godwit Limosa fedoa — Bird of conservation concern
Season: Wintering
http://ecos.fws.gov/tess_public/profile/speciesProfile.action?spcode=B0JL

Mississippi Kite Ictinia mississippiensis — Bird of conservation concern
Season: Breeding

Nelson's Sparrow Ammodramus nelsoni — Bird of conservation concern
Season: Wintering

Painted Bunting Passerina ciris — Bird of conservation concern
Season: Breeding

Peregrine Falco Falco peregrinus — Bird of conservation concern
Season: Wintering
http://ecos.fws.gov/tess_public/profile/speciesProfile.action?spcode=B0FU

Prothonotary Warbler Protonotaria citrea — Bird of conservation concern
Season: Breeding

Red Knot Calidris canutus rufa — Bird of conservation concern
Season: Wintering
http://ecos.fws.gov/tess_public/profile/speciesProfile.action?spcode=B0DM

Red-headed Woodpecker Melanerpes erythrocephalus — Bird of conservation concern
Season: Wintering

Reddish Egret Egretta rufescens — Bird of conservation concern
Season: Year-round
http://ecos.fws.gov/tess_public/profile/speciesProfile.action?spcode=B06U

Rusty Blackbird Euphagus carolinus — Bird of conservation concern
Season: Wintering

Sedge Wren Cistothorus platensis — Bird of conservation concern
Season: Wintering

Short-billed Dowitcher Limnodromus griseus — Bird of conservation concern
Season: Wintering
http://ecos.fws.gov/tess_public/profile/speciesProfile.action?spcode=B0JK

Short-eared Owl Asio flammeus — Bird of conservation concern
Season: Wintering
http://ecos.fws.gov/tess_public/profile/speciesProfile.action?spcode=B0HD

Snowy Plover Charadrius alexandrinus — Bird of conservation concern
Season: Wintering

Swainson's Warbler Limnothlypis swainsonii — Bird of conservation concern
Season: Breeding

Whimbrel Numenius phaeopus — Bird of conservation concern
Season: Wintering
http://ecos.fws.gov/tess_public/profile/speciesProfile.action?spcode=B0JN

Wilson's Plover Charadrius wilsonia — Bird of conservation concern
Season: Year-round

Worm Eating Warbler Helmitheros vermivorum — Bird of conservation concern
Season: Migrating

Yellow Rail Coturnicops noveboracensis — Bird of conservation concern
Season: Wintering
http://ecos.fws.gov/tess_public/profile/speciesProfile.action?spcode=B0JG

Wildlife refuges and fish hatcheries

There are no refuges or fish hatcheries in this location

Wetlands in the National Wetlands Inventory

Impacts to NWI wetlands and other aquatic habitats may be subject to regulation under Section 404 of the Clean Water Act, or other State/Federal statutes.

For more information please contact the Regulatory Program of the local U.S. Army Corps of Engineers District.

DATA LIMITATIONS

The Service's objective of mapping wetlands and deepwater habitats is to produce reconnaissance level information on the location, type and size of these resources. The maps are prepared from the analysis of high altitude imagery. Wetlands are identified based on vegetation, visible hydrology and geography. A margin of error is inherent in the use of imagery; thus, detailed on-the-ground inspection of any particular site may result in revision of the wetland boundaries or classification established through image analysis.

The accuracy of image interpretation depends on the quality of the imagery, the experience of the image analysts, the amount and quality of the collateral data and the amount of ground truth verification work conducted. Metadata should be consulted to determine the date of the source imagery used and any mapping problems.

Wetlands or other mapped features may have changed since the date of the imagery or field work. There may be occasional differences in polygon boundaries or classifications between the information depicted on the map and the actual conditions on site.

DATA EXCLUSIONS

Certain wetland habitats are excluded from the National mapping program because of the limitations of aerial imagery as the primary data source used to detect wetlands. These habitats include seagrasses or submerged aquatic vegetation that are found in the intertidal and subtidal zones of estuaries and nearshore coastal waters. Some deepwater reef communities (coral or tuberficid worm reefs) have also been excluded from the inventory. These habitats, because of their depth, go undetected by aerial imagery.

DATA PRECAUTIONS

Federal, state, and local regulatory agencies with jurisdiction over wetlands may define and describe wetlands in a different manner than that used in this inventory. There is no attempt, in either the design or products of this inventory, to define the limits of proprietary jurisdiction of any Federal, state, or local government or to establish the geographical scope of the regulatory programs of government agencies. Persons intending to engage in activities involving modifications within or adjacent to wetland areas should seek the advice of appropriate federal, state, or local agencies concerning specified agency regulatory programs and proprietary jurisdictions that may affect such activities.

This location overlaps all or part of the following wetlands:

Estuarine And Marine Deepwater

E1UBL5

Estuarine And Marine Wetland

E2EM1P5

Freshwater Emergent Wetland

PEM1R
PEM1T

Freshwater Forested/shrub Wetland

PFO1A
PSS1S

A full description for each wetland code can be found at the National Wetlands Inventory website: http://107.20.228.18/decoders/wetlands.aspx

APPENDIX D

SUPPORTING DOCUMENTATION

USFWS List of Threatened and Endangered Species

USFWS THREATENED/ENDANGERED SPECIES TABLE FOR CAMERON PARISH (as of 05-04-2016)

Group	Name	Population	Status	Lead Office	Recovery Plan Name	Recovery Plan Stage
Birds	Brown Pelican (*Pelecanus occidentalis*)	except U.S. Atlantic coast, FL, AL	Recovery	Ventura Fish and Wildlife Office	---	---
Birds	Piping Plover (*Charadrius melodus*)	except Great Lakes watershed	Threatened	Office of the Regional Director	Piping Plover Atlantic Coast Population Revised Recovery Plan	Final Revision 1
Birds	Piping Plover (*Charadrius melodus*)	except Great Lakes watershed	Threatened	Office of the Regional Director	Volume I: Draft Revised Recovery Plan for the Northern Great Plains Piping Plover (*Charadrius melodus*)	Draft Revision 1
Birds	Red Knot (*Calidris canutus rufa*)	---	Threatened	New Jersey Ecological Services Field Office	---	---
Fish	Atlantic Sturgeon – Gulf Subspecies (*Acipenser oxyrinchus – oxyrhynchus desotoi*)	Entire	Threatened	Panama City Ecological Services Field Office	Gulf Sturgeon	Final
Mammals	West Indian Manatee (*Trichechus manatus*)	Entire	Endangered	North Florida Ecological Services Field Office	Florida Manatee Recovery Plan, Third Revision	Final Revision 3
Mammals	West Indian Manatee (*Trichechus manatus*)	Entire	Endangered	North Florida Ecological Services Field Office	Recovery Plan Puerto Rican Population of the West Indian (*Antillean*) Manatee	Final
Mammals	Louisiana Black Bear (*Ursus americanus luteolus*)	Entire	Recovery	Louisiana Ecological Services Field Office	Louisiana Black Bear	Final
Reptiles	Hawksbill Sea Turtle (*Eretmochelys imbricata*)	Entire	Endangered	North Florida Ecological Services Field Office	Recovery Plan for U.S. Pacific Populations of the Hawksbill Turtle	Final Revision 1
Reptiles	Hawksbill Sea Turtle (*Eretmochelys imbricata*)	Entire	Endangered	North Florida Ecological Services Field Office	Recovery Plan for the Hawksbill Turtle in the U.S. Caribbean, Atlantic and Gulf of Mexico	Final Revision 1
Reptiles	Leatherback Sea Turtle (*Dermochelys coriacea*)	Entire	Endangered	North Florida Ecological Services Field Office	Recovery Plan for Leatherback Turtles in the U.S. Caribbean, Atlantic, and Gulf of Mexico	Final Revision 1

Group	Name	Population	Status	Lead Office	Recovery Plan Name	Recovery Plan Stage
Reptiles	Leatherback Sea Turtle (*Dermochelys coriacea*)	Entire	Endangered	North Florida Ecological Services Field Office	Recovery Plan for U.S. Pacific Populations of the Leatherback Turtle	Final Revision 1
Reptiles	Kemp's Ridley Sea Turtle (*Lepidochelys kempii*)	Entire	Endangered	Texas Coastal Ecological Services Field Office	Bi-National Recovery Plan for the Kemp's Ridley Sea Turtle (*Lepidochelys kempii*); Second Revision	Final Revision 2
Reptiles	Green Sea Turtle (*Chelonia mydas*)	Except where endangered	Threatened	North Florida Ecological Services Field Office	Recovery Plan for U.S. Pacific Populations of the Green Turtle	Final Revision 1
Reptiles	Green Sea Turtle (*Chelonia mydas*)	Except where endangered	Threatened	North Florida Ecological Services Field Office	Recovery Plan for U.S. Population of Atlantic Green Turtle	Final Revision 1
Reptiles	Loggerhead Sea Turtle (*Caretta caretta*)	Northwest Atlantic Ocean DPS	Threatened	North Florida Ecological Services Field Office	Recovery Plan for the Northwest Atlantic Population of the Loggerhead Sea Turtle (*Caretta caretta*); Second Revision	Final Revision 2

APPENDIX D

SUPPORTING DOCUMENTATION

Louisiana Department of Wildlife and Fisheries Rare Species List

Published on *Louisiana Department of Wildlife and Fisheries* (http://www.wlf.louisiana.gov)

Species by Parish List

Tweet [1] Printable Version [2]

Explanation of Ranking Categories Employed by Natural Heritage Programs Nationwide

Federal Ranks (USESA FIELD):

Global Element Ranks:

State Element Ranks:

State Protection Status:

Filter By Parish Cameron

Filter by Type <Any>

Apply

Rare Plant Species

Scientific Name [3]	Common Name [4]	State Rank [5]	Global Rank [6]	State Status [7]	Federal Status [8]	Fact Sheet	Parishes
Amaranthus greggii [9]	Gregg's Amaranth	S3	G4?			Amaranthus greggii [10]	Cameron, Jefferson, Lafourche
Astragalus nuttallianus [11]	A Milk-vetch	S2S3	G5			Astragalus nuttallianus [12]	Cameron
Canna flaccida [13]	Golden Canna	S4?	G4?			Canna flaccida [14]	Cameron, Jefferson, Lafourche, Plaquemines, St. Charles, St. Mary, Vermilion
Cenchrus tribuloides [15]	Dune Sandbur	S2	G5			Cenchrus tribuloides [16]	Cameron, Jefferson, Lafourche, Plaquemines, St. Bernard, Terrebonne
Chamaesyce bombensis [17]	Sand Dune Spurge	S1	G4G5			Chamaesyce bombensis [18]	Cameron, Jefferson, Plaquemines, St. Bernard,

					Terrebonne
Dalea emarginata [19]	Wedge-leaf Prairie-clover	S2	G5	Dalea emarginata [20]	Cameron
Draba cuneifolia [21]	Wedge-leaf Whitlow-grass	S1	G5	Draba cuneifolia [22]	Caddo, Cameron, Winn
Eleocharis elongata [23]	Slim Spike-rush	S3	G5?	Eleocharis elongata [24]	Cameron, St. Tammany, Vermilion
Eriochloa punctata [25]	Punctate Cupgrass	S2	G5	Eriochloa punctata [26]	Cameron, Plaquemines, Vermilion
Lithospermum incisum [27]	Narrow-leaved Puccoon	S1	G5	Lithospermum incisum [28]	Cameron, Natchitoches
Ludwigia sphaerocarpa [29]	Grapefruit Primrosewilow	S2	G5	Ludwigia sphaerocarpa [30]	Calcasieu, Cameron, Vermilion
Monanthochloe littoralis [31]	Saltflat-grass	S1	G4G5	Monanthochloe littoralis [32]	Cameron
Nymphaea elegans [33]	Blue Water Lily	S2S4	G4?	Nymphaea elegans [34]	Calcasieu, Cameron, Vermilion
Pediomelum rhombifolium [35]	Roundleaf Scarf-pea	S2S3	G5	Pediomelum rhombifolium [36]	Cameron
Physostegia correllii [37]	Correll's False Dragon-head	S1	G2	Physostegia correllii [38]	Cameron, St. Charles, St. James, St. Tammany
Pterocaulon virgatum [39]	Wand Blackroot	S2	G5	Pterocaulon virgatum [40]	Acadia, Beauregard, Calcasieu, Cameron, DeSoto, Evangeline
Ratibida peduncularis [41]	Mexican Hat	S2S3	G4G5	Ratibida peduncularis [42]	Cameron, Vermilion
Rhynchospora globularis var. pinetorum [43]	Small's Beaksedge	S1	G5? T3?		Acadia, Calcasieu, Cameron
Rhynchospora microcarpa [44]	Southern Beaksedge	S3	G5		Cameron, Vermilion

Sabatia arenicola [45]	Sand Rose-gentian	S1	G3G5	Sabatia arenicola [46]	Cameron, Jefferson, Lafourche, Orleans, Plaquemines, St. Bernard, St. Tammany, Terrebonne
Samolus ebracteatus [47]	Brookweed	S1	G4G5	Samolus ebracteatus [48]	Calcasieu, Cameron
Sida elliottii [49]	Elliott Sida	SH	G4G5	Sida elliottii [50]	Cameron, East Baton Rouge, East Feliciana, St. Tammany
Sideroxylon reclinatum [51]	Florida bully	S1	G4G5	Sideroxylon reclinatum [52]	Cameron
Thalia dealbata [53]	Powdery Thalia	S2S3	G4	Thalia dealbata [54]	Acadia, Cameron, East Baton Rouge, East Feliciana, Iberia, Iberville, Jefferson Davis, Lafayette, Morehouse, St. Landry, St. Martin, Vermilion, Vernon
Tidestromia lanuginosa [55]	Woolly Honeysweet	S1	G5	Tidestromia lanuginosa [56]	Cameron
Uniola paniculata [57]	Sea Oats	S2	G5	Uniola paniculata [58]	Cameron, Jefferson, Lafourche, Plaquemines, St. Bernard, St. Tammany, Terrebonne

Natural Communities

Scientific Name [3]	Common Name [4]	State Rank [5]	Global Rank [6]	State Status [7]	Federal Status [8]	Fact Sheet	Parishes
Brackish Marsh [59]		S3	G4?			Brackish Marsh [60]	Calcasieu, Cameron, Lafourche, Plaquemines, St.

					Bernard, St. Charles, Vermilion
Coastal Dune Grassland [61]	S1	G2G3		Coastal Dune Grassland [62]	Cameron, Plaquemines, St. Bernard, Terrebonne
Coastal Live Oak-Hackberry Forest [63]	S1	G2		Coastal Live Oak-Hackberry Forest [64]	Cameron, Iberia, Jefferson, Lafourche, Orleans, Plaquemines, St. Bernard, St. Tammany, Terrebonne, Vermilion
Coastal Prairie [65]	S1	G2Q		Coastal Prairie [66]	Acadia, Allen, Calcasieu, Cameron, Jefferson Davis, Vermilion
Freshwater Marsh [67]	S2	G3G4		Freshwater Marsh [68]	Cameron, Lafourche, Plaquemines, St. Charles, St. Mary, St. Tammany, Tangipahoa, Terrebonne, Vermilion

Rare Animal Species

Scientific Name [3]	Common Name [4]	State Rank [5]	Global Rank [6]	State Status [7]	Federal Status [8]	Fact Sheet	Parishes
Canis rufus [69]	Red Wolf	SX	G1Q			Canis rufus [70]	Calcasieu, Cameron, Grant, Lafourche, LaSalle, Madison, Natchitoches, Terrebonne, Vermilion, Winn
Caracara cheriway [71]	Crested Caracara	S1	G5			Caracara cheriway [72]	Calcasieu, Cameron
Charadrius alexandrinus [73]	Snowy Plover	S1B,S2N	G4			Charadrius alexandrinus [74]	Cameron, Jefferson, Lafourche, Plaquemines, St. Bernard, St. Mary, Terrebonne, Vermilion
							Cameron, Jefferson

							Jefferson, Lafourche, Plaquemines, St. Bernard, St. Mary, Terrebonne, Vermilion
Charadrius melodus [75]	Piping Plover	S2N	G3	T/E	T	Charadrius melodus [76]	
Charadrius wilsonia [77]	Wilson's Plover	S2B, S1N	G5			Charadrius wilsonia [78]	Cameron, Lafourche, Plaquemines, Terrebonne
Columbina passerina [79]	Common Ground-Dove	S1B,S2N	G5			Columbina passerina [80]	Cameron, Iberia
Grus canadensis [81]	Sandhill Crane	S2N	G5			Grus canadensis [82]	Calcasieu, Cameron, Franklin, Madison, Morehouse, Rapides, Vermilion
Malaclemys terrapin [83]	Diamondback Terrapin	S3	G4	Restricted Harvest		Malaclemys terrapin [84]	Cameron, Jefferson, Jefferson Davis, Lafourche, Orleans, St. Bernard, St. Tammany, Terrebonne, Vermilion
Pelecanus occidentalis [85]	Brown Pelican	S3	G4	E	Delisted	Pelecanus occidentalis [86]	Cameron, Jefferson, Lafourche, Plaquemines, St. Bernard, Terrebonne
Platalea ajaja [87]	Roseate Spoonbill	S3	G5			Platalea ajaja [88]	Calcasieu, Cameron, Evangeline, Iberia, Jefferson Davis, Lafourche, Plaquemines, St. Bernard, St. Martin, St. Mary, Terrebonne, Vermilion

Plegadis falcinellus [89]	Glossy Ibis	S2	G5			Plegadis falcinellus [90]	Cameron, Orleans
Polyodon spathula [91]	Paddlefish	S4	G4			Polyodon spathula [92]	Acadia, Avoyelles, Caddo, Calcasieu, Cameron, Catahoula, Concordia, Evangeline, Franklin, Iberia, Jefferson Davis, LaSalle, Orleans, Ouachita, Rapides, Sabine, St. Bernard, St. Charles, St. John the Baptist, St. Martin, St. Mary, St. Tammany, Tangipahoa, Tensas, Union
Spilogale putorius [93]	Eastern Spotted Skunk	S1	G5			Spilogale putorius [94]	Ascension, Calcasieu, Cameron, Livingston, Tangipahoa, Washington, West Feliciana
Sternula antillarum athalassos [95]	Interior Least Tern	S4BT1	G4T2Q	E	E		Avoyelles, Bossier, Caddo, Cameron, Concordia, East Baton Rouge, East Carroll, East Feliciana, Grant, Iberville, Madison, Natchitoches, Pointe Coupee

							Rapides, Red River, Tensas, West Baton Rouge, West Feliciana, Winn
Terrapene ornata [96]	Ornate Box Turtle	S1	G5	Restricted Harvest		Terrapene ornata [97]	Calcasieu, Cameron
Trichechus manatus [98]	Manatee	S1N	G2	E	E	Trichechus manatus [99]	Ascension, Cameron, East Baton Rouge, East Feliciana, Orleans, Plaquemines, St. Bernard, St. Charles, St. James, St. John the Baptist, St. Tammany, Tangipahoa, Terrebonne

1-800-256-2749 | (225) 765-2800 | Louisiana Department of Wildlife and Fisheries, P.O. Box 98000
2000 Quail Dr. Baton Rouge, Louisiana 70898

[15] http://www.wlf.louisiana.gov/fact-sheet-rare-plant/cenchrus-tribuloides
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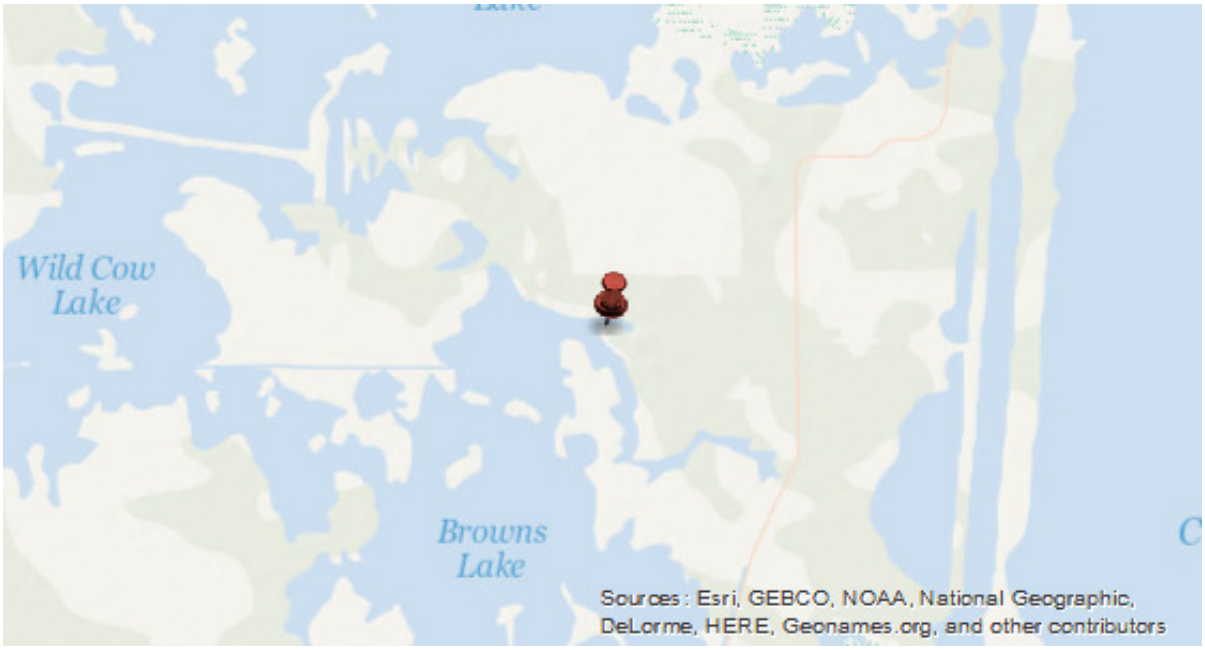
APPENDIX D

SUPPORTING DOCUMENTATION

National Oceanic and Atmospheric Administration Essential Fish Habitat Mapper

EFH Data Notice: Essential Fish Habitat (EFH) is defined by textual descriptions contained in the fishery management plans developed by the regional Fishery Management Councils. In most cases mapping data can not fully represent the complexity of the habitats that make up EFH. This report should be used for general interest queries only and should not be interpreted as a definitive evaluation of EFH at this location. A location-specific evaluation of EFH for any official purposes must be performed by a regional expert. Please refer to the following links for the appropriate regional resources.



Query Results

Map Scale = 1:144,448
Degrees, Minutes, Seconds: Latitude = 29º58'13" N, Longitude = 94º36'6" W
Decimal Degrees: Latitude = 29.97, Longitude = -93.40

The query location intersects with spatial data representing EFH and/or HAPCs for the following species/management units.

EFH

No Essential Fish Habitats (EFH) were identified at the report location.

HAPCs

No Habitat Areas of Particular Concern (HAPC) were identified at the report location.

EFH Areas Protected from Fishing

No EFH Areas Protected from Fishing (EFHA) were identified at the report location.

APPENDIX D

SUPPORTING DOCUMENTATION

Department of Health and Human Services 2016 Poverty Guidelines

are working to improve language accessibility within their states; and

• Recommendations for state-specific capacity building for the 20 states intended to enhance statewide language access, which will include the development of language access plans.

An objective review of was conducted that assessed the grantee's application using criteria related to the project's approach, the organization's capacity, and the development of costs for the project's budget.

Statutory Authority: Section 310 of the Family Violence Prevention and Services Act, as amended by Section 201 of the CAPTA Reauthorization Act of 2010, Pub. L. 111–320.

Christopher Beach,

Senior Grants Policy Specialist, Division of Grants Policy, Office of Administration.

[FR Doc. 2016–01329 Filed 1–22–16; 8:45 am]

BILLING CODE 4184–32–P

DEPARTMENT OF HEALTH AND HUMAN SERVICES

Office of the Secretary

Annual Update of the HHS Poverty Guidelines

AGENCY: Department of Health and Human Services.

ACTION: Notice.

SUMMARY: This notice provides an update of the Department of Health and Human Services (HHS) poverty guidelines to account for last calendar year's increase in prices as measured by the Consumer Price Index.

DATES: *Effective Date:* January 25, 2016, unless an office administering a program using the guidelines specifies a different effective date for that particular program.

ADDRESSES: Office of the Assistant Secretary for Planning and Evaluation, Room 404E, Humphrey Building, Department of Health and Human Services, Washington, DC 20201.

FOR FURTHER INFORMATION CONTACT: For information about how the guidelines are used or how income is defined in a particular program, contact the Federal, state, or local office that is responsible for that program. For information about poverty figures for immigration forms, the Hill-Burton Uncompensated Services Program, and the number of people in poverty, use the specific telephone numbers and addresses given below.

For general questions about the poverty guidelines themselves, contact Kendall Swenson, Office of the Assistant Secretary for Planning and Evaluation, Room 422F.5, Humphrey Building, Department of Health and Human Services, Washington, DC 20201—telephone: (202) 690–7507—or visit *http://aspe.hhs.gov/poverty/.*

For information about the percentage multiple of the poverty guidelines to be used on immigration forms such as USCIS Form I–864, Affidavit of Support, contact U.S. Citizenship and Immigration Services at 1–800–375–5283.

For information about the Hill-Burton Uncompensated Services Program (free or reduced-fee health care services at certain hospitals and other facilities for persons meeting eligibility criteria involving the poverty guidelines), contact the Health Resources and Services Administration Information Center at 1–800–275–4772. You also may visit *http://www.hrsa.gov/gethealthcare/affordable/hillburton/.*

For information about the number of people in poverty, visit the Poverty section of the Census Bureau's Web site at *http://www.census.gov/hhes/www/poverty/poverty.html* or contact the Census Bureau's Customer Service Center at 1–800–923–8282 (toll-free) and *https://ask.census.gov* for further information.

SUPPLEMENTARY INFORMATION:

Background

Section 673(2) of the Omnibus Budget Reconciliation Act (OBRA) of 1981 (42 U.S.C. 9902(2)) requires the Secretary of the Department of Health and Human Services to update the poverty guidelines at least annually, adjusting them on the basis of the Consumer Price Index for All Urban Consumers (CPI–U). The poverty guidelines are used as an eligibility criterion by the Community Services Block Grant program and a number of other Federal programs. The *poverty guidelines* issued here are a simplified version of the *poverty thresholds* that the Census Bureau uses to prepare its estimates of the number of individuals and families in poverty.

As required by law, this update is accomplished by increasing the latest published Census Bureau poverty thresholds by the relevant percentage change in the Consumer Price Index for All Urban Consumers (CPI–U). The guidelines in this 2016 notice reflect the 0.1 percent price increase between calendar years 2014 and 2015. After this inflation adjustment, the guidelines are rounded and adjusted to standardize the differences between family sizes. In rare circumstances, the rounding and standardizing adjustments in the formula result in small decreases in the poverty guidelines for some household sizes even when the inflation factor is not negative. In order to prevent a reduction in the guidelines in these rare circumstances, a minor adjustment was implemented to the formula beginning this year. In cases where the year-to-year change in inflation is not negative and the rounding and standardizing adjustments in the formula result in reductions to the guidelines from the previous year for some household sizes, the guidelines for the affected household sizes are fixed at the prior year's guidelines. As in prior years, these 2016 guidelines are roughly equal to the poverty thresholds for calendar year 2015 which the Census Bureau expects to publish in final form in September 2016.

The poverty guidelines continue to be derived from the Census Bureau's current official poverty thresholds; they are not derived from the Census Bureau's new Supplemental Poverty Measure (SPM).

The following guideline figures represent annual income.

2016 POVERTY GUIDELINES FOR THE 48 CONTIGUOUS STATES AND THE DISTRICT OF COLUMBIA

Persons in family/household	Poverty guideline
1	$11,880
2	16,020
3	20,160
4	24,300
5	28,440
6	32,580
7	36,730
8	40,890

For families/households with more than 8 persons, add $4,160 for each additional person.

2016 POVERTY GUIDELINES FOR ALASKA

Persons in family/household	Poverty guideline
1	$14,840
2	20,020
3	25,200
4	30,380
5	35,560
6	40,740
7	45,920
8	51,120

For families/households with more than 8 persons, add $5,200 for each additional person.

2016 POVERTY GUIDELINES FOR HAWAII

Persons in family/household	Poverty guideline
1	$13,670
2	18,430
3	23,190
4	27,950
5	32,710
6	37,470
7	42,230
8	47,010

For families/households with more than 8 persons, add $4,780 for each additional person.

Separate poverty guideline figures for Alaska and Hawaii reflect Office of Economic Opportunity administrative practice beginning in the 1966–1970 period. (Note that the Census Bureau poverty thresholds—the version of the poverty measure used for statistical purposes—have never had separate figures for Alaska and Hawaii.) The poverty guidelines are not defined for Puerto Rico or other outlying jurisdictions. In cases in which a Federal program using the poverty guidelines serves any of those jurisdictions, the Federal office that administers the program is generally responsible for deciding whether to use the contiguous-states-and-DC guidelines for those jurisdictions or to follow some other procedure.

Due to confusing legislative language dating back to 1972, the poverty guidelines sometimes have been mistakenly referred to as the ''OMB'' (Office of Management and Budget) poverty guidelines or poverty line. In fact, OMB has never issued the guidelines; the guidelines are issued each year by the Department of Health and Human Services. The poverty guidelines may be formally referenced as ''the poverty guidelines updated periodically in the **Federal Register** by the U.S. Department of Health and Human Services under the authority of 42 U.S.C. 9902(2).''

Some federal programs use a percentage multiple of the guidelines (for example, 125 percent or 185 percent of the guidelines), as noted in relevant authorizing legislation or program regulations. Non-Federal organizations that use the poverty guidelines under their own authority in non-Federally-funded activities also may choose to use a percentage multiple of the guidelines.

The poverty guidelines do not make a distinction between farm and non-farm families, or between aged and non-aged units. (Only the Census Bureau poverty thresholds have separate figures for aged and non-aged one-person and two-person units.)

Note that this notice does not provide definitions of such terms as ''income'' or ''family,'' because there is considerable variation in defining these terms among the different programs that use the guidelines. These variations are traceable to the different laws and regulations that govern the various programs. This means that questions such as ''Is income counted before or after taxes?'', ''Should a particular type of income be counted?'', and ''Should a particular person be counted as a member of the family/household?'' are actually questions about how a specific program applies the poverty guidelines. All such questions about how a specific program applies the guidelines should be directed to the entity that administers or funds the program, since that entity has the responsibility for defining such terms as ''income'' or ''family,'' to the extent that these terms are not already defined for the program in legislation or regulations.

Dated: January 21, 2016.

Sylvia M. Burwell,

Secretary of Health and Human Services.

[FR Doc. 2016–01450 Filed 1–22–16; 8:45 am]

BILLING CODE 4150–05–P

DEPARTMENT OF HEALTH AND HUMAN SERVICES

National Institutes of Health

National Institute of Allergy and Infectious Diseases; Notice of Closed Meetings

Pursuant to section 10(d) of the Federal Advisory Committee Act, as amended (5 U.S.C. App.), notice is hereby given of the following meetings.

The meetings will be closed to the public in accordance with the provisions set forth in sections 552b(c)(4) and 552b(c)(6), title 5 U.S.C., as amended. The grant applications and the discussions could disclose confidential trade secrets or commercial property such as patentable material, and personal information concerning individuals associated with the grant applications, the disclosure of which would constitute a clearly unwarranted invasion of personal privacy.

Name of Committee: Microbiology, Infectious Diseases and AIDS Initial Review Group; Microbiology and Infectious Diseases Research Committee.

Date: February 18–19, 2016.

Time: 8:00 a.m. to 5:00 p.m.

Agenda: To review and evaluate grant applications.

Place: The Ritz-Carlton Hotel, Plaza II, 1150 22nd Street NW., Washington, DC 20037.

Contact Person: Frank S. De Silva, Ph.D., Scientific Review Officer, Scientific Review Program, Division of Extramural Activities, Room #3E72A, National Institutes of Health/NIAID, 5601 Fishers Lane, MSC 9834, Bethesda, MD 20892934, (240) 669–5023, *fdesilva@niaid.nih.gov*.

Name of Committee: National Institute of Allergy and Infectious Diseases Special Emphasis Panel; ''Comprehensive Resources for HIV Microbicides and Biomedical Prevention (N01)''.

Date: February 18, 2016.

Time: 10:30 a.m. to 5:00 p.m.

Agenda: To review and evaluate contract proposals.

Place: National Institutes of Health Room 3F100, 5601 Fishers Lane, Rockville, MD 20892 (Telephone Conference Call).

Contact Person: Jay R. Radke, Ph.D., AIDS Review Branch, Scientific Review Program, Division of Extramural Activities, Room #3G11B, National Institutes of Health, NIAID, 5601 Fishers Lane, MSC–9823, Bethesda, MD 20892–9823, (240) 669–5046, *jay.radke@nih.gov.*

(Catalogue of Federal Domestic Assistance Program Nos. 93.855, Allergy, Immunology, and Transplantation Research; 93.856, Microbiology and Infectious Diseases Research, National Institutes of Health, HHS)

Dated: January 19, 2016.

Natasha M. Copeland,

Program Analyst, Office of Federal Advisory Committee Policy.

[FR Doc. 2016–01313 Filed 1–22–16; 8:45 am]

BILLING CODE 4140–01–P

DEPARTMENT OF HEALTH AND HUMAN SERVICES

National Institutes of Health

Submission for OMB Review; 30-Day Comment Request; Media-Smart Youth Leaders Program

SUMMARY: Under the provisions of section 3507(a)(1)(D) of the Paperwork Reduction Act of 1995, the *Eunice Kennedy Shriver* National Institute of Child Health and Human Development, National Institutes of Health (NIH) has submitted to the Office of Management and Budget (OMB) a request for review and approval of the information collection listed below. This proposed information collection was previously published in the **Federal Register** on October 16, 2015, pages 62541–62542, and allowed 60 days for public comment. One public comment was received. The purpose of this notice is to allow an additional 30 days for public comment. The *Eunice Kennedy Shriver* National Institute of Child Health and Human Development, National Institutes of Health, may not conduct or

APPENDIX E

REGULATORY DATABASE SEARCH RESULTS AND HISTORIC DOCUMENTS

GeoSearch Radius Report

GeoSearch Fire Insurance Maps

GeoSearch GeoPlus Oil and Gas Report

GeoSearch GeoPlus Water Well Report

GeoSearch Historical Aerial Photographs Package

GeoSearch Historic Topographic Maps Package

GeoSearch
On time. On target. In touch.™

Radius Report

Satellite view

Target Property:

2.1 Mile Corridor
Hackberry, Cameron Parish, Louisiana 70645

Prepared For:

S&B Infrastructure-Houston

Order #: 67530
Job #: 146779
Date: 05/24/2016

Table of Contents

Disclaimer

This report was designed by GeoSearch to meet or exceed the records search requirements of the All Appropriate Inquiries Rule (40 CFR §312.26) and the current version of the ASTM International E1527, Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process or, if applicable, the custom requirements requested by the entity that ordered this report. The records and databases of records used to compile this report were collected from various federal,state and local governmental entities. It is the goal of GeoSearch to meet or exceed the 40 CFR §312.26 and E1527 requirements for updating records by using the best available technology. GeoSearch contacts the appropriate governmental entities on a recurring basis. Depending on the frequency with which a record source or database of records is updated by the governmental entity, the data used to prepare this report may be updated monthly, quarterly, semi-annually, or annually.

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Target Property Summary

Target Property Information

2.1 Mile Corridor
Hackberry, Louisiana 70645

Coordinates
Corridor

USGS Quadrangle
Browns Lake, LA

Geographic Coverage Information

County/Parish: Cameron (LA)
ZipCode(s):
Hackberry LA: 70645

Radon
* Target property is located in Radon Zone .

Database Summary

FEDERAL LISTING

Standard Environmental Records

Database	Acronym	Locatable	Unlocatable	Search Radius (miles)
EMERGENCY RESPONSE NOTIFICATION SYSTEM	ERNSLA	0	0	TP/AP
FEDERAL ENGINEERING INSTITUTIONAL CONTROL SITES	EC	0	0	TP/AP
LAND USE CONTROL INFORMATION SYSTEM	LUCIS	0	0	TP/AP
RCRA SITES WITH CONTROLS	RCRASC	0	0	TP/AP
NO LONGER REGULATED RCRA GENERATOR FACILITIES	NLRRCRAG	0	0	0.1250
RESOURCE CONSERVATION & RECOVERY ACT - GENERATOR FACILITIES	RCRAGR06	1	1	0.1250
RESOURCE CONSERVATION & RECOVERY ACT - NON-GENERATOR FACILITIES	RCRANGR06	0	1	0.1250
BROWNFIELDS MANAGEMENT SYSTEM	BF	0	0	0.5000
DELISTED NATIONAL PRIORITIES LIST	DNPL	0	0	0.5000
NO LONGER REGULATED RCRA NON-CORRACTS TSD FACILITIES	NLRRCRAT	0	0	0.5000
RESOURCE CONSERVATION & RECOVERY ACT - NON-CORRACTS TREATMENT, STORAGE & DISPOSAL FACILITIES	RCRAT	0	0	0.5000
SUPERFUND ENTERPRISE MANAGEMENT SYSTEM	SEMS	0	0	0.5000
SUPERFUND ENTERPRISE MANAGEMENT SYSTEM ARCHIVED SITE INVENTORY	SEMSARCH	1	0	0.5000
NATIONAL PRIORITIES LIST	NPL	0	0	1.0000
NO LONGER REGULATED RCRA CORRECTIVE ACTION FACILITIES	NLRRCRAC	0	0	1.0000
PROPOSED NATIONAL PRIORITIES LIST	PNPL	0	0	1.0000
RESOURCE CONSERVATION & RECOVERY ACT - CORRECTIVE ACTION FACILITIES	RCRAC	0	0	1.0000
RESOURCE CONSERVATION & RECOVERY ACT - SUBJECT TO CORRECTIVE ACTION FACILITIES	RCRASUBC	0	0	1.0000

SUB-TOTAL		2	2	

Additional Environmental Records

Database	Acronym	Locatable	Unlocatable	Search Radius (miles)
AEROMETRIC INFORMATION RETRIEVAL SYSTEM / AIR FACILITY SUBSYSTEM	AIRSAFS	0	0	TP/AP
BIENNIAL REPORTING SYSTEM	BRS	0	0	TP/AP
CERCLIS LIENS	SFLIENS	0	0	TP/AP
CLANDESTINE DRUG LABORATORY LOCATIONS	CDL	0	0	TP/AP
EPA DOCKET DATA	DOCKETS	0	0	TP/AP
FACILITY REGISTRY SYSTEM	FRSLA	0	0	TP/AP

Database Summary

Database	Acronym	Locatable	Unlocatable	Search Radius (miles)
HAZARDOUS MATERIALS INCIDENT REPORTING SYSTEM	HMIRSR06	0	0	TP/AP
INTEGRATED COMPLIANCE INFORMATION SYSTEM (FORMERLY DOCKETS)	ICIS	0	0	TP/AP
INTEGRATED COMPLIANCE INFORMATION SYSTEM NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM	ICISNPDES	0	0	TP/AP
MATERIAL LICENSING TRACKING SYSTEM	MLTS	0	0	TP/AP
NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM	NPDESR06	0	0	TP/AP
PCB ACTIVITY DATABASE SYSTEM	PADS	0	0	TP/AP
PERMIT COMPLIANCE SYSTEM	PCSR06	0	0	TP/AP
SECTION SEVEN TRACKING SYSTEM	SSTS	0	0	TP/AP
TOXIC SUBSTANCE CONTROL ACT INVENTORY	TSCA	0	0	TP/AP
TOXICS RELEASE INVENTORY	TRI	0	0	TP/AP
HISTORICAL GAS STATIONS	HISTPST	0	0	0.2500
OPEN DUMP INVENTORY	ODI	0	0	0.5000
DEPARTMENT OF DEFENSE SITES	DOD	0	0	1.0000
FORMERLY USED DEFENSE SITES	FUDS	0	0	1.0000
RECORD OF DECISION SYSTEM	RODS	0	0	1.0000

SUB-TOTAL		0	0	

Database Summary

STATE (LA) LISTING

Standard Environmental Records

Database	Acronym	Locatable	Unlocatable	Search Radius (miles)
SITES WITH CONTROLS	IC	0	0	TP/AP
NO LONGER REPORTED UNDERGROUND STORAGE TANKS	NLRUST	1	0	0.2500
UNDERGROUND STORAGE TANKS	UST	0	0	0.2500
APPROVED HURRICANE DEBRIS DUMP SITES	ADS	1	0	0.5000
HISTORICAL LEAKING UNDERGROUND STORAGE TANKS	HLUST	0	0	0.5000
LEAKING UNDERGROUND STORAGE TANKS	LUST	0	0	0.5000
SOLID WASTE LANDFILLS	SWLF	0	0	0.5000
VOLUNTARY REMEDIATION PROGRAM SITES	VRP	0	0	0.5000
CONFIRMED AND POTENTIAL SITES INVENTORY	CPI	0	0	1.0000
SUB-TOTAL		2	0	

Additional Environmental Records

Database	Acronym	Locatable	Unlocatable	Search Radius (miles)
ASBESTOS DEMOLITION AND RENOVATION NOTIFICATION PROJECTS	ASBESTOS	0	0	TP/AP
CLANDESTINE DRUG LABORATORY LOCATIONS	CDL	0	0	TP/AP
LISTING OF LOUISIANA DEQ LIENS	LIENS	0	0	TP/AP
SPILLS LISTING	SPILLS	0	0	TP/AP
WASTE TIRE GENERATOR LIST	WASTETIRE	0	0	TP/AP
DRYCLEANING FACILITIES	DCR	0	0	0.2500
RECYCLING FACILITIES	RCY	1	0	0.5000
WASTE PITS	WP	44	0	0.5000
SUB-TOTAL		45	0	

Database Summary

LOCAL LISTING

Additional Environmental Records

Database	Acronym	Locatable	Unlocatable	Search Radius (miles)
CITY OF NEW ORLEANS MARKETABLE BROWNFIELD PROPERTIES	MBF	0	0	0.5000
CITY OF NEW ORLEANS POTENTIAL BROWNFIELD PROPERTIES	PBF	0	0	0.5000
CITY OF WESTWEGO BROWNFIELD RENEWAL PROJECTS	WBF	0	0	0.5000
SUB-TOTAL		0	0	

TRIBAL LISTING

Standard Environmental Records

Database	Acronym	Locatable	Unlocatable	Search Radius (miles)
UNDERGROUND STORAGE TANKS ON TRIBAL LANDS	USTR06	0	0	0.2500
LEAKING UNDERGROUND STORAGE TANKS ON TRIBAL LANDS	LUSTR06	0	0	0.5000
OPEN DUMP INVENTORY ON TRIBAL LANDS	ODINDIAN	0	0	0.5000
SUB-TOTAL		0	0	

Additional Environmental Records

Database	Acronym	Locatable	Unlocatable	Search Radius (miles)
INDIAN RESERVATIONS	INDIANRES	0	0	1.0000
SUB-TOTAL		0	0	
TOTAL		49	2	

Database Radius Summary

FEDERAL LISTING

*Standard environmental records are displayed in **bold**.*

Acronym	Search Radius (miles)	TP/AP (0 - 0.02)	1/8 Mile (> TP/AP)	1/4 Mile (> 1/8)	1/2 Mile (> 1/4)	1 Mile (> 1/2)	> 1 Mile	Total
AIRSAFS	0.0200	0	NS	NS	NS	NS	NS	0
BRS	0.0200	0	NS	NS	NS	NS	NS	0
CDL	0.0200	0	NS	NS	NS	NS	NS	0
DOCKETS	0.0200	0	NS	NS	NS	NS	NS	0
EC	**0.0200**	**0**	**NS**	**NS**	**NS**	**NS**	**NS**	**0**
ERNSLA	**0.0200**	**0**	**NS**	**NS**	**NS**	**NS**	**NS**	**0**
FRSLA	0.0200	0	NS	NS	NS	NS	NS	0
HMIRSR06	0.0200	0	NS	NS	NS	NS	NS	0
ICIS	0.0200	0	NS	NS	NS	NS	NS	0
ICISNPDES	0.0200	0	NS	NS	NS	NS	NS	0
LUCIS	**0.0200**	**0**	**NS**	**NS**	**NS**	**NS**	**NS**	**0**
MLTS	0.0200	0	NS	NS	NS	NS	NS	0
NPDESR06	0.0200	0	NS	NS	NS	NS	NS	0
PADS	0.0200	0	NS	NS	NS	NS	NS	0
PCSR06	0.0200	0	NS	NS	NS	NS	NS	0
RCRASC	**0.0200**	**0**	**NS**	**NS**	**NS**	**NS**	**NS**	**0**
SFLIENS	0.0200	0	NS	NS	NS	NS	NS	0
SSTS	0.0200	0	NS	NS	NS	NS	NS	0
TRI	0.0200	0	NS	NS	NS	NS	NS	0
TSCA	0.0200	0	NS	NS	NS	NS	NS	0
NLRRCRAG	**0.1250**	**0**	**0**	**NS**	**NS**	**NS**	**NS**	**0**
RCRAGR06	**0.1250**	**0**	**1**	**NS**	**NS**	**NS**	**NS**	**1**
RCRANGR06	**0.1250**	**0**	**0**	**NS**	**NS**	**NS**	**NS**	**0**
HISTPST	0.2500	0	0	0	NS	NS	NS	0
BF	**0.5000**	**0**	**0**	**0**	**0**	**NS**	**NS**	**0**
DNPL	**0.5000**	**0**	**0**	**0**	**0**	**NS**	**NS**	**0**
NLRRCRAT	**0.5000**	**0**	**0**	**0**	**0**	**NS**	**NS**	**0**
ODI	0.5000	0	0	0	0	NS	NS	0
RCRAT	**0.5000**	**0**	**0**	**0**	**0**	**NS**	**NS**	**0**
SEMS	**0.5000**	**0**	**0**	**0**	**0**	**NS**	**NS**	**0**
SEMSARCH	**0.5000**	**0**	**1**	**0**	**0**	**NS**	**NS**	**1**
DOD	1.0000	0	0	0	0	0	NS	0
FUDS	1.0000	0	0	0	0	0	NS	0
NLRRCRAC	**1.0000**	**0**	**0**	**0**	**0**	**0**	**NS**	**0**
NPL	**1.0000**	**0**	**0**	**0**	**0**	**0**	**NS**	**0**

Database Radius Summary

Acronym	Search Radius (miles)	TP/AP (0 - 0.02)	1/8 Mile (> TP/AP)	1/4 Mile (> 1/8)	1/2 Mile (> 1/4)	1 Mile (> 1/2)	> 1 Mile	Total
PNPL	**1.0000**	**0**	**0**	**0**	**0**	**0**	**NS**	**0**
RCRAC	**1.0000**	**0**	**0**	**0**	**0**	**0**	**NS**	**0**
RCRASUBC	**1.0000**	**0**	**0**	**0**	**0**	**0**	**NS**	**0**
RODS	1.0000	0	0	0	0	0	NS	0
SUB-TOTAL		0	2	0	0	0	0	2

Database Radius Summary

STATE (LA) LISTING

*Standard environmental records are displayed in **bold**.*

Acronym	Search Radius (miles)	TP/AP (0 - 0.02)	1/8 Mile (> TP/AP)	1/4 Mile (> 1/8)	1/2 Mile (> 1/4)	1 Mile (> 1/2)	> 1 Mile	Total
ASBESTOS	0.0200	0	NS	NS	NS	NS	NS	0
CDL	0.0200	0	NS	NS	NS	NS	NS	0
IC	**0.0200**	**0**	**NS**	**NS**	**NS**	**NS**	**NS**	**0**
LIENS	0.0200	0	NS	NS	NS	NS	NS	0
SPILLS	0.0200	0	NS	NS	NS	NS	NS	0
WASTETIRE	0.0200	0	NS	NS	NS	NS	NS	0
DCR	0.2500	0	0	0	NS	NS	NS	0
NLRUST	**0.2500**	**0**	**1**	**0**	**NS**	**NS**	**NS**	**1**
UST	**0.2500**	**0**	**0**	**0**	**NS**	**NS**	**NS**	**0**
ADS	**0.5000**	**0**	**0**	**0**	**1**	**NS**	**NS**	**1**
HLUST	**0.5000**	**0**	**0**	**0**	**0**	**NS**	**NS**	**0**
LUST	**0.5000**	**0**	**0**	**0**	**0**	**NS**	**NS**	**0**
RCY	0.5000	0	0	0	1	NS	NS	1
SWLF	**0.5000**	**0**	**0**	**0**	**0**	**NS**	**NS**	**0**
VRP	**0.5000**	**0**	**0**	**0**	**0**	**NS**	**NS**	**0**
WP	0.5000	1	10	7	26	NS	NS	44
CPI	**1.0000**	**0**	**0**	**0**	**0**	**0**	**NS**	**0**

SUB-TOTAL		1	11	7	28	0	0	47

Database Radius Summary

LOCAL LISTING

*Standard environmental records are displayed in **bold**.*

Acronym	Search Radius (miles)	TP/AP (0 - 0.02)	1/8 Mile (> TP/AP)	1/4 Mile (> 1/8)	1/2 Mile (> 1/4)	1 Mile (> 1/2)	> 1 Mile	Total
MBF	0.5000	0	0	0	0	NS	NS	0
PBF	0.5000	0	0	0	0	NS	NS	0
WBF	0.5000	0	0	0	0	NS	NS	0
SUB-TOTAL		0	0	0	0	0	0	0

Database Radius Summary

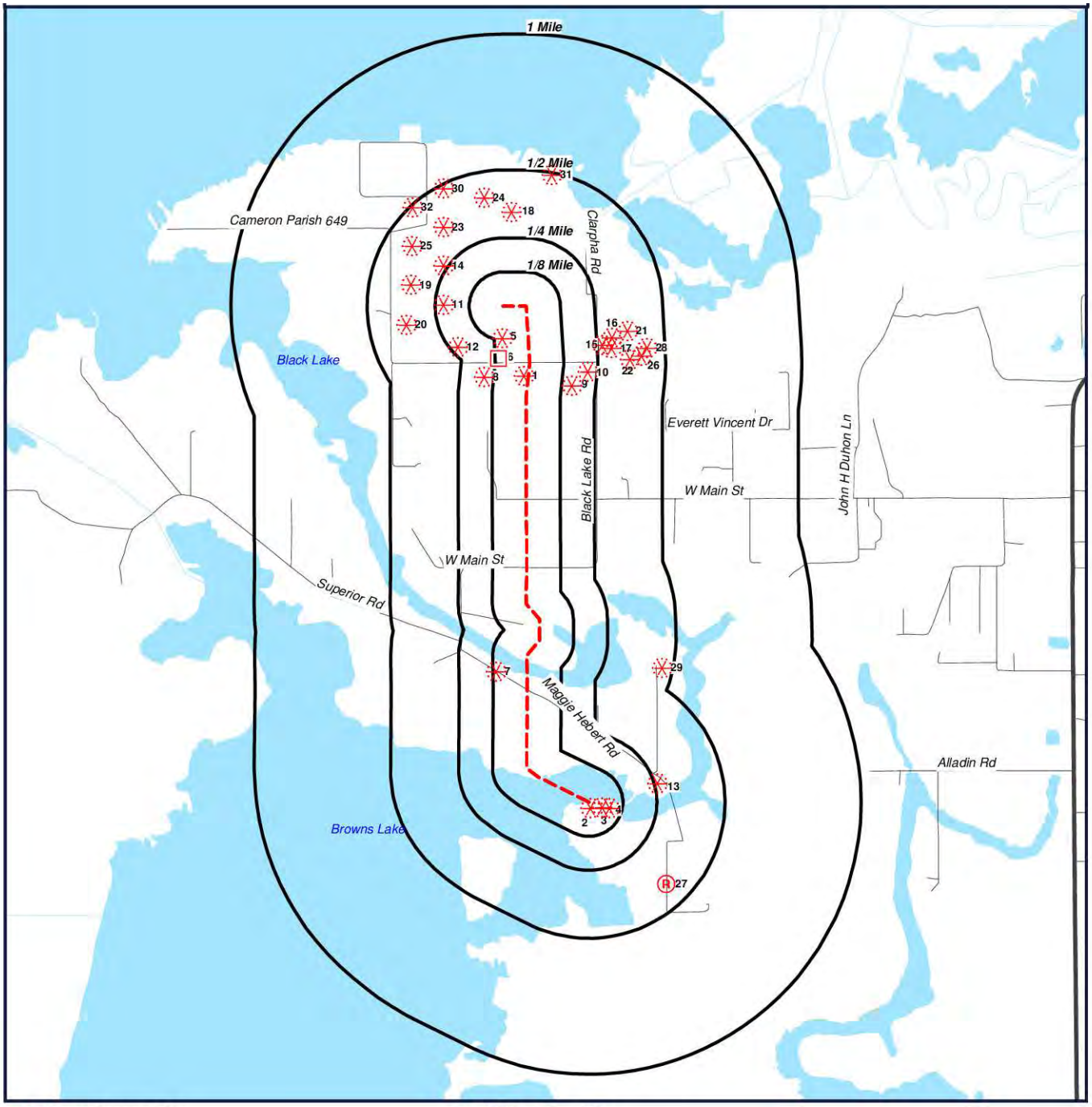
TRIBAL LISTING

*Standard environmental records are displayed in **bold**.*

Acronym	Search Radius (miles)	TP/AP (0 - 0.02)	1/8 Mile (> TP/AP)	1/4 Mile (> 1/8)	1/2 Mile (> 1/4)	1 Mile (> 1/2)	> 1 Mile	Total
USTR06	**0.2500**	**0**	**0**	**0**	**NS**	**NS**	**NS**	**0**
LUSTR06	**0.5000**	**0**	**0**	**0**	**0**	**NS**	**NS**	**0**
ODINDIAN	**0.5000**	**0**	**0**	**0**	**0**	**NS**	**NS**	**0**
INDIANRES	1.0000	0	0	0	0	0	NS	0
SUB-TOTAL		0	0	0	0	0	0	0
TOTAL		1	13	7	28	0	0	49

NOTES:
NS = NOT SEARCHED
TP/AP = TARGET PROPERTY/ADJACENT PROPERTY

Radius Map 1



Target Property (TP)
WP
RCRAGR06
R RCY

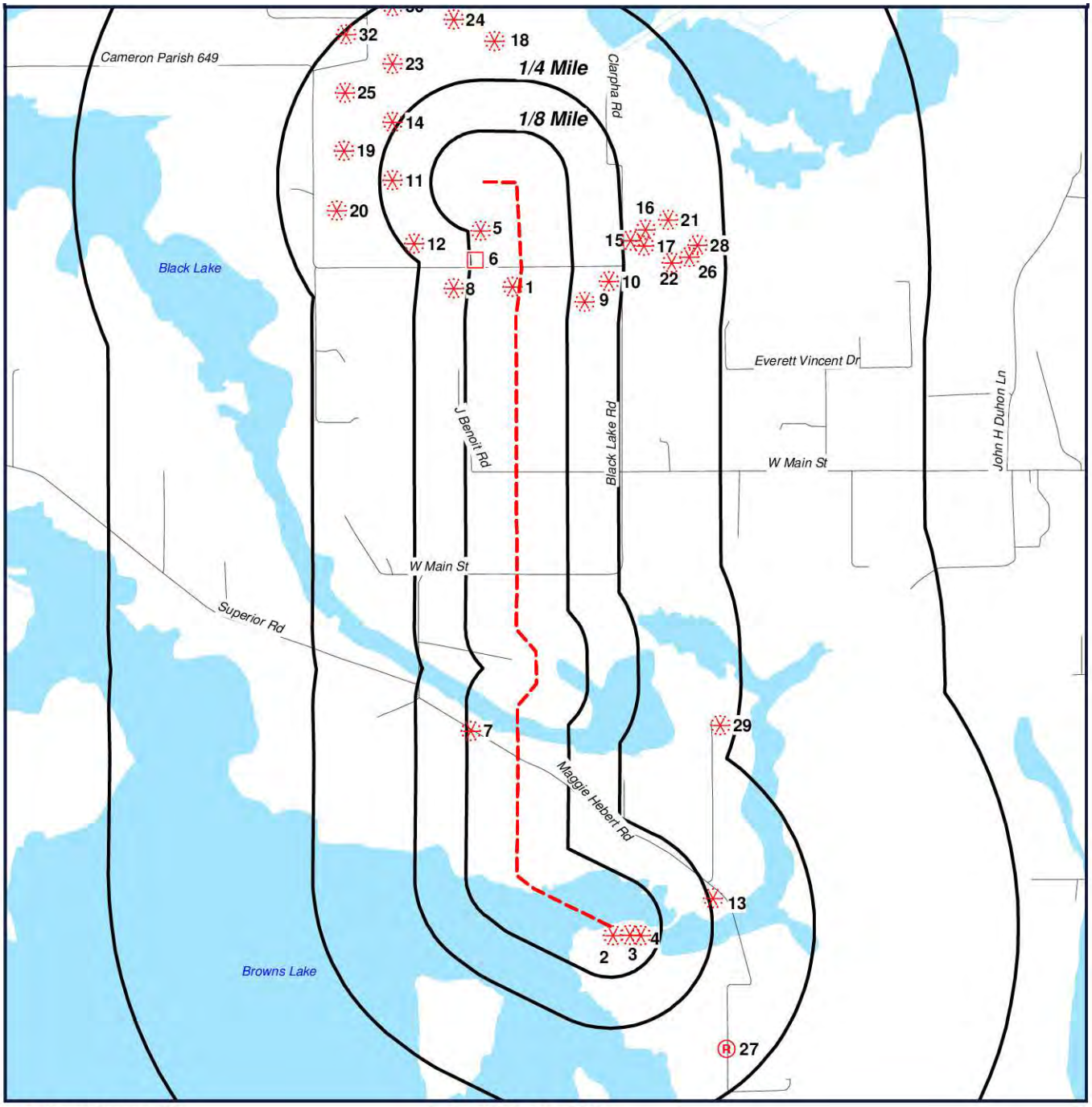
2.1 Mile Corridor
Hackberry, Louisiana
70645

N
W E
S

0' 1500' 3000' 4500'
SCALE: 1" = 3000'

[Click here to access Satellite view]

Radius Map 2



Target Property (TP)
WP
RCRAGR06
RCY

2.1 Mile Corridor
Hackberry, Louisiana
70645

N
W E
S

0' 1000' 2000' 3000'
SCALE: 1" = 2000'

[Click here to access Satellite view]

Ortho Map

Target Property (TP)
WP
RCRAGR06
RCY

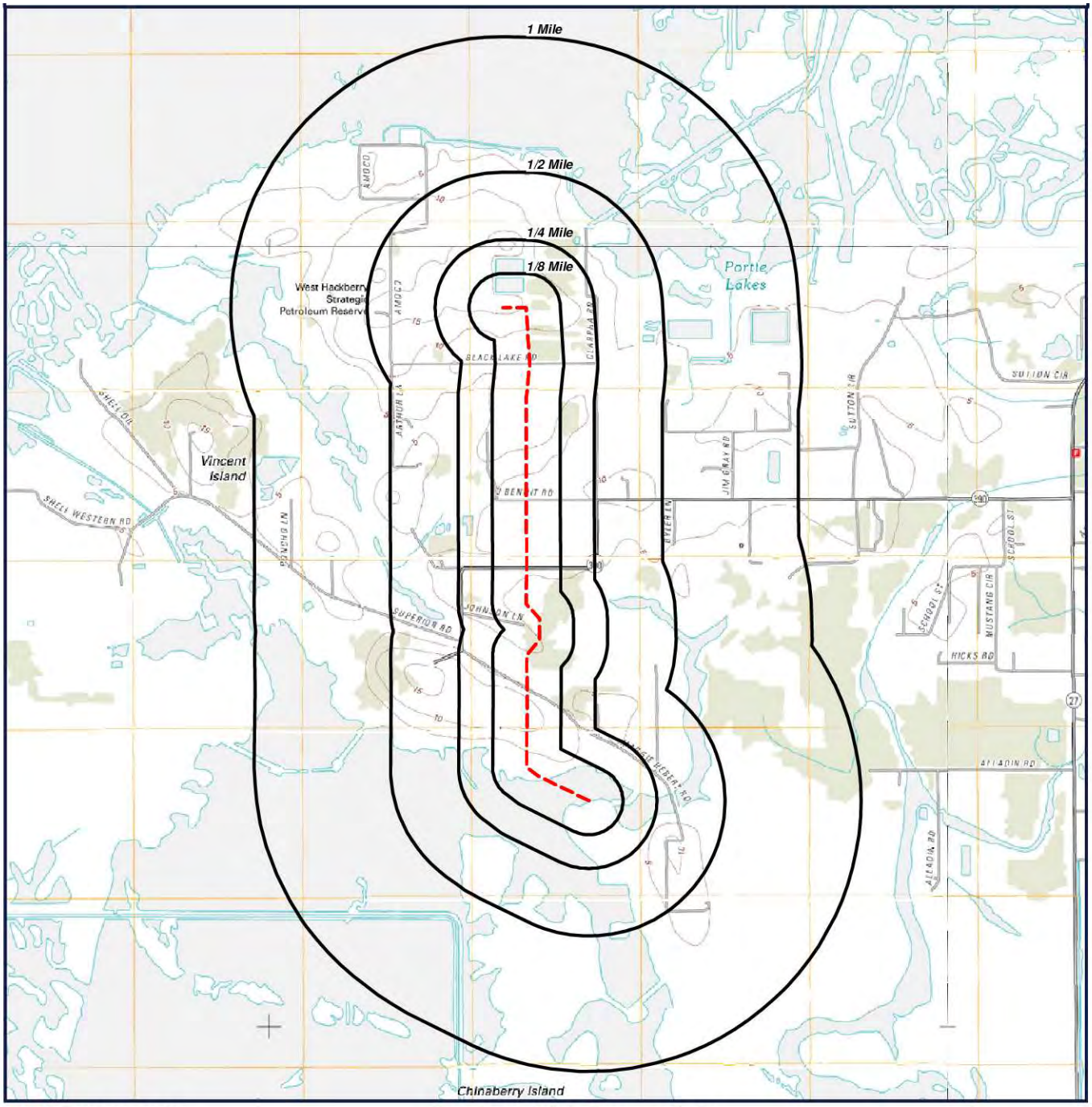
Quadrangle(s): Browns Lake
2.1 Mile Corridor
Hackberry, Louisiana
70645

N
W E
S

0' 1000' 2000' 3000'
SCALE: 1" = 2000'

[Click here to access Satellite view]

Topographic Map



Target Property (TP)

Quadrangle(s): Browns Lake
Source: USGS, 03/29/2012
2.1 Mile Corridor
Hackberry, Louisiana
70645

N
W E
S

0' 1500' 3000' 4500'
SCALE: 1" = 3000'

[Click here to access Satellite view]

Located Sites Summary

*NOTE: Standard environmental records are displayed in **bold**.*

Map ID#	Database Name	Site ID#	Distance From Site	Site Name	Address	PAGE #
1	WP	12_w_18795	0.02 mi. SW (106 ft.)	U. S. DEPARTMENT OF ENERGY	HACKBERRY, LA 70645	19
2	WP	12_w_18757	0.04 mi. SE (211 ft.)	U. S. DEPARTMENT OF ENERGY	HACKBERRY, LA 70645	20
2	WP	12_w_18756	0.03 mi. SE (158 ft.)	U. S. DEPARTMENT OF ENERGY	HACKBERRY, LA 70645	21
3	WP	12_w_18758	0.06 mi. SE (317 ft.)	U. S. DEPARTMENT OF ENERGY	HACKBERRY, LA 70645	22
4	WP	12_w_18760	0.09 mi. E (475 ft.)	U. S. DEPARTMENT OF ENERGY	HACKBERRY, LA 70645	23
4	WP	12_w_18761	0.08 mi. E (422 ft.)	U. S. DEPARTMENT OF ENERGY	HACKBERRY, LA 70645	24
4	WP	12_w_18759	0.07 mi. E (370 ft.)	U. S. DEPARTMENT OF ENERGY	HACKBERRY, LA 70645	25
5	WP	12_w_18792	0.1 mi. W (528 ft.)	U. S. DEPARTMENT OF ENERGY	HACKBERRY, LA 70645	26
5	WP	12_w_18793	0.1 mi. W (528 ft.)	U. S. DEPARTMENT OF ENERGY	HACKBERRY, LA 70645	27
5	WP	12_w_18791	0.1 mi. W (528 ft.)	U. S. DEPARTMENT OF ENERGY	HACKBERRY, LA 70645	28
6	***RCRAGR06***	***LA2890032582***	***0.11 mi. W (581 ft.)***	***US DOE SPR W HACKBERRY***	***1450 BLACK LAKE RD, HACKBERRY, LA 70645***	***29***
6	***SEMSARCH***	***LA2890032582***	***0.11 mi. W (581 ft.)***	***WEST HACKBERRY SPRING***	***3.8 MI W OF HACKBERRY, HWY 390, HACKBERRY, LA 70645***	***32***
6	***NLRUST***	***12-009739***	***0.11 mi. W (581 ft.)***	***WEST HACKBERRY STRATEGIC PETR. R***	***BLACK LAKE ROAD, OFF HWY 390, HACKBERRY, LA 70645***	***33***
7	WP	12_mh_18487	0.12 mi. W (634 ft.)	WARREN PETROLEUM COMPANY	HACKBERRY, LA 70645	35
8	WP	12_w_18794	0.17 mi. W (898 ft.)	U. S. DEPARTMENT OF ENERGY	HACKBERRY, LA 70645	36
9	WP	12_mh_18450	0.17 mi. E (898 ft.)	WARREN PETROLEUM COMPANY	HACKBERRY, LA 70645	37
9	WP	12_f_18451	0.17 mi. E (898 ft.)	WARREN PETROLEUM COMPANY	HACKBERRY, LA 70645	38
10	WP	12_mh_18449	0.22 mi. E (1162 ft.)	WARREN PETROLEUM COMPANY	HACKBERRY, LA 70645	39
11	WP	12_w_18787	0.22 mi. W (1162 ft.)	U. S. DEPARTMENT OF ENERGY	HACKBERRY, LA 70645	40
12	WP	12_w_18790	0.24 mi. SW (1267 ft.)	U. S. DEPARTMENT OF ENERGY	HACKBERRY, LA 70645	41
12	WP	12_w_18789	0.23 mi. SW (1214 ft.)	U. S. DEPARTMENT OF ENERGY	HACKBERRY, LA 70645	42
13	WP	12_w_18754	0.27 mi. E (1426 ft.)	U. S. DEPARTMENT OF ENERGY	HACKBERRY, LA 70645	43
13	WP	12_w_18755	0.27 mi. E (1426 ft.)	U. S. DEPARTMENT OF ENERGY	HACKBERRY, LA 70645	44
13	WP	12_w_18616	0.27 mi. E (1426 ft.)	U. S. DEPARTMENT OF ENERGY	HACKBERRY, LA 70645	45

14	WP	12_w_18785	0.27 mi. NW (1426 ft.)	U. S. DEPARTMENT OF ENERGY	HACKBERRY, LA 70645	46
15	WP	12_tb_18467	0.28 mi. E (1478 ft.)	WARREN PETROLEUM COMPANY	HACKBERRY, LA 70645	47
16	WP	12_f_18468	0.31 mi. E (1637 ft.)	WARREN PETROLEUM COMPANY	HACKBERRY, LA 70645	48
17	WP	12_w_18469	0.31 mi. E (1637 ft.)	WARREN PETROLEUM COMPANY	HACKBERRY, LA 70645	49
18	WP	12_w_18766	0.35 mi. N (1848 ft.)	U. S. DEPARTMENT OF ENERGY	HACKBERRY, LA 70645	50
18	WP	12_w_18767	0.35 mi. N (1848 ft.)	U. S. DEPARTMENT OF ENERGY	HACKBERRY, LA 70645	51
18	WP	12_w_18765	0.36 mi. N (1901 ft.)	U. S. DEPARTMENT OF ENERGY	HACKBERRY, LA 70645	52
19	WP	12_w_18786	0.35 mi. W (1848 ft.)	U. S. DEPARTMENT OF ENERGY	HACKBERRY, LA 70645	53
20	WP	12_w_18788	0.37 mi. W (1954 ft.)	U. S. DEPARTMENT OF ENERGY	HACKBERRY, LA 70645	54
21	WP	12_w_18471	0.37 mi. E (1954 ft.)	WARREN PETROLEUM COMPANY	HACKBERRY, LA 70645	55
22	WP	12_mh_18470	0.37 mi. E (1954 ft.)	WARREN PETROLEUM COMPANY	HACKBERRY, LA 70645	56
23	WP	12_w_18783	0.37 mi. NW (1954 ft.)	U. S. DEPARTMENT OF ENERGY	HACKBERRY, LA 70645	57
24	WP	12_w_18763	0.43 mi. N (2270 ft.)	U. S. DEPARTMENT OF ENERGY	HACKBERRY, LA 70645	58
24	WP	12_w_18764	0.41 mi. N (2165 ft.)	U. S. DEPARTMENT OF ENERGY	HACKBERRY, LA 70645	59
24	WP	12_w_18762	0.43 mi. N (2270 ft.)	U. S. DEPARTMENT OF ENERGY	HACKBERRY, LA 70645	60
25	WP	12_w_18784	0.41 mi. NW (2165 ft.)	U. S. DEPARTMENT OF ENERGY	HACKBERRY, LA 70645	61
26	WP	12_f_18473	0.42 mi. E (2218 ft.)	WARREN PETROLEUM COMPANY	HACKBERRY, LA 70645	62
27	RCY	15430	0.43 mi. SE (2270 ft.)	CAMERON PARISH POLICE JURY - HACKBERRY DUMP	495 MAGGIE HEBERT RD, HACKBERRY, LA 70645	63
27	***ADS***	***15430***	***0.43 mi. SE (2270 ft.)***	***CAMERON PARISH POLICE JURY- MAGGIE HEBERT RD.***	***MAGGIE HEBERT RD, HACKBERRY, LA 70645***	***64***
28	WP	12_w_18472	0.44 mi. E (2323 ft.)	WARREN PETROLEUM COMPANY	HACKBERRY, LA 70645	65
29	WP	12_w_18485	0.47 mi. E (2482 ft.)	WARREN PETROLEUM COMPANY	HACKBERRY, LA 70645	66
30	WP	12_w_18775	0.49 mi. NW (2587 ft.)	U. S. DEPARTMENT OF ENERGY	HACKBERRY, LA 70645	67

31	WP	12_w_18770	0.5 mi. N (2640 ft.)	U. S. DEPARTMENT OF ENERGY	HACKBERRY, LA 70645	68
31	WP	12_w_18769	0.5 mi. N (2640 ft.)	U. S. DEPARTMENT OF ENERGY	HACKBERRY, LA 70645	69
32	WP	12_w_18782	0.5 mi. NW (2640 ft.)	U. S. DEPARTMENT OF ENERGY	HACKBERRY, LA 70645	70

Waste Pits (WP)

MAP ID# 1 **Distance from Property: 0.02 mi. (106 ft.) SW**

SITE INFORMATION

ID#: **12_w_18795**
OPERATOR: **U. S. DEPARTMENT OF ENERGY**
LAND OWNER: **WRT ENERGY CORPORATION**
PARISH: **CAMERON**
OIL FIELD NAME: **W. HACKBERRY**
PIT TYPE: **WELL - AN OIL AND/OR GAS WELL**
PIT DESCRIPTION: **NOT REPORTED**
COMMENTS: **S.N. 971303, WELL #112**
INSPECTION DATE: **09/25/1997** INSPECTION TIME: **11:03**
STATUS: **ACTIVE**
IS PIT PROPERLY MARKED WITH AN ID SIGN OR PLAQUE?: **YES**
IS THERE A SITE PLAN FOR THE FACILITY?: **NO**
IS THE AREAS AFFECTED BY SPILLS MAPPED ON THE SITE PLAN?: **NO**
HAVE THE ENVIRONMENTALLY SENSITIVE AREAS (E.G. WETLAND) NEAR THE FACILITY BEEN MAPPED?: **NO**
NUMBER OF PHOTOS TAKEN OF FACILITY/SITE: **2**
GENERAL DESCRIPTION OF CONTAINMENT: **BARRIER, 7'X7' CONCRETE SUMP**
DEPTH OF FLUID NECESSARY TO OVERFLOW COTAINMENT: **NONE**
CONDITION OF CONTAINMENT: **ADEQUATE**
CONTAINMENT BREACHED?: **NO**
GENERAL COMMENTS ABOUT SITE: **S.N. 971303, WELL #112**
HAZARD / CLEANUP RANKING (RANGE OF VALUES 0 - 90): **50**

REMEDIAL ACTION INFORMATION

NO DATA REPORTED

Back to Report Summary

Waste Pits (WP)

MAP ID# 2 **Distance from Property: 0.04 mi. (211 ft.) SE**

SITE INFORMATION

ID#: **12_w_18757**
OPERATOR: **U. S. DEPARTMENT OF ENERGY**
LAND OWNER: **U. S. DEPARTMENT OF ENERGY**
PARISH: **CAMERON**
OIL FIELD NAME: **W. HACKBERRY**
PIT TYPE: **WELL - AN OIL AND/OR GAS WELL**
PIT DESCRIPTION: **NOT REPORTED**
COMMENTS: **S.N. 971144, WELL #2C**
INSPECTION DATE: **09/25/1997** INSPECTION TIME: **8:42**
STATUS: **ACTIVE**
IS PIT PROPERLY MARKED WITH AN ID SIGN OR PLAQUE?: **YES**
IS THERE A SITE PLAN FOR THE FACILITY?: **NO**
IS THE AREAS AFFECTED BY SPILLS MAPPED ON THE SITE PLAN?: **NO**
HAVE THE ENVIRONMENTALLY SENSITIVE AREAS (E.G. WETLAND) NEAR THE FACILITY BEEN MAPPED?: **NO**
NUMBER OF PHOTOS TAKEN OF FACILITY/SITE: **2**
GENERAL DESCRIPTION OF CONTAINMENT: **NONE**
DEPTH OF FLUID NECESSARY TO OVERFLOW COTAINMENT: **NONE**
CONDITION OF CONTAINMENT: **ADEQUATE**
CONTAINMENT BREACHED?: **NO**
GENERAL COMMENTS ABOUT SITE: **S.N. 971144, WELL #2C**
HAZARD / CLEANUP RANKING (RANGE OF VALUES 0 - 90): **55**

REMEDIAL ACTION INFORMATION

NO DATA REPORTED

Back to Report Summary

Waste Pits (WP)

MAP ID# 2 **Distance from Property: 0.03 mi. (158 ft.) SE**

SITE INFORMATION

ID#: **12_w_18756**
OPERATOR: **U. S. DEPARTMENT OF ENERGY**
LAND OWNER: **U. S. DEPARTMENT OF ENERGY**
PARISH: **CAMERON**
OIL FIELD NAME: **W. HACKBERRY**
PIT TYPE: **WELL - AN OIL AND/OR GAS WELL**
PIT DESCRIPTION: **NOT REPORTED**
COMMENTS: **S.N. 971159, WELL #2-E**
INSPECTION DATE: **09/25/1997** INSPECTION TIME: **8:40**
STATUS: **ACTIVE**
IS PIT PROPERLY MARKED WITH AN ID SIGN OR PLAQUE?: **YES**
IS THERE A SITE PLAN FOR THE FACILITY?: **NO**
IS THE AREAS AFFECTED BY SPILLS MAPPED ON THE SITE PLAN?: **NO**
HAVE THE ENVIRONMENTALLY SENSITIVE AREAS (E.G. WETLAND) NEAR THE FACILITY BEEN MAPPED?: **NO**
NUMBER OF PHOTOS TAKEN OF FACILITY/SITE: **2**
GENERAL DESCRIPTION OF CONTAINMENT: **NONE**
DEPTH OF FLUID NECESSARY TO OVERFLOW COTAINMENT: **NONE**
CONDITION OF CONTAINMENT: **ADEQUATE**
CONTAINMENT BREACHED?: **NO**
GENERAL COMMENTS ABOUT SITE: **S.N. 971159, WELL #2-E**
HAZARD / CLEANUP RANKING (RANGE OF VALUES 0 - 90): **55**

REMEDIAL ACTION INFORMATION

NO DATA REPORTED

Back to Report Summary

Waste Pits (WP)

MAP ID# 3 **Distance from Property: 0.06 mi. (317 ft.) SE**

SITE INFORMATION

ID#: **12_w_18758**
OPERATOR: **U. S. DEPARTMENT OF ENERGY**
LAND OWNER: **U. S. DEPARTMENT OF ENERGY**
PARISH: **CAMERON**
OIL FIELD NAME: **W. HACKBERRY**
PIT TYPE: **WELL - AN OIL AND/OR GAS WELL**
PIT DESCRIPTION: **NOT REPORTED**
COMMENTS: **S.N. 971308, WELL #2**
INSPECTION DATE: **09/25/1997** INSPECTION TIME: **8:44**
STATUS: **ACTIVE**
IS PIT PROPERLY MARKED WITH AN ID SIGN OR PLAQUE?: **YES**
IS THERE A SITE PLAN FOR THE FACILITY?: **NO**
IS THE AREAS AFFECTED BY SPILLS MAPPED ON THE SITE PLAN?: **NO**
HAVE THE ENVIRONMENTALLY SENSITIVE AREAS (E.G. WETLAND) NEAR THE FACILITY BEEN MAPPED?: **NO**
NUMBER OF PHOTOS TAKEN OF FACILITY/SITE: **2**
GENERAL DESCRIPTION OF CONTAINMENT: **NONE**
DEPTH OF FLUID NECESSARY TO OVERFLOW COTAINMENT: **NONE**
CONDITION OF CONTAINMENT: **ADEQUATE**
CONTAINMENT BREACHED?: **NO**
GENERAL COMMENTS ABOUT SITE: **S.N. 971308, WELL #2**
HAZARD / CLEANUP RANKING (RANGE OF VALUES 0 - 90): **55**

REMEDIAL ACTION INFORMATION

NO DATA REPORTED

Back to Report Summary

Waste Pits (WP)

MAP ID# 4 **Distance from Property: 0.09 mi. (475 ft.) E**

SITE INFORMATION

ID#: **12_w_18760**
OPERATOR: **U. S. DEPARTMENT OF ENERGY**
LAND OWNER: **U. S. DEPARTMENT OF ENERGY**
PARISH: **CAMERON**
OIL FIELD NAME: **W. HACKBERRY**
PIT TYPE: **WELL - AN OIL AND/OR GAS WELL**
PIT DESCRIPTION: **NOT REPORTED**
COMMENTS: **S.N. 971143, WELL #2B**
INSPECTION DATE: **09/25/1997** INSPECTION TIME: **8:47**
STATUS: **ACTIVE**
IS PIT PROPERLY MARKED WITH AN ID SIGN OR PLAQUE?: **YES**
IS THERE A SITE PLAN FOR THE FACILITY?: **NO**
IS THE AREAS AFFECTED BY SPILLS MAPPED ON THE SITE PLAN?: **NO**
HAVE THE ENVIRONMENTALLY SENSITIVE AREAS (E.G. WETLAND) NEAR THE FACILITY BEEN MAPPED?: **NO**
NUMBER OF PHOTOS TAKEN OF FACILITY/SITE: **2**
GENERAL DESCRIPTION OF CONTAINMENT: **NONE**
DEPTH OF FLUID NECESSARY TO OVERFLOW COTAINMENT: **NONE**
CONDITION OF CONTAINMENT: **ADEQUATE**
CONTAINMENT BREACHED?: **NO**
GENERAL COMMENTS ABOUT SITE: **S.N. 971143, WELL #2B**
HAZARD / CLEANUP RANKING (RANGE OF VALUES 0 - 90): **55**

REMEDIAL ACTION INFORMATION

NO DATA REPORTED

Back to Report Summary

Waste Pits (WP)

MAP ID# 4 **Distance from Property: 0.08 mi. (422 ft.) E**

SITE INFORMATION

ID#: **12_w_18761**
OPERATOR: **U. S. DEPARTMENT OF ENERGY**
LAND OWNER: **U. S. DEPARTMENT OF ENERGY**
PARISH: **CAMERON**
OIL FIELD NAME: **W. HACKBERRY**
PIT TYPE: **WELL - AN OIL AND/OR GAS WELL**
PIT DESCRIPTION: **NOT REPORTED**
COMMENTS: **S.N. 971145, WELL #2D**
INSPECTION DATE: **09/25/1997** INSPECTION TIME: **8:48**
STATUS: **ACTIVE**
IS PIT PROPERLY MARKED WITH AN ID SIGN OR PLAQUE?: **YES**
IS THERE A SITE PLAN FOR THE FACILITY?: **NO**
IS THE AREAS AFFECTED BY SPILLS MAPPED ON THE SITE PLAN?: **NO**
HAVE THE ENVIRONMENTALLY SENSITIVE AREAS (E.G. WETLAND) NEAR THE FACILITY BEEN MAPPED?: **NO**
NUMBER OF PHOTOS TAKEN OF FACILITY/SITE: **2**
GENERAL DESCRIPTION OF CONTAINMENT: **NONE**
DEPTH OF FLUID NECESSARY TO OVERFLOW COTAINMENT: **NONE**
CONDITION OF CONTAINMENT: **ADEQUATE**
CONTAINMENT BREACHED?: **NO**
GENERAL COMMENTS ABOUT SITE: **S.N. 971145, WELL #2D**
HAZARD / CLEANUP RANKING (RANGE OF VALUES 0 - 90): **55**

REMEDIAL ACTION INFORMATION

NO DATA REPORTED

Back to Report Summary

Waste Pits (WP)

MAP ID# 4 **Distance from Property: 0.07 mi. (370 ft.) E**

SITE INFORMATION

ID#: **12_w_18759**
OPERATOR: **U. S. DEPARTMENT OF ENERGY**
LAND OWNER: **U. S. DEPARTMENT OF ENERGY**
PARISH: **CAMERON**
OIL FIELD NAME: **W. HACKBERRY**
PIT TYPE: **WELL - AN OIL AND/OR GAS WELL**
PIT DESCRIPTION: **NOT REPORTED**
COMMENTS: **S.N. 971142, WELL #2A**
INSPECTION DATE: **09/25/1997** INSPECTION TIME: **8:45**
STATUS: **ACTIVE**
IS PIT PROPERLY MARKED WITH AN ID SIGN OR PLAQUE?: **YES**
IS THERE A SITE PLAN FOR THE FACILITY?: **NO**
IS THE AREAS AFFECTED BY SPILLS MAPPED ON THE SITE PLAN?: **NO**
HAVE THE ENVIRONMENTALLY SENSITIVE AREAS (E.G. WETLAND) NEAR THE FACILITY BEEN MAPPED?: **NO**
NUMBER OF PHOTOS TAKEN OF FACILITY/SITE: **2**
GENERAL DESCRIPTION OF CONTAINMENT: **NONE**
DEPTH OF FLUID NECESSARY TO OVERFLOW COTAINMENT: **NONE**
CONDITION OF CONTAINMENT: **ADEQUATE**
CONTAINMENT BREACHED?: **NO**
GENERAL COMMENTS ABOUT SITE: **S.N. 971142, WELL #2A**
HAZARD / CLEANUP RANKING (RANGE OF VALUES 0 - 90): **55**

REMEDIAL ACTION INFORMATION

NO DATA REPORTED

Back to Report Summary

MAP ID# 5 **Distance from Property: 0.1 mi. (528 ft.) W**

SITE INFORMATION

ID#: **12_w_18792**
OPERATOR: **U. S. DEPARTMENT OF ENERGY**
LAND OWNER: **U.S. DEPARTMENT OF ENERGY**
PARISH: **CAMERON**
OIL FIELD NAME: **W. HACKBERRY**
PIT TYPE: **WELL - AN OIL AND/OR GAS WELL**
PIT DESCRIPTION: **NOT REPORTED**
COMMENTS: **S.N. 086594, WELL #11**
INSPECTION DATE: **09/25/1997** INSPECTION TIME: **10:50**
STATUS: **ACTIVE**
IS PIT PROPERLY MARKED WITH AN ID SIGN OR PLAQUE?: **YES**
IS THERE A SITE PLAN FOR THE FACILITY?: **NO**
IS THE AREAS AFFECTED BY SPILLS MAPPED ON THE SITE PLAN?: **NO**
HAVE THE ENVIRONMENTALLY SENSITIVE AREAS (E.G. WETLAND) NEAR THE FACILITY BEEN MAPPED?: **NO**
NUMBER OF PHOTOS TAKEN OF FACILITY/SITE: **2**
GENERAL DESCRIPTION OF CONTAINMENT: **BARRIER, 8'X8' CONCRETE SUMP**
DEPTH OF FLUID NECESSARY TO OVERFLOW COTAINMENT: **NONE**
CONDITION OF CONTAINMENT: **ADEQUATE**
CONTAINMENT BREACHED?: **NO**
GENERAL COMMENTS ABOUT SITE: **S.N. 086594, WELL #11**
HAZARD / CLEANUP RANKING (RANGE OF VALUES 0 - 90): **50**

REMEDIAL ACTION INFORMATION

NO DATA REPORTED

Back to Report Summary

Waste Pits (WP)

MAP ID# 5 **Distance from Property: 0.1 mi. (528 ft.) W**

SITE INFORMATION

ID#: **12_w_18793**
OPERATOR: **U. S. DEPARTMENT OF ENERGY**
LAND OWNER: **U.S. DEPARTMENT OF ENERGY**
PARISH: **CAMERON**
OIL FIELD NAME: **W. HACKBERRY**
PIT TYPE: **WELL - AN OIL AND/OR GAS WELL**
PIT DESCRIPTION: **NOT REPORTED**
COMMENTS: **S.N. 971321, WELL #11B**
INSPECTION DATE: **09/25/1997** INSPECTION TIME: **10:53**
STATUS: **ACTIVE**
IS PIT PROPERLY MARKED WITH AN ID SIGN OR PLAQUE?: **YES**
IS THERE A SITE PLAN FOR THE FACILITY?: **NO**
IS THE AREAS AFFECTED BY SPILLS MAPPED ON THE SITE PLAN?: **NO**
HAVE THE ENVIRONMENTALLY SENSITIVE AREAS (E.G. WETLAND) NEAR THE FACILITY BEEN MAPPED?: **NO**
NUMBER OF PHOTOS TAKEN OF FACILITY/SITE: **2**
GENERAL DESCRIPTION OF CONTAINMENT: **BARRIER, 8'X8' CONCRETE SUMP**
DEPTH OF FLUID NECESSARY TO OVERFLOW COTAINMENT: **NONE**
CONDITION OF CONTAINMENT: **ADEQUATE**
CONTAINMENT BREACHED?: **NO**
GENERAL COMMENTS ABOUT SITE: **S.N. 971321, WELL #11B**
HAZARD / CLEANUP RANKING (RANGE OF VALUES 0 - 90): **50**

REMEDIAL ACTION INFORMATION

NO DATA REPORTED

Back to Report Summary

Waste Pits (WP)

MAP ID# 5 **Distance from Property: 0.1 mi. (528 ft.) W**

SITE INFORMATION

ID#: **12_w_18791**
OPERATOR: **U. S. DEPARTMENT OF ENERGY**
LAND OWNER: **U.S. DEPARTMENT OF ENERGY**
PARISH: **CAMERON**
OIL FIELD NAME: **W. HACKBERRY**
PIT TYPE: **WELL - AN OIL AND/OR GAS WELL**
PIT DESCRIPTION: **NOT REPORTED**
COMMENTS: **S.N. 086594, WELL #11A**
INSPECTION DATE: **09/25/1997** INSPECTION TIME: **10:48**
STATUS: **ACTIVE**
IS PIT PROPERLY MARKED WITH AN ID SIGN OR PLAQUE?: **YES**
IS THERE A SITE PLAN FOR THE FACILITY?: **NO**
IS THE AREAS AFFECTED BY SPILLS MAPPED ON THE SITE PLAN?: **NO**
HAVE THE ENVIRONMENTALLY SENSITIVE AREAS (E.G. WETLAND) NEAR THE FACILITY BEEN MAPPED?: **NO**
NUMBER OF PHOTOS TAKEN OF FACILITY/SITE: **2**
GENERAL DESCRIPTION OF CONTAINMENT: **BARRIER, 6'X7' CONCRETE SUMP**
DEPTH OF FLUID NECESSARY TO OVERFLOW COTAINMENT: **NONE**
CONDITION OF CONTAINMENT: **ADEQUATE**
CONTAINMENT BREACHED?: **NO**
GENERAL COMMENTS ABOUT SITE: **S.N. 086594, WELL #11A**
HAZARD / CLEANUP RANKING (RANGE OF VALUES 0 - 90): **45**

REMEDIAL ACTION INFORMATION

NO DATA REPORTED

Back to Report Summary

Resource Conservation & Recovery Act - Generator Facilities (RCRAGR06)

MAP ID# 6 **Distance from Property: 0.11 mi. (581 ft.) W**

FACILITY INFORMATION

EPA ID#: **LA2890032582**
NAME: **US DOE SPR W HACKBERRY**
ADDRESS: **1450 BLACK LAKE RD**
HACKBERRY, LA 70645

OWNER TYPE: **FEDERAL**
OWNER NAME: **US DEPT OF ENERGY**
OPERATOR TYPE: **FEDERAL**
OPERATOR NAME: **DRAVO UTILITY CONSTRUCTORS INC**

CONTACT NAME: **LEVI GABRE**
CONTACT ADDRESS: **1450 BLACK LAKE RD**
HACKBERRY LA 70645
CONTACT PHONE: **3375583201**
NON-NOTIFIER: **NOT A NON-NOTIFIER**
DATE RECEIVED BY AGENCY: **06/18/2014**

CERTIFICATION

CERTIFICATION NAME:	CERTIFICATION TITLE:	CERTIFICATION SIGNED DATE:
JAMES E LEEMANN	**ENV DIR**	**06/18/2014**
WILLIAM E BOZZO	**MGR, ENV. DEPT.**	**02/26/1996**

INDUSTRY CLASSIFICATION (NAICS)
42271 - PETROLEUM BULK STATIONS AND TERMINALS
42471 - PETROLEUM BULK STATIONS AND TERMINALS

SITE HISTORY (INCLUDES GENERATORS AND NON-GENERATORS)
DATE RECEIVED BY AGENCY: **06/18/2014**
NAME: **US DOE SPR W HACKBERRY**
GENERATOR CLASSIFICATION: **LARGE QUANTITY GENERATOR**
DATE RECEIVED BY AGENCY: **02/26/1996**
NAME: **U.S.DEPT.OF ENERGY WEST HACKBERRY SITE**
GENERATOR CLASSIFICATION: **CONDITIONALLY EXEMPT SMALL QUANTITY GENERATOR**
DATE RECEIVED BY AGENCY: **03/21/1991**
NAME: **US DOE SPR W HACKBERRY**
GENERATOR CLASSIFICATION: **LARGE QUANTITY GENERATOR**

CURRENT ACTIVITY INFORMATION

GENERATOR STATUS: **CONDITIONALLY EXEMPT SMALL QUANTITY GENERATOR** LAST UPDATED DATE: **04/14/2015**
SUBJECT TO CORRECTIVE ACTION UNIVERSE: **NO**
TDSFs POTENTIALLY SUBJECT TO CORRECTIVE ACTION UNDER 3004 (u)/(v) UNIVERSE: **NO**
TDSFs ONLY SUBJECT TO CORRECTIVE ACTION UNDER DISCRETIONARY AUTHORITIES UNIVERSE: **NO**
NON TSDFs WHERE RCRA CORRECTIVE ACTION HAS BEEN IMPOSED UNIVERSE: **NO**
CORRECTIVE ACTION WORKLOAD UNIVERSE: **NO**

IMPORTER: **NO**
MIXED WASTE GENERATOR: **NO**
RECYCLER: **NO**
TRANSPORTER: **NO**
ONSITE BURNER EXEMPTION: **NO**
FURNACE EXEMPTION: **NO**
USED OIL REFINER: **NO**
UNDERGROUND INJECTION: **NO**
UNIVERSAL WASTE DESTINATION FACILITY: **NO**
TRANSFER FACILITY: **NO**
USED OIL FUEL BURNER: **NO**
USED OIL PROCESSOR: **NO**
USED OIL FUEL MARKETER TO BURNER: **NO**
SPECIFICATION USED OIL MARKETER: **NO**

USED OIL TRANSFER FACILITY: **NO** USED OIL TRANSPORTER: **NO**

COMPLIANCE, MONITORING AND ENFORCEMENT INFORMATION

EVALUATIONS **- NO EVALUATIONS REPORTED -**

VIOLATIONS **- NO VIOLATIONS REPORTED -**

ENFORCEMENTS **- NO ENFORCEMENTS REPORTED -**

HAZARDOUS WASTE

D001	**IGNITABLE WASTE**
D002	**CORROSIVE WASTE**
D003	**REACTIVE WASTE**
D004	**ARSENIC**
D005	**BARIUM**
D007	**CHROMIUM**
D008	**LEAD**
D009	**MERCURY**
D011	**SILVER**
D018	**BENZENE**
D022	**CHLOROFORM**
D027	**1,4-DICHLOROBENZENE**
D028	**1,2-DICHLOROETHANE**
D030	**2,4-DINITROTOLUENE**
D032	**HEXACHLOROBENZENE**
D033	**HEXACHLOROBUTADIENE**
D034	**HEXACHLOROETHANE**
D036	**NITROBENZENE**
D038	**PYRIDINE**
D039	**TETRACHLOROETHYLENE**
D042	**2,4,6-TRICHLOROPHENOL**
F001	**THE FOLLOWING SPENT HALOGENATED SOLVENTS USED IN DEGREASING: TETRACHLOROETHYLENE,TRICHLORETHYLENE, METHYLENE CHLORIDE, 1,1,1-TRICHLOROETHANE, CARBON TETRACHLORIDE ANDCHLORINATED FLUOROCARBONS; ALL SPENT SOLVENT MIXTURES/BLENDS USED IN DEGREASING CONTAINING, BEFORE USE, A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THE ABOVE HALOGENATED SOLVENTS OR THOSE SOLVENTS LISTED IN F002, F004, AND F005; AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.**
F002	**THE FOLLOWING SPENT HALOGENATED SOLVENTS: TETRACHLOROETHYLENE, METHYLENE CHLORIDE,TRICHLOROETHYLENE, 1,1,1-TRICHLOROETHANE,CHLOROBENZENE, 1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE, ORTHO-DICHLOROBENZENE, TRICHLOROFLUOROMETHANE, AND 1,1,2, TRICHLOROETHANE; ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THE ABOVE HALOGENATED SOLVENTS OR THOSE SOLVENTS LISTED IN F001,F004, AND F005; AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.**
F003	**THE FOLLOWING SPENT NON-HALOGENATED SOLVENTS: XYLENE, ACETONE, ETHYL ACETATE, ETHYL BENZENE, ETHYL ETHER, METHYL ISOBUTYL KETONE, N-BUTYL ALCOHOL, CYCLOHEXANONE, AND METHANOL; ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, ONLY THE ABOVE SPENT NONHALOGENATED SOLVENTS; AND ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, ONE OR MORE OF THE ABOVE NONHALOGENATED SOLVENTS, AND A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THOSE SOLVENTS LISTED IN F001, F002, F004, AND F005; AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.**

F005	THE FOLLOWING SPENT NONHALOGENATED SOLVENTS: TOLUENE, METHYL ETHYL KETONE,CARBON DISULFIDE, ISOBUTANOL, PYRIDINE,BENZENE, 2-ETHOXYETHANOL, AND 2-NITROPROPANE; ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THE ABOVE NONHALOGENATED SOLVENTS OR THOSE SOLVENTS LISTED IN F001,F002, OR F004; AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.
F006	WASTEWATER TREATMENT SLUDGES FROM ELECTROPLATING OPERATIONS EXCEPT FROM THE FOLLOWING PROCESSES: (1) SULFURIC ACID ANODIZING OF ALUMINUM; (2) TIN PLATING ON CARBON STEEL; (3) ZINC PLATING (SEGREGATED BASIS) ON CARBON STEEL; (4) ALUMINUM OR ZINC-ALUMINUM PLATING ON CARBON STEEL; (5) CLEANING/STRIPPING ASSOCIATED WITH TIN, ZINC, AND ALUMINUM PLATING ON CARBON STEEL; AND (6) CHEMICAL ETCHING AND MILLING OF ALUMINUM.
P105	SODIUM AZIDE
U080	METHANE, DICHLORO-
U080	METHYLENE CHLORIDE
U122	FORMALDEHYDE
U220	BENZENE, METHYL-
U220	TOLUENE
U226	ETHANE, 1,1,1-TRICHLORO-
U226	METHYL CHLOROFORM
U239	BENZENE, DIMETHYL- (I,T)
U239	XYLENE (I)

UNIVERSAL WASTE **- NO UNIVERSAL WASTE REPORTED -**

CORRECTIVE ACTION AREA **- NO CORRECTIVE ACTION AREA INFORMATION REPORTED -**

CORRECTIVE ACTION EVENT **- NO CORRECTIVE ACTION EVENT REPORTED -**

Back to Report Summary

MAP ID# 6 **Distance from Property: 0.11 mi. (581 ft.) W**

FACILITY INFORMATION

EPA ID#: **LA2890032582**
SITE ID#: **0600775**
NAME: **WEST HACKBERRY SPRING**
ADDRESS: **3.8 MI W OF HACKBERRY, HWY 390**
HACKBERRY, LA 70645
COUNTY: **CAMERON**
FEDERAL FACILITY: **FEDERAL FACILITY**
NPL: **NOT ON THE NPL**
NON NPL STATUS: **NFRAP-SITE DOES NOT QUALIFY FOR THE NPL BASED ON EXISTING INFORMATION**

Below information was gathered from the prior NFRAP update completed in 10/2013 update:

ACTION	START DATE	COMPLETION DATE	RESPONSIBILITY
PA - PRELIMINARY ASSESSMENT	**10/1/1985**	**10/1/1985**	**FED FAC**
SI - SITE INSPECTION	**8/1/1985**	**8/1/1985**	**FED FAC**
DS - DISCOVERY	**NOT REPORTED**	**11/1/1984**	**EPA FUND**
VS - ARCHIVE SITE	**NOT REPORTED**	**10/1/1985**	**EPA IN-HOUSE**

ACTION DESCRIPTIONS

PA - (PRELIMINARY ASSESSMENT) - COLLECTION OF DIVERSE EXISTING INFORMATION ABOUT THE SOURCE AND NATURE OF THE SITE HAZARD. IT IS EPA POLICY TO COMPLETE THE PRELIMINARY ASSESSMENT WITHIN ONE YEAR OF SITE DISCOVERY.

SI - (SITE INSPECTION) - THE PROCESS OF COLLECTING SITE DATA AND SAMPLES TO CHARACTERIZE THE SEVERITY OF THE HAZARD FOR THE HAZARD RANKING SCORE AND/OR ENFORCEMENT SUPPORT.

DS - (DISCOVERY) - THE PROCESS BY WHICH A POTENTIAL HAZARDOUS WASTE SITE IS BROUGHT TO THE ATTENTION OF THE EPA. THE PROCESS CAN OCCUR THROUGH THE USE OF SEVERAL MECHANISMS SUCH AS A PHONE CALL OR REFERRAL BY ANOTHER GOVERNMENT AGENCY.

VS - (ARCHIVE SITE) - THE DECISION IS MADE THAT NO FURTHER ACTIVITY IS PLANNED AT THE SITE.

Back to Report Summary

No Longer Reported Underground Storage Tanks (NLRUST)

MAP ID# 6 **Distance from Property: 0.11 mi. (581 ft.) W**

*** DATA USED IN THIS REPORT ORIGINATES FROM A NO LONGER ACTIVE FILING SYSTEM OF THE LOUISIANA DEQ. THIS DATA WAS LAST UPDATED IN FEBRUARY OF 2004.**

FACILITY INFORMATION

ID#: **12-009739**
NAME: **WEST HACKBERRY STRATEGIC PETR. R**
ADDRESS: **BLACK LAKE ROAD, OFF HWY 390**
HACKBERRY, LA 70645
PARISH: **CAMERON**
REGION: **5**
FACILITY OPERATING STATUS: **(E)**
OF TANKS: **3**
INDIAN LAND: **(.) NOT ON INDIAN LAND**
MANAGER NAME: **ALLEN FRUGE**
MANAGER TITLE: **SR. SITE REP.**
MANAGER PHONE: **(318) 762-4406**
FORM AMMENDED: **X**
FORM SIGNED BY: **DWAYNE GRAY**
TITLE SIGNED BY: **ASSIS. PROJECT**
FROM SIGNED DATE: **03-27-90**

OWNER INFORMATION

OWNER ID #: **00300500**
NAME: **U.S. DEPARTMENT OF ENERGY SPR**
ADDRESS: **900 EAST COMMERCE ROAD**
, LA, 70123
PHONE: **504 734-4353**
OWNER OPERATING STATUS: **(A) ACTIVE**

TANK INFORMATION

TANK ID#: **26087**
USE: **IN USE**
INSTALLED: **80/05/05**
OPERATING STATUS: **NOT REPORTED**
EMPTY STATUS: **(.) NOT EMPTY**
LEAKING: **(N) NO**
TANK MATERIAL: **STEEL**
INTERIOR PROTECTION: **LINED**
EXTERIOR PROTECTION: **CATHODIC**
PIPING NETWORK: **CATHODICALLY PROTECTED**
CAPACITY (GAL): **6006**
CONTENTS:
REPLACEMENT: **(N) NOT A REPLACEMENT**

TANK INFORMATION

TANK ID#: **26088**
USE: **IN USE**
INSTALLED: **80/05/05**
OPERATING STATUS: **NOT REPORTED**
EMPTY STATUS: **(.) NOT EMPTY**
LEAKING: **(N) NO**
TANK MATERIAL: **STEEL**
INTERIOR PROTECTION: **LINED**
EXTERIOR PROTECTION: **CATHODIC**
PIPING NETWORK: **CATHODICALLY PROTECTED**
CAPACITY (GAL): **1008**
CONTENTS:
REPLACEMENT: **Y**

TANK INFORMATION

TANK ID#: **26089**
USE: **IN USE**
CAPACITY (GAL): **793**
CONTENTS:

INSTALLED: **80/05/05** REPLACEMENT: **(N) NOT A REPLACEMENT**

OPERATING STATUS: **NOT REPORTED**

EMPTY STATUS: **(.) NOT EMPTY**

LEAKING: **(N) NO**

TANK MATERIAL: **STEEL**

INTERIOR PROTECTION: **NONE**

EXTERIOR PROTECTION: **PAINTED**

PIPING NETWORK: **NOT REPORTED**

REPLACEMENT INFORMATION

REPLACEMENT DATE: **NOT REPORTED** REPLACEMENT AGE: **NOT REPORTED**

REPLACEMENT LEAK: **(.) NO LEAK WHEN REPLACED** SOIL CONTAMINATION: **(.) NO LEAK WHEN REPLACED**

REPLACEMENT INFORMATION

REPLACEMENT DATE: **NOT REPORTED** REPLACEMENT AGE: **NOT REPORTED**

REPLACEMENT LEAK: **(.) NO LEAK WHEN REPLACED** SOIL CONTAMINATION: **(.) NO LEAK WHEN REPLACED**

REPLACEMENT INFORMATION

REPLACEMENT DATE: **NOT REPORTED** REPLACEMENT AGE: **NOT REPORTED**

REPLACEMENT LEAK: **(.) NO LEAK WHEN REPLACED** SOIL CONTAMINATION: **(.) NO LEAK WHEN REPLACED**

Back to Report Summary

Waste Pits (WP)

MAP ID# 7 **Distance from Property: 0.12 mi. (634 ft.) W**

SITE INFORMATION

ID#: **12_mh_18487**
OPERATOR: **WARREN PETROLEUM COMPANY**
LAND OWNER: **VINCENT HEIRS INC.**
PARISH: **CAMERON**
OIL FIELD NAME: **W. HACKBERRY**
PIT TYPE: **MANIFOLD HEADER - A DEVICE (USUALLY A PIPE OR PIPE SEGMENTS) THAT SERVES AS A MOUNTING POINT FOR VALVES LEADING TO CONNECTING PIPELINES**
PIT DESCRIPTION: **NOT REPORTED**
COMMENTS: **NOT REPORTED**
INSPECTION DATE: **09/09/1997** INSPECTION TIME: **10:12**
STATUS: **ACTIVE**
IS PIT PROPERLY MARKED WITH AN ID SIGN OR PLAQUE?: **YES**
IS THERE A SITE PLAN FOR THE FACILITY?: **YES**
IS THE AREAS AFFECTED BY SPILLS MAPPED ON THE SITE PLAN?: **NO**
HAVE THE ENVIRONMENTALLY SENSITIVE AREAS (E.G. WETLAND) NEAR THE FACILITY BEEN MAPPED?: **NO**
NUMBER OF PHOTOS TAKEN OF FACILITY/SITE: **2**
GENERAL DESCRIPTION OF CONTAINMENT: **BARRIER, CHAIN LINK FENCE**
DEPTH OF FLUID NECESSARY TO OVERFLOW COTAINMENT: **NONE**
CONDITION OF CONTAINMENT: **ADEQUATE**
CONTAINMENT BREACHED?: **NO**
GENERAL COMMENTS ABOUT SITE: **NOT REPORTED**
HAZARD / CLEANUP RANKING (RANGE OF VALUES 0 - 90): **45**

REMEDIAL ACTION INFORMATION

NO DATA REPORTED

Back to Report Summary

Waste Pits (WP)

MAP ID# 8 **Distance from Property: 0.17 mi. (898 ft.) W**

SITE INFORMATION

ID#: **12_w_18794**
OPERATOR: **U. S. DEPARTMENT OF ENERGY**
LAND OWNER: **WRT ENERGY CORPORATION**
PARISH: **CAMERON**
OIL FIELD NAME: **W. HACKBERRY**
PIT TYPE: **WELL - AN OIL AND/OR GAS WELL**
PIT DESCRIPTION: **NOT REPORTED**
COMMENTS: **S.N. 971299, WELL #108**
INSPECTION DATE: **09/25/1997** INSPECTION TIME: **10:58**
STATUS: **ACTIVE**
IS PIT PROPERLY MARKED WITH AN ID SIGN OR PLAQUE?: **YES**
IS THERE A SITE PLAN FOR THE FACILITY?: **NO**
IS THE AREAS AFFECTED BY SPILLS MAPPED ON THE SITE PLAN?: **NO**
HAVE THE ENVIRONMENTALLY SENSITIVE AREAS (E.G. WETLAND) NEAR THE FACILITY BEEN MAPPED?: **NO**
NUMBER OF PHOTOS TAKEN OF FACILITY/SITE: **2**
GENERAL DESCRIPTION OF CONTAINMENT: **BARRIER, 6'X8' CONCRETE SUMP**
DEPTH OF FLUID NECESSARY TO OVERFLOW COTAINMENT: **NONE**
CONDITION OF CONTAINMENT: **ADEQUATE**
CONTAINMENT BREACHED?: **NO**
GENERAL COMMENTS ABOUT SITE: **S.N. 971299, WELL #108**
HAZARD / CLEANUP RANKING (RANGE OF VALUES 0 - 90): **45**

REMEDIAL ACTION INFORMATION

NO DATA REPORTED

Back to Report Summary

Waste Pits (WP)

MAP ID# 9 **Distance from Property: 0.17 mi. (898 ft.) E**

SITE INFORMATION

ID#: **12_mh_18450**
OPERATOR: **WARREN PETROLEUM COMPANY**
LAND OWNER: **TRIDENT NGL, INC.**
PARISH: **CAMERON**
OIL FIELD NAME: **W. HACKBERRY**
PIT TYPE: **MANIFOLD HEADER - A DEVICE (USUALLY A PIPE OR PIPE SEGMENTS) THAT SERVES AS A MOUNTING POINT FOR VALVES LEADING TO CONNECTING PIPELINES**
PIT DESCRIPTION: **NOT REPORTED**
COMMENTS: **NOT REPORTED**
INSPECTION DATE: **09/05/1997** INSPECTION TIME: **14:33**
STATUS: **ACTIVE**
IS PIT PROPERLY MARKED WITH AN ID SIGN OR PLAQUE?: **YES**
IS THERE A SITE PLAN FOR THE FACILITY?: **YES**
IS THE AREAS AFFECTED BY SPILLS MAPPED ON THE SITE PLAN?: **NO**
HAVE THE ENVIRONMENTALLY SENSITIVE AREAS (E.G. WETLAND) NEAR THE FACILITY BEEN MAPPED?: **NO**
NUMBER OF PHOTOS TAKEN OF FACILITY/SITE: **2**
GENERAL DESCRIPTION OF CONTAINMENT: **BARRIER, BARBED WIRE FENCE**
DEPTH OF FLUID NECESSARY TO OVERFLOW COTAINMENT: **NONE**
CONDITION OF CONTAINMENT: **ADEQUATE**
CONTAINMENT BREACHED?: **NO**
GENERAL COMMENTS ABOUT SITE: **NOT REPORTED**
HAZARD / CLEANUP RANKING (RANGE OF VALUES 0 - 90): **55**

REMEDIAL ACTION INFORMATION

NO DATA REPORTED

Back to Report Summary

Waste Pits (WP)

MAP ID# 9 **Distance from Property: 0.17 mi. (898 ft.) E**

SITE INFORMATION

ID#: **12_f_18451**

OPERATOR: **WARREN PETROLEUM COMPANY**

LAND OWNER: **TRIDENT NGL, INC.**

PARISH: **CAMERON**

OIL FIELD NAME: **W. HACKBERRY**

PIT TYPE: **FACILITY - A PLACE WHERE PETROLEUM IS PROCESSED AND/OR SEPARATED PRIOR TO DISTRIBUTION AND/OR TRANSPORTATION BY PIPELINES OR BARGES**

PIT DESCRIPTION: **SEE COMMENTS**

COMMENTS: **WELL #5, PROPANE WELL AND PIPELINE HEADER**

INSPECTION DATE: **09/05/1997** INSPECTION TIME: **14:43**

STATUS: **ACTIVE**

IS PIT PROPERLY MARKED WITH AN ID SIGN OR PLAQUE?: **YES**

IS THERE A SITE PLAN FOR THE FACILITY?: **YES**

IS THE AREAS AFFECTED BY SPILLS MAPPED ON THE SITE PLAN?: **NO**

HAVE THE ENVIRONMENTALLY SENSITIVE AREAS (E.G. WETLAND) NEAR THE FACILITY BEEN MAPPED?: **NO**

NUMBER OF PHOTOS TAKEN OF FACILITY/SITE: **2**

GENERAL DESCRIPTION OF CONTAINMENT: **BARRIER, PIPE RAIL**

DEPTH OF FLUID NECESSARY TO OVERFLOW COTAINMENT: **NONE**

CONDITION OF CONTAINMENT: **ADEQUATE**

CONTAINMENT BREACHED?: **NO**

GENERAL COMMENTS ABOUT SITE: **WELL #5, PROPANE WELL AND PIPELINE HEADER**

HAZARD / CLEANUP RANKING (RANGE OF VALUES 0 - 90): **50**

REMEDIAL ACTION INFORMATION

NO DATA REPORTED

Back to Report Summary

MAP ID# 10 **Distance from Property: 0.22 mi. (1,162 ft.) E**

SITE INFORMATION

ID#: **12_mh_18449**
OPERATOR: **WARREN PETROLEUM COMPANY**
LAND OWNER: **TRIDENT NGL, INC.**
PARISH: **CAMERON**
OIL FIELD NAME: **W. HACKBERRY**
PIT TYPE: **MANIFOLD HEADER - A DEVICE (USUALLY A PIPE OR PIPE SEGMENTS) THAT SERVES AS A MOUNTING POINT FOR VALVES LEADING TO CONNECTING PIPELINES**
PIT DESCRIPTION: **NOT REPORTED**
COMMENTS: **NOT REPORTED**
INSPECTION DATE: **09/05/1997** INSPECTION TIME: **14:22**
STATUS: **ACTIVE**
IS PIT PROPERLY MARKED WITH AN ID SIGN OR PLAQUE?: **YES**
IS THERE A SITE PLAN FOR THE FACILITY?: **YES**
IS THE AREAS AFFECTED BY SPILLS MAPPED ON THE SITE PLAN?: **NO**
HAVE THE ENVIRONMENTALLY SENSITIVE AREAS (E.G. WETLAND) NEAR THE FACILITY BEEN MAPPED?: **NO**
NUMBER OF PHOTOS TAKEN OF FACILITY/SITE: **2**
GENERAL DESCRIPTION OF CONTAINMENT: **BARRIER, PIPE RAIL**
DEPTH OF FLUID NECESSARY TO OVERFLOW COTAINMENT: **NONE**
CONDITION OF CONTAINMENT: **ADEQUATE**
CONTAINMENT BREACHED?: **NO**
GENERAL COMMENTS ABOUT SITE: **NOT REPORTED**
HAZARD / CLEANUP RANKING (RANGE OF VALUES 0 - 90): **50**

REMEDIAL ACTION INFORMATION

NO DATA REPORTED

Back to Report Summary

MAP ID# 11 **Distance from Property: 0.22 mi. (1,162 ft.) W**

SITE INFORMATION

ID#: **12_w_18787**
OPERATOR: **U. S. DEPARTMENT OF ENERGY**
LAND OWNER: **U.S. DEPARTMENT OF ENERGY**
PARISH: **CAMERON**
OIL FIELD NAME: **W. HACKBERRY**
PIT TYPE: **WELL - AN OIL AND/OR GAS WELL**
PIT DESCRIPTION: **NOT REPORTED**
COMMENTS: **S.N. 971296, WELL #105**
INSPECTION DATE: **09/25/1997** INSPECTION TIME: **10:31**
STATUS: **ACTIVE**
IS PIT PROPERLY MARKED WITH AN ID SIGN OR PLAQUE?: **YES**
IS THERE A SITE PLAN FOR THE FACILITY?: **NO**
IS THE AREAS AFFECTED BY SPILLS MAPPED ON THE SITE PLAN?: **NO**
HAVE THE ENVIRONMENTALLY SENSITIVE AREAS (E.G. WETLAND) NEAR THE FACILITY BEEN MAPPED?: **NO**
NUMBER OF PHOTOS TAKEN OF FACILITY/SITE: **2**
GENERAL DESCRIPTION OF CONTAINMENT: **BARRIER, 7'X7' CONCRETE SUMP**
DEPTH OF FLUID NECESSARY TO OVERFLOW COTAINMENT: **NONE**
CONDITION OF CONTAINMENT: **ADEQUATE**
CONTAINMENT BREACHED?: **NO**
GENERAL COMMENTS ABOUT SITE: **S.N. 971296, WELL #105**
HAZARD / CLEANUP RANKING (RANGE OF VALUES 0 - 90): **45**

REMEDIAL ACTION INFORMATION

NO DATA REPORTED

Back to Report Summary

Waste Pits (WP)

MAP ID# 12 **Distance from Property: 0.24 mi. (1,267 ft.) SW**

SITE INFORMATION

ID#: **12_w_18790**
OPERATOR: **U. S. DEPARTMENT OF ENERGY**
LAND OWNER: **U.S. DEPARTMENT OF ENERGY**
PARISH: **CAMERON**
OIL FIELD NAME: **W. HACKBERRY**
PIT TYPE: **WELL - AN OIL AND/OR GAS WELL**
PIT DESCRIPTION: **NOT REPORTED**
COMMENTS: **S.N. 971198, WELL #117A**
INSPECTION DATE: **09/25/1997** INSPECTION TIME: **10:43**
STATUS: **ACTIVE**
IS PIT PROPERLY MARKED WITH AN ID SIGN OR PLAQUE?: **YES**
IS THERE A SITE PLAN FOR THE FACILITY?: **NO**
IS THE AREAS AFFECTED BY SPILLS MAPPED ON THE SITE PLAN?: **NO**
HAVE THE ENVIRONMENTALLY SENSITIVE AREAS (E.G. WETLAND) NEAR THE FACILITY BEEN MAPPED?: **NO**
NUMBER OF PHOTOS TAKEN OF FACILITY/SITE: **2**
GENERAL DESCRIPTION OF CONTAINMENT: **BARRIER, 7'X7' CONCRETE SUMP**
DEPTH OF FLUID NECESSARY TO OVERFLOW COTAINMENT: **NONE**
CONDITION OF CONTAINMENT: **ADEQUATE**
CONTAINMENT BREACHED?: **NO**
GENERAL COMMENTS ABOUT SITE: **S.N. 971198, WELL #117A**
HAZARD / CLEANUP RANKING (RANGE OF VALUES 0 - 90): **45**

REMEDIAL ACTION INFORMATION

NO DATA REPORTED

Back to Report Summary

Waste Pits (WP)

MAP ID# 12 **Distance from Property: 0.23 mi. (1,214 ft.) SW**

SITE INFORMATION

ID#: **12_w_18789**
OPERATOR: **U. S. DEPARTMENT OF ENERGY**
LAND OWNER: **U.S. DEPARTMENT OF ENERGY**
PARISH: **CAMERON**
OIL FIELD NAME: **W. HACKBERRY**
PIT TYPE: **WELL - AN OIL AND/OR GAS WELL**
PIT DESCRIPTION: **NOT REPORTED**
COMMENTS: **S.N. 971199, WELL #117B**
INSPECTION DATE: **09/25/1997** INSPECTION TIME: **10:40**
STATUS: **ACTIVE**
IS PIT PROPERLY MARKED WITH AN ID SIGN OR PLAQUE?: **YES**
IS THERE A SITE PLAN FOR THE FACILITY?: **NO**
IS THE AREAS AFFECTED BY SPILLS MAPPED ON THE SITE PLAN?: **NO**
HAVE THE ENVIRONMENTALLY SENSITIVE AREAS (E.G. WETLAND) NEAR THE FACILITY BEEN MAPPED?: **NO**
NUMBER OF PHOTOS TAKEN OF FACILITY/SITE: **2**
GENERAL DESCRIPTION OF CONTAINMENT: **BARRIER, 7'X7' CONCRETE SUMP**
DEPTH OF FLUID NECESSARY TO OVERFLOW COTAINMENT: **NONE**
CONDITION OF CONTAINMENT: **ADEQUATE**
CONTAINMENT BREACHED?: **NO**
GENERAL COMMENTS ABOUT SITE: **S.N. 971199, WELL #117B**
HAZARD / CLEANUP RANKING (RANGE OF VALUES 0 - 90): **45**

REMEDIAL ACTION INFORMATION

NO DATA REPORTED

Back to Report Summary

Waste Pits (WP)

MAP ID# 13 **Distance from Property: 0.27 mi. (1,426 ft.) E**

SITE INFORMATION

ID#: **12_w_18754**
OPERATOR: **U. S. DEPARTMENT OF ENERGY**
LAND OWNER: **U. S. DEPARTMENT OF ENERGY**
PARISH: **CAMERON**
OIL FIELD NAME: **W. HACKBERRY**
PIT TYPE: **WELL - AN OIL AND/OR GAS WELL**
PIT DESCRIPTION: **NOT REPORTED**
COMMENTS: **S.N. 971141, WELL #1-C**
INSPECTION DATE: **09/25/1997** INSPECTION TIME: **8:14**
STATUS: **ACTIVE**
IS PIT PROPERLY MARKED WITH AN ID SIGN OR PLAQUE?: **YES**
IS THERE A SITE PLAN FOR THE FACILITY?: **NO**
IS THE AREAS AFFECTED BY SPILLS MAPPED ON THE SITE PLAN?: **NO**
HAVE THE ENVIRONMENTALLY SENSITIVE AREAS (E.G. WETLAND) NEAR THE FACILITY BEEN MAPPED?: **NO**
NUMBER OF PHOTOS TAKEN OF FACILITY/SITE: **2**
GENERAL DESCRIPTION OF CONTAINMENT: **NONE**
DEPTH OF FLUID NECESSARY TO OVERFLOW COTAINMENT: **NONE**
CONDITION OF CONTAINMENT: **ADEQUATE**
CONTAINMENT BREACHED?: **NO**
GENERAL COMMENTS ABOUT SITE: **S.N. 971141, WELL #1-C**
HAZARD / CLEANUP RANKING (RANGE OF VALUES 0 - 90): **55**

REMEDIAL ACTION INFORMATION

NO DATA REPORTED

Back to Report Summary

MAP ID# 13 **Distance from Property: 0.27 mi. (1,426 ft.) E**

SITE INFORMATION

ID#: **12_w_18755**
OPERATOR: **U. S. DEPARTMENT OF ENERGY**
LAND OWNER: **U. S. DEPARTMENT OF ENERGY**
PARISH: **CAMERON**
OIL FIELD NAME: **W. HACKBERRY**
PIT TYPE: **WELL - AN OIL AND/OR GAS WELL**
PIT DESCRIPTION: **NOT REPORTED**
COMMENTS: **S.N. 971140, WELL #1-B**
INSPECTION DATE: **09/25/1997** INSPECTION TIME: **8:17**
STATUS: **ACTIVE**
IS PIT PROPERLY MARKED WITH AN ID SIGN OR PLAQUE?: **YES**
IS THERE A SITE PLAN FOR THE FACILITY?: **NO**
IS THE AREAS AFFECTED BY SPILLS MAPPED ON THE SITE PLAN?: **NO**
HAVE THE ENVIRONMENTALLY SENSITIVE AREAS (E.G. WETLAND) NEAR THE FACILITY BEEN MAPPED?: **NO**
NUMBER OF PHOTOS TAKEN OF FACILITY/SITE: **2**
GENERAL DESCRIPTION OF CONTAINMENT: **NONE**
DEPTH OF FLUID NECESSARY TO OVERFLOW COTAINMENT: **NONE**
CONDITION OF CONTAINMENT: **ADEQUATE**
CONTAINMENT BREACHED?: **NO**
GENERAL COMMENTS ABOUT SITE: **S.N. 971140, WELL #1-B**
HAZARD / CLEANUP RANKING (RANGE OF VALUES 0 - 90): **55**

REMEDIAL ACTION INFORMATION

NO DATA REPORTED

Back to Report Summary

MAP ID# 13 **Distance from Property: 0.27 mi. (1,426 ft.) E**

SITE INFORMATION

ID#: **12_w_18616**
OPERATOR: **U. S. DEPARTMENT OF ENERGY**
LAND OWNER: **U.S. DEPARTMENT OF ENERGY**
PARISH: **CAMERON**
OIL FIELD NAME: **W. HACKBERRY**
PIT TYPE: **WELL - AN OIL AND/OR GAS WELL**
PIT DESCRIPTION: **NOT REPORTED**
COMMENTS: **S.N. 971139, WELL #1-A**
INSPECTION DATE: **09/25/1997** INSPECTION TIME: **8:09**
STATUS: **ACTIVE**
IS PIT PROPERLY MARKED WITH AN ID SIGN OR PLAQUE?: **YES**
IS THERE A SITE PLAN FOR THE FACILITY?: **NO**
IS THE AREAS AFFECTED BY SPILLS MAPPED ON THE SITE PLAN?: **NO**
HAVE THE ENVIRONMENTALLY SENSITIVE AREAS (E.G. WETLAND) NEAR THE FACILITY BEEN MAPPED?: **NO**
NUMBER OF PHOTOS TAKEN OF FACILITY/SITE: **2**
GENERAL DESCRIPTION OF CONTAINMENT: **NONE**
DEPTH OF FLUID NECESSARY TO OVERFLOW COTAINMENT: **NONE**
CONDITION OF CONTAINMENT: **ADEQUATE**
CONTAINMENT BREACHED?: **NO**
GENERAL COMMENTS ABOUT SITE: **S.N. 971139, WELL #1-A**
HAZARD / CLEANUP RANKING (RANGE OF VALUES 0 - 90): **55**

REMEDIAL ACTION INFORMATION

NO DATA REPORTED

Back to Report Summary

MAP ID# 14 **Distance from Property: 0.27 mi. (1,426 ft.) NW**

SITE INFORMATION

ID#: **12_w_18785**
OPERATOR: **U. S. DEPARTMENT OF ENERGY**
LAND OWNER: **U.S. DEPARTMENT OF ENERGY**
PARISH: **CAMERON**
OIL FIELD NAME: **W. HACKBERRY**
PIT TYPE: **WELL - AN OIL AND/OR GAS WELL**
PIT DESCRIPTION: **NOT REPORTED**
COMMENTS: **S.N. 971292, WELL #101**
INSPECTION DATE: **09/25/1997** INSPECTION TIME: **10:24**
STATUS: **ACTIVE**
IS PIT PROPERLY MARKED WITH AN ID SIGN OR PLAQUE?: **YES**
IS THERE A SITE PLAN FOR THE FACILITY?: **NO**
IS THE AREAS AFFECTED BY SPILLS MAPPED ON THE SITE PLAN?: **NO**
HAVE THE ENVIRONMENTALLY SENSITIVE AREAS (E.G. WETLAND) NEAR THE FACILITY BEEN MAPPED?: **NO**
NUMBER OF PHOTOS TAKEN OF FACILITY/SITE: **2**
GENERAL DESCRIPTION OF CONTAINMENT: **BARRIER, 8'X8' CONCRETE SUMP**
DEPTH OF FLUID NECESSARY TO OVERFLOW COTAINMENT: **NONE**
CONDITION OF CONTAINMENT: **ADEQUATE**
CONTAINMENT BREACHED?: **NO**
GENERAL COMMENTS ABOUT SITE: **S.N. 971292, WELL #101**
HAZARD / CLEANUP RANKING (RANGE OF VALUES 0 - 90): **45**

REMEDIAL ACTION INFORMATION

NO DATA REPORTED

Back to Report Summary

Waste Pits (WP)

MAP ID# 15 **Distance from Property: 0.28 mi. (1,478 ft.) E**

SITE INFORMATION

ID#: **12_tb_18467**
OPERATOR: **WARREN PETROLEUM COMPANY**
LAND OWNER: **TRIDENT NGL, INC.**
PARISH: **CAMERON**
OIL FIELD NAME: **W. HACKBERRY**
PIT TYPE: **TANK BATTERY - A GROUP OF OIL STORAGE TANKS**
PIT DESCRIPTION: **NOT REPORTED**
COMMENTS: **1 TANK**
INSPECTION DATE: **09/08/1997** INSPECTION TIME: **13:05**
STATUS: **ACTIVE**
IS PIT PROPERLY MARKED WITH AN ID SIGN OR PLAQUE?: **YES**
IS THERE A SITE PLAN FOR THE FACILITY?: **YES**
IS THE AREAS AFFECTED BY SPILLS MAPPED ON THE SITE PLAN?: **NO**
HAVE THE ENVIRONMENTALLY SENSITIVE AREAS (E.G. WETLAND) NEAR THE FACILITY BEEN MAPPED?: **NO**
NUMBER OF PHOTOS TAKEN OF FACILITY/SITE: **2**
GENERAL DESCRIPTION OF CONTAINMENT: **LEVEE**
DEPTH OF FLUID NECESSARY TO OVERFLOW COTAINMENT: **42"**
CONDITION OF CONTAINMENT: **ADEQUATE**
CONTAINMENT BREACHED?: **NO**
GENERAL COMMENTS ABOUT SITE: **1 TANK**
HAZARD / CLEANUP RANKING (RANGE OF VALUES 0 - 90): **45**

REMEDIAL ACTION INFORMATION

NO DATA REPORTED

Back to Report Summary

Waste Pits (WP)

MAP ID# 16 **Distance from Property: 0.31 mi. (1,637 ft.) E**

SITE INFORMATION

ID#: **12_f_18468**
OPERATOR: **WARREN PETROLEUM COMPANY**
LAND OWNER: **TRIDENT NGL, INC.**
PARISH: **CAMERON**
OIL FIELD NAME: **W. HACKBERRY**
PIT TYPE: **FACILITY - A PLACE WHERE PETROLEUM IS PROCESSED AND/OR SEPARATED PRIOR TO DISTRIBUTION AND/OR TRANSPORTATION BY PIPELINES OR BARGES**
PIT DESCRIPTION: **1 SEPARATOR, 1 FLARE**
COMMENTS: **NOT REPORTED**
INSPECTION DATE: **09/08/1997** INSPECTION TIME: **1:11**
STATUS: **ACTIVE**
IS PIT PROPERLY MARKED WITH AN ID SIGN OR PLAQUE?: **YES**
IS THERE A SITE PLAN FOR THE FACILITY?: **YES**
IS THE AREAS AFFECTED BY SPILLS MAPPED ON THE SITE PLAN?: **NO**
HAVE THE ENVIRONMENTALLY SENSITIVE AREAS (E.G. WETLAND) NEAR THE FACILITY BEEN MAPPED?: **NO**
NUMBER OF PHOTOS TAKEN OF FACILITY/SITE: **2**
GENERAL DESCRIPTION OF CONTAINMENT: **NONE**
DEPTH OF FLUID NECESSARY TO OVERFLOW COTAINMENT: **NONE**
CONDITION OF CONTAINMENT: **ADEQUATE**
CONTAINMENT BREACHED?: **NO**
GENERAL COMMENTS ABOUT SITE: **NOT REPORTED**
HAZARD / CLEANUP RANKING (RANGE OF VALUES 0 - 90): **50**

REMEDIAL ACTION INFORMATION

NO DATA REPORTED

Back to Report Summary

MAP ID# 17 **Distance from Property: 0.31 mi. (1,637 ft.) E**

SITE INFORMATION

ID#: **12_w_18469**

OPERATOR: **WARREN PETROLEUM COMPANY**

LAND OWNER: **TRIDENT NGL, INC.**

PARISH: **CAMERON**

OIL FIELD NAME: **W. HACKBERRY**

PIT TYPE: **WELL - AN OIL AND/OR GAS WELL**

PIT DESCRIPTION: **NOT REPORTED**

COMMENTS: **WELL #3 (BUTANE), FAXYWC, FAPRMA, FAHIST, FASTRD, SURVEY PLAT, AND P AND A REPORT WAS RESEARCHED AND IS ATTACHED IN THE FINAL REPORT.**

INSPECTION DATE: **09/08/1997** INSPECTION TIME: **13:15**

STATUS: **ACTIVE**

IS PIT PROPERLY MARKED WITH AN ID SIGN OR PLAQUE?: **YES**

IS THERE A SITE PLAN FOR THE FACILITY?: **NO**

IS THE AREAS AFFECTED BY SPILLS MAPPED ON THE SITE PLAN?: **NO**

HAVE THE ENVIRONMENTALLY SENSITIVE AREAS (E.G. WETLAND) NEAR THE FACILITY BEEN MAPPED?: **NO**

NUMBER OF PHOTOS TAKEN OF FACILITY/SITE: **2**

GENERAL DESCRIPTION OF CONTAINMENT: **BARRIER, PIPE RAIL**

DEPTH OF FLUID NECESSARY TO OVERFLOW COTAINMENT: **NONE**

CONDITION OF CONTAINMENT: **ADEQUATE**

CONTAINMENT BREACHED?: **NO**

GENERAL COMMENTS ABOUT SITE: **WELL #3 (BUTANE), FAXYWC, FAPRMA, FAHIST, FASTRD, SURVEY PLAT, AND P AND A REPORT WAS RESEARCHED AND IS ATTACHED IN THE FINAL REPORT.**

HAZARD / CLEANUP RANKING (RANGE OF VALUES 0 - 90): **55**

REMEDIAL ACTION INFORMATION

NO DATA REPORTED

Back to Report Summary

Waste Pits (WP)

MAP ID# 18 **Distance from Property: 0.35 mi. (1,848 ft.) N**

SITE INFORMATION

ID#: **12_w_18766**
OPERATOR: **U. S. DEPARTMENT OF ENERGY**
LAND OWNER: **U.S. DEPARTMENT OF ENERGY**
PARISH: **CAMERON**
OIL FIELD NAME: **W. HACKBERRY**
PIT TYPE: **WELL - AN OIL AND/OR GAS WELL**
PIT DESCRIPTION: **NOT REPORTED**
COMMENTS: **S.N. 032032, WELL #8**
INSPECTION DATE: **09/25/1997** INSPECTION TIME: **9:20**
STATUS: **ACTIVE**
IS PIT PROPERLY MARKED WITH AN ID SIGN OR PLAQUE?: **YES**
IS THERE A SITE PLAN FOR THE FACILITY?: **NO**
IS THE AREAS AFFECTED BY SPILLS MAPPED ON THE SITE PLAN?: **NO**
HAVE THE ENVIRONMENTALLY SENSITIVE AREAS (E.G. WETLAND) NEAR THE FACILITY BEEN MAPPED?: **NO**
NUMBER OF PHOTOS TAKEN OF FACILITY/SITE: **2**
GENERAL DESCRIPTION OF CONTAINMENT: **BARRIER, 8'X8' CONCRETE SUMP**
DEPTH OF FLUID NECESSARY TO OVERFLOW COTAINMENT: **NONE**
CONDITION OF CONTAINMENT: **ADEQUATE**
CONTAINMENT BREACHED?: **NO**
GENERAL COMMENTS ABOUT SITE: **S.N. 032032, WELL #8**
HAZARD / CLEANUP RANKING (RANGE OF VALUES 0 - 90): **45**

REMEDIAL ACTION INFORMATION

NO DATA REPORTED

Back to Report Summary

Waste Pits (WP)

MAP ID# 18 **Distance from Property: 0.35 mi. (1,848 ft.) N**

SITE INFORMATION

ID#: **12_w_18767**
OPERATOR: **U. S. DEPARTMENT OF ENERGY**
LAND OWNER: **U.S. DEPARTMENT OF ENERGY**
PARISH: **CAMERON**
OIL FIELD NAME: **W. HACKBERRY**
PIT TYPE: **WELL - AN OIL AND/OR GAS WELL**
PIT DESCRIPTION: **NOT REPORTED**
COMMENTS: **S.N. 971316, WELL #8A**
INSPECTION DATE: **09/25/1997** INSPECTION TIME: **9:23**
STATUS: **ACTIVE**
IS PIT PROPERLY MARKED WITH AN ID SIGN OR PLAQUE?: **YES**
IS THERE A SITE PLAN FOR THE FACILITY?: **NO**
IS THE AREAS AFFECTED BY SPILLS MAPPED ON THE SITE PLAN?: **NO**
HAVE THE ENVIRONMENTALLY SENSITIVE AREAS (E.G. WETLAND) NEAR THE FACILITY BEEN MAPPED?: **NO**
NUMBER OF PHOTOS TAKEN OF FACILITY/SITE: **2**
GENERAL DESCRIPTION OF CONTAINMENT: **BARRIER, 8'X10' CONCRETE SUMP**
DEPTH OF FLUID NECESSARY TO OVERFLOW COTAINMENT: **NONE**
CONDITION OF CONTAINMENT: **ADEQUATE**
CONTAINMENT BREACHED?: **NO**
GENERAL COMMENTS ABOUT SITE: **S.N. 971316, WELL #8A**
HAZARD / CLEANUP RANKING (RANGE OF VALUES 0 - 90): **45**

REMEDIAL ACTION INFORMATION

NO DATA REPORTED

Back to Report Summary

Waste Pits (WP)

MAP ID# 18 **Distance from Property: 0.36 mi. (1,901 ft.) N**

SITE INFORMATION

ID#: **12_w_18765**
OPERATOR: **U. S. DEPARTMENT OF ENERGY**
LAND OWNER: **U.S. DEPARTMENT OF ENERGY**
PARISH: **CAMERON**
OIL FIELD NAME: **W. HACKBERRY**
PIT TYPE: **WELL - AN OIL AND/OR GAS WELL**
PIT DESCRIPTION: **NOT REPORTED**
COMMENTS: **S.N. 971317, WELL #8B**
INSPECTION DATE: **09/25/1997** INSPECTION TIME: **9:18**
STATUS: **ACTIVE**
IS PIT PROPERLY MARKED WITH AN ID SIGN OR PLAQUE?: **YES**
IS THERE A SITE PLAN FOR THE FACILITY?: **NO**
IS THE AREAS AFFECTED BY SPILLS MAPPED ON THE SITE PLAN?: **NO**
HAVE THE ENVIRONMENTALLY SENSITIVE AREAS (E.G. WETLAND) NEAR THE FACILITY BEEN MAPPED?: **NO**
NUMBER OF PHOTOS TAKEN OF FACILITY/SITE: **2**
GENERAL DESCRIPTION OF CONTAINMENT: **BARRIER, 8'X8' CONCRETE SUMP**
DEPTH OF FLUID NECESSARY TO OVERFLOW COTAINMENT: **NONE**
CONDITION OF CONTAINMENT: **ADEQUATE**
CONTAINMENT BREACHED?: **NO**
GENERAL COMMENTS ABOUT SITE: **S.N. 971317, WELL #8B**
HAZARD / CLEANUP RANKING (RANGE OF VALUES 0 - 90): **45**

REMEDIAL ACTION INFORMATION

NO DATA REPORTED

Back to Report Summary

Waste Pits (WP)

MAP ID# 19 **Distance from Property: 0.35 mi. (1,848 ft.) W**

SITE INFORMATION

ID#: **12_w_18786**
OPERATOR: **U. S. DEPARTMENT OF ENERGY**
LAND OWNER: **U.S. DEPARTMENT OF ENERGY**
PARISH: **CAMERON**
OIL FIELD NAME: **W. HACKBERRY**
PIT TYPE: **WELL - AN OIL AND/OR GAS WELL**
PIT DESCRIPTION: **NOT REPORTED**
COMMENTS: **S.N. 971295, WELL #104**
INSPECTION DATE: **09/25/1997** INSPECTION TIME: **10:27**
STATUS: **ACTIVE**
IS PIT PROPERLY MARKED WITH AN ID SIGN OR PLAQUE?: **YES**
IS THERE A SITE PLAN FOR THE FACILITY?: **NO**
IS THE AREAS AFFECTED BY SPILLS MAPPED ON THE SITE PLAN?: **NO**
HAVE THE ENVIRONMENTALLY SENSITIVE AREAS (E.G. WETLAND) NEAR THE FACILITY BEEN MAPPED?: **NO**
NUMBER OF PHOTOS TAKEN OF FACILITY/SITE: **2**
GENERAL DESCRIPTION OF CONTAINMENT: **BARRIER, 7'X8' CONCRETE SUMP**
DEPTH OF FLUID NECESSARY TO OVERFLOW COTAINMENT: **NONE**
CONDITION OF CONTAINMENT: **ADEQUATE**
CONTAINMENT BREACHED?: **NO**
GENERAL COMMENTS ABOUT SITE: **S.N. 971295, WELL #104**
HAZARD / CLEANUP RANKING (RANGE OF VALUES 0 - 90): **45**

REMEDIAL ACTION INFORMATION

NO DATA REPORTED

Back to Report Summary

Waste Pits (WP)

MAP ID# 20 **Distance from Property: 0.37 mi. (1,954 ft.) W**

SITE INFORMATION

ID#: **12_w_18788**
OPERATOR: **U. S. DEPARTMENT OF ENERGY**
LAND OWNER: **U.S. DEPARTMENT OF ENERGY**
PARISH: **CAMERON**
OIL FIELD NAME: **W. HACKBERRY**
PIT TYPE: **WELL - AN OIL AND/OR GAS WELL**
PIT DESCRIPTION: **NOT REPORTED**
COMMENTS: **S.N. 971297, WELL #106**
INSPECTION DATE: **09/25/1997** INSPECTION TIME: **10:36**
STATUS: **ACTIVE**
IS PIT PROPERLY MARKED WITH AN ID SIGN OR PLAQUE?: **YES**
IS THERE A SITE PLAN FOR THE FACILITY?: **NO**
IS THE AREAS AFFECTED BY SPILLS MAPPED ON THE SITE PLAN?: **NO**
HAVE THE ENVIRONMENTALLY SENSITIVE AREAS (E.G. WETLAND) NEAR THE FACILITY BEEN MAPPED?: **NO**
NUMBER OF PHOTOS TAKEN OF FACILITY/SITE: **2**
GENERAL DESCRIPTION OF CONTAINMENT: **BARRIER, 6'X6' CONCRETE SUMP**
DEPTH OF FLUID NECESSARY TO OVERFLOW COTAINMENT: **NONE**
CONDITION OF CONTAINMENT: **ADEQUATE**
CONTAINMENT BREACHED?: **NO**
GENERAL COMMENTS ABOUT SITE: **S.N. 971297, WELL #106**
HAZARD / CLEANUP RANKING (RANGE OF VALUES 0 - 90): **45**

REMEDIAL ACTION INFORMATION

NO DATA REPORTED

Back to Report Summary

Waste Pits (WP)

MAP ID# 21 **Distance from Property: 0.37 mi. (1,954 ft.) E**

SITE INFORMATION

ID#: **12_w_18471**
OPERATOR: **WARREN PETROLEUM COMPANY**
LAND OWNER: **TRIDENT NGL, INC.**
PARISH: **CAMERON**
OIL FIELD NAME: **W. HACKBERRY**
PIT TYPE: **WELL - AN OIL AND/OR GAS WELL**
PIT DESCRIPTION: **NOT REPORTED**
COMMENTS: **S.N. 972315, WELL #12, BRINE WELL**
INSPECTION DATE: **09/08/1997** INSPECTION TIME: **13:29**
STATUS: **ACTIVE**
IS PIT PROPERLY MARKED WITH AN ID SIGN OR PLAQUE?: **YES**
IS THERE A SITE PLAN FOR THE FACILITY?: **NO**
IS THE AREAS AFFECTED BY SPILLS MAPPED ON THE SITE PLAN?: **NO**
HAVE THE ENVIRONMENTALLY SENSITIVE AREAS (E.G. WETLAND) NEAR THE FACILITY BEEN MAPPED?: **NO**
NUMBER OF PHOTOS TAKEN OF FACILITY/SITE: **2**
GENERAL DESCRIPTION OF CONTAINMENT: **BARRIER, PIPE RAIL**
DEPTH OF FLUID NECESSARY TO OVERFLOW COTAINMENT: **NONE**
CONDITION OF CONTAINMENT: **ADEQUATE**
CONTAINMENT BREACHED?: **NO**
GENERAL COMMENTS ABOUT SITE: **S.N. 972315, WELL #12, BRINE WELL**
HAZARD / CLEANUP RANKING (RANGE OF VALUES 0 - 90): **50**

REMEDIAL ACTION INFORMATION

NO DATA REPORTED

Back to Report Summary

MAP ID# 22 **Distance from Property: 0.37 mi. (1,954 ft.) E**

SITE INFORMATION

ID#: **12_mh_18470**
OPERATOR: **WARREN PETROLEUM COMPANY**
LAND OWNER: **TRIDENT NGL, INC.**
PARISH: **CAMERON**
OIL FIELD NAME: **W. HACKBERRY**
PIT TYPE: **MANIFOLD HEADER - A DEVICE (USUALLY A PIPE OR PIPE SEGMENTS) THAT SERVES AS A MOUNTING POINT FOR VALVES LEADING TO CONNECTING PIPELINES**
PIT DESCRIPTION: **NOT REPORTED**
COMMENTS: **4" ASSEMBLY**
INSPECTION DATE: **09/08/1997** INSPECTION TIME: **13:20**
STATUS: **ACTIVE**
IS PIT PROPERLY MARKED WITH AN ID SIGN OR PLAQUE?: **YES**
IS THERE A SITE PLAN FOR THE FACILITY?: **YES**
IS THE AREAS AFFECTED BY SPILLS MAPPED ON THE SITE PLAN?: **NO**
HAVE THE ENVIRONMENTALLY SENSITIVE AREAS (E.G. WETLAND) NEAR THE FACILITY BEEN MAPPED?: **NO**
NUMBER OF PHOTOS TAKEN OF FACILITY/SITE: **2**
GENERAL DESCRIPTION OF CONTAINMENT: **NONE**
DEPTH OF FLUID NECESSARY TO OVERFLOW COTAINMENT: **NONE**
CONDITION OF CONTAINMENT: **ADEQUATE**
CONTAINMENT BREACHED?: **NO**
GENERAL COMMENTS ABOUT SITE: **4" ASSEMBLY**
HAZARD / CLEANUP RANKING (RANGE OF VALUES 0 - 90): **45**

REMEDIAL ACTION INFORMATION

NO DATA REPORTED

Back to Report Summary

Waste Pits (WP)

MAP ID# 23 **Distance from Property: 0.37 mi. (1,954 ft.) NW**

SITE INFORMATION

ID#: **12_w_18783**
OPERATOR: **U. S. DEPARTMENT OF ENERGY**
LAND OWNER: **U.S. DEPARTMENT OF ENERGY**
PARISH: **CAMERON**
OIL FIELD NAME: **W. HACKBERRY**
PIT TYPE: **WELL - AN OIL AND/OR GAS WELL**
PIT DESCRIPTION: **NOT REPORTED**
COMMENTS: **S.N. 971294, WELL #103**
INSPECTION DATE: **09/25/1997** INSPECTION TIME: **10:17**
STATUS: **ACTIVE**
IS PIT PROPERLY MARKED WITH AN ID SIGN OR PLAQUE?: **YES**
IS THERE A SITE PLAN FOR THE FACILITY?: **NO**
IS THE AREAS AFFECTED BY SPILLS MAPPED ON THE SITE PLAN?: **NO**
HAVE THE ENVIRONMENTALLY SENSITIVE AREAS (E.G. WETLAND) NEAR THE FACILITY BEEN MAPPED?: **NO**
NUMBER OF PHOTOS TAKEN OF FACILITY/SITE: **2**
GENERAL DESCRIPTION OF CONTAINMENT: **BARRIER, 6'X6' CONCRETE SUMP**
DEPTH OF FLUID NECESSARY TO OVERFLOW COTAINMENT: **NONE**
CONDITION OF CONTAINMENT: **ADEQUATE**
CONTAINMENT BREACHED?: **NO**
GENERAL COMMENTS ABOUT SITE: **S.N. 971294, WELL #103**
HAZARD / CLEANUP RANKING (RANGE OF VALUES 0 - 90): **45**

REMEDIAL ACTION INFORMATION

NO DATA REPORTED

Back to Report Summary

Waste Pits (WP)

MAP ID# 24 **Distance from Property: 0.43 mi. (2,270 ft.) N**

SITE INFORMATION

ID#: **12_w_18763**
OPERATOR: **U. S. DEPARTMENT OF ENERGY**
LAND OWNER: **U. S. DEPARTMENT OF ENERGY**
PARISH: **CAMERON**
OIL FIELD NAME: **W. HACKBERRY**
PIT TYPE: **WELL - AN OIL AND/OR GAS WELL**
PIT DESCRIPTION: **NOT REPORTED**
COMMENTS: **S.N. 971318, WELL #9A, NO SIGN; FAXYWC, FAPRMA, FAHIST, FASTRD, SURVEY PLAT, AND P AND A REPORT WAS RESEARCHED AND IS ATTACHED IN THE FINAL REPORT.**
INSPECTION DATE: **09/25/1997** INSPECTION TIME: **9:11**
STATUS: **ACTIVE**
IS PIT PROPERLY MARKED WITH AN ID SIGN OR PLAQUE?: **YES**
IS THERE A SITE PLAN FOR THE FACILITY?: **NO**
IS THE AREAS AFFECTED BY SPILLS MAPPED ON THE SITE PLAN?: **NO**
HAVE THE ENVIRONMENTALLY SENSITIVE AREAS (E.G. WETLAND) NEAR THE FACILITY BEEN MAPPED?: **NO**
NUMBER OF PHOTOS TAKEN OF FACILITY/SITE: **2**
GENERAL DESCRIPTION OF CONTAINMENT: **BARRIER, 8'X8' CONCRETE SUMP**
DEPTH OF FLUID NECESSARY TO OVERFLOW COTAINMENT: **NONE**
CONDITION OF CONTAINMENT: **ADEQUATE**
CONTAINMENT BREACHED?: **NO**
GENERAL COMMENTS ABOUT SITE: **S.N. 971318, WELL #9A, NO SIGN; FAXYWC, FAPRMA, FAHIST, FASTRD, SURVEY PLAT, AND P AND A REPORT WAS RESEARCHED AND IS ATTACHED IN THE FINAL REPORT.**
HAZARD / CLEANUP RANKING (RANGE OF VALUES 0 - 90): **45**

REMEDIAL ACTION INFORMATION

NO DATA REPORTED

Back to Report Summary

Waste Pits (WP)

MAP ID# 24 **Distance from Property: 0.41 mi. (2,165 ft.) N**

SITE INFORMATION

ID#: **12_w_18764**
OPERATOR: **U. S. DEPARTMENT OF ENERGY**
LAND OWNER: **U.S. DEPARTMENT OF ENERGY**
PARISH: **CAMERON**
OIL FIELD NAME: **W. HACKBERRY**
PIT TYPE: **WELL - AN OIL AND/OR GAS WELL**
PIT DESCRIPTION: **NOT REPORTED**
COMMENTS: **S.N. 032661, WELL #9**
INSPECTION DATE: **09/25/1997** INSPECTION TIME: **9:13**
STATUS: **ACTIVE**
IS PIT PROPERLY MARKED WITH AN ID SIGN OR PLAQUE?: **YES**
IS THERE A SITE PLAN FOR THE FACILITY?: **NO**
IS THE AREAS AFFECTED BY SPILLS MAPPED ON THE SITE PLAN?: **NO**
HAVE THE ENVIRONMENTALLY SENSITIVE AREAS (E.G. WETLAND) NEAR THE FACILITY BEEN MAPPED?: **NO**
NUMBER OF PHOTOS TAKEN OF FACILITY/SITE: **2**
GENERAL DESCRIPTION OF CONTAINMENT: **BARRIER, 6'X8' CONCRETE SUMP**
DEPTH OF FLUID NECESSARY TO OVERFLOW COTAINMENT: **NONE**
CONDITION OF CONTAINMENT: **ADEQUATE**
CONTAINMENT BREACHED?: **NO**
GENERAL COMMENTS ABOUT SITE: **S.N. 032661, WELL #9**
HAZARD / CLEANUP RANKING (RANGE OF VALUES 0 - 90): **45**

REMEDIAL ACTION INFORMATION

NO DATA REPORTED

Back to Report Summary

Waste Pits (WP)

MAP ID# 24 **Distance from Property: 0.43 mi. (2,270 ft.) N**

SITE INFORMATION

ID#: **12_w_18762**
OPERATOR: **U. S. DEPARTMENT OF ENERGY**
LAND OWNER: **U. S. DEPARTMENT OF ENERGY**
PARISH: **CAMERON**
OIL FIELD NAME: **W. HACKBERRY**
PIT TYPE: **WELL - AN OIL AND/OR GAS WELL**
PIT DESCRIPTION: **NOT REPORTED**
COMMENTS: **S.N. 971319, WELL #9B**
INSPECTION DATE: **09/25/1997** INSPECTION TIME: **9:08**
STATUS: **ACTIVE**
IS PIT PROPERLY MARKED WITH AN ID SIGN OR PLAQUE?: **YES**
IS THERE A SITE PLAN FOR THE FACILITY?: **NO**
IS THE AREAS AFFECTED BY SPILLS MAPPED ON THE SITE PLAN?: **NO**
HAVE THE ENVIRONMENTALLY SENSITIVE AREAS (E.G. WETLAND) NEAR THE FACILITY BEEN MAPPED?: **NO**
NUMBER OF PHOTOS TAKEN OF FACILITY/SITE: **2**
GENERAL DESCRIPTION OF CONTAINMENT: **BARRIER, 6'X8' CONCRETE SUMP**
DEPTH OF FLUID NECESSARY TO OVERFLOW COTAINMENT: **NONE**
CONDITION OF CONTAINMENT: **ADEQUATE**
CONTAINMENT BREACHED?: **NO**
GENERAL COMMENTS ABOUT SITE: **S.N. 971319, WELL #9B**
HAZARD / CLEANUP RANKING (RANGE OF VALUES 0 - 90): **45**

REMEDIAL ACTION INFORMATION

NO DATA REPORTED

Back to Report Summary

Waste Pits (WP)

MAP ID# 25 **Distance from Property: 0.41 mi. (2,165 ft.) NW**

SITE INFORMATION

ID#: **12_w_18784**
OPERATOR: **U. S. DEPARTMENT OF ENERGY**
LAND OWNER: **U.S. DEPARTMENT OF ENERGY**
PARISH: **CAMERON**
OIL FIELD NAME: **W. HACKBERRY**
PIT TYPE: **WELL - AN OIL AND/OR GAS WELL**
PIT DESCRIPTION: **NOT REPORTED**
COMMENTS: **S.N. 971293, WELL #102**
INSPECTION DATE: **09/25/1997** INSPECTION TIME: **10:20**
STATUS: **ACTIVE**
IS PIT PROPERLY MARKED WITH AN ID SIGN OR PLAQUE?: **YES**
IS THERE A SITE PLAN FOR THE FACILITY?: **NO**
IS THE AREAS AFFECTED BY SPILLS MAPPED ON THE SITE PLAN?: **NO**
HAVE THE ENVIRONMENTALLY SENSITIVE AREAS (E.G. WETLAND) NEAR THE FACILITY BEEN MAPPED?: **NO**
NUMBER OF PHOTOS TAKEN OF FACILITY/SITE: **2**
GENERAL DESCRIPTION OF CONTAINMENT: **BARRIER, 7'X7' CONCRETE SUMP**
DEPTH OF FLUID NECESSARY TO OVERFLOW COTAINMENT: **NONE**
CONDITION OF CONTAINMENT: **ADEQUATE**
CONTAINMENT BREACHED?: **NO**
GENERAL COMMENTS ABOUT SITE: **S.N. 971293, WELL #102**
HAZARD / CLEANUP RANKING (RANGE OF VALUES 0 - 90): **45**

REMEDIAL ACTION INFORMATION

NO DATA REPORTED

Back to Report Summary

Waste Pits (WP)

MAP ID# 26 **Distance from Property: 0.42 mi. (2,218 ft.) E**

SITE INFORMATION

ID#: **12_f_18473**
OPERATOR: **WARREN PETROLEUM COMPANY**
LAND OWNER: **TRIDENT NGL, INC.**
PARISH: **CAMERON**
OIL FIELD NAME: **W. HACKBERRY**
PIT TYPE: **FACILITY - A PLACE WHERE PETROLEUM IS PROCESSED AND/OR SEPARATED PRIOR TO DISTRIBUTION AND/OR TRANSPORTATION BY PIPELINES OR BARGES**
PIT DESCRIPTION: **SEE COMMENTS**
COMMENTS: **3 SEPARATORS, 4 PUMPS**
INSPECTION DATE: **09/08/1997** INSPECTION TIME: **13:38**
STATUS: **ACTIVE**
IS PIT PROPERLY MARKED WITH AN ID SIGN OR PLAQUE?: **YES**
IS THERE A SITE PLAN FOR THE FACILITY?: **YES**
IS THE AREAS AFFECTED BY SPILLS MAPPED ON THE SITE PLAN?: **NO**
HAVE THE ENVIRONMENTALLY SENSITIVE AREAS (E.G. WETLAND) NEAR THE FACILITY BEEN MAPPED?: **NO**
NUMBER OF PHOTOS TAKEN OF FACILITY/SITE: **2**
GENERAL DESCRIPTION OF CONTAINMENT: **CONCRETE CURB**
DEPTH OF FLUID NECESSARY TO OVERFLOW COTAINMENT: **6"**
CONDITION OF CONTAINMENT: **ADEQUATE**
CONTAINMENT BREACHED?: **NO**
GENERAL COMMENTS ABOUT SITE: **3 SEPARATORS, 4 PUMPS**
HAZARD / CLEANUP RANKING (RANGE OF VALUES 0 - 90): **45**

REMEDIAL ACTION INFORMATION

NO DATA REPORTED

Back to Report Summary

MAP ID# 27 **Distance from Property: 0.43 mi. (2,270 ft.) SE**

SITE INFORMATION

GEOSEARCH ID: **15430**

AI: **15430**

NAME: **CAMERON PARISH POLICE JURY - HACKBERRY DUMP**

ADDRESS: **495 MAGGIE HEBERT RD**
HACKBERRY, LA 70645

SITE DETAILS

ACT NUMBER: **PER19990001**

SIC CODE: **4953**

PERMIT: **0560-00160-00**

START DATE: **9/23/1999**

END DATE: **4/19/2016**

PROGRAM: **AIR**

REGION: **SOUTHWEST**

MAIL ADDRESS: **PO BOX 1280**
CAMERON, LA 70631

DESCRIPTION: **STATE PERMIT (UNSPECIFIED)**

Back to Report Summary

MAP ID# 27 **Distance from Property: 0.43 mi. (2,270 ft.) SE**

SITE INFORMATION

ID#: **15430**

NAME: **CAMERON PARISH POLICE JURY-MAGGIE HEBERT RD.**

ADDRESS: **MAGGIE HEBERT RD**
HACKBERRY, LA 70645

PARISH: **CAMERON**

SITE DETAILS

CATEGORY: **NEW TEMPORARY SITE**

PERMIT NUMBER: **NOT REPORTED**

REQUESTED ACTIVITY: **STAGE, BURN (ACD)**

SITE OPERATOR: **CAMERON PARISH POLICE JURY**

SITE OWNER: **CAMERON PARISH POLICE JURY**

SITE OWNER ADDRESS: **P. O. BOX 1280, CAMERON, LA 70631**

SITE OWNER PHONE: **337-249-9695**

CONTACT NAME: **NOT REPORTED**

CONTACT PHONE: **NOT REPORTED**

Back to Report Summary

MAP ID# 28 **Distance from Property: 0.44 mi. (2,323 ft.) E**

SITE INFORMATION

ID#: **12_w_18472**

OPERATOR: **WARREN PETROLEUM COMPANY**

LAND OWNER: **TRIDENT NGL, INC.**

PARISH: **CAMERON**

OIL FIELD NAME: **W. HACKBERRY**

PIT TYPE: **WELL - AN OIL AND/OR GAS WELL**

PIT DESCRIPTION: **NOT REPORTED**

COMMENTS: **S.N. 972086 WELL #1, RAW PRODUCT, FAXYWC, FAPRMA, FAHIST, FASTRD, SURVEY PLAT, AND P AND A REPORT WAS RESEARCHED AND IS ATTACHED IN THE FINAL REPORT.**

INSPECTION DATE: **09/08/1997** INSPECTION TIME: **13:35**

STATUS: **ACTIVE**

IS PIT PROPERLY MARKED WITH AN ID SIGN OR PLAQUE?: **YES**

IS THERE A SITE PLAN FOR THE FACILITY?: **NO**

IS THE AREAS AFFECTED BY SPILLS MAPPED ON THE SITE PLAN?: **NO**

HAVE THE ENVIRONMENTALLY SENSITIVE AREAS (E.G. WETLAND) NEAR THE FACILITY BEEN MAPPED?: **NO**

NUMBER OF PHOTOS TAKEN OF FACILITY/SITE: **2**

GENERAL DESCRIPTION OF CONTAINMENT: **BARRIER**

DEPTH OF FLUID NECESSARY TO OVERFLOW COTAINMENT: **NONE**

CONDITION OF CONTAINMENT: **ADEQUATE**

CONTAINMENT BREACHED?: **NO**

GENERAL COMMENTS ABOUT SITE: **S.N. 972086 WELL #1, RAW PRODUCT, FAXYWC, FAPRMA, FAHIST, FASTRD, SURVEY PLAT, AND P AND A REPORT WAS RESEARCHED AND IS ATTACHED IN THE FINAL REPORT.**

HAZARD / CLEANUP RANKING (RANGE OF VALUES 0 - 90): **55**

REMEDIAL ACTION INFORMATION

NO DATA REPORTED

Back to Report Summary

Waste Pits (WP)

MAP ID# 29 **Distance from Property: 0.47 mi. (2,482 ft.) E**

SITE INFORMATION

ID#: **12_w_18485**
OPERATOR: **WARREN PETROLEUM COMPANY**
LAND OWNER: **HELEN NOBLES SAUCIER**
PARISH: **CAMERON**
OIL FIELD NAME: **W. HACKBERRY**
PIT TYPE: **WELL - AN OIL AND/OR GAS WELL**
PIT DESCRIPTION: **NOT REPORTED**
COMMENTS: **S.N. 972463, WELL #1**
INSPECTION DATE: **09/09/1997** INSPECTION TIME: **10:00**
STATUS: **ACTIVE**
IS PIT PROPERLY MARKED WITH AN ID SIGN OR PLAQUE?: **YES**
IS THERE A SITE PLAN FOR THE FACILITY?: **NO**
IS THE AREAS AFFECTED BY SPILLS MAPPED ON THE SITE PLAN?: **NO**
HAVE THE ENVIRONMENTALLY SENSITIVE AREAS (E.G. WETLAND) NEAR THE FACILITY BEEN MAPPED?: **NO**
NUMBER OF PHOTOS TAKEN OF FACILITY/SITE: **2**
GENERAL DESCRIPTION OF CONTAINMENT: **OTHER, PIPE RAIL**
DEPTH OF FLUID NECESSARY TO OVERFLOW COTAINMENT: **NONE**
CONDITION OF CONTAINMENT: **ADEQUATE**
CONTAINMENT BREACHED?: **NO**
GENERAL COMMENTS ABOUT SITE: **S.N. 972463, WELL #1**
HAZARD / CLEANUP RANKING (RANGE OF VALUES 0 - 90): **50**

REMEDIAL ACTION INFORMATION

NO DATA REPORTED

Back to Report Summary

MAP ID# 30 **Distance from Property: 0.49 mi. (2,587 ft.) NW**

SITE INFORMATION

ID#: **12_w_18775**
OPERATOR: **U. S. DEPARTMENT OF ENERGY**
LAND OWNER: **U.S. DEPARTMENT OF ENERGY**
PARISH: **CAMERON**
OIL FIELD NAME: **W. HACKBERRY**
PIT TYPE: **WELL - AN OIL AND/OR GAS WELL**
PIT DESCRIPTION: **NOT REPORTED**
COMMENTS: **S.N. 971300, WELL #109**
INSPECTION DATE: **09/25/1997** INSPECTION TIME: **9:49**
STATUS: **ACTIVE**
IS PIT PROPERLY MARKED WITH AN ID SIGN OR PLAQUE?: **YES**
IS THERE A SITE PLAN FOR THE FACILITY?: **NO**
IS THE AREAS AFFECTED BY SPILLS MAPPED ON THE SITE PLAN?: **NO**
HAVE THE ENVIRONMENTALLY SENSITIVE AREAS (E.G. WETLAND) NEAR THE FACILITY BEEN MAPPED?: **NO**
NUMBER OF PHOTOS TAKEN OF FACILITY/SITE: **2**
GENERAL DESCRIPTION OF CONTAINMENT: **BARRIER, 6'X6' CONCRETE SUMP**
DEPTH OF FLUID NECESSARY TO OVERFLOW COTAINMENT: **NONE**
CONDITION OF CONTAINMENT: **ADEQUATE**
CONTAINMENT BREACHED?: **NO**
GENERAL COMMENTS ABOUT SITE: **S.N. 971300, WELL #109**
HAZARD / CLEANUP RANKING (RANGE OF VALUES 0 - 90): **45**

REMEDIAL ACTION INFORMATION

NO DATA REPORTED

Back to Report Summary

Waste Pits (WP)

MAP ID# 31 **Distance from Property: 0.5 mi. (2,640 ft.) N**

SITE INFORMATION

ID#: **12_w_18770**
OPERATOR: **U. S. DEPARTMENT OF ENERGY**
LAND OWNER: **U.S. DEPARTMENT OF ENERGY**
PARISH: **CAMERON**
OIL FIELD NAME: **W. HACKBERRY**
PIT TYPE: **WELL - AN OIL AND/OR GAS WELL**
PIT DESCRIPTION: **NOT REPORTED**
COMMENTS: **S.N. 971315, WELL #7B**
INSPECTION DATE: **09/25/1997** INSPECTION TIME: **9:32**
STATUS: **ACTIVE**
IS PIT PROPERLY MARKED WITH AN ID SIGN OR PLAQUE?: **YES**
IS THERE A SITE PLAN FOR THE FACILITY?: **NO**
IS THE AREAS AFFECTED BY SPILLS MAPPED ON THE SITE PLAN?: **NO**
HAVE THE ENVIRONMENTALLY SENSITIVE AREAS (E.G. WETLAND) NEAR THE FACILITY BEEN MAPPED?: **NO**
NUMBER OF PHOTOS TAKEN OF FACILITY/SITE: **2**
GENERAL DESCRIPTION OF CONTAINMENT: **BARRIER, 8'X10' CONCRETE SUMP**
DEPTH OF FLUID NECESSARY TO OVERFLOW COTAINMENT: **NONE**
CONDITION OF CONTAINMENT: **ADEQUATE**
CONTAINMENT BREACHED?: **NO**
GENERAL COMMENTS ABOUT SITE: **S.N. 971315, WELL #7B**
HAZARD / CLEANUP RANKING (RANGE OF VALUES 0 - 90): **45**

REMEDIAL ACTION INFORMATION

NO DATA REPORTED

Back to Report Summary

Waste Pits (WP)

MAP ID# 31 **Distance from Property: 0.5 mi. (2,640 ft.) N**

SITE INFORMATION

ID#: **12_w_18769**
OPERATOR: **U. S. DEPARTMENT OF ENERGY**
LAND OWNER: **U.S. DEPARTMENT OF ENERGY**
PARISH: **CAMERON**
OIL FIELD NAME: **W. HACKBERRY**
PIT TYPE: **WELL - AN OIL AND/OR GAS WELL**
PIT DESCRIPTION: **NOT REPORTED**
COMMENTS: **S.N. 031739, WELL #7**
INSPECTION DATE: **09/25/1997** INSPECTION TIME: **9:30**
STATUS: **ACTIVE**
IS PIT PROPERLY MARKED WITH AN ID SIGN OR PLAQUE?: **YES**
IS THERE A SITE PLAN FOR THE FACILITY?: **NO**
IS THE AREAS AFFECTED BY SPILLS MAPPED ON THE SITE PLAN?: **NO**
HAVE THE ENVIRONMENTALLY SENSITIVE AREAS (E.G. WETLAND) NEAR THE FACILITY BEEN MAPPED?: **NO**
NUMBER OF PHOTOS TAKEN OF FACILITY/SITE: **2**
GENERAL DESCRIPTION OF CONTAINMENT: **BARRIER, 8'X8' CONCRETE SUMP**
DEPTH OF FLUID NECESSARY TO OVERFLOW COTAINMENT: **NONE**
CONDITION OF CONTAINMENT: **ADEQUATE**
CONTAINMENT BREACHED?: **NO**
GENERAL COMMENTS ABOUT SITE: **S.N. 031739, WELL #7**
HAZARD / CLEANUP RANKING (RANGE OF VALUES 0 - 90): **45**

REMEDIAL ACTION INFORMATION

NO DATA REPORTED

Back to Report Summary

MAP ID# 32 **Distance from Property: 0.5 mi. (2,640 ft.) NW**

SITE INFORMATION

ID#: **12_w_18782**
OPERATOR: **U. S. DEPARTMENT OF ENERGY**
LAND OWNER: **U.S. DEPARTMENT OF ENERGY**
PARISH: **CAMERON**
OIL FIELD NAME: **W. HACKBERRY**
PIT TYPE: **WELL - AN OIL AND/OR GAS WELL**
PIT DESCRIPTION: **NOT REPORTED**
COMMENTS: **S.N. 971298, WELL #107**
INSPECTION DATE: **09/25/1997** INSPECTION TIME: **10:13**
STATUS: **ACTIVE**
IS PIT PROPERLY MARKED WITH AN ID SIGN OR PLAQUE?: **YES**
IS THERE A SITE PLAN FOR THE FACILITY?: **NO**
IS THE AREAS AFFECTED BY SPILLS MAPPED ON THE SITE PLAN?: **NO**
HAVE THE ENVIRONMENTALLY SENSITIVE AREAS (E.G. WETLAND) NEAR THE FACILITY BEEN MAPPED?: **NO**
NUMBER OF PHOTOS TAKEN OF FACILITY/SITE: **2**
GENERAL DESCRIPTION OF CONTAINMENT: **BARRIER, 6'X8' CONCRETE SUMP**
DEPTH OF FLUID NECESSARY TO OVERFLOW COTAINMENT: **NONE**
CONDITION OF CONTAINMENT: **ADEQUATE**
CONTAINMENT BREACHED?: **NO**
GENERAL COMMENTS ABOUT SITE: **S.N. 971298, WELL #107**
HAZARD / CLEANUP RANKING (RANGE OF VALUES 0 - 90): **45**

REMEDIAL ACTION INFORMATION

NO DATA REPORTED

Back to Report Summary

Unlocated Sites Summary

This list contains sites that could not be mapped due to limited or incomplete address information.

Database Name	Site ID#	Site Name	Address	City/State/Zip/County
RCRAGR06	LAR000068759*G	USEPA HURRICANE IKE 2ND BAYOU STAGING AREA	WEST END OF 2ND BAYOU RD	HACKBERRY 70645 Cameron
RCRANGR06	LAD980745160*NG	SHELL OIL CO CRUDE OIL TERMINAL	CHALKLEY TERMINAL	HACKBERRY 70645 Cameron

AIRSAFS Aerometric Information Retrieval System / Air Facility Subsystem

VERSION DATE: 10/20/14

The United States Environmental Protection Agency (EPA) modified the Aerometric Information Retrieval System (AIRS) to a database that exclusively tracks the compliance of stationary sources of air pollution with EPA regulations: the Air Facility Subsystem (AFS). Since this change in 2001, the management of the AIRS/AFS database was assigned to EPA's Office of Enforcement and Compliance Assurance.

BRS Biennial Reporting System

VERSION DATE: 12/31/11

The United States Environmental Protection Agency (EPA), in cooperation with the States, biennially collects information regarding the generation, management, and final disposition of hazardous wastes regulated under the Resource Conservation and Recovery Act of 1976 (RCRA), as amended. The Biennial Report captures detailed data on the generation of hazardous waste from large quantity generators and data on waste management practices from treatment, storage and disposal facilities. Currently, the EPA states that data collected between 1991 and 1997 was originally a part of the defunct Biennial Reporting System and is now incorporated into the RCRAInfo data system.

CDL Clandestine Drug Laboratory Locations

VERSION DATE: 01/20/16

The U.S. Department of Justice ("the Department") provides this information as a public service. It contains addresses of some locations where law enforcement agencies reported they found chemicals or other items that indicated the presence of either clandestine drug laboratories or dumpsites. In most cases, the source of the entries is not the Department, and the Department has not verified the entry and does not guarantee its accuracy. Members of the public must verify the accuracy of all entries by, for example, contacting local law enforcement and local health departments. The Department does not establish, implement, enforce, or certify compliance with clean-up or remediation standards for contaminated sites; the public should contact a state or local health department or environmental protection agency for that information.

DOCKETS EPA Docket Data

VERSION DATE: 12/22/05

The United States Environmental Protection Agency Docket data lists Civil Case Defendants, filing dates as far back as 1971, laws broken including section, violations that occurred, pollutants involved, penalties assessed and superfund awards by facility and location. Please refer to ICIS database as source of current data.

EC Federal Engineering Institutional Control Sites

VERSION DATE: 08/03/15

This database includes site locations where Engineering and/or Institutional Controls have been identified as part

of a selected remedy for the site as defined by United States Environmental Protection Agency official remedy decision documents. A site listing does not indicate that the institutional and engineering controls are currently in place nor will be in place once the remedy is complete; it only indicates that the decision to include either of them in the remedy is documented as of the completed date of the document. Institutional controls are actions, such as legal controls, that help minimize the potential for human exposure to contamination by ensuring appropriate land or resource use. Engineering controls include caps, barriers, or other device engineering to prevent access, exposure, or continued migration of contamination.

ERNSLA Emergency Response Notification System

VERSION DATE: 02/21/16

This National Response Center database contains data on reported releases of oil, chemical, radiological, biological, and/or etiological discharges into the environment anywhere in the United States and its territories. The data comes from spill reports made to the U.S. Environmental Protection Agency, U.S. Coast Guard, the National Response Center and/or the U.S. Department of Transportation.

FRSLA Facility Registry System

VERSION DATE: 02/03/16

The United States Environmental Protection Agency's Office of Environmental Information (OEI) developed the Facility Registry System (FRS) as the centrally managed database that identifies facilities, sites or places subject to environmental regulations or of environmental interest. The Facility Registry System replaced the Facility Index System or FINDS database.

HMIRSR06 Hazardous Materials Incident Reporting System

VERSION DATE: 11/08/15

The HMIRS database contains unintentional hazardous materials release information reported to the U.S. Department of Transportation located in EPA Region 6. This region includes the following states: Arkansas, Louisiana, New Mexico, Oklahoma, and Texas.

ICIS Integrated Compliance Information System (formerly DOCKETS)

VERSION DATE: 12/06/15

ICIS is a case activity tracking and management system for civil, judicial, and administrative federal Environmental Protection Agency enforcement cases. ICIS contains information on federal administrative and federal judicial cases under the following environmental statutes: the Clean Air Act, the Clean Water Act, the Resource Conservation and Recovery Act, the Emergency Planning and Community Right-to-Know Act - Section 313, the Toxic Substances Control Act, the Federal Insecticide, Fungicide, and Rodenticide Act, the Comprehensive Environmental Response, Compensation, and Liability Act, the Safe Drinking Water Act, and the Marine Protection, Research, and Sanctuaries Act.

ICISNPDES Integrated Compliance Information System National Pollutant Discharge Elimination System

VERSION DATE: 12/20/15

In 2006, the Integrated Compliance Information System (ICIS) - National Pollutant Discharge Elimination System (NPDES) became the NPDES national system of record for select states, tribes and territories. ICIS-NPDES is an information management system maintained by the United States Environmental Protection Agency's Office of Compliance to track permit compliance and enforcement status of facilities regulated by the NPDES under the Clean Water Act. ICIS-NPDES is designed to support the NPDES program at the state, regional, and national levels.

LUCIS Land Use Control Information System

VERSION DATE: 09/01/06

The LUCIS database is maintained by the U.S. Navy and contains information for former Base Realignment and Closure (BRAC) properties across the United States.

MLTS Material Licensing Tracking System

VERSION DATE: 02/12/16

MLTS is a list of approximately 8,100 sites which have or use radioactive materials subject to the United States Nuclear Regulatory Commission (NRC) licensing requirements.

NPDESR06 National Pollutant Discharge Elimination System

VERSION DATE: 04/01/07

Information in this database is extracted from the Water Permit Compliance System (PCS) database which is used by United States Environmental Protection Agency to track surface water permits issued under the Clean Water Act. This database includes permitted facilities located in EPA Region 6. This region includes the following states: Arkansas, Louisiana, New Mexico, Oklahoma, and Texas. The NPDES database was collected from December 2002 until April 2007. Refer to the PCS and/or ICIS-NPDES database as source of current data.

PADS PCB Activity Database System

VERSION DATE: 07/01/14

The PCB Activity Database System (PADS) is used by the United States Environmental Protection Agency to monitor the activities of polychlorinated biphenyls (PCB) handlers.

PCSR06 Permit Compliance System

VERSION DATE: 08/01/12

The Permit Compliance System is used in tracking enforcement status and permit compliance of facilities controlled by the National Pollutant Discharge Elimination System (NPDES) under the Clean Water Act and is maintained by the United States Environmental Protection Agency's Office of Compliance. PCS is designed to support the NPDES program at the state, regional, and national levels. This database includes permitted facilities located in EPA Region 6. This region includes the following states: Arkansas, Louisiana, New Mexico, Oklahoma, and Texas. PCS has been modernized, and no longer exists. National Pollutant Discharge Elimination System (ICIS-NPDES) data can now be found in Integrated Compliance Information System (ICIS).

RCRASC RCRA Sites with Controls

VERSION DATE: 02/23/16

This list of Resource Conservation and Recovery Act sites with institutional controls in place is provided by the U.S. Environmental Protection Agency.

SFLIENS CERCLIS Liens

VERSION DATE: 06/08/12

A Federal CERCLA ("Superfund") lien can exist by operation of law at any site or property at which United States Environmental Protection Agency has spent Superfund monies. These monies are spent to investigate and address releases and threatened releases of contamination. CERCLIS provides information as to the identity of these sites and properties. This database contains those CERCLIS sites where the Lien on Property action is complete.

SSTS Section Seven Tracking System

VERSION DATE: 12/08/14

The United States Environmental Protection Agency tracks information on pesticide establishments through the Section Seven Tracking System (SSTS). SSTS records the registration of new establishments and records pesticide production at each establishment. The Federal Insecticide, Fungicide and Rodenticide Act (FIFRA) requires that production of pesticides or devices be conducted in a registered pesticide-producing or device-producing establishment. ("Production" includes formulation, packaging, repackaging, and relabeling.)

TRI Toxics Release Inventory

VERSION DATE: 12/31/14

The Toxics Release Inventory, provided by the United States Environmental Protection Agency, includes data on toxic chemical releases and waste management activities from certain industries as well as federal and tribal facilities. This inventory contains information about the types and amounts of toxic chemicals that are released each year to the air, water, and land as well as information on the quantities of toxic chemicals sent to other facilities for further waste management.

TSCA Toxic Substance Control Act Inventory

VERSION DATE: 12/31/06

The Toxic Substances Control Act (TSCA) was enacted in 1976 to ensure that chemicals manufactured, imported, processed, or distributed in commerce, or used or disposed of in the United States do not pose any unreasonable risks to human health or the environment. TSCA section 8(b) provides the United States Environmental Protection Agency authority to "compile, keep current, and publish a list of each chemical substance that is manufactured or processed in the United States." This TSCA Chemical Substance Inventory contains non-confidential information on the production amount of toxic chemicals from each manufacturer and importer site.

NLRRCRAG No Longer Regulated RCRA Generator Facilities

VERSION DATE: 02/09/16

This database includes RCRA Generator facilities that are no longer regulated by the United States Environmental Protection Agency or do not meet other RCRA reporting requirements. This listing includes facilities that formerly generated hazardous waste.
Large Quantity Generators: Generate 1,000 kg or more of hazardous waste during any calendar month; or Generate more than 1 kg of acutely hazardous waste during any calendar month; or Generate more than 100 kg of any residue or contaminated soil, waste or other debris resulting from the cleanup of a spill, into or on any land or water, or acutely hazardous waste during any calendar month; or Generate 1 kg or less of acutely hazardous waste during any calendar month, and accumulate more than 1kg of acutely hazardous waste at any time; or Generate 100 kg or less of any residue or contaminated soil, waste or other debris resulting from the cleanup of a spill, into or on any land or water, of acutely hazardous waste during any calendar month, and accumulated more than 100 kg of that material at any time.
Small Quantity Generators: Generate more than 100 and less than 1000 kilograms of hazardous waste during any calendar month and accumulate less than 6000 kg of hazardous waste at any time; or Generate 100 kg or less of hazardous waste during any calendar month, and accumulate more than 1000 kg of hazardous waste at any time.
Conditionally Exempt Small Quantity Generators: Generate 100 kilograms or less of hazardous waste per calendar month, and accumulate 1000 kg or less of hazardous waste at any time; or Generate one kilogram or less of acutely hazardous waste per calendar month, and accumulate at any time: 1 kg or less of acutely hazardous waste; or 100 kg or less of any residue or contaminated soil, waste or other debris resulting from the cleanup of a spill, into or on any land or water, or acutely hazardous waste; or Generate 100 kg or less of any residue or contaminated soil, waste or other debris resulting from the cleanup of a spill, into or on any land or water, or acutely hazardous waste during any calendar month, and accumulate at any time: 1 kg or less of acutely hazardous waste; or 100 kg or less of any residue or contaminated soil, waste or other debris resulting from the cleanup of a spill, into or on any land or water, of acutely hazardous waste.

RCRAGR06 Resource Conservation & Recovery Act - Generator Facilities

VERSION DATE: 02/09/16

This database includes sites listed as generators of hazardous waste (large, small, and exempt) in the RCRAInfo

system. The United States Environmental Protection Agency defines RCRAInfo as the comprehensive information system which provides access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. RCRAInfo replaces the data recording and reporting abilities of the Resource Conservation and Recovery Information System (RCRIS) and the Biennial Reporting System (BRS). This database includes sites located in EPA Region 6. This region includes the following states: Arkansas, Louisiana, New Mexico, Oklahoma, and Texas.
Large Quantity Generators: Generate 1,000 kg or more of hazardous waste during any calendar month; or Generate more than 1 kg of acutely hazardous waste during any calendar month; or Generate more than 100 kg of any residue or contaminated soil, waste or other debris resulting from the cleanup of a spill, into or on any land or water, or acutely hazardous waste during any calendar month; or Generate 1 kg or less of acutely hazardous waste during any calendar month, and accumulate more than 1kg of acutely hazardous waste at any time; or Generate 100 kg or less of any residue or contaminated soil, waste or other debris resulting from the cleanup of a spill, into or on any land or water, of acutely hazardous waste during any calendar month, and accumulated more than 100 kg of that material at any time.
Small Quantity Generators: Generate more than 100 and less than 1000 kilograms of hazardous waste during any calendar month and accumulate less than 6000 kg of hazardous waste at any time; or Generate 100 kg or less of hazardous waste during any calendar month, and accumulate more than 1000 kg of hazardous waste at any time.
Conditionally Exempt Small Quantity Generators: Generate 100 kilograms or less of hazardous waste per calendar month, and accumulate 1000 kg or less of hazardous waste at any time; or Generate one kilogram or less of acutely hazardous waste per calendar month, and accumulate at any time: 1 kg or less of acutely hazardous waste; or 100 kg or less of any residue or contaminated soil, waste or other debris resulting from the cleanup of a spill, into or on any land or water, or acutely hazardous waste; or Generate 100 kg or less of any residue or contaminated soil, waste or other debris resulting from the cleanup of a spill, into or on any land or water, or acutely hazardous waste during any calendar month, and accumulate at any time: 1 kg or less of acutely hazardous waste; or 100 kg or less of any residue or contaminated soil, waste or other debris resulting from the cleanup of a spill, into or on any land or water, of acutely hazardous waste.

RCRANGR06 Resource Conservation & Recovery Act - Non-Generator Facilities

VERSION DATE: 02/09/16

This database identifies RCRAInfo system sites that only handle hazardous waste, such as transporters, without generating any amount hazardous waste. The United States Environmental Protection Agency defines RCRAInfo as the comprehensive information system which provides access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. RCRAInfo replaces the data recording and reporting abilities of the Resource Conservation and Recovery Information System (RCRIS) and the Biennial Reporting System (BRS). This database includes sites located in EPA Region 6. This region includes the following states: Arkansas, Louisiana, New Mexico, Oklahoma, and Texas.

HISTPST Historical Gas Stations

VERSION DATE: NR

This historic directory of service stations is provided by the Cities Service Company. The directory includes

Cities Service filling stations that were located throughout the United States in 1930.

BF Brownfields Management System

VERSION DATE: 01/28/16

Brownfields are real property, the expansion, redevelopment, or reuse of which may be complicated by the presence or potential presence of a hazardous substance, pollutant, or contaminant. Cleaning up and reinvesting in these properties takes development pressures off of undeveloped, open land, and both improves and protects the environment. The United States Environmental Protection Agency maintains this database to track activities in the various brown field grant programs including grantee assessment, site cleanup and site redevelopment. This database included tribal brownfield sites.

DNPL Delisted National Priorities List

VERSION DATE: 03/07/16

This database includes sites from the United States Environmental Protection Agency's Final National Priorities List (NPL) where remedies have proven to be satisfactory or sites where the original analyses were inaccurate, and the site is no longer appropriate for inclusion on the NPL, and final publication in the Federal Register has occurred.

NLRRCRAT No Longer Regulated RCRA Non-CORRACTS TSD Facilities

VERSION DATE: 02/09/16

This database includes RCRA Non-Corrective Action TSD facilities that are no longer regulated by the United States Environmental Protection Agency or do not meet other RCRA reporting requirements. This listing includes facilities that formerly treated, stored or disposed of hazardous waste.

ODI Open Dump Inventory

VERSION DATE: 06/01/85

The open dump inventory was published by the United States Environmental Protection Agency. An "open dump" is defined as a facility or site where solid waste is disposed of which is not a sanitary landfill which meets the criteria promulgated under section 4004 of the Solid Waste Disposal Act (42 U.S.C. 6944) and which is not a facility for disposal of hazardous waste. This inventory has not been updated since June 1985.

RCRAT Resource Conservation & Recovery Act - Non-CORRACTS Treatment, Storage & Disposal Facilities

VERSION DATE: 02/09/16

This database includes Non-Corrective Action sites listed as treatment, storage and/or disposal facilities of hazardous waste in the RCRAInfo system. The United States Environmental Protection Agency defines RCRAInfo as the comprehensive information system which provides access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of

1984. RCRAInfo replaces the data recording and reporting abilities of the Resource Conservation and Recovery Information System (RCRIS) and the Biennial Reporting System (BRS).

SEMS Superfund Enterprise Management System

VERSION DATE: 03/07/16

The U.S. Environmental Protections Agency's (EPA) Office of Solid Waste and Emergency Response, Office of Superfund Remediation and Technology Innovation (OSRTI), has implemented The Superfund Enterprise Management System (SEMS), formerly known as CERCLIS (Comprehensive Environmental Response, Compensation and Liability Information System) to track and report on clean-up and enforcement activities taking place at Superfund sites. SEMS represents a joint development and ongoing collaboration between Superfund's Remedial, Removal, Federal Facilities, Enforcement and Emergency Response programs.

SEMSARCH Superfund Enterprise Management System Archived Site Inventory

VERSION DATE: 03/16/16

The Superfund Enterprise Management System Archive listing (SEMS-ARCHIVE) has replaced the CERCLIS NFRAP reporting system in 2015. This listing reflect sites that have been assessed and no further remediation is planned and is of no further interest under the Superfund program.

DOD Department of Defense Sites

VERSION DATE: 06/21/10

This information originates from the National Atlas of the United States Federal Lands data, which includes lands owned or administered by the Federal government. Army DOD, Army Corps of Engineers DOD, Air Force DOD, Navy DOD and Marine DOD areas of 640 acres or more are included.

FUDS Formerly Used Defense Sites

VERSION DATE: 06/01/15

The Formerly Used Defense Sites (FUDS) inventory includes properties previously owned by or leased to the United States and under Secretary of Defense Jurisdiction, as well as Munitions Response Areas (MRAs). The remediation of these properties is the responsibility of the Department of Defense. This data is provided by the U.S. Army Corps of Engineers (USACE), the boundaries/polygon data are based on preliminary findings and not all properties currently have polygon data available. DISCLAIMER: This data represents the results of data collection/processing for a specific USACE activity and is in no way to be considered comprehensive or to be used in any legal or official capacity as presented on this site. While the USACE has made a reasonable effort to insure the accuracy of the maps and associated data, it should be explicitly noted that USACE makes no warranty, representation or guaranty, either expressed or implied, as to the content, sequence, accuracy, timeliness or completeness of any of the data provided herein. For additional information on Formerly Used Defense Sites please contact the USACE Public Affairs Office at (202) 528-4285.

NLRRCRAC No Longer Regulated RCRA Corrective Action Facilities

VERSION DATE: 02/09/16

This database includes RCRA Corrective Action facilities that are no longer regulated by the United States Environmental Protection Agency or do not meet other RCRA reporting requirements.

NPL National Priorities List

VERSION DATE: 03/07/16

This database includes United States Environmental Protection Agency (EPA) National Priorities List sites that fall under the EPA's Superfund program, established to fund the cleanup of the most serious uncontrolled or abandoned hazardous waste sites identified for possible long-term remedial action.

PNPL Proposed National Priorities List

VERSION DATE: 03/07/16

This database contains sites proposed to be included on the National Priorities List (NPL) in the Federal Register. The United States Environmental Protection Agency investigates these sites to determine if they may present long-term threats to public health or the environment.

RCRAC Resource Conservation & Recovery Act - Corrective Action Facilities

VERSION DATE: 02/09/16

This database includes all hazardous waste sites with ongoing corrective action activity and where corrective action is statutorily required to be address but have not had corrective action imposed in the RCRAInfo system. The Corrective Action Program requires owners or operators of RCRA facilities (or treatment, storage, and disposal facilities) to investigate and cleanup contamination in order to protect human health and the environment. The United States Environmental Protection Agency defines RCRAInfo as the comprehensive information system which provides access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. RCRAInfo replaces the data recording and reporting abilities of the Resource Conservation and Recovery Information System (RCRIS) and the Biennial Reporting System (BRS).

RCRASUBC Resource Conservation & Recovery Act - Subject to Corrective Action Facilities

VERSION DATE: 02/09/16

This database includes hazardous waste sites which are potentially subject to corrective action regardless of whether they have correction action underway, plus any sites showing a corrective action event of RFI or beyond in the RCRAInfo system. Sites conducting corrective action under analogous state authorities are also included. The United States Environmental Protection Agency defines RCRAInfo as the comprehensive information system which provides access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. RCRAInfo replaces the data recording and

reporting abilities of the Resource Conservation and Recovery Information System (RCRIS) and the Biennial Reporting System (BRS).

RODS Record of Decision System

VERSION DATE: 07/01/13

These decision documents maintained by the United States Environmental Protection Agency describe the chosen remedy for NPL (Superfund) site remediation. They also include site history, site description, site characteristics, community participation, enforcement activities, past and present activities, contaminated media, the contaminants present, and scope and role of response action.

Environmental Records Definitions - STATE (LA)

ASBESTOS Asbestos Demolition and Renovation Notification Projects

VERSION DATE: 02/10/16

This listing of Asbestos Demolition and Renovation Projects is provided by the Louisiana Department of Environmental Quality (DEQ). In accordance with the DEQ Air Quality Regulations, LAC 33:III.5151.F.1.f, any contractor performing removal of asbestos containing material that involves Regulated Asbestos Containing Material (see definition in LAC 33:III.5151.B) must become licensed by the Louisiana State Licensing Board for Contractors.

CDL Clandestine Drug Laboratory Locations

VERSION DATE: 02/13/16

This list of Clandestine Methamphetamine Labs is provided by the Louisiana Department of Environmental Quality. These residential real properties have been reported as potentially contaminated:

IC Sites With Controls

VERSION DATE: 12/15/15

This site listing is maintained by the Louisiana Department of Environmental Quality's Remediation Division. Institutional controls (IC) are administrative and/or legal measures in place to safeguard the public and the environment from potential contamination. In certain circumstances, local zoning or ordinances can serve as an IC. This listing may also include locations where Engineering Controls are in effect, such as a cap, barrier, or other engineering device to prevent access, exposure, or continued migration of contamination.

LIENS Listing of Louisiana DEQ Liens

VERSION DATE: 08/25/15

A listing of liens filed against properties by the Remediation Services Division of the Louisiana Department of Environmental Quality.

SPILLS Spills Listing

VERSION DATE: 03/23/16

The Louisiana Department of Environmental Quality provides this database. Information includes releases of hazardous or potential hazardous chemical/materials into the environment.

WASTETIRE Waste Tire Generator List

VERSION DATE: 03/16/16

This listing of registered waste tire generators is maintained by the Louisiana Department of Environmental Quality.

DCR Drycleaning Facilities

VERSION DATE: 04/18/16

This listing of drycleaning facilities was provided by the Louisiana Department of Environmental Quality.

NLRUST No Longer Reported Underground Storage Tanks

VERSION DATE: 02/01/04

This Underground Storage Tank listing originates from the no longer active PEL filing sytem of the Louisiana Department of Environmental Quality.

UST Underground Storage Tanks

VERSION DATE: 03/03/16

The Underground Storage Tank database includes a listing of registered underground storage tanks maintained by the Louisiana Department of Environmental Quality.

ADS Approved Hurricane Debris Dump Sites

VERSION DATE: 02/24/16

This Louisiana Department of Environmental Quality listing of hurricane debris sites contains the temporary and the permitted landfills in the state that can currently accept hurricane debris (C&D, chipping, grinding, burning, staging, woodwaste). These landfills include Type I (Non-hazardous Industrial), Type II (Municipal) and Type III (Construction and Demolition Debris and Wood Waste).

HLUST Historical Leaking Underground Storage Tanks

VERSION DATE: 03/26/99

The Historical Leaking Underground Storage Tank database provides descriptive leaking facility reports from the Louisiana Department of Environmental Quality's Underground Storage Tanks Case History System. This database has not been updated since 1999. Please refer to LUST database as source of current data.

LUST Leaking Underground Storage Tanks

VERSION DATE: 03/02/16

This database contains facilities with reported leaking underground storage tanks and is maintained by the by the Louisiana Department of Environmental Quality.

RCY Recycling Facilities

VERSION DATE: 04/01/16

This listing of recycling facilities is maintained by the Louisiana Department of Environmental Quality.

SWLF Solid Waste Landfills

VERSION DATE: 05/11/16

This Louisiana Department of Environmental Quality solid waste facility listing includes type I, II, and III landfills. A type I facility is used for the disposal of industrial solid waste. A type II facility is used for the disposal of residential or commercial solid waste. A type III facility is defined in LAC 33:VII.115 as a facility used for disposing or processing of construction/demolition debris or wood waste, composting organic waste to produce a usable material, or separating recyclable wastes. Residential, commercial, or industrial solid waste must not be disposed in a type III facility.

VRP Voluntary Remediation Program Sites

VERSION DATE: 12/15/15

The Louisiana Department of Environmental Quality's Voluntary Remediation Program (VRP) provides a mechanism by which property owners (or potential owners) or others can clean up contaminated properties and receive a release of liability for further cleanup of historical contamination at a site. This release of liability flows to future owners of the property as well.

WP Waste Pits

VERSION DATE: 01/01/99

This listing is from a 1999 Louisiana Oil Spill Coordinator's Office (LOSCO) study, which identified statewide abandoned non-hazardous waste pits and facilities that have the potential to initiate an oil spill.

CPI Confirmed and Potential Sites Inventory

VERSION DATE: 04/25/16

The Inactive and Abandoned Sites Division of the Louisiana Department of Environmental Quality maintains the confirmed and potential sites inventory. This listing contains state-equivalent CERCLIS hazardous wastes sites.

Environmental Records Definitions - LOCAL

MBF City of New Orleans Marketable Brownfield Properties

VERSION DATE: 03/15/07

This listing of marketable brownfield properties is maintained by the City of New Orleans Office of Environmental Affairs. All properties included on this listing are or are alleged to be closed service stations.

PBF City of New Orleans Potential Brownfield Properties

VERSION DATE: NR

The Brownfields database is maintained by the City of New Orleans Office of Environmental Affairs. This listing of potential brownfields includes abandoned or underused industrial or commercial properties with possible environmental contamination. The Louisiana Department of Environmental Quality and the United States Environmental Protection Agency provide support to the City of New Orleans for the redevelopment of these properties. The information contained within this listing was complied sometime between 2002 and 2003.

WBF City of Westwego Brownfield Renewal Projects

VERSION DATE: 10/01/08

The Westwego Brownfields Renewal Project was started in October 2000, funded by a $200,000 EPA Grant from Region VI. Mayor Robert Billiot and the Westwego City Council are committed to identifying and restoring the brownfield sites in Westwego. This is being done in conjunction with the redevelopment of the City's historic Salaville area.

USTR06 Underground Storage Tanks On Tribal Lands

VERSION DATE: 05/13/15

This database, provided by the United States Environmental Protection Agency (EPA), contains underground storage tanks on Tribal lands located in EPA Region 6. This region includes the following states: Arkansas, Louisiana, New Mexico, Oklahoma, and Texas.

LUSTR06 Leaking Underground Storage Tanks On Tribal Lands

VERSION DATE: 04/01/15

This database, provided by the United States Environmental Protection Agency (EPA), contains leaking underground storage tanks on Tribal lands located in EPA Region 6. This region includes the following states: Arkansas, Louisiana, New Mexico, Oklahoma, and Texas.

ODINDIAN Open Dump Inventory on Tribal Lands

VERSION DATE: 11/08/06

This Indian Health Service database contains information about facilities and sites on tribal lands where solid waste is disposed of, which are not sanitary landfills or hazardous waste disposal facilities, and which meet the criteria promulgated under section 4004 of the Solid Waste Disposal Act (42 U.S.C. 6944).

INDIANRES Indian Reservations

VERSION DATE: 01/01/00

The Department of Interior and Bureau of Indian Affairs maintains this database that includes American Indian Reservations, off-reservation trust lands, public domain allotments, Alaska Native Regional Corporations and Recognized State Reservations.

GeoSearch FIM

Date: 05/23/16

GS Job Number: 67530

Company Name: S&B Infrastructure-Houston

Project Number:

Site Information: 2.1 Mile Corridor
Cameron Parish, Hackberry, Louisiana, 70645

The collections of fire insurance maps listed below were reviewed according to the site information supplied by client. Based on the information provided, no coverage is available.

Library of Congress
University Publications of America
Other Libraries (universities, state, local, etc.).

GeoSearch

On time. On target. In touch.™

GeoPlus Oil & Gas Report

Satellite view

Target Property:

2.1 Mile Corridor

Hackberry, Cameron Parish, Louisiana 70645

Prepared For:

S&B Infrastructure-Houston

Order #: 67530

Job #: 146783

Date: 05/24/2016

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Target Property Summary

Target Property Information

2.1 Mile Corridor
Hackberry, Louisiana 70645

Coordinates
Corridor

USGS Quadrangle
Browns Lake, LA

Geographic Coverage Information

County/Parish: Cameron (LA)
ZipCode(s):
Hackberry LA: 70645

Radon
* Target property is located in Radon Zone .

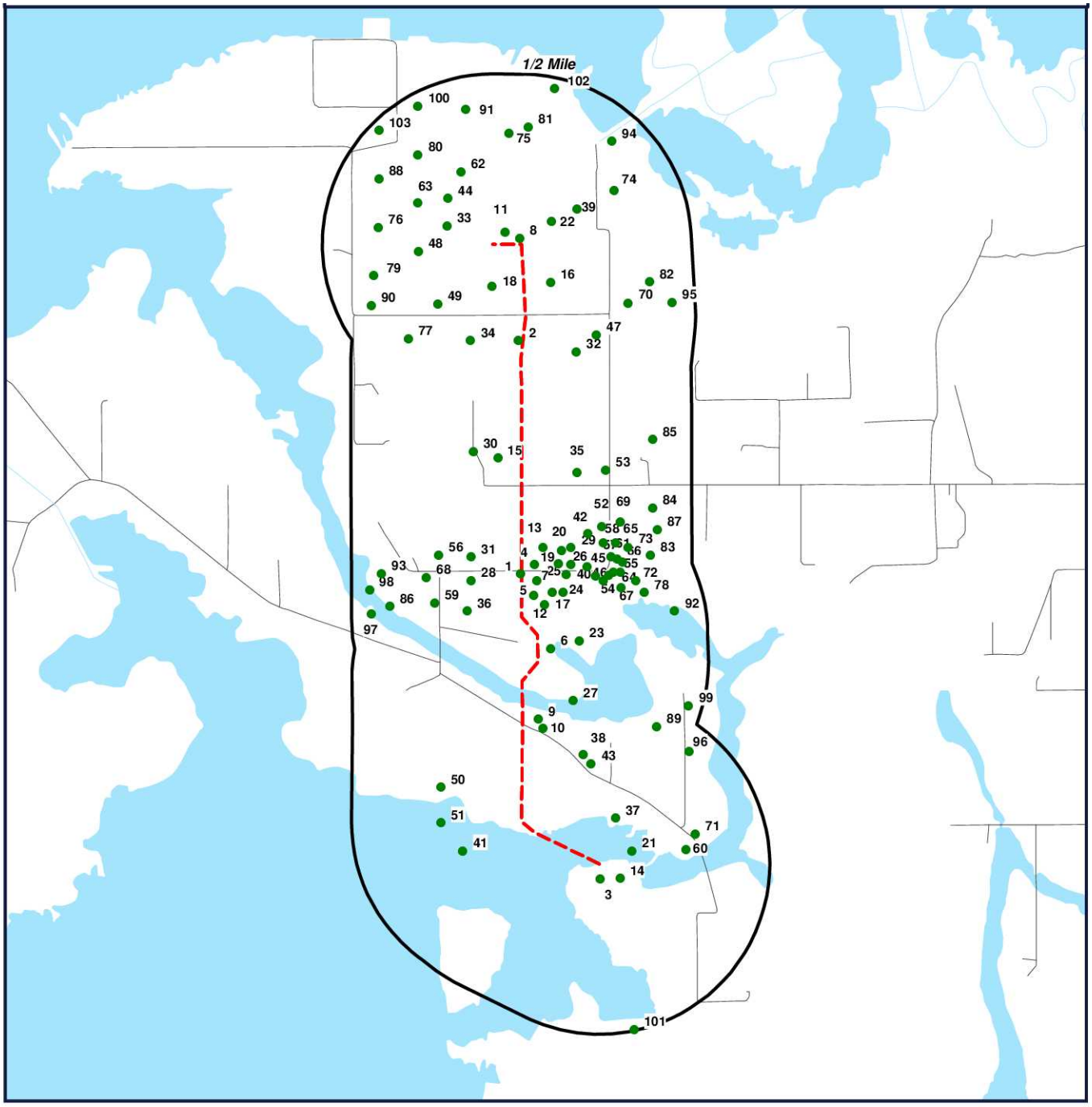
Database Radius Summary

STATE (LA) LISTING

Acronym	Search Radius (miles)	TP/AP (0 - 0.02)	1/8 Mile (> TP/AP)	1/4 Mile (> 1/8)	1/2 Mile (> 1/4)	1 Mile (> 1/2)	> 1 Mile	Total
OG	0.5000	2	26	45	65	NS	NS	138
SUB-TOTAL		2	26	45	65	0	0	138
TOTAL		2	26	45	65	0	0	138

NOTES:
NS = NOT SEARCHED
TP/AP = TARGET PROPERTY/ADJACENT PROPERTY

OIL & GAS MAP



Target Property (TP)

Well Location

2.1 Mile Corridor
Hackberry, Louisiana
70645

N
W E
S

0' 1200' 2400' 3600'
SCALE: 1" = 2400'

[Click here to access Satellite view]

Located Sites Summary

Map ID#	Database Name	Site ID#	Distance From Site	Site Name	Address
1	OG	21241	0.01 mi. N (53 ft.)		CAMERON COUNTY, HACKBERRY, LA 70645
2	OG	971303	0.02 mi. SW (106 ft.)		CAMERON COUNTY, HACKBERRY, LA 70645
3	OG	971144	0.03 mi. SE (158 ft.)		CAMERON COUNTY, HACKBERRY, LA 70645
3	OG	971159	0.03 mi. SE (158 ft.)		CAMERON COUNTY, HACKBERRY, LA 70645
4	OG	66625	0.04 mi. E (211 ft.)		CAMERON COUNTY, HACKBERRY, LA 70645
5	OG	12453	0.04 mi. SE (211 ft.)		CAMERON COUNTY, HACKBERRY, LA 70645
5	OG	12246	0.04 mi. SE (211 ft.)		CAMERON COUNTY, HACKBERRY, LA 70645
6	OG	12118	0.04 mi. NE (211 ft.)		CAMERON COUNTY, HACKBERRY, LA 70645
7	OG	53386	0.05 mi. SE (264 ft.)		CAMERON COUNTY, HACKBERRY, LA 70645
8	OG	16616	0.04 mi. N (211 ft.)		CAMERON COUNTY, HACKBERRY, LA 70645
9	OG	19373	0.05 mi. E (264 ft.)		CAMERON COUNTY, HACKBERRY, LA 70645
10	OG	140752	0.06 mi. E (317 ft.)		CAMERON COUNTY, HACKBERRY, LA 70645
11	OG	16617	0.06 mi. N (317 ft.)		CAMERON COUNTY, HACKBERRY, LA 70645
12	OG	12832	0.07 mi. E (370 ft.)		CAMERON COUNTY, HACKBERRY, LA 70645
13	OG	16964	0.07 mi. NE (370 ft.)		CAMERON COUNTY, HACKBERRY, LA 70645
14	OG	971143	0.08 mi. SE (422 ft.)		CAMERON COUNTY, HACKBERRY, LA 70645
14	OG	971142	0.07 mi. E (370 ft.)		CAMERON COUNTY, HACKBERRY, LA 70645
14	OG	971145	0.08 mi. E (422 ft.)		CAMERON COUNTY, HACKBERRY, LA 70645
15	OG	127227	0.07 mi. W (370 ft.)		CAMERON COUNTY, HACKBERRY, LA 70645
16	OG	126782	0.09 mi. NE (475 ft.)		CAMERON COUNTY, HACKBERRY, LA 70645
17	OG	131098	0.1 mi. SE (528 ft.)		CAMERON COUNTY, HACKBERRY, LA 70645
18	OG	86594	0.1 mi. W (528 ft.)		CAMERON COUNTY, HACKBERRY, LA 70645
18	OG	971320	0.1 mi. W (528 ft.)		CAMERON COUNTY, HACKBERRY, LA 70645
18	OG	973120	0.1 mi. W (528 ft.)		ASSUMPTION COUNTY, BELLE ROSE, LA 70341
18	OG	971321	0.1 mi. W (528 ft.)		CAMERON COUNTY, HACKBERRY, LA 70645
19	OG	12621	0.13 mi. E (686 ft.)		CAMERON COUNTY, HACKBERRY, LA 70645

19	OG	12537	0.11 mi. E (581 ft.)	CAMERON COUNTY, HACKBERRY, LA 70645
20	OG	13701	0.12 mi. E (634 ft.)	CAMERON COUNTY, HACKBERRY, LA 70645
21	OG	28238	0.12 mi. NE (634 ft.)	CAMERON COUNTY, HACKBERRY, LA 70645
22	OG	29320	0.13 mi. NE (686 ft.)	CAMERON COUNTY, HACKBERRY, LA 70645
23	OG	12540	0.13 mi. E (686 ft.)	CAMERON COUNTY, HACKBERRY, LA 70645
24	OG	12605	0.13 mi. E (686 ft.)	CAMERON COUNTY, HACKBERRY, LA 70645
25	OG	65591	0.14 mi. E (739 ft.)	CAMERON COUNTY, HACKBERRY, LA 70645
25	OG	12569	0.13 mi. E (686 ft.)	CAMERON COUNTY, HACKBERRY, LA 70645
25	OG	12542	0.16 mi. E (845 ft.)	CAMERON COUNTY, HACKBERRY, LA 70645
26	OG	12622	0.15 mi. E (792 ft.)	CAMERON COUNTY, HACKBERRY, LA 70645
27	OG	14536	0.14 mi. SE (739 ft.)	CAMERON COUNTY, HACKBERRY, LA 70645
28	OG	74240	0.15 mi. W (792 ft.)	CAMERON COUNTY, HACKBERRY, LA 70645
29	OG	21727	0.15 mi. E (792 ft.)	CAMERON COUNTY, HACKBERRY, LA 70645
30	OG	10657	0.17 mi. W (898 ft.)	CAMERON COUNTY, HACKBERRY, LA 70645
30	OG	69827	0.15 mi. W (792 ft.)	CAMERON COUNTY, HACKBERRY, LA 70645
31	OG	89355	0.15 mi. W (792 ft.)	CAMERON COUNTY, HACKBERRY, LA 70645
32	OG	972090	0.16 mi. E (845 ft.)	CAMERON COUNTY, HACKBERRY, LA 70645
33	OG	10492	0.16 mi. NW (845 ft.)	CAMERON COUNTY, HACKBERRY, LA 70645
34	OG	971299	0.16 mi. W (845 ft.)	CAMERON COUNTY, HACKBERRY, LA 70645
35	OG	53342	0.17 mi. E (898 ft.)	CAMERON COUNTY, HACKBERRY, LA 70645
36	OG	18984	0.17 mi. W (898 ft.)	CAMERON COUNTY, HACKBERRY, LA 70645
37	OG	114659	0.17 mi. NE (898 ft.)	CAMERON COUNTY, HACKBERRY, LA 70645
38	OG	19565	0.18 mi. E (950 ft.)	CAMERON COUNTY, HACKBERRY, LA 70645
39	OG	29540	0.19 mi. NE (1003 ft.)	CAMERON COUNTY, HACKBERRY, LA 70645
39	OG	29532	0.21 mi. NE (1109 ft.)	CAMERON COUNTY, HACKBERRY, LA 70645
40	OG	12488	0.19 mi. E (1003 ft.)	CAMERON COUNTY, HACKBERRY, LA 70645

40	OG	21281	0.2 mi. E (1056 ft.)	CAMERON COUNTY, HACKBERRY, LA 70645
40	OG	12518	0.22 mi. E (1162 ft.)	CAMERON COUNTY, HACKBERRY, LA 70645
41	OG	75405	0.19 mi. W (1003 ft.)	CAMERON COUNTY, HACKBERRY, LA 70645
42	OG	66987	0.2 mi. E (1056 ft.)	CAMERON COUNTY, HACKBERRY, LA 70645
43	OG	13867	0.21 mi. E (1109 ft.)	CAMERON COUNTY, HACKBERRY, LA 70645
44	OG	67841	0.21 mi. NW (1109 ft.)	CAMERON COUNTY, HACKBERRY, LA 70645
45	OG	12519	0.22 mi. E (1162 ft.)	CAMERON COUNTY, HACKBERRY, LA 70645
46	OG	68425	0.25 mi. E (1320 ft.)	CAMERON COUNTY, HACKBERRY, LA 70645
47	OG	972089	0.22 mi. E (1162 ft.)	CAMERON COUNTY, HACKBERRY, LA 70645
48	OG	971296	0.22 mi. W (1162 ft.)	CAMERON COUNTY, HACKBERRY, LA 70645
49	OG	971198	0.24 mi. SW (1267 ft.)	CAMERON COUNTY, HACKBERRY, LA 70645
49	OG	971199	0.23 mi. SW (1214 ft.)	CAMERON COUNTY, HACKBERRY, LA 70645
50	OG	46275	0.24 mi. W (1267 ft.)	CAMERON COUNTY, HACKBERRY, LA 70645
51	OG	73947	0.24 mi. W (1267 ft.)	CAMERON COUNTY, HACKBERRY, LA 70645
52	OG	64719	0.24 mi. E (1267 ft.)	CAMERON COUNTY, HACKBERRY, LA 70645
53	OG	12570	0.25 mi. E (1320 ft.)	CAMERON COUNTY, HACKBERRY, LA 70645
53	OG	57177	0.25 mi. E (1320 ft.)	CAMERON COUNTY, HACKBERRY, LA 70645
54	OG	12484	0.26 mi. E (1373 ft.)	CAMERON COUNTY, HACKBERRY, LA 70645
55	OG	12485	0.25 mi. E (1320 ft.)	CAMERON COUNTY, HACKBERRY, LA 70645
55	OG	12464	0.27 mi. E (1426 ft.)	CAMERON COUNTY, HACKBERRY, LA 70645
55	OG	12487	0.25 mi. E (1320 ft.)	CAMERON COUNTY, HACKBERRY, LA 70645
55	OG	12486	0.26 mi. E (1373 ft.)	CAMERON COUNTY, HACKBERRY, LA 70645
56	OG	93878	0.25 mi. W (1320 ft.)	CAMERON COUNTY, HACKBERRY, LA 70645
57	OG	12460	0.27 mi. E (1426 ft.)	CAMERON COUNTY, HACKBERRY, LA 70645
58	OG	52059	0.25 mi. E (1320 ft.)	CAMERON COUNTY, HACKBERRY, LA 70645
59	OG	12319	0.26 mi. W (1373 ft.)	CAMERON COUNTY, HACKBERRY, LA 70645

60	OG	971139	0.27 mi. E (1426 ft.)	CAMERON COUNTY, HACKBERRY, LA 70645
60	OG	971140	0.27 mi. E (1426 ft.)	CAMERON COUNTY, HACKBERRY, LA 70645
60	OG	971141	0.26 mi. E (1373 ft.)	CAMERON COUNTY, HACKBERRY, LA 70645
60	OG	971138	0.26 mi. E (1373 ft.)	CAMERON COUNTY, HACKBERRY, LA 70645
61	OG	12360	0.28 mi. E (1478 ft.)	CAMERON COUNTY, HACKBERRY, LA 70645
62	OG	126845	0.26 mi. NW (1373 ft.)	CAMERON COUNTY, HACKBERRY, LA 70645
63	OG	10491	0.27 mi. NW (1426 ft.)	CAMERON COUNTY, HACKBERRY, LA 70645
63	OG	971292	0.27 mi. NW (1426 ft.)	CAMERON COUNTY, HACKBERRY, LA 70645
64	OG	12562	0.29 mi. E (1531 ft.)	CAMERON COUNTY, HACKBERRY, LA 70645
64	OG	12495	0.29 mi. E (1531 ft.)	CAMERON COUNTY, HACKBERRY, LA 70645
65	OG	51100	0.28 mi. E (1478 ft.)	CAMERON COUNTY, HACKBERRY, LA 70645
66	OG	12529	0.3 mi. E (1584 ft.)	CAMERON COUNTY, HACKBERRY, LA 70645
67	OG	21481	0.3 mi. E (1584 ft.)	CAMERON COUNTY, HACKBERRY, LA 70645
68	OG	12676	0.29 mi. W (1531 ft.)	CAMERON COUNTY, HACKBERRY, LA 70645
69	OG	66402	0.29 mi. E (1531 ft.)	CAMERON COUNTY, HACKBERRY, LA 70645
70	OG	972088	0.31 mi. E (1637 ft.)	CAMERON COUNTY, HACKBERRY, LA 70645
71	OG	971308	0.31 mi. E (1637 ft.)	CAMERON COUNTY, HACKBERRY, LA 70645
72	OG	40861	0.34 mi. E (1795 ft.)	CAMERON COUNTY, HACKBERRY, LA 70645
72	OG	41028	0.34 mi. E (1795 ft.)	CAMERON COUNTY, HACKBERRY, LA 70645
72	OG	12489	0.32 mi. E (1690 ft.)	CAMERON COUNTY, HACKBERRY, LA 70645
73	OG	12845	0.32 mi. E (1690 ft.)	CAMERON COUNTY, HACKBERRY, LA 70645
74	OG	16287	0.33 mi. NE (1742 ft.)	CAMERON COUNTY, HACKBERRY, LA 70645
74	OG	16618	0.33 mi. NE (1742 ft.)	CAMERON COUNTY, HACKBERRY, LA 70645
75	OG	971316	0.35 mi. N (1848 ft.)	CAMERON COUNTY, HACKBERRY, LA 70645
75	OG	971317	0.35 mi. N (1848 ft.)	CAMERON COUNTY, HACKBERRY, LA 70645
75	OG	32032	0.35 mi. N (1848 ft.)	CAMERON COUNTY, HACKBERRY, LA 70645

76	OG	971295	0.35 mi. W (1848 ft.)	CAMERON COUNTY, HACKBERRY, LA 70645
77	OG	29372	0.35 mi. W (1848 ft.)	CAMERON COUNTY, HACKBERRY, LA 70645
78	OG	12375	0.36 mi. NE (1901 ft.)	CAMERON COUNTY, HACKBERRY, LA 70645
79	OG	971297	0.36 mi. W (1901 ft.)	CAMERON COUNTY, HACKBERRY, LA 70645
79	OG	971661	0.37 mi. W (1954 ft.)	CAMERON COUNTY, HACKBERRY, LA 70645
80	OG	971294	0.36 mi. NW (1901 ft.)	CAMERON COUNTY, HACKBERRY, LA 70645
81	OG	54573	0.37 mi. N (1954 ft.)	CAMERON COUNTY, HACKBERRY, LA 70645
82	OG	972315	0.38 mi. E (2006 ft.)	CAMERON COUNTY, HACKBERRY, LA 70645
83	OG	15295	0.38 mi. E (2006 ft.)	CAMERON COUNTY, HACKBERRY, LA 70645
84	OG	85808	0.39 mi. E (2059 ft.)	CAMERON COUNTY, HACKBERRY, LA 70645
84	OG	68852	0.39 mi. E (2059 ft.)	CAMERON COUNTY, HACKBERRY, LA 70645
85	OG	126995	0.39 mi. E (2059 ft.)	CAMERON COUNTY, HACKBERRY, LA 70645
86	OG	92057	0.39 mi. W (2059 ft.)	CAMERON COUNTY, HACKBERRY, LA 70645
87	OG	21379	0.4 mi. E (2112 ft.)	CAMERON COUNTY, HACKBERRY, LA 70645
88	OG	971293	0.4 mi. NW (2112 ft.)	CAMERON COUNTY, HACKBERRY, LA 70645
89	OG	84389	0.4 mi. E (2112 ft.)	CAMERON COUNTY, HACKBERRY, LA 70645
90	OG	22151	0.4 mi. SW (2112 ft.)	CAMERON COUNTY, HACKBERRY, LA 70645
91	OG	32661	0.43 mi. N (2270 ft.)	CAMERON COUNTY, HACKBERRY, LA 70645
91	OG	971319	0.44 mi. N (2323 ft.)	CAMERON COUNTY, HACKBERRY, LA 70645
91	OG	971318	0.41 mi. N (2165 ft.)	CAMERON COUNTY, HACKBERRY, LA 70645
92	OG	12346	0.42 mi. E (2218 ft.)	CAMERON COUNTY, HACKBERRY, LA 70645
93	OG	112805	0.42 mi. W (2218 ft.)	CAMERON COUNTY, HACKBERRY, LA 70645
94	OG	10611	0.43 mi. NE (2270 ft.)	CAMERON COUNTY, HACKBERRY, LA 70645
95	OG	972086	0.44 mi. E (2323 ft.)	CAMERON COUNTY, HACKBERRY, LA 70645
96	OG	85306	0.44 mi. NE (2323 ft.)	CAMERON COUNTY, HACKBERRY, LA 70645
96	OG	972464	0.45 mi. NE (2376 ft.)	CAMERON COUNTY, HACKBERRY, LA 70645

97	OG	74362	0.45 mi. W (2376 ft.)	CAMERON COUNTY, HACKBERRY, LA 70645
98	OG	54439	0.45 mi. W (2376 ft.)	CAMERON COUNTY, HACKBERRY, LA 70645
99	OG	972463	0.46 mi. E (2429 ft.)	CAMERON COUNTY, HACKBERRY, LA 70645
100	OG	971300	0.49 mi. NW (2587 ft.)	CAMERON COUNTY, HACKBERRY, LA 70645
101	OG	95510	0.49 mi. S (2587 ft.)	CAMERON COUNTY, HACKBERRY, LA 70645
102	OG	971315	0.5 mi. N (2640 ft.)	CAMERON COUNTY, HACKBERRY, LA 70645
102	OG	31739	0.5 mi. N (2640 ft.)	CAMERON COUNTY, HACKBERRY, LA 70645
103	OG	971298	0.5 mi. NW (2640 ft.)	CAMERON COUNTY, HACKBERRY, LA 70645

Oil & Gas Well Report

MAP ID	API #	WELL NAME AND NUMBER	WELL TYPE	PERMIT DATE	SPUD DATE	COMP. DATE	T.D.	STR	LATITUDE	LONGITUDE
1	00000000000000	LUDGER DUHON	NO PRODUCT SPECIFIED	05/07/38	NR	NR	0	T12S S29 R10	29.9830	-93.4009
2	17023880810000	DOE SPR	NO PRODUCT SPECIFIED	10/16/79	11/22/80	02/28/81	5050	T12S S20 R10	29.9929	-93.4010
3	17023880550000	DOE SWD	NO PRODUCT SPECIFIED	05/22/79	05/16/78	10/21/78	6284	T12S S33 R10	29.9700	-93.3967
3	17023880570000	DOE SWD	NO PRODUCT SPECIFIED	08/11/78	08/11/78	NR	6718	T12S S33 R10	29.9700	-93.3970
4	17023015870000	VERNIE H SUDUWISCHER	OIL	06/24/57	06/24/57	07/24/57	3058	T12S S28 R10	29.9834	-93.4002
5	17023015840000	LUDGER DUHON	NO PRODUCT SPECIFIED	02/06/29	NR	NR	0	T12S S28 R10	29.9823	-93.4002
5	17023015850000	LUDGER DUHON	OIL	11/05/28	11/02/28	NR	3168	T12S S28 R10	29.9820	-93.4003
6	17023015880000	LUDGER DUHON	NO PRODUCT SPECIFIED	08/25/28	08/21/28	NR	4017	T12S S28 R10	29.9798	-93.3994
7	17023015830000	LUDGER DUHONE ET AL	NO PRODUCT SPECIFIED	08/26/54	NR	NR	0	T12S S28 R10	29.9827	-93.4001
8	00000000000000	J C ELENDER	NO PRODUCT SPECIFIED	01/10/34	03/30/34	04/29/34	2655	T12S S20 R10	29.9972	-93.4009
9	17023015550000	DROZAN HEBERT	NO PRODUCT SPECIFIED	10/14/36	10/24/36	12/12/36	6026	T12S S33 R10	29.9768	-93.4000
10	17023206870000	HEBERT ESTATE	NO PRODUCT SPECIFIED	09/01/72	09/06/72	09/16/72	6260	T12S S33 R10	29.9764	-93.3998
11	00000000000000	CLARA NELLENDER	NO PRODUCT SPECIFIED	01/10/34	05/01/34	06/04/34	0	T12S S20 R10	29.9975	-93.4016
12	00000000000000	LUDGER DUHON	NO PRODUCT SPECIFIED	07/06/29	07/15/29	NR	3424	T12S S28 R10	29.9816	-93.3997
13	17023015860000	KAOUGH	NO PRODUCT SPECIFIED	05/24/34	07/07/34	11/13/35	3172	T12S S28 R10	29.9841	-93.3998
14	17023880540000	DOE SWD	NO PRODUCT SPECIFIED	05/22/79	09/03/78	10/20/78	5837	T12S S33 R10	29.9699	-93.3958
14	17023880530000	DOE SWD	NO PRODUCT SPECIFIED	05/22/79	07/02/78	09/27/78	7684	T12S S33 R10	29.9700	-93.3960
14	17023880560000	DOE SWD	NO PRODUCT SPECIFIED	05/22/79	08/07/78	10/20/78	6239	T12S S33 R10	29.9699	-93.3958
15	17023202800000	LENARD HUGHES	NO PRODUCT SPECIFIED	12/13/68	NR	NR	0	T12S S29 R10	29.9879	-93.4020
16	17023202650000	B LYONS PALMER	NO PRODUCT SPECIFIED	11/13/68	11/30/68	12/27/68	1630	T12S S21 R10	29.9954	-93.3994
17	17023204260000	LUDGER DUHON	NO PRODUCT SPECIFIED	11/12/69	11/12/69	11/21/69	3968	T12S S28 R10	29.9822	-93.3993
18	17023014720000	DOE SPR	NO PRODUCT SPECIFIED	09/12/61	10/07/61	01/18/62	4000	T12S S20 R10	29.9951	-93.4023
18	17023880960000	DOE SPR	NO PRODUCT SPECIFIED	06/09/78	08/25/78	11/04/78	3744	T12S S20 R10	29.9952	-93.4023
18	17007880600000	DOW BRINE	NO PRODUCT SPECIFIED	05/08/02	NR	NR	4000	T12S S42 R13	29.9952	-93.4023
18	17023880970000	DOE SPR	NO PRODUCT SPECIFIED	06/09/78	11/13/78	01/09/79	3760	T12S S20 R10	29.9949	-93.4023
19	17023015920000	KAOUGH	NO PRODUCT SPECIFIED	04/23/29	04/22/29	NR	3293	T12S S28 R10	29.9834	-93.3988
19	17023015930000	KAOUGH	OIL	03/14/29	03/19/29	NR	3029	T12S S28 R10	29.9834	-93.3990
20	00000000000000	SANNER	OIL	04/21/30	NR	NR	0	T12S S28 R10	29.9839	-93.3989
21	17023015570000	JOHN D HEBERT	NO PRODUCT SPECIFIED	03/26/43	04/04/43	05/22/43	9710	T12S S33 R10	29.9712	-93.3954
22	00000000000000	J C ELLENDER	NO PRODUCT SPECIFIED	04/27/44	NR	NR	0	T12S S21 R10	29.9980	-93.3994
23	17023025080000	LUGER DUHON	OIL	03/18/29	03/19/29	NR	3197	T12S S28 R10	29.9801	-93.3980
24	00000000000000	LUDGER DUHON	NO PRODUCT SPECIFIED	04/13/29	NR	NR	0	T12S S28 R10	29.9822	-93.3988
25	17023015950000	VERNIE H SUBWISCHER	NO PRODUCT SPECIFIED	04/03/57	03/30/57	04/10/57	3030	T12S S28 R10	29.9829	-93.3985
25	17023015940000	LUDGER DUHON	OIL	04/03/29	04/19/29	NR	3170	T12S S28 R10	29.9829	-93.3987
25	17023015960000	LUGER DUHON	OIL	03/19/29	03/02/29	NR	3140	T12S S28 R10	29.9828	-93.3983
26	17023015910000	KAOUGH	OIL	04/23/29	04/24/29	NR	3152	T12S S28 R10	29.9834	-93.3984

27	17023015530000	C HEBERT EST	NO PRODUCT SPECIFIED	03/06/31	NR	NR	0	T12S S33 R10 29.9776	-93.3983
28	17023015340000	BEULAH DUHON DUGAS	NO PRODUCT SPECIFIED	03/17/59	03/16/59	03/21/59	3150	T12S S29 R10 29.9827	-93.4033
29	17023015970000	DORISSE KAOUGH	OIL	09/27/38	10/12/38	11/14/38	3040	T12S S28 R10 29.9841	-93.3984
30	17023015400000	LITTLE	NO PRODUCT SPECIFIED	02/12/27	02/25/27	NR	1838	T12S S29 R10 29.9884	-93.4036
30	17023015270000	JASPER LITTLE ET AL	NO PRODUCT SPECIFIED	03/18/58	03/20/58	04/01/58	1833	T12S S29 R10 29.9882	-93.4032
31	17023015450000	DUGAS, ET AL	OIL	03/22/62	03/26/62	04/08/62	3353	T12S S29 R10 29.9837	-93.4033
32	17023881250000	LPG STORAGE	NO PRODUCT SPECIFIED	03/14/59	03/29/59	04/24/59	3344	T12S S28 R10 29.9924	-93.3981
33	17023014710000	CLARA ELLENDER	NO PRODUCT SPECIFIED	12/10/26	12/17/26	NR	1639	T12S S20 R10 29.9978	-93.4045
34	17023880770000	DOE SPR	NO PRODUCT SPECIFIED	09/11/79	03/15/80	05/29/80	5060	T12S S29 R10 29.9929	-93.4033
35	17023016210000	BLAKE OIL-BENOIT	NO PRODUCT SPECIFIED	08/20/54	08/10/54	08/14/54	2002	T12S S28 R10 29.9873	-93.3981
36	17023015410000	L DUHON A	NO PRODUCT SPECIFIED	06/08/36	06/28/36	08/06/36	5378	T12S S29 R10 29.9814	-93.4035
37	17023024650000	ARMOGENE HEBERT	NO PRODUCT SPECIFIED	04/13/66	05/04/66	05/11/66	7501	T12S S33 R10 29.9726	-93.3962
38	17023015540000	CHRISTINE-HEBERT	NO PRODUCT SPECIFIED	01/02/37	01/17/37	02/26/37	6553	T12S S33 R10 29.9753	-93.3978
39	00000000000000	J C ELLENDER	NO PRODUCT SPECIFIED	07/17/44	NR	NR	0	T12S S21 R10 29.9982	-93.3984
39	17023014790000	CLARA N ELLENDER	NO PRODUCT SPECIFIED	07/14/44	07/13/44	07/20/44	1645	T12S S21 R10 29.9985	-93.3981
40	00000000000000	KAOUGH	OIL	02/25/29	03/10/29	NR	3251	T12S S28 R10 29.9830	-93.3977
40	17023016010000	DORISSE KAOUGH	OIL	05/18/38	07/23/38	08/17/38	3060	T12S S28 R10 29.9833	-93.3976
40	17023016020000	MRS DORIS KAOUGH	NO PRODUCT SPECIFIED	03/10/29	NR	NR	0	T12S S28 R10 29.9833	-93.3973
41	17023015480000	ARMOGEN HERBERT	NO PRODUCT SPECIFIED	06/11/59	06/30/59	08/25/59	7360	T12S S32 R10 29.9712	-93.4037
42	17023016220000	VERNIE HEBERT SUDWISCHER	OIL	07/18/57	07/14/57	08/26/57	3055	T12S S28 R10 29.9847	-93.3976
43	17023015520000	HEBERT	NO PRODUCT SPECIFIED	06/05/30	06/06/30	NR	7834	T12S S33 R10 29.9749	-93.3974
44	00000000000000	CLARE N ELENDER	NO PRODUCT SPECIFIED	09/18/57	10/14/57	07/01/58	1525	T12S S20 R10 29.9989	-93.4045
45	17023016030000	LUDGER DUHON	OIL	03/10/29	NR	NR	3209	T12S S28 R10 29.9829	-93.3972
46	17023016040000	LUDGER DUHON	NO PRODUCT SPECIFIED	11/05/57	11/13/57	01/04/58	3451	T12S S28 R10 29.9827	-93.3968
47	17023881240000	LPG STORAGE	NO PRODUCT SPECIFIED	03/03/58	02/20/58	03/12/58	3200	T12S S28 R10 29.9931	-93.3972
48	17023880740000	DOE SPR	NO PRODUCT SPECIFIED	09/11/79	05/04/80	07/15/80	4594	T12S S20 R10 29.9967	-93.4059
49	17023880610000	DOE STORAGE	NO PRODUCT SPECIFIED	09/26/83	10/21/83	12/27/83	5050	T12S S20 R10 29.9943	-93.4050
49	17023880620000	DOE STORAGE	NO PRODUCT SPECIFIED	09/26/83	01/05/84	03/08/84	4592	T12S S20 R10 29.9944	-93.4050
50	17023015500000	BENSON VINCENT C	NO PRODUCT SPECIFIED	07/08/52	07/26/52	08/19/52	6624	T12S S32 R10 29.9739	-93.4048
51	17023015490000	FLAVIA REEDS	NO PRODUCT SPECIFIED	02/20/59	04/12/59	04/27/59	6456	T12S S32 R10 29.9724	-93.4048
52	17023016250000	VERNIE HEBERT SUDWISER	OIL	01/16/57	01/16/57	01/31/57	3283	T12S S28 R10 29.9850	-93.3969
53	17023016270000	JOHNIE BENOIT	NO PRODUCT SPECIFIED	04/03/29	04/08/29	04/18/29	2147	T12S S28 R10 29.9871	-93.3967
53	17023016280000	V H SUDWISCHER	NO PRODUCT SPECIFIED	06/22/55	06/21/55	06/19/57	3088	T12S S28 R10 29.9874	-93.3967
54	17023016050000	LUGER DUHON	OIL	02/25/29	02/25/29	NR	3273	T12S S28 R10 29.9829	-93.3965
55	17023016060000	MRS DORIS KAOUGH	OIL	02/25/29	02/28/29	NR	3214	T12S S28 R10 29.9832	-93.3966
55	00000000000000	R VINCENT	OIL	02/16/29	NR	NR	0	T12S S28 R10 29.9830	-93.3963
55	00000000000000	MRS DORIS KAOUGH	OIL	02/25/29	02/26/29	NR	3597	T12S S28 R10 29.9836	-93.3968
55	17023016200000	MRS DORIS KAOUGH	OIL	02/25/29	02/24/29	NR	3280	T12S S28 R10 29.9835	-93.3966

56	17023015460000	E L WATTS, ET AL	OIL	12/21/62	12/24/62	01/24/63	2830	T12S S29 R10 29.9838	-93.4049
57	00000000000000	SANNER	OIL	02/14/29	NR	NR	0	T12S S28 R10 29.9837	-93.3965
58	17023016240000	VERNIE HEBERT SUDWISCHER	OIL	04/27/54	04/20/54	06/11/54	3125	T12S S28 R10 29.9843	-93.3968
59	17023015250000	BENSON VINCENT	NO PRODUCT SPECIFIED	12/08/28	12/19/28	NR	3825	T12S S29 R10 29.9817	-93.4051
60	17023880500000	DOE SWD	NO PRODUCT SPECIFIED	05/22/79	04/17/78	10/17/78	8141	T12S S33 R10 29.9711	-93.3927
60	17023880510000	DOE SWD	NO PRODUCT SPECIFIED	05/22/79	11/07/78	02/21/79	7013	T12S S33 R10 29.9712	-93.3928
60	17023880520000	DOE SWD	NO PRODUCT SPECIFIED	05/22/79	07/24/78	10/26/78	7445	T12S S33 R10 29.9711	-93.3928
60	00000000000000	DOE SWD	NO PRODUCT SPECIFIED	05/22/79	06/27/77	08/13/77	6285	T12S S33 R10 29.9709	-93.3929
61	17023016180000	R SAUNER	OIL	01/04/29	01/04/29	NR	3159	T12S S28 R10 29.9836	-93.3962
62	17023202680000	AGNES E LOWREY	NO PRODUCT SPECIFIED	11/15/68	11/29/68	12/27/68	1595	T12S S20 R10 30.0001	-93.4038
63	17023022330000	A M BARBE	NO PRODUCT SPECIFIED	12/10/26	12/18/26	NR	1645	T12S S20 R10 29.9991	-93.4056
63	17023880700000	DOE SPR	NO PRODUCT SPECIFIED	09/11/79	04/10/80	06/21/80	5045	T12S S20 R10 29.9987	-93.4059
64	00000000000000	NOBLE	OIL	03/28/29	03/29/29	NR	3289	T12S S28 R10 29.9827	-93.3961
64	00000000000000	VINCENT	OIL	02/27/29	03/05/29	04/08/29	3437	T12S S28 R10 29.9830	-93.3960
65	17023016330000	RAYMOND SANNER ET AL	NO PRODUCT SPECIFIED	01/26/54	01/22/54	01/22/54	3300	T12S S28 R10 29.9843	-93.3962
66	17023016130000	RAYMOND SAUNER	OIL	03/12/29	03/12/29	04/10/29	3237	T12S S28 R10 29.9835	-93.3959
67	17023016400000	CORA E LYONS ET AL	NO PRODUCT SPECIFIED	07/13/38	NR	NR	0	T12S S28 R10 29.9824	-93.3960
68	17023015260000	BENSON VINCENT	NO PRODUCT SPECIFIED	05/18/29	05/22/29	NR	3455	T12S S29 R10 29.9828	-93.4055
69	17023016310000	NATALIE VICENT ET AL B	OIL	06/05/57	07/16/57	08/15/57	3129	T12S S28 R10 29.9852	-93.3960
70	17023881230000	LPG STORAGE	NO PRODUCT SPECIFIED	03/14/57	05/22/57	06/23/57	3050	T12S S21 R10 29.9945	-93.3956
71	17023880860000	DOE SWD	NO PRODUCT SPECIFIED	07/27/77	07/29/77	08/23/77	7011	T12S S33 R10 29.9719	-93.3923
72	17023016120000	RAYMOND VINCENT	NO PRODUCT SPECIFIED	05/29/50	06/07/50	07/27/50	3822	T12S S28 R10 29.9833	-93.3953
72	17023016090000	RAYMOND VINCENT	OIL	06/21/50	06/21/50	06/27/50	3572	T12S S28 R10 29.9827	-93.3952
72	17023016100000	R VINCENT	OIL	02/25/29	03/08/29	NR	3308	T12S S28 R10 29.9830	-93.3955
73	17023016170000	R SAUNER	OIL	07/10/29	07/12/29	NR	3087	T12S S28 R10 29.9841	-93.3956
74	00000000000000	ARCHIE LITTLE	NO PRODUCT SPECIFIED	08/12/33	09/02/33	09/30/33	3003	T12S S21 R10 29.9994	-93.3964
74	17023025150000	GRANGER	NO PRODUCT SPECIFIED	01/10/34	02/03/34	03/07/34	0	T12S S21 R10 29.9993	-93.3963
75	17023880920000	DOE SPR	NO PRODUCT SPECIFIED	02/03/78	04/29/78	06/01/78	3459	T12S S20 R10 30.0016	-93.4017
75	17023880930000	DOE SPR	NO PRODUCT SPECIFIED	06/01/78	06/01/78	06/22/78	3456	T12S S20 R10 30.0017	-93.4014
75	00000000000000	DOE SPR	NO PRODUCT SPECIFIED	07/16/46	NR	NR	3447	T12S S20 R10 30.0017	-93.4016
76	17023880730000	DOE SPR	NO PRODUCT SPECIFIED	09/11/79	04/10/80	08/28/80	5060	T12S S20 R10 29.9977	-93.4079
77	17023015300000	ARCHIE LITTLE	NO PRODUCT SPECIFIED	05/16/44	05/24/44	05/30/44	1777	T12S S29 R10 29.9930	-93.4064
78	17023015980000	R VINCENT	NO PRODUCT SPECIFIED	01/09/29	01/22/29	NR	4142	T12S S28 R10 29.9822	-93.3948
79	17023880750000	DOE SPR	NO PRODUCT SPECIFIED	09/11/79	03/15/80	09/07/80	2250	T12S S20 R10 29.9956	-93.4080
79	17023881080000	DOE SPR	NO PRODUCT SPECIFIED	09/13/80	09/13/80	NR	4336	T12S S20 R10 29.9956	-93.4081
80	17023880720000	DOE SPR	NO PRODUCT SPECIFIED	09/11/79	06/08/80	08/07/80	5079	T12S S20 R10 30.0008	-93.4059
81	17023007840000	J C ELLENDER	NO PRODUCT SPECIFIED	11/24/54	12/01/54	12/06/54	1550	T12S S21 R10 30.0020	-93.4005

82	17023881380000	TARGA LPG STORAGE	NO PRODUCT SPECIFIED	09/19/91	10/08/91	11/03/91	3900	T12S S21 R10	29.9954	-93.3945
83	17023025090000	SANNER	NO PRODUCT SPECIFIED	06/28/32	NR	NR	0	T12S S28 R10	29.9838	-93.3945
84	17023016290000	NATALIE VINCENT ET AL	NO PRODUCT SPECIFIED	07/28/61	08/02/61	02/16/62	3209	T12S S28 R10	29.9858	-93.3944
84	17023016290000	NATALIE VINCENT ET AL B	OIL	12/10/57	12/17/57	12/29/57	3315	T12S S28 R10	29.9858	-93.3944
85	17023202760000	GLADYS TRAHAN	NO PRODUCT SPECIFIED	11/25/68	NR	12/27/68	1933	T12S S28 R10	29.9887	-93.3944
86	17023015470000	VINCENT EST A	OIL	09/04/62	10/16/62	02/15/63	3000	T12S S29 R10	29.9816	-93.4073
87	00000000000000	R VINCENT	OIL	06/14/38	06/20/38	07/14/38	3159	T12S S28 R10	29.9848	-93.3942
88	17023880710000	DOE SPR	NO PRODUCT SPECIFIED	09/11/79	05/01/80	08/28/80	5060	T12S S20 R10	29.9998	-93.4078
89	17023015560000	MAGGIE HEBERT ET AL	NO PRODUCT SPECIFIED	04/28/61	05/21/61	06/03/61	6789	T12S S33 R10	29.9765	-93.3942
90	17023014730000	D KAOUGH C	NO PRODUCT SPECIFIED	02/11/39	02/16/39	04/04/39	7313	T12S S30 R10	29.9944	-93.4082
91	00000000000000	DOE SPR	NO PRODUCT SPECIFIED	11/19/46	NR	NR	3578	T12S S20 R10	30.0028	-93.4032
91	17023880950000	DOE SPR	NO PRODUCT SPECIFIED	03/29/78	03/21/78	04/28/78	0	T12S S20 R10	30.0027	-93.4036
91	17023880940000	DOE SPR	NO PRODUCT SPECIFIED	02/03/78	02/01/78	03/19/78	3548	T12S S20 R10	30.0024	-93.4034
92	17023015890000	PERKINS	NO PRODUCT SPECIFIED	12/27/28	01/06/29	NR	4585	T12S S28 R10	29.9814	-93.3933
93	17023024340000	ARTHUR LITTLE ET AL	NO PRODUCT SPECIFIED	11/30/65	11/26/65	12/02/65	3500	T12S S29 R10	29.9830	-93.4077
94	17023007870000	U A BELL	NO PRODUCT SPECIFIED	01/22/27	01/28/27	NR	1605	T12S S21 R10	30.0014	-93.3964
95	17023881210000	LPG STORAGE	NO PRODUCT SPECIFIED	03/14/57	04/08/57	05/20/57	3000	T12S S21 R10	29.9945	-93.3934
96	17023015510000	MAGGIE HEBERT ET AL	NO PRODUCT SPECIFIED	06/27/61	07/02/61	07/13/61	6802	T12S S33 R10	29.9755	-93.3929
96	17023881450000	TRIDENT SWD	NO PRODUCT SPECIFIED	09/02/93	NR	NR	0	T12S S33 R10	29.9754	-93.3926
97	17023015390000	BENSON VINCENT HEIRS	NO PRODUCT SPECIFIED	03/26/59	03/30/59	04/10/59	2937	T12S S29 R10	29.9813	-93.4082
98	17023015280000	BENSON VINCENT ETAL	OIL	11/15/54	11/14/54	02/14/55	2983	T12S S29 R10	29.9823	-93.4083
99	17023881440000	TARGA SWD	NO PRODUCT SPECIFIED	09/02/93	11/03/93	12/15/93	6000	T12S S33 R10	29.9773	-93.3926
100	17023880780000	DOE SPR	NO PRODUCT SPECIFIED	10/16/79	09/05/80	11/23/80	5090	T12S S20 R10	30.0028	-93.4059
101	17023015590000	WM T BURTON IND INC	NO PRODUCT SPECIFIED	04/10/63	04/18/63	11/18/63	13520	T13S S4 R10	29.9636	-93.3953
102	17023880910000	DOE SPR	NO PRODUCT SPECIFIED	01/17/78	12/31/77	01/31/78	0	T12S S21 R10	30.0036	-93.3991
102	00000000000000	DOE SPR	NO PRODUCT SPECIFIED	05/07/46	NR	NR	10196	T12S S21 R10	30.0036	-93.3992
103	17023880760000	DOE SPR	NO PRODUCT SPECIFIED	09/11/79	07/26/80	11/12/80	5059	T12S S20 R10	30.0018	-93.4078

OG Oil and Gas Wells

VERSION DATE: 03/05/16

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GeoPlus Water Well Report

Satellite view

Target Property:

2.1 Mile Corridor
Hackberry, Cameron Parish, Louisiana 70645

Prepared For:

S&B Infrastructure-Houston

Order #: 67530
Job #: 146782
Date: 05/24/2016

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Target Property Summary

Target Property Information

2.1 Mile Corridor
Hackberry, Louisiana 70645

Coordinates
Corridor

USGS Quadrangle
Browns Lake, LA

Geographic Coverage Information

County/Parish: Cameron (LA)
ZipCode(s):
Hackberry LA: 70645

Radon
* Target property is located in Radon Zone .

Database Radius Summary

FEDERAL LISTING

Acronym	Search Radius (miles)	TP/AP (0 - 0.02)	1/8 Mile (> TP/AP)	1/4 Mile (> 1/8)	1/2 Mile (> 1/4)	1 Mile (> 1/2)	> 1 Mile	Total
NWIS	0.5000	0	2	0	3	NS	NS	5
SUB-TOTAL		0	2	0	3	0	0	5

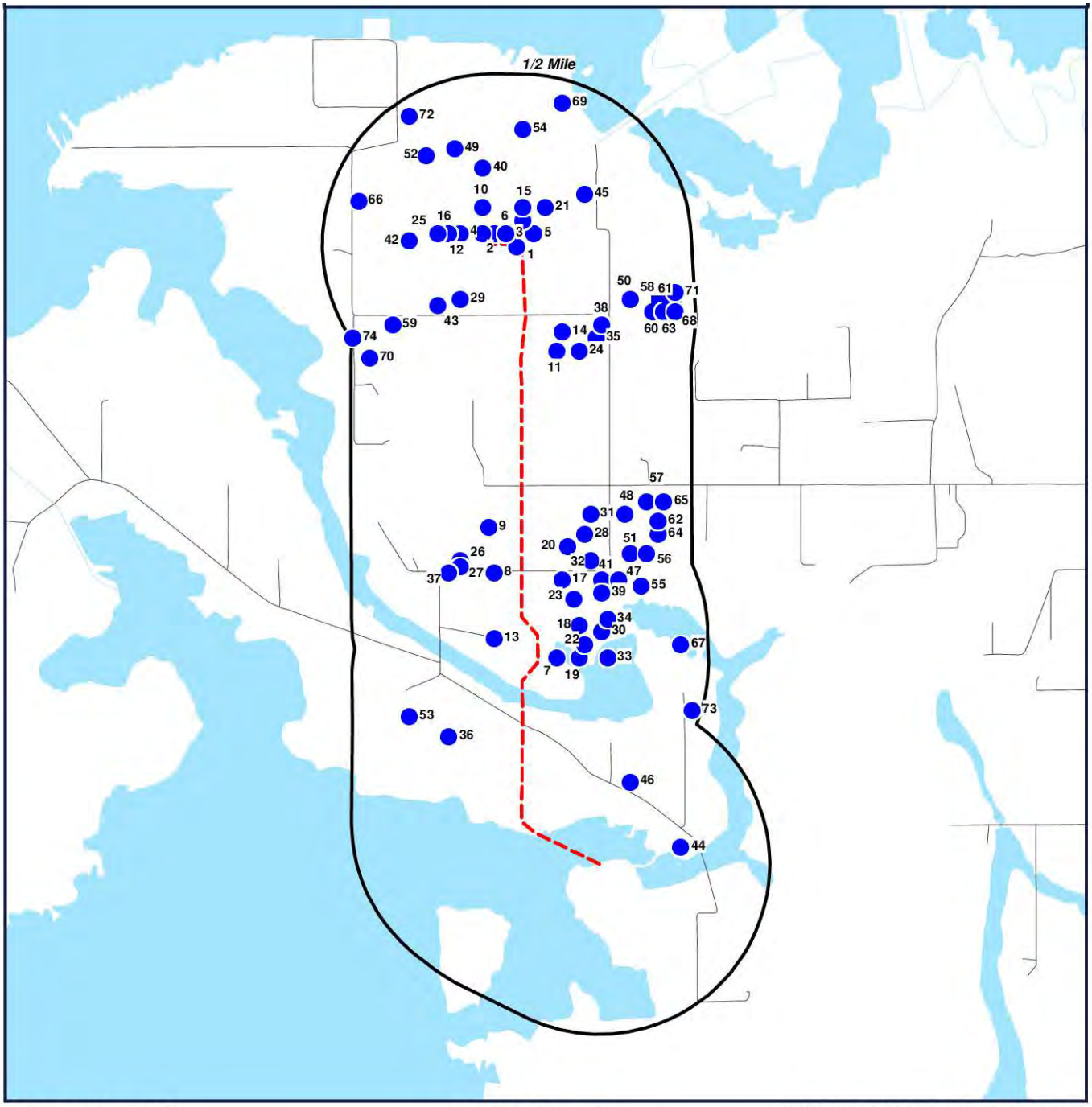
Database Radius Summary

STATE (LA) LISTING

Acronym	Search Radius (miles)	TP/AP (0 - 0.02)	1/8 Mile (> TP/AP)	1/4 Mile (> 1/8)	1/2 Mile (> 1/4)	1 Mile (> 1/2)	> 1 Mile	Total
WW	0.5000	1	23	50	37	NS	NS	111
SUB-TOTAL		1	23	50	37	0	0	111
TOTAL		1	25	50	40	0	0	116

NOTES:
NS = NOT SEARCHED
TP/AP = TARGET PROPERTY/ADJACENT PROPERTY

Waterwell Map



Target Property (TP)
WW
NWIS

2.1 Mile Corridor
Hackberry, Louisiana
70645

CONTOUR LINES REPRESENTED IN FEET

N
W
E
S

0' 1200' 2400' 3600'
SCALE: 1" = 2400'

[Click here to access Satellite view]

Located Sites Summary

Map ID#	Database Name	Site ID#	Distance From Site	Site Name	Address	PAGE #
1	WW	295948093240401	0.01 mi. W (53 ft.)	U S DEPT ENERGY	CAMERON COUNTY, HACKBERRY, LA 70645	10
2	WW	295950093240801	0.04 mi. NW (211 ft.)	U S DEPT ENERGY	CAMERON COUNTY, HACKBERRY, LA 70645	11
2	WW	295950093240802	0.04 mi. NW (211 ft.)	U S DEPT ENERGY	CAMERON COUNTY, HACKBERRY, LA 70645	12
3	WW	295950093240602	0.04 mi. NW (211 ft.)	U S DEPT ENERGY	CAMERON COUNTY, HACKBERRY, LA 70645	13
3	WW	295950093240601	0.04 mi. NW (211 ft.)	U S DEPT ENERGY	CAMERON COUNTY, HACKBERRY, LA 70645	14
4	WW	295950093241002	0.05 mi. NW (264 ft.)	BOEING PETRO	CAMERON COUNTY, HACKBERRY, LA 70645	15
4	WW	295950093241001	0.05 mi. NW (264 ft.)	U S DEPT ENERGY	CAMERON COUNTY, HACKBERRY, LA 70645	16
5	WW	295950093240001	0.07 mi. NE (370 ft.)	DOMINION GAS	CAMERON COUNTY, HACKBERRY, LA 70645	17
5	NWIS	00774852	0.07 mi. NE (370 ft.)	CN- 69		18
5	WW	295950093240101	0.06 mi. NE (317 ft.)	U S DEPT ENERGY	CAMERON COUNTY, HACKBERRY, LA 70645	19
6	WW	295951093240301	0.06 mi. N (317 ft.)	U S DEPT ENERGY	CAMERON COUNTY, HACKBERRY, LA 70645	20
6	WW	295952093240301	0.08 mi. N (422 ft.)	U S DEPT ENERGY	CAMERON COUNTY, HACKBERRY, LA 70645	21
7	WW	295845093235701	0.06 mi. SE (317 ft.)	TALBOT CARMOUCHE & MARCELLO	CAMERON COUNTY, HACKBERRY, LA 70645	22
8	WW	295858093240801	0.09 mi. SW (475 ft.)	TALBOT CARMOUCHE & MARCELLO	CAMERON COUNTY, HACKBERRY, LA 70645	23
9	WW	295905093240901	0.1 mi. W (528 ft.)	DAVID V CURRIE	CAMERON COUNTY, HACKBERRY, LA 70645	24
10	WW	295954093241002	0.12 mi. N (634 ft.)	U S DEPT ENERGY	CAMERON COUNTY, HACKBERRY, LA 70645	25
10	WW	295954093241001	0.12 mi. N (634 ft.)	U S DEPT ENERGY	CAMERON COUNTY, HACKBERRY, LA 70645	26
10	WW	295953093241101	0.11 mi. NW (581 ft.)	U S DEPT ENERGY	CAMERON COUNTY, HACKBERRY, LA 70645	27
11	WW	295932093235701	0.11 mi. SE (581 ft.)	WARREN PETRO	CAMERON COUNTY, HACKBERRY, LA 70645	28
12	NWIS	00774853	0.12 mi. NW (634 ft.)	CN- 192		29
12	WW	295950093241401	0.11 mi. W (581 ft.)	U S DEPT ENERGY	CAMERON COUNTY, HACKBERRY, LA 70645	30
13	WW	295848093240801	0.11 mi. W (581 ft.)	TALBOT CARMOUCHE & MARCELLO	CAMERON COUNTY, HACKBERRY, LA 70645	31
14	WW	295934093235601	0.12 mi. SE (634 ft.)	WARREN PETRO	CAMERON COUNTY, HACKBERRY, LA 70645	32
14	WW	295935093235601	0.12 mi. SE (634 ft.)	WARREN PETRO	CAMERON COUNTY, HACKBERRY, LA 70645	33

15	WW	295954093240301	0.12 mi. N (634 ft.)	U S DEPT ENERGY	CAMERON COUNTY, HACKBERRY, LA 70645	34
16	WW	295950093241601	0.14 mi. W (739 ft.)	U S DEPT ENERGY	CAMERON COUNTY, HACKBERRY, LA 70645	35
17	WW	295857093235601	0.12 mi. E (634 ft.)	TALBOT CARMOUCHE & MARCELLO	CAMERON COUNTY, HACKBERRY, LA 70645	36
18	WW	295850093235301	0.13 mi. E (686 ft.)	TALBOT CARMOUCHE & MARCELLO	CAMERON COUNTY, HACKBERRY, LA 70645	37
18	WW	295850093235301	0.13 mi. E (686 ft.)	TALBOT CARMOUCHE & MARCELLO	CAMERON COUNTY, HACKBERRY, LA 70645	38
18	WW	295850093235301	0.13 mi. E (686 ft.)	TALBOT CARMOUCHE & MARCELLO	CAMERON COUNTY, HACKBERRY, LA 70645	39
18	WW	295850093235301	0.13 mi. E (686 ft.)	TALBOT CARMOUCHE & MARCELLO	CAMERON COUNTY, HACKBERRY, LA 70645	40
19	WW	295845093235301	0.13 mi. E (686 ft.)	TALBOT CARMOUCHE & MARCELLO	CAMERON COUNTY, HACKBERRY, LA 70645	41
20	WW	295902093235501	0.14 mi. E (739 ft.)	DAVID V CURRIE	CAMERON COUNTY, HACKBERRY, LA 70645	42
20	WW	295902093235501	0.14 mi. E (739 ft.)	DAVID V CURRIE	CAMERON COUNTY, HACKBERRY, LA 70645	43
20	WW	295902093235501	0.14 mi. E (739 ft.)	DAVID V CURRIE	CAMERON COUNTY, HACKBERRY, LA 70645	44
21	WW	295954093235902	0.14 mi. NE (739 ft.)	U S DEPT ENERGY	CAMERON COUNTY, HACKBERRY, LA 70645	45
21	WW	295954093235901	0.14 mi. NE (739 ft.)	U S DEPT ENERGY	CAMERON COUNTY, HACKBERRY, LA 70645	46
22	WW	295847093235201	0.14 mi. E (739 ft.)	TALBOT CARMOUCHE & MARCELLO	CAMERON COUNTY, HACKBERRY, LA 70645	47
23	WW	295854093235401	0.16 mi. E (845 ft.)	TALBOT CARMOUCHE & MARCELLO	CAMERON COUNTY, HACKBERRY, LA 70645	48
24	WW	295933093235301	0.17 mi. E (898 ft.)	WARREN PETRO	CAMERON COUNTY, HACKBERRY, LA 70645	49
24	WW	295932093235301	0.17 mi. E (898 ft.)	WARREN PETRO	CAMERON COUNTY, HACKBERRY, LA 70645	50
25	WW	295950093241801	0.17 mi. W (898 ft.)	U S DEPT ENERGY	CAMERON COUNTY, HACKBERRY, LA 70645	51
26	WW	295901093241401	0.19 mi. W (1003 ft.)	TALBOT CARMOUCHE & MARCELLO	CAMERON COUNTY, HACKBERRY, LA 70645	52
26	WW	295900093241401	0.19 mi. W (1003 ft.)	DAVID V CURRIE	CAMERON COUNTY, HACKBERRY, LA 70645	53
26	WW	295901093241401	0.19 mi. W (1003 ft.)	TALBOT CARMOUCHE & MARCELLO	CAMERON COUNTY, HACKBERRY, LA 70645	54
26	WW	295901093241401	0.19 mi. W (1003 ft.)	TALBOT CARMOUCHE & MARCELLO	CAMERON COUNTY, HACKBERRY, LA 70645	55

27	WW	295859093241401	0.19 mi. W (1003 ft.)	TALBOT CARMOUCHE & MARCELLO	CAMERON COUNTY, HACKBERRY, LA 70645	56
27	WW	295859093241401	0.19 mi. W (1003 ft.)	TALBOT CARMOUCHE & MARCELLO	CAMERON COUNTY, HACKBERRY, LA 70645	57
27	WW	295859093241401	0.19 mi. W (1003 ft.)	TALBOT CARMOUCHE & MARCELLO	CAMERON COUNTY, HACKBERRY, LA 70645	58
27	WW	295859093241401	0.19 mi. W (1003 ft.)	TALBOT CARMOUCHE & MARCELLO	CAMERON COUNTY, HACKBERRY, LA 70645	59
28	WW	295904093235201	0.19 mi. E (1003 ft.)	DAVID V CURRIE	CAMERON COUNTY, HACKBERRY, LA 70645	60
28	WW	295904093235201	0.19 mi. E (1003 ft.)	DAVID V CURRIE	CAMERON COUNTY, HACKBERRY, LA 70645	61
28	WW	295904093235201	0.19 mi. E (1003 ft.)	DAVID V CURRIE	CAMERON COUNTY, HACKBERRY, LA 70645	62
29	WW	295940093241401	0.19 mi. W (1003 ft.)	U S DEPT ENERGY	CAMERON COUNTY, HACKBERRY, LA 70645	63
30	WW	295849093234901	0.2 mi. E (1056 ft.)	TALBOT CARMOUCHE & MARCELLO	CAMERON COUNTY, HACKBERRY, LA 70645	64
31	WW	295907093235101	0.21 mi. E (1109 ft.)	DAVID V CURRIE	CAMERON COUNTY, HACKBERRY, LA 70645	65
32	WW	295900093235101	0.21 mi. E (1109 ft.)	DAVID V CURRIE	CAMERON COUNTY, HACKBERRY, LA 70645	66
32	WW	295900093235101	0.21 mi. E (1109 ft.)	DAVID V CURRIE	CAMERON COUNTY, HACKBERRY, LA 70645	67
32	WW	295900093235101	0.21 mi. E (1109 ft.)	DAVID V CURRIE	CAMERON COUNTY, HACKBERRY, LA 70645	68
32	WW	295901093235001	0.22 mi. E (1162 ft.)	DAVID V CURRIE	CAMERON COUNTY, HACKBERRY, LA 70645	69
33	WW	295845093234801	0.21 mi. E (1109 ft.)	TALBOT CARMOUCHE & MARCELLO	CAMERON COUNTY, HACKBERRY, LA 70645	70
34	WW	295851093234801	0.22 mi. E (1162 ft.)	TALBOT CARMOUCHE & MARCELLO	CAMERON COUNTY, HACKBERRY, LA 70645	71
35	WW	295934093235001	0.22 mi. E (1162 ft.)	WARREN PETRO	CAMERON COUNTY, HACKBERRY, LA 70645	72
36	WW	295833093241601	0.22 mi. W (1162 ft.)	TALBOT	CAMERON COUNTY, HACKBERRY, LA 70645	73
36	WW	295833093241600	0.22 mi. W (1162 ft.)	TALBOT	CAMERON COUNTY, HACKBERRY, LA 70645	74
37	WW	295858093241601	0.22 mi. W (1162 ft.)	TALBOT CARMOUCHE & MARCELLO	CAMERON COUNTY, HACKBERRY, LA 70645	75
37	WW	295858093241601	0.22 mi. W (1162 ft.)	TALBOT CARMOUCHE & MARCELLO	CAMERON COUNTY, HACKBERRY, LA 70645	76
38	WW	295936093234901	0.23 mi. E (1214 ft.)	WARREN PETRO	CAMERON COUNTY, HACKBERRY, LA 70645	77

39	WW	295855093234901	0.23 mi. NE (1214 ft.)	TALBOT CARMOUCHE & MARCELLO	CAMERON COUNTY, HACKBERRY, LA 70645	78
40	WW	300000093241002	0.24 mi. N (1267 ft.)	U S DEPT ENERGY	CAMERON COUNTY, HACKBERRY, LA 70645	79
40	WW	300000093241001	0.24 mi. N (1267 ft.)	U S DEPT ENERGY	CAMERON COUNTY, HACKBERRY, LA 70645	80
41	WW	295857093234901	0.24 mi. E (1267 ft.)	TALBOT CARMOUCHE & MARCELLO	CAMERON COUNTY, HACKBERRY, LA 70645	81
42	WW	295949093242301	0.25 mi. W (1320 ft.)	U S DEPT ENERGY	CAMERON COUNTY, HACKBERRY, LA 70645	82
43	WW	295939093241801	0.25 mi. SW (1320 ft.)	U S DEPT ENERGY	CAMERON COUNTY, HACKBERRY, LA 70645	83
44	WW	295816093233501	0.25 mi. E (1320 ft.)	U S DEPT ENERGY	CAMERON COUNTY, HACKBERRY, LA 70645	84
45	WW	295956093235201	0.25 mi. NE (1320 ft.)	DOMINION GAS	CAMERON COUNTY, HACKBERRY, LA 70645	85
46	WW	295826093234401	0.27 mi. NE (1426 ft.)	BROWN, KENNY	CAMERON COUNTY, HACKBERRY, LA 70645	86
47	WW	295856093234601	0.29 mi. E (1531 ft.)	DAVID V CURRIE	CAMERON COUNTY, HACKBERRY, LA 70645	87
47	WW	295857093234601	0.29 mi. E (1531 ft.)	DAVID V CURRIE	CAMERON COUNTY, HACKBERRY, LA 70645	88
48	WW	295907093234501	0.31 mi. E (1637 ft.)	DAVID V CURRIE	CAMERON COUNTY, HACKBERRY, LA 70645	89
48	WW	295907093234501	0.31 mi. E (1637 ft.)	DAVID V CURRIE	CAMERON COUNTY, HACKBERRY, LA 70645	90
48	WW	295907093234501	0.31 mi. E (1637 ft.)	DAVID V CURRIE	CAMERON COUNTY, HACKBERRY, LA 70645	91
49	WW	300003093241501	0.31 mi. NW (1637 ft.)	U S DEPT ENERGY	CAMERON COUNTY, HACKBERRY, LA 70645	92
50	WW	295940093234301	0.33 mi. E (1742 ft.)	WARREN PETRO	CAMERON COUNTY, HACKBERRY, LA 70645	93
50	WW	295940093234401	0.32 mi. E (1690 ft.)	WARREN PETRO	CAMERON COUNTY, HACKBERRY, LA 70645	94
51	WW	295901093234401	0.32 mi. E (1690 ft.)	DAVID V CURRIE	CAMERON COUNTY, HACKBERRY, LA 70645	95
52	WW	300002093242001	0.33 mi. NW (1742 ft.)	U S DEPT ENERGY	CAMERON COUNTY, HACKBERRY, LA 70645	96
53	WW	295836093242301	0.34 mi. W (1795 ft.)	TALBOT	CAMERON COUNTY, HACKBERRY, LA 70645	97
53	WW	295836093242300	0.34 mi. W (1795 ft.)	TALBOT	CAMERON COUNTY, HACKBERRY, LA 70645	98
54	WW	300006093240301	0.35 mi. N (1848 ft.)	U S DEPT ENERGY	CAMERON COUNTY, HACKBERRY, LA 70645	99
55	WW	295856093234201	0.35 mi. NE (1848 ft.)	DAVID V CURRIE	CAMERON COUNTY, HACKBERRY, LA 70645	100
56	WW	295900093234101	0.37 mi. E (1954 ft.)	DAVID V CURRIE	CAMERON COUNTY, HACKBERRY, LA 70645	101
56	WW	295901093234101	0.37 mi. E (1954 ft.)	DAVID V CURRIE	CAMERON COUNTY, HACKBERRY, LA 70645	102
57	WW	295909093234101	0.37 mi. E (1954 ft.)	DAVID V CURRIE	CAMERON COUNTY, HACKBERRY, LA 70645	103

58	NWIS	00774806	0.37 mi. E (1954 ft.)	CN- 65		104
58	WW	295938093234001	0.38 mi. E (2006 ft.)	OXY USA	CAMERON COUNTY, HACKBERRY, LA 70645	105
59	WW	295936093242601	0.38 mi. SW (2006 ft.)	U S DEPT ENERGY	CAMERON COUNTY, HACKBERRY, LA 70645	106
60	NWIS	00774805	0.4 mi. E (2112 ft.)	CN- 64		107
61	WW	295938093233801	0.41 mi. E (2165 ft.)	TRIDENT NGL	CAMERON COUNTY, HACKBERRY, LA 70645	108
62	WW	295906093233901	0.41 mi. E (2165 ft.)	DAVID V CURRIE	CAMERON COUNTY, HACKBERRY, LA 70645	109
63	NWIS	00774804	0.44 mi. E (2323 ft.)	CN- 66		110
64	WW	295903093233801	0.42 mi. E (2218 ft.)	DAVID V CURRIE	CAMERON COUNTY, HACKBERRY, LA 70645	111
64	WW	295904093233901	0.41 mi. E (2165 ft.)	DAVID V CURRIE	CAMERON COUNTY, HACKBERRY, LA 70645	112
65	WW	295909093233801	0.42 mi. E (2218 ft.)	DAVID V CURRIE	CAMERON COUNTY, HACKBERRY, LA 70645	113
65	WW	295909093233801	0.42 mi. E (2218 ft.)	DAVID V CURRIE	CAMERON COUNTY, HACKBERRY, LA 70645	114
65	WW	295909093233801	0.42 mi. E (2218 ft.)	DAVID V CURRIE	CAMERON COUNTY, HACKBERRY, LA 70645	115
66	WW	295955093243201	0.42 mi. W (2218 ft.)	LA STORAGE, LLC	CAMERON COUNTY, HACKBERRY, LA 70645	116
67	WW	295847093233501	0.43 mi. E (2270 ft.)	TALBOT, CARMOUCHE & MARCELLO	CAMERON COUNTY, HACKBERRY, LA 70645	117
68	WW	295938093233601	0.45 mi. E (2376 ft.)	TRIDENT NGL	CAMERON COUNTY, HACKBERRY, LA 70645	118
69	WW	300010093235601	0.44 mi. N (2323 ft.)	U S DEPT ENERGY	CAMERON COUNTY, HACKBERRY, LA 70645	119
70	WW	295931093243001	0.45 mi. W (2376 ft.)	U S DEPT ENERGY	CAMERON COUNTY, HACKBERRY, LA 70645	120
71	WW	295940093233501	0.46 mi. E (2429 ft.)	WARREN PETRO	CAMERON COUNTY, HACKBERRY, LA 70645	121
71	WW	295941093233601	0.45 mi. E (2376 ft.)	WARREN PETRO	CAMERON COUNTY, HACKBERRY, LA 70645	122
72	WW	300008093242301	0.46 mi. NW (2429 ft.)	U S DEPT ENERGY	CAMERON COUNTY, HACKBERRY, LA 70645	123
73	WW	295837093233301	0.48 mi. E (2534 ft.)	TRIDENT NGL	CAMERON COUNTY, HACKBERRY, LA 70645	124
74	WW	295934093243301	0.5 mi. SW (2640 ft.)	U S DEPT ENERGY	CAMERON COUNTY, HACKBERRY, LA 70645	125

Louisiana Water Well Registry (WW)

MAP ID# 1 **Distance from Property: 0.01 mi. (53 ft.) W**

ID NUMBER: **295948093240401**
LOCAL WELL: **5641Z**
PARISH NUM: **023**
OWNER NAME: **U S DEPT ENERGY**
WELL USE: **RECOVERY**
USE DESCRIPTION: **ENVIRONMENTAL RECOVERY**
DRILLER NAME: **GRIFFIN**
WELL STATUS: **ACTIVE**
WELL DEPTH: **50**
WATER LEVEL: **15.50**
YIELD: **NOT REPORTED**
HOLE DEPTH: **54**
ELEVATION: **17**
PLUGGED BY: **NOT REPORTED**
DATE PLUGGED: **NOT REPORTED**
DATE COMPLETED: **11/91**
DRAWDOWN: **NOT REPORTED**
CASING DIAMETER: **4**
CASING MATERIAL: **PLASTIC**
SCREEN DIAMETER: **4**
SCREEN INTERVAL: **40-50**
GEOLOGIC UNIT: **112CHCTC**
QUAD NUM: **214A**
TOWNSHIP/SECTION/RANGE: **12S 020 10W**
LATITUDE: **29.996666670** LONGITUDE: **-93.401111110**

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Louisiana Water Well Registry (WW)

MAP ID# 2 **Distance from Property: 0.04 mi. (211 ft.) NW**

ID NUMBER: **295950093240801**
LOCAL WELL: **5635Z**
PARISH NUM: **023**
OWNER NAME: **U S DEPT ENERGY**
WELL USE: **RECOVERY**
USE DESCRIPTION: **PLUGGED AND ABANDONED RECOVERY**
DRILLER NAME: **GRIFFIN**
WELL STATUS: **PLUGGED AND ABANDONDED**
WELL DEPTH: **31**
WATER LEVEL: **17.31**
YIELD: **NOT REPORTED**
HOLE DEPTH: **32**
ELEVATION: **23**
PLUGGED BY: **FUGRO (GS)**
DATE PLUGGED: **11/06**
DATE COMPLETED: **11/91**
DRAWDOWN: **NOT REPORTED**
CASING DIAMETER: **4**
CASING MATERIAL: **PLASTIC**
SCREEN DIAMETER: **4**
SCREEN INTERVAL: **20-30**
GEOLOGIC UNIT: **112CHCTC**
QUAD NUM: **214A**
TOWNSHIP/SECTION/RANGE: **12S 020 10W**
LATITUDE: **29.997222220** LONGITUDE: **-93.402222220**

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Louisiana Water Well Registry (WW)

MAP ID# 2 **Distance from Property: 0.04 mi. (211 ft.) NW**

ID NUMBER: **295950093240802**
LOCAL WELL: **5636Z**
PARISH NUM: **023**
OWNER NAME: **U S DEPT ENERGY**
WELL USE: **RECOVERY**
USE DESCRIPTION: **PLUGGED AND ABANDONED RECOVERY**
DRILLER NAME: **GRIFFIN**
WELL STATUS: **PLUGGED AND ABANDONDED**
WELL DEPTH: **57**
WATER LEVEL: **25.70**
YIELD: **NOT REPORTED**
HOLE DEPTH: **61**
ELEVATION: **23**
PLUGGED BY: **FUGRO (GS)**
DATE PLUGGED: **11/06**
DATE COMPLETED: **11/91**
DRAWDOWN: **NOT REPORTED**
CASING DIAMETER: **4**
CASING MATERIAL: **PLASTIC**
SCREEN DIAMETER: **4**
SCREEN INTERVAL: **47-57**
GEOLOGIC UNIT: **112CHCTC**
QUAD NUM: **214A**
TOWNSHIP/SECTION/RANGE: **12S 020 10W**
LATITUDE: **29.997222220** LONGITUDE: **-93.402222220**

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Louisiana Water Well Registry (WW)

MAP ID# 3 **Distance from Property: 0.04 mi. (211 ft.) NW**

ID NUMBER: **295950093240602**
LOCAL WELL: **5638Z**
PARISH NUM: **023**
OWNER NAME: **U S DEPT ENERGY**
WELL USE: **RECOVERY**
USE DESCRIPTION: **PLUGGED AND ABANDONED RECOVERY**
DRILLER NAME: **GRIFFIN**
WELL STATUS: **PLUGGED AND ABANDONDED**
WELL DEPTH: **55**
WATER LEVEL: **25.50**
YIELD: **NOT REPORTED**
HOLE DEPTH: **59**
ELEVATION: **23**
PLUGGED BY: **FUGRO (GS)**
DATE PLUGGED: **11/06**
DATE COMPLETED: **11/91**
DRAWDOWN: **NOT REPORTED**
CASING DIAMETER: **4**
CASING MATERIAL: **PLASTIC**
SCREEN DIAMETER: **4**
SCREEN INTERVAL: **45-55**
GEOLOGIC UNIT: **112CHCTC**
QUAD NUM: **214A**
TOWNSHIP/SECTION/RANGE: **12S 020 10W**
LATITUDE: **29.997222220** LONGITUDE: **-93.401666670**

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Louisiana Water Well Registry (WW)

MAP ID# 3 **Distance from Property: 0.04 mi. (211 ft.) NW**

ID NUMBER: **295950093240601**
LOCAL WELL: **5637Z**
PARISH NUM: **023**
OWNER NAME: **U S DEPT ENERGY**
WELL USE: **RECOVERY**
USE DESCRIPTION: **ENVIRONMENTAL RECOVERY**
DRILLER NAME: **GRIFFIN**
WELL STATUS: **ACTIVE**
WELL DEPTH: **43**
WATER LEVEL: **18.32**
YIELD: **NOT REPORTED**
HOLE DEPTH: **44**
ELEVATION: **23**
PLUGGED BY: **NOT REPORTED**
DATE PLUGGED: **NOT REPORTED**
DATE COMPLETED: **11/91**
DRAWDOWN: **NOT REPORTED**
CASING DIAMETER: **4**
CASING MATERIAL: **PLASTIC**
SCREEN DIAMETER: **4**
SCREEN INTERVAL: **33-43**
GEOLOGIC UNIT: **112CHCTC**
QUAD NUM: **214A**
TOWNSHIP/SECTION/RANGE: **12S 020 10W**
LATITUDE: **29.997222220** LONGITUDE: **-93.401666670**

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Louisiana Water Well Registry (WW)

MAP ID# 4 **Distance from Property: 0.05 mi. (264 ft.) NW**

ID NUMBER: **295950093241002**
LOCAL WELL: **5455Z**
PARISH NUM: **023**
OWNER NAME: **BOEING PETRO**
WELL USE: **MONITOR**
USE DESCRIPTION: **MONITOR**
DRILLER NAME: **STAMM-SCHEELE**
WELL STATUS: **ACTIVE**
WELL DEPTH: **50**
WATER LEVEL: **10.00**
YIELD: **NOT REPORTED**
HOLE DEPTH: **50**
ELEVATION: **NOT REPORTED**
PLUGGED BY: **NOT REPORTED**
DATE PLUGGED: **NOT REPORTED**
DATE COMPLETED: **01/88**
DRAWDOWN: **NOT REPORTED**
CASING DIAMETER: **4**
CASING MATERIAL: **PLASTIC**
SCREEN DIAMETER: **4**
SCREEN INTERVAL: **40-50**
GEOLOGIC UNIT: **112CHCTC**
QUAD NUM: **214**
TOWNSHIP/SECTION/RANGE: **12S 020 10W**
LATITUDE: **29.997222220** LONGITUDE: **-93.402777780**

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MAP ID# 4 **Distance from Property: 0.05 mi. (264 ft.) NW**

ID NUMBER: **295950093241001**
LOCAL WELL: **5454Z**
PARISH NUM: **023**
OWNER NAME: **U S DEPT ENERGY**
WELL USE: **MONITOR**
USE DESCRIPTION: **MONITOR**
DRILLER NAME: **STAMM-SCHEELE**
WELL STATUS: **ACTIVE**
WELL DEPTH: **30**
WATER LEVEL: **6.00**
YIELD: **NOT REPORTED**
HOLE DEPTH: **30**
ELEVATION: **NOT REPORTED**
PLUGGED BY: **NOT REPORTED**
DATE PLUGGED: **NOT REPORTED**
DATE COMPLETED: **01/88**
DRAWDOWN: **NOT REPORTED**
CASING DIAMETER: **4**
CASING MATERIAL: **PLASTIC**
SCREEN DIAMETER: **4**
SCREEN INTERVAL: **20-30**
GEOLOGIC UNIT: **112CHCTC**
QUAD NUM: **214**
TOWNSHIP/SECTION/RANGE: **12S 020 10W**
LATITUDE: **29.997222220** LONGITUDE: **-93.402777780**

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MAP ID# 5 **Distance from Property: 0.07 mi. (370 ft.) NE**

ID NUMBER: **295950093240001**
LOCAL WELL: **69**
PARISH NUM: **023**
OWNER NAME: **DOMINION GAS**
WELL USE: **INDUSTRIAL**
USE DESCRIPTION: **INDUSTRIAL**
DRILLER NAME: **LAYNE (LA)**
WELL STATUS: **ACTIVE**
WELL DEPTH: **479**
WATER LEVEL: **46.97**
YIELD: **1000**
HOLE DEPTH: **505**
ELEVATION: **NOT REPORTED**
PLUGGED BY: **NOT REPORTED**
DATE PLUGGED: **NOT REPORTED**
DATE COMPLETED: **09/59**
DRAWDOWN: **16.6**
CASING DIAMETER: **16X8X8**
CASING MATERIAL: **METAL**
SCREEN DIAMETER: **8**
SCREEN INTERVAL: **399-479**
GEOLOGIC UNIT: **11205LC**
QUAD NUM: **NOT REPORTED**
TOWNSHIP/SECTION/RANGE: **12S 021 10W**
LATITUDE: **29.997222220** LONGITUDE: **-93.400000000**

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United States Geological Survey National Water Information System (NWIS)

MAP ID# 5 **Distance from Property: 0.07 mi. (370 ft.) NE**

REPORTING AGENCY: **US GEOLOGICAL SURVEY**
SITE NUMBER: **295950093240001**
STATION NAME: **CN- 69**
SITE TYPE: **WELL**
LATITUDE: **29.997435200** LONGITUDE: **-93.400156300**
DATE DRILLED: **1959-09-01**
WELL DEPTH: **479 FEET**
HOLE DEPTH: **505 FEET**
LOCAL AQUIFER: **200-FOOT SAND OF LAKE CHARLES AREA**

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MAP ID# 5 **Distance from Property: 0.06 mi. (317 ft.) NE**

ID NUMBER: **295950093240101**
LOCAL WELL: **5642Z**
PARISH NUM: **023**
OWNER NAME: **U S DEPT ENERGY**
WELL USE: **MONITOR**
USE DESCRIPTION: **MONITOR**
DRILLER NAME: **GRIFFIN**
WELL STATUS: **ACTIVE**
WELL DEPTH: **49**
WATER LEVEL: **17.50**
YIELD: **NOT REPORTED**
HOLE DEPTH: **54**
ELEVATION: **15**
PLUGGED BY: **NOT REPORTED**
DATE PLUGGED: **NOT REPORTED**
DATE COMPLETED: **11/91**
DRAWDOWN: **NOT REPORTED**
CASING DIAMETER: **4**
CASING MATERIAL: **PLASTIC**
SCREEN DIAMETER: **4**
SCREEN INTERVAL: **38-49**
GEOLOGIC UNIT: **112CHCTC**
QUAD NUM: **214A**
TOWNSHIP/SECTION/RANGE: **12S 020 10W**
LATITUDE: **29.997222220** LONGITUDE: **-93.400277780**

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MAP ID# 6 **Distance from Property: 0.06 mi. (317 ft.) N**

ID NUMBER: **295951093240301**
LOCAL WELL: **5640Z**
PARISH NUM: **023**
OWNER NAME: **U S DEPT ENERGY**
WELL USE: **RECOVERY**
USE DESCRIPTION: **ENVIRONMENTAL RECOVERY**
DRILLER NAME: **GRIFFIN**
WELL STATUS: **ACTIVE**
WELL DEPTH: **52**
WATER LEVEL: **19.95**
YIELD: **NOT REPORTED**
HOLE DEPTH: **54**
ELEVATION: **17**
PLUGGED BY: **NOT REPORTED**
DATE PLUGGED: **NOT REPORTED**
DATE COMPLETED: **11/91**
DRAWDOWN: **NOT REPORTED**
CASING DIAMETER: **4**
CASING MATERIAL: **PLASTIC**
SCREEN DIAMETER: **4**
SCREEN INTERVAL: **42-52**
GEOLOGIC UNIT: **112CHCTC**
QUAD NUM: **214A**
TOWNSHIP/SECTION/RANGE: **12S 020 10W**
LATITUDE: **29.997500000** LONGITUDE: **-93.400833330**

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Louisiana Water Well Registry (WW)

MAP ID# 6 **Distance from Property: 0.08 mi. (422 ft.) N**

ID NUMBER: **295952093240301**
LOCAL WELL: **5639Z**
PARISH NUM: **023**
OWNER NAME: **U S DEPT ENERGY**
WELL USE: **RECOVERY**
USE DESCRIPTION: **ENVIRONMENTAL RECOVERY**
DRILLER NAME: **GRIFFIN**
WELL STATUS: **ACTIVE**
WELL DEPTH: **51**
WATER LEVEL: **34.40**
YIELD: **NOT REPORTED**
HOLE DEPTH: **55**
ELEVATION: **16**
PLUGGED BY: **NOT REPORTED**
DATE PLUGGED: **NOT REPORTED**
DATE COMPLETED: **11/91**
DRAWDOWN: **NOT REPORTED**
CASING DIAMETER: **4**
CASING MATERIAL: **PLASTIC**
SCREEN DIAMETER: **4**
SCREEN INTERVAL: **40-51**
GEOLOGIC UNIT: **112CHCTC**
QUAD NUM: **214A**
TOWNSHIP/SECTION/RANGE: **12S 020 10W**
LATITUDE: **29.997777780** LONGITUDE: **-93.400833330**

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Louisiana Water Well Registry (WW)

MAP ID# 7 **Distance from Property: 0.06 mi. (317 ft.) SE**

ID NUMBER: **295845093235701**
LOCAL WELL: **6618Z**
PARISH NUM: **023**
OWNER NAME: **TALBOT CARMOUCHE & MARCELLO**
WELL USE: **MONITOR**
USE DESCRIPTION: **MONITOR**
DRILLER NAME: **ICON ENVIRONMENTAL SERVICES, INC**
WELL STATUS: **ACTIVE**
WELL DEPTH: **33**
WATER LEVEL: **5.57**
YIELD: **NOT REPORTED**
HOLE DEPTH: **48**
ELEVATION: **0001**
PLUGGED BY: **NOT REPORTED**
DATE PLUGGED: **NOT REPORTED**
DATE COMPLETED: **07/12/2011**
DRAWDOWN: **NOT REPORTED**
CASING DIAMETER: **.75**
CASING MATERIAL: **PLASTIC**
SCREEN DIAMETER: **.75**
SCREEN INTERVAL: **NOT REPORTED**
GEOLOGIC UNIT: **112CHCTC**
QUAD NUM: **214A**
TOWNSHIP/SECTION/RANGE: **12S 028 10W**
LATITUDE: **29.979166670** LONGITUDE: **-93.399166670**

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MAP ID# 8 **Distance from Property: 0.09 mi. (475 ft.) SW**

ID NUMBER: **295858093240801**
LOCAL WELL: **6617Z**
PARISH NUM: **023**
OWNER NAME: **TALBOT CARMOUCHE & MARCELLO**
WELL USE: **MONITOR**
USE DESCRIPTION: **MONITOR**
DRILLER NAME: **ICON ENVIRONMENTAL SERVICES, INC**
WELL STATUS: **ACTIVE**
WELL DEPTH: **36**
WATER LEVEL: **7.07**
YIELD: **NOT REPORTED**
HOLE DEPTH: **36**
ELEVATION: **0005**
PLUGGED BY: **NOT REPORTED**
DATE PLUGGED: **NOT REPORTED**
DATE COMPLETED: **07/06/2011**
DRAWDOWN: **NOT REPORTED**
CASING DIAMETER: **.75**
CASING MATERIAL: **PLASTIC**
SCREEN DIAMETER: **.75**
SCREEN INTERVAL: **NOT REPORTED**
GEOLOGIC UNIT: **112CHCTC**
QUAD NUM: **214A**
TOWNSHIP/SECTION/RANGE: **12S 029 10W**
LATITUDE: **29.982777780** LONGITUDE: **-93.402222220**

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MAP ID# 9 **Distance from Property: 0.1 mi. (528 ft.) W**

ID NUMBER: **295905093240901**
LOCAL WELL: **7157Z**
PARISH NUM: **023**
OWNER NAME: **DAVID V CURRIE**
WELL USE: **MONITOR**
USE DESCRIPTION: **MONITOR**
DRILLER NAME: **ICON ENVIRONMENTAL SERVICES, INC**
WELL STATUS: **NOT REPORTED**
WELL DEPTH: **17**
WATER LEVEL: **.75**
YIELD: **NOT REPORTED**
HOLE DEPTH: **28**
ELEVATION: **0004**
PLUGGED BY: **NOT REPORTED**
DATE PLUGGED: **NOT REPORTED**
DATE COMPLETED: **01/15/2015**
DRAWDOWN: **NOT REPORTED**
CASING DIAMETER: **.75**
CASING MATERIAL: **PLASTIC**
SCREEN DIAMETER: **.75**
SCREEN INTERVAL: **NOT REPORTED**
GEOLOGIC UNIT: **112CHCTC**
QUAD NUM: **214A**
TOWNSHIP/SECTION/RANGE: **12S 029 10W**
LATITUDE: **29.984722220** LONGITUDE: **-93.402500000**

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MAP ID# 10 **Distance from Property: 0.12 mi. (634 ft.) N**

ID NUMBER: **295954093241002**
LOCAL WELL: **5453Z**
PARISH NUM: **023**
OWNER NAME: **U S DEPT ENERGY**
WELL USE: **MONITOR**
USE DESCRIPTION: **MONITOR**
DRILLER NAME: **STAMM-SCHEELE**
WELL STATUS: **ACTIVE**
WELL DEPTH: **48**
WATER LEVEL: **15.00**
YIELD: **NOT REPORTED**
HOLE DEPTH: **50**
ELEVATION: **NOT REPORTED**
PLUGGED BY: **NOT REPORTED**
DATE PLUGGED: **NOT REPORTED**
DATE COMPLETED: **01/88**
DRAWDOWN: **NOT REPORTED**
CASING DIAMETER: **4**
CASING MATERIAL: **PLASTIC**
SCREEN DIAMETER: **4**
SCREEN INTERVAL: **38-48**
GEOLOGIC UNIT: **112CHCTC**
QUAD NUM: **214**
TOWNSHIP/SECTION/RANGE: **12S 020 10W**
LATITUDE: **29.998333330** LONGITUDE: **-93.402777780**

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MAP ID# 10 **Distance from Property: 0.12 mi. (634 ft.) N**

ID NUMBER: **295954093241001**
LOCAL WELL: **5452Z**
PARISH NUM: **023**
OWNER NAME: **U S DEPT ENERGY**
WELL USE: **MONITOR**
USE DESCRIPTION: **MONITOR**
DRILLER NAME: **STAMM-SCHEELE**
WELL STATUS: **ACTIVE**
WELL DEPTH: **30**
WATER LEVEL: **6.00**
YIELD: **NOT REPORTED**
HOLE DEPTH: **30**
ELEVATION: **NOT REPORTED**
PLUGGED BY: **NOT REPORTED**
DATE PLUGGED: **NOT REPORTED**
DATE COMPLETED: **01/88**
DRAWDOWN: **NOT REPORTED**
CASING DIAMETER: **4**
CASING MATERIAL: **PLASTIC**
SCREEN DIAMETER: **4**
SCREEN INTERVAL: **20-30**
GEOLOGIC UNIT: **112CHCTC**
QUAD NUM: **214**
TOWNSHIP/SECTION/RANGE: **12S 020 10W**
LATITUDE: **29.998333330** LONGITUDE: **-93.402777780**

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MAP ID# 10 **Distance from Property: 0.11 mi. (581 ft.) NW**

ID NUMBER: **295953093241101**
LOCAL WELL: **5500Z**
PARISH NUM: **023**
OWNER NAME: **U S DEPT ENERGY**
WELL USE: **MONITOR**
USE DESCRIPTION: **MONITOR**
DRILLER NAME: **GUICHARD**
WELL STATUS: **ACTIVE**
WELL DEPTH: **25**
WATER LEVEL: **13.00**
YIELD: **NOT REPORTED**
HOLE DEPTH: **26**
ELEVATION: **NOT REPORTED**
PLUGGED BY: **NOT REPORTED**
DATE PLUGGED: **NOT REPORTED**
DATE COMPLETED: **03/89**
DRAWDOWN: **NOT REPORTED**
CASING DIAMETER: **5**
CASING MATERIAL: **PLASTIC**
SCREEN DIAMETER: **5**
SCREEN INTERVAL: **15-25**
GEOLOGIC UNIT: **112CHCTC**
QUAD NUM: **214**
TOWNSHIP/SECTION/RANGE: **12S 020 10W**
LATITUDE: **29.998055560** LONGITUDE: **-93.403055560**

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MAP ID# 11 **Distance from Property: 0.11 mi. (581 ft.) SE**

ID NUMBER: **295932093235701**
LOCAL WELL: **5807Z**
PARISH NUM: **023**
OWNER NAME: **WARREN PETRO**
WELL USE: **PIEZOMETER**
USE DESCRIPTION: **PIEZOMETER**
DRILLER NAME: **PROFESSIONAL-**
WELL STATUS: **ACTIVE**
WELL DEPTH: **15**
WATER LEVEL: **2.00**
YIELD: **NOT REPORTED**
HOLE DEPTH: **15**
ELEVATION: **12**
PLUGGED BY: **NOT REPORTED**
DATE PLUGGED: **NOT REPORTED**
DATE COMPLETED: **08/97**
DRAWDOWN: **NOT REPORTED**
CASING DIAMETER: **0.50**
CASING MATERIAL: **PLASTIC**
SCREEN DIAMETER: **1.50**
SCREEN INTERVAL: **12-15**
GEOLOGIC UNIT: **112CHCTC**
QUAD NUM: **214A**
TOWNSHIP/SECTION/RANGE: **12S 021 10W**
LATITUDE: **29.992222220** LONGITUDE: **-93.399166670**

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United States Geological Survey National Water Information System (NWIS)

MAP ID# 12 **Distance from Property: 0.12 mi. (634 ft.) NW**

REPORTING AGENCY: **US GEOLOGICAL SURVEY**
SITE NUMBER: **295950093241401**
STATION NAME: **CN- 192**
SITE TYPE: **WELL**
LATITUDE: **29.997435200** LONGITUDE: **-93.404045200**
DATE DRILLED: **NOT REPORTED**
WELL DEPTH: **380. FEET**
HOLE DEPTH: **380. FEET**
LOCAL AQUIFER: **200-FOOT SAND OF LAKE CHARLES AREA**

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MAP ID# 12 **Distance from Property: 0.11 mi. (581 ft.) W**

ID NUMBER: **295950093241401**
LOCAL WELL: **192**
PARISH NUM: **023**
OWNER NAME: **U S DEPT ENERGY**
WELL USE: **INDUSTRIAL**
USE DESCRIPTION: **INDUSTRIAL**
DRILLER NAME: **UNKNOWN**
WELL STATUS: **ACTIVE**
WELL DEPTH: **380**
WATER LEVEL: **0.00**
YIELD: **NOT REPORTED**
HOLE DEPTH: **380**
ELEVATION: **21**
PLUGGED BY: **NOT REPORTED**
DATE PLUGGED: **NOT REPORTED**
DATE COMPLETED: **1977**
DRAWDOWN: **NOT REPORTED**
CASING DIAMETER: **NOT REPORTED**
CASING MATERIAL: **NOT REPORTED**
SCREEN DIAMETER: **NOT REPORTED**
SCREEN INTERVAL: **NOT REPORTED**
GEOLOGIC UNIT: **11202LC**
QUAD NUM: **214**
TOWNSHIP/SECTION/RANGE: **12S 020 10W**
LATITUDE: **29.997222220** LONGITUDE: **-93.403888890**

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Louisiana Water Well Registry (WW)

MAP ID# 13 **Distance from Property: 0.11 mi. (581 ft.) W**

ID NUMBER: **295848093240801**
LOCAL WELL: **6628Z**
PARISH NUM: **023**
OWNER NAME: **TALBOT CARMOUCHE & MARCELLO**
WELL USE: **MONITOR**
USE DESCRIPTION: **MONITOR**
DRILLER NAME: **ICON ENVIRONMENTAL SERVICES, INC**
WELL STATUS: **ACTIVE**
WELL DEPTH: **28**
WATER LEVEL: **10.14**
YIELD: **NOT REPORTED**
HOLE DEPTH: **40**
ELEVATION: **0007**
PLUGGED BY: **NOT REPORTED**
DATE PLUGGED: **NOT REPORTED**
DATE COMPLETED: **07/07/2011**
DRAWDOWN: **NOT REPORTED**
CASING DIAMETER: **.75**
CASING MATERIAL: **PLASTIC**
SCREEN DIAMETER: **.75**
SCREEN INTERVAL: **NOT REPORTED**
GEOLOGIC UNIT: **112CHCTC**
QUAD NUM: **214A**
TOWNSHIP/SECTION/RANGE: **12S 029 10W**
LATITUDE: **29.980000000** LONGITUDE: **-93.402222220**

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Louisiana Water Well Registry (WW)

MAP ID# 14 **Distance from Property: 0.12 mi. (634 ft.) SE**

ID NUMBER: **295934093235601**
LOCAL WELL: **5806Z**
PARISH NUM: **023**
OWNER NAME: **WARREN PETRO**
WELL USE: **PIEZOMETER**
USE DESCRIPTION: **PIEZOMETER**
DRILLER NAME: **PROFESSIONAL-**
WELL STATUS: **ACTIVE**
WELL DEPTH: **15**
WATER LEVEL: **2.00**
YIELD: **NOT REPORTED**
HOLE DEPTH: **15**
ELEVATION: **11**
PLUGGED BY: **NOT REPORTED**
DATE PLUGGED: **NOT REPORTED**
DATE COMPLETED: **08/97**
DRAWDOWN: **NOT REPORTED**
CASING DIAMETER: **0.50**
CASING MATERIAL: **PLASTIC**
SCREEN DIAMETER: **1.50**
SCREEN INTERVAL: **12-15**
GEOLOGIC UNIT: **112CHCTC**
QUAD NUM: **214A**
TOWNSHIP/SECTION/RANGE: **12S 021 10W**
LATITUDE: **29.992777780** LONGITUDE: **-93.398888890**

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MAP ID# 14 **Distance from Property: 0.12 mi. (634 ft.) SE**

ID NUMBER: **295935093235601**
LOCAL WELL: **5805Z**
PARISH NUM: **023**
OWNER NAME: **WARREN PETRO**
WELL USE: **PIEZOMETER**
USE DESCRIPTION: **PIEZOMETER**
DRILLER NAME: **PROFESSIONAL-**
WELL STATUS: **ACTIVE**
WELL DEPTH: **15**
WATER LEVEL: **2.00**
YIELD: **NOT REPORTED**
HOLE DEPTH: **15**
ELEVATION: **11**
PLUGGED BY: **NOT REPORTED**
DATE PLUGGED: **NOT REPORTED**
DATE COMPLETED: **08/97**
DRAWDOWN: **NOT REPORTED**
CASING DIAMETER: **0.50**
CASING MATERIAL: **PLASTIC**
SCREEN DIAMETER: **1.50**
SCREEN INTERVAL: **12-15**
GEOLOGIC UNIT: **112CHCTC**
QUAD NUM: **214A**
TOWNSHIP/SECTION/RANGE: **12S 021 10W**
LATITUDE: **29.993055560** LONGITUDE: **-93.398888890**

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MAP ID# 15 **Distance from Property: 0.12 mi. (634 ft.) N**

ID NUMBER: **295954093240301**
LOCAL WELL: **5443Z**
PARISH NUM: **023**
OWNER NAME: **U S DEPT ENERGY**
WELL USE: **MONITOR**
USE DESCRIPTION: **PLUGGED AND ABANDONED MONITOR**
DRILLER NAME: **UNKNOWN**
WELL STATUS: **PLUGGED AND ABANDONDED**
WELL DEPTH: **50**
WATER LEVEL: **17.80**
YIELD: **NOT REPORTED**
HOLE DEPTH: **100**
ELEVATION: **9**
PLUGGED BY: **STAMM-SCHEELE**
DATE PLUGGED: **06/89**
DATE COMPLETED: **04/81**
DRAWDOWN: **NOT REPORTED**
CASING DIAMETER: **4**
CASING MATERIAL: **PLASTIC**
SCREEN DIAMETER: **3**
SCREEN INTERVAL: **40-50**
GEOLOGIC UNIT: **112CHCTC**
QUAD NUM: **214**
TOWNSHIP/SECTION/RANGE: **12S 020 10W**
LATITUDE: **29.998333330** LONGITUDE: **-93.400833330**

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MAP ID# 16 **Distance from Property: 0.14 mi. (739 ft.) W**

ID NUMBER: **295950093241601**
LOCAL WELL: **5499Z**
PARISH NUM: **023**
OWNER NAME: **U S DEPT ENERGY**
WELL USE: **MONITOR**
USE DESCRIPTION: **MONITOR**
DRILLER NAME: **GUICHARD**
WELL STATUS: **ACTIVE**
WELL DEPTH: **24**
WATER LEVEL: **13.50**
YIELD: **NOT REPORTED**
HOLE DEPTH: **24**
ELEVATION: **NOT REPORTED**
PLUGGED BY: **NOT REPORTED**
DATE PLUGGED: **NOT REPORTED**
DATE COMPLETED: **03/89**
DRAWDOWN: **NOT REPORTED**
CASING DIAMETER: **2**
CASING MATERIAL: **PLASTIC**
SCREEN DIAMETER: **2**
SCREEN INTERVAL: **14-24**
GEOLOGIC UNIT: **112CHCTC**
QUAD NUM: **214**
TOWNSHIP/SECTION/RANGE: **12S 020 10W**
LATITUDE: **29.997222220** LONGITUDE: **-93.404444440**

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MAP ID# 17 **Distance from Property: 0.12 mi. (634 ft.) E**

ID NUMBER: **295857093235601**
LOCAL WELL: **6629Z**
PARISH NUM: **023**
OWNER NAME: **TALBOT CARMOUCHE & MARCELLO**
WELL USE: **MONITOR**
USE DESCRIPTION: **MONITOR**
DRILLER NAME: **ICON ENVIRONMENTAL SERVICES, INC**
WELL STATUS: **ACTIVE**
WELL DEPTH: **40**
WATER LEVEL: **9.39**
YIELD: **NOT REPORTED**
HOLE DEPTH: **44**
ELEVATION: **0007**
PLUGGED BY: **NOT REPORTED**
DATE PLUGGED: **NOT REPORTED**
DATE COMPLETED: **07/07/2011**
DRAWDOWN: **NOT REPORTED**
CASING DIAMETER: **.75**
CASING MATERIAL: **PLASTIC**
SCREEN DIAMETER: **.75**
SCREEN INTERVAL: **NOT REPORTED**
GEOLOGIC UNIT: **112CHCTC**
QUAD NUM: **214A**
TOWNSHIP/SECTION/RANGE: **12S 028 10W**
LATITUDE: **29.982500000** LONGITUDE: **-93.398888890**

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MAP ID# 18 **Distance from Property: 0.13 mi. (686 ft.) E**

ID NUMBER: **295850093235301**
LOCAL WELL: **6626Z**
PARISH NUM: **023**
OWNER NAME: **TALBOT CARMOUCHE & MARCELLO**
WELL USE: **MONITOR**
USE DESCRIPTION: **MONITOR**
DRILLER NAME: **ICON ENVIRONMENTAL SERVICES, INC**
WELL STATUS: **ACTIVE**
WELL DEPTH: **22**
WATER LEVEL: **7.22**
YIELD: **NOT REPORTED**
HOLE DEPTH: **22**
ELEVATION: **0002**
PLUGGED BY: **NOT REPORTED**
DATE PLUGGED: **NOT REPORTED**
DATE COMPLETED: **07/11/2011**
DRAWDOWN: **NOT REPORTED**
CASING DIAMETER: **.75**
CASING MATERIAL: **PLASTIC**
SCREEN DIAMETER: **.75**
SCREEN INTERVAL: **NOT REPORTED**
GEOLOGIC UNIT: **112CHCTC**
QUAD NUM: **214A**
TOWNSHIP/SECTION/RANGE: **12S 028 10W**
LATITUDE: **29.980555560** LONGITUDE: **-93.398055560**

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MAP ID# 18 **Distance from Property: 0.13 mi. (686 ft.) E**

ID NUMBER: **295850093235301**
LOCAL WELL: **6626Z**
PARISH NUM: **023**
OWNER NAME: **TALBOT CARMOUCHE & MARCELLO**
WELL USE: **MONITOR**
USE DESCRIPTION: **MONITOR**
DRILLER NAME: **ICON ENVIRONMENTAL SERVICES, INC**
WELL STATUS: **ACTIVE**
WELL DEPTH: **22**
WATER LEVEL: **7.22**
YIELD: **NOT REPORTED**
HOLE DEPTH: **22**
ELEVATION: **0002**
PLUGGED BY: **NOT REPORTED**
DATE PLUGGED: **NOT REPORTED**
DATE COMPLETED: **07/11/2011**
DRAWDOWN: **NOT REPORTED**
CASING DIAMETER: **.75**
CASING MATERIAL: **PLASTIC**
SCREEN DIAMETER: **.75**
SCREEN INTERVAL: **NOT REPORTED**
GEOLOGIC UNIT: **112CHCTC**
QUAD NUM: **214A**
TOWNSHIP/SECTION/RANGE: **12S 028 10W**
LATITUDE: **29.980555560** LONGITUDE: **-93.398055560**

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MAP ID# 18 **Distance from Property: 0.13 mi. (686 ft.) E**

ID NUMBER: **295850093235301**
LOCAL WELL: **6626Z**
PARISH NUM: **023**
OWNER NAME: **TALBOT CARMOUCHE & MARCELLO**
WELL USE: **MONITOR**
USE DESCRIPTION: **MONITOR**
DRILLER NAME: **ICON ENVIRONMENTAL SERVICES, INC**
WELL STATUS: **ACTIVE**
WELL DEPTH: **22**
WATER LEVEL: **7.22**
YIELD: **NOT REPORTED**
HOLE DEPTH: **22**
ELEVATION: **0002**
PLUGGED BY: **NOT REPORTED**
DATE PLUGGED: **NOT REPORTED**
DATE COMPLETED: **07/11/2011**
DRAWDOWN: **NOT REPORTED**
CASING DIAMETER: **.75**
CASING MATERIAL: **PLASTIC**
SCREEN DIAMETER: **.75**
SCREEN INTERVAL: **NOT REPORTED**
GEOLOGIC UNIT: **112CHCTC**
QUAD NUM: **214A**
TOWNSHIP/SECTION/RANGE: **12S 028 10W**
LATITUDE: **29.980555560** LONGITUDE: **-93.398055560**

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MAP ID# 18 **Distance from Property: 0.13 mi. (686 ft.) E**

ID NUMBER: **295850093235301**
LOCAL WELL: **6626Z**
PARISH NUM: **023**
OWNER NAME: **TALBOT CARMOUCHE & MARCELLO**
WELL USE: **MONITOR**
USE DESCRIPTION: **MONITOR**
DRILLER NAME: **ICON ENVIRONMENTAL SERVICES, INC**
WELL STATUS: **ACTIVE**
WELL DEPTH: **22**
WATER LEVEL: **7.22**
YIELD: **NOT REPORTED**
HOLE DEPTH: **22**
ELEVATION: **0002**
PLUGGED BY: **NOT REPORTED**
DATE PLUGGED: **NOT REPORTED**
DATE COMPLETED: **07/11/2011**
DRAWDOWN: **NOT REPORTED**
CASING DIAMETER: **.75**
CASING MATERIAL: **PLASTIC**
SCREEN DIAMETER: **.75**
SCREEN INTERVAL: **NOT REPORTED**
GEOLOGIC UNIT: **112CHCTC**
QUAD NUM: **214A**
TOWNSHIP/SECTION/RANGE: **12S 028 10W**
LATITUDE: **29.980555560** LONGITUDE: **-93.398055560**

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MAP ID# 19 **Distance from Property: 0.13 mi. (686 ft.) E**

ID NUMBER: **295845093235301**
LOCAL WELL: **6619Z**
PARISH NUM: **023**
OWNER NAME: **TALBOT CARMOUCHE & MARCELLO**
WELL USE: **MONITOR**
USE DESCRIPTION: **MONITOR**
DRILLER NAME: **ICON ENVIRONMENTAL SERVICES, INC**
WELL STATUS: **ACTIVE**
WELL DEPTH: **33**
WATER LEVEL: **4.65**
YIELD: **NOT REPORTED**
HOLE DEPTH: **48**
ELEVATION: **0001**
PLUGGED BY: **NOT REPORTED**
DATE PLUGGED: **NOT REPORTED**
DATE COMPLETED: **07/08/2011**
DRAWDOWN: **NOT REPORTED**
CASING DIAMETER: **.75**
CASING MATERIAL: **PLASTIC**
SCREEN DIAMETER: **.75**
SCREEN INTERVAL: **NOT REPORTED**
GEOLOGIC UNIT: **112CHCTC**
QUAD NUM: **214A**
TOWNSHIP/SECTION/RANGE: **12S 028 10W**
LATITUDE: **29.979166670** LONGITUDE: **-93.398055560**

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MAP ID# 20 **Distance from Property: 0.14 mi. (739 ft.) E**

ID NUMBER: **295902093235501**
LOCAL WELL: **7154Z**
PARISH NUM: **023**
OWNER NAME: **DAVID V CURRIE**
WELL USE: **MONITOR**
USE DESCRIPTION: **MONITOR**
DRILLER NAME: **ICON ENVIRONMENTAL SERVICES, INC**
WELL STATUS: **NOT REPORTED**
WELL DEPTH: **16**
WATER LEVEL: **1.1**
YIELD: **NOT REPORTED**
HOLE DEPTH: **54**
ELEVATION: **0004**
PLUGGED BY: **NOT REPORTED**
DATE PLUGGED: **NOT REPORTED**
DATE COMPLETED: **01/15/2015**
DRAWDOWN: **NOT REPORTED**
CASING DIAMETER: **.75**
CASING MATERIAL: **PLASTIC**
SCREEN DIAMETER: **.75**
SCREEN INTERVAL: **NOT REPORTED**
GEOLOGIC UNIT: **112CHCTC**
QUAD NUM: **214A**
TOWNSHIP/SECTION/RANGE: **12S 028 10W**
LATITUDE: **29.983888890** LONGITUDE: **-93.398611110**

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MAP ID# 20 **Distance from Property: 0.14 mi. (739 ft.) E**

ID NUMBER: **295902093235501**
LOCAL WELL: **7154Z**
PARISH NUM: **023**
OWNER NAME: **DAVID V CURRIE**
WELL USE: **MONITOR**
USE DESCRIPTION: **MONITOR**
DRILLER NAME: **ICON ENVIRONMENTAL SERVICES, INC**
WELL STATUS: **NOT REPORTED**
WELL DEPTH: **16**
WATER LEVEL: **1.1**
YIELD: **NOT REPORTED**
HOLE DEPTH: **54**
ELEVATION: **0004**
PLUGGED BY: **NOT REPORTED**
DATE PLUGGED: **NOT REPORTED**
DATE COMPLETED: **01/15/2015**
DRAWDOWN: **NOT REPORTED**
CASING DIAMETER: **.75**
CASING MATERIAL: **PLASTIC**
SCREEN DIAMETER: **.75**
SCREEN INTERVAL: **NOT REPORTED**
GEOLOGIC UNIT: **112CHCTC**
QUAD NUM: **214A**
TOWNSHIP/SECTION/RANGE: **12S 028 10W**
LATITUDE: **29.983888890** LONGITUDE: **-93.398611110**

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MAP ID# 20 **Distance from Property: 0.14 mi. (739 ft.) E**

ID NUMBER: **295902093235501**
LOCAL WELL: **7154Z**
PARISH NUM: **023**
OWNER NAME: **DAVID V CURRIE**
WELL USE: **MONITOR**
USE DESCRIPTION: **MONITOR**
DRILLER NAME: **ICON ENVIRONMENTAL SERVICES, INC**
WELL STATUS: **NOT REPORTED**
WELL DEPTH: **16**
WATER LEVEL: **1.1**
YIELD: **NOT REPORTED**
HOLE DEPTH: **54**
ELEVATION: **0004**
PLUGGED BY: **NOT REPORTED**
DATE PLUGGED: **NOT REPORTED**
DATE COMPLETED: **01/15/2015**
DRAWDOWN: **NOT REPORTED**
CASING DIAMETER: **.75**
CASING MATERIAL: **PLASTIC**
SCREEN DIAMETER: **.75**
SCREEN INTERVAL: **NOT REPORTED**
GEOLOGIC UNIT: **112CHCTC**
QUAD NUM: **214A**
TOWNSHIP/SECTION/RANGE: **12S 028 10W**
LATITUDE: **29.983888890** LONGITUDE: **-93.398611110**

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MAP ID# 21 **Distance from Property: 0.14 mi. (739 ft.) NE**

ID NUMBER: **295954093235902**
LOCAL WELL: **5539Z**
PARISH NUM: **023**
OWNER NAME: **U S DEPT ENERGY**
WELL USE: **MONITOR**
USE DESCRIPTION: **MONITOR**
DRILLER NAME: **GERAGHTY**
WELL STATUS: **ACTIVE**
WELL DEPTH: **46**
WATER LEVEL: **0.00**
YIELD: **NOT REPORTED**
HOLE DEPTH: **50**
ELEVATION: **NOT REPORTED**
PLUGGED BY: **NOT REPORTED**
DATE PLUGGED: **NOT REPORTED**
DATE COMPLETED: **05/90**
DRAWDOWN: **NOT REPORTED**
CASING DIAMETER: **5**
CASING MATERIAL: **PLASTIC**
SCREEN DIAMETER: **5**
SCREEN INTERVAL: **36-46**
GEOLOGIC UNIT: **112CHCTC**
QUAD NUM: **214**
TOWNSHIP/SECTION/RANGE: **12S 020 10W**
LATITUDE: **29.998333330** LONGITUDE: **-93.399722220**

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MAP ID# 21 **Distance from Property: 0.14 mi. (739 ft.) NE**

ID NUMBER: **295954093235901**
LOCAL WELL: **5538Z**
PARISH NUM: **023**
OWNER NAME: **U S DEPT ENERGY**
WELL USE: **MONITOR**
USE DESCRIPTION: **MONITOR**
DRILLER NAME: **GERAGHTY**
WELL STATUS: **ACTIVE**
WELL DEPTH: **23**
WATER LEVEL: **0.00**
YIELD: **NOT REPORTED**
HOLE DEPTH: **23**
ELEVATION: **NOT REPORTED**
PLUGGED BY: **NOT REPORTED**
DATE PLUGGED: **NOT REPORTED**
DATE COMPLETED: **05/90**
DRAWDOWN: **NOT REPORTED**
CASING DIAMETER: **5**
CASING MATERIAL: **PLASTIC**
SCREEN DIAMETER: **5**
SCREEN INTERVAL: **13-23**
GEOLOGIC UNIT: **112CHCTC**
QUAD NUM: **214**
TOWNSHIP/SECTION/RANGE: **12S 020 10W**
LATITUDE: **29.998333330** LONGITUDE: **-93.399722220**

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MAP ID# 22 **Distance from Property: 0.14 mi. (739 ft.) E**

ID NUMBER: **295847093235201**
LOCAL WELL: **6620Z**
PARISH NUM: **023**
OWNER NAME: **TALBOT CARMOUCHE & MARCELLO**
WELL USE: **MONITOR**
USE DESCRIPTION: **MONITOR**
DRILLER NAME: **ICON ENVIRONMENTAL SERVICES, INC**
WELL STATUS: **ACTIVE**
WELL DEPTH: **38**
WATER LEVEL: **5.31**
YIELD: **NOT REPORTED**
HOLE DEPTH: **48**
ELEVATION: **0001**
PLUGGED BY: **NOT REPORTED**
DATE PLUGGED: **NOT REPORTED**
DATE COMPLETED: **07/12/2011**
DRAWDOWN: **NOT REPORTED**
CASING DIAMETER: **.75**
CASING MATERIAL: **PLASTIC**
SCREEN DIAMETER: **.75**
SCREEN INTERVAL: **NOT REPORTED**
GEOLOGIC UNIT: **112CHCTC**
QUAD NUM: **214A**
TOWNSHIP/SECTION/RANGE: **12S 028 10W**
LATITUDE: **29.979722220** LONGITUDE: **-93.397777780**

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MAP ID# 23 **Distance from Property: 0.16 mi. (845 ft.) E**

ID NUMBER: **295854093235401**
LOCAL WELL: **6630Z**
PARISH NUM: **023**
OWNER NAME: **TALBOT CARMOUCHE & MARCELLO**
WELL USE: **MONITOR**
USE DESCRIPTION: **MONITOR**
DRILLER NAME: **ICON ENVIRONMENTAL SERVICES, INC**
WELL STATUS: **ACTIVE**
WELL DEPTH: **40**
WATER LEVEL: **6.44**
YIELD: **NOT REPORTED**
HOLE DEPTH: **44**
ELEVATION: **0004**
PLUGGED BY: **NOT REPORTED**
DATE PLUGGED: **NOT REPORTED**
DATE COMPLETED: **07/07/2011**
DRAWDOWN: **NOT REPORTED**
CASING DIAMETER: **.75**
CASING MATERIAL: **PLASTIC**
SCREEN DIAMETER: **.75**
SCREEN INTERVAL: **NOT REPORTED**
GEOLOGIC UNIT: **112CHCTC**
QUAD NUM: **214A**
TOWNSHIP/SECTION/RANGE: **12S 028 10W**
LATITUDE: **29.981666670** LONGITUDE: **-93.398333330**

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MAP ID# 24 **Distance from Property: 0.17 mi. (898 ft.) E**

ID NUMBER: **295933093235301**
LOCAL WELL: **5809Z**
PARISH NUM: **023**
OWNER NAME: **WARREN PETRO**
WELL USE: **PIEZOMETER**
USE DESCRIPTION: **PIEZOMETER**
DRILLER NAME: **PROFESSIONAL-**
WELL STATUS: **ACTIVE**
WELL DEPTH: **15**
WATER LEVEL: **2.00**
YIELD: **NOT REPORTED**
HOLE DEPTH: **15**
ELEVATION: **10**
PLUGGED BY: **NOT REPORTED**
DATE PLUGGED: **NOT REPORTED**
DATE COMPLETED: **08/97**
DRAWDOWN: **NOT REPORTED**
CASING DIAMETER: **0.50**
CASING MATERIAL: **PLASTIC**
SCREEN DIAMETER: **1.50**
SCREEN INTERVAL: **12-15**
GEOLOGIC UNIT: **112CHCTC**
QUAD NUM: **214A**
TOWNSHIP/SECTION/RANGE: **12S 021 10W**
LATITUDE: **29.992500000** LONGITUDE: **-93.398055560**

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MAP ID# 24 **Distance from Property: 0.17 mi. (898 ft.) E**

ID NUMBER: **295932093235301**
LOCAL WELL: **5808Z**
PARISH NUM: **023**
OWNER NAME: **WARREN PETRO**
WELL USE: **PIEZOMETER**
USE DESCRIPTION: **PIEZOMETER**
DRILLER NAME: **PROFESSIONAL-**
WELL STATUS: **ACTIVE**
WELL DEPTH: **15**
WATER LEVEL: **2.00**
YIELD: **NOT REPORTED**
HOLE DEPTH: **15**
ELEVATION: **10**
PLUGGED BY: **NOT REPORTED**
DATE PLUGGED: **NOT REPORTED**
DATE COMPLETED: **08/97**
DRAWDOWN: **NOT REPORTED**
CASING DIAMETER: **0.50**
CASING MATERIAL: **PLASTIC**
SCREEN DIAMETER: **1.50**
SCREEN INTERVAL: **12-15**
GEOLOGIC UNIT: **112CHCTC**
QUAD NUM: **214A**
TOWNSHIP/SECTION/RANGE: **12S 021 10W**
LATITUDE: **29.992222220** LONGITUDE: **-93.398055560**

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MAP ID# 25 **Distance from Property: 0.17 mi. (898 ft.) W**

ID NUMBER: **295950093241801**
LOCAL WELL: **5537Z**
PARISH NUM: **023**
OWNER NAME: **U S DEPT ENERGY**
WELL USE: **MONITOR**
USE DESCRIPTION: **MONITOR**
DRILLER NAME: **GERAGHTY**
WELL STATUS: **ACTIVE**
WELL DEPTH: **47**
WATER LEVEL: **0.00**
YIELD: **NOT REPORTED**
HOLE DEPTH: **49**
ELEVATION: **NOT REPORTED**
PLUGGED BY: **NOT REPORTED**
DATE PLUGGED: **NOT REPORTED**
DATE COMPLETED: **05/90**
DRAWDOWN: **NOT REPORTED**
CASING DIAMETER: **5**
CASING MATERIAL: **PLASTIC**
SCREEN DIAMETER: **5**
SCREEN INTERVAL: **37-47**
GEOLOGIC UNIT: **112CHCTC**
QUAD NUM: **214**
TOWNSHIP/SECTION/RANGE: **12S 020 10W**
LATITUDE: **29.997222220** LONGITUDE: **-93.405000000**

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MAP ID# 26 **Distance from Property: 0.19 mi. (1,003 ft.) W**

ID NUMBER: **295901093241401**
LOCAL WELL: **6613Z**
PARISH NUM: **023**
OWNER NAME: **TALBOT CARMOUCHE & MARCELLO**
WELL USE: **MONITOR**
USE DESCRIPTION: **MONITOR**
DRILLER NAME: **ICON ENVIRONMENTAL SERVICES, INC**
WELL STATUS: **ACTIVE**
WELL DEPTH: **13**
WATER LEVEL: **7.61**
YIELD: **NOT REPORTED**
HOLE DEPTH: **13**
ELEVATION: **0005**
PLUGGED BY: **NOT REPORTED**
DATE PLUGGED: **NOT REPORTED**
DATE COMPLETED: **07/06/2011**
DRAWDOWN: **NOT REPORTED**
CASING DIAMETER: **.75**
CASING MATERIAL: **PLASTIC**
SCREEN DIAMETER: **.75**
SCREEN INTERVAL: **NOT REPORTED**
GEOLOGIC UNIT: **112CHCTC**
QUAD NUM: **214A**
TOWNSHIP/SECTION/RANGE: **12S 029 10W**
LATITUDE: **29.983611110** LONGITUDE: **-93.403888890**

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Louisiana Water Well Registry (WW)

MAP ID# 26 **Distance from Property: 0.19 mi. (1,003 ft.) W**

ID NUMBER: **295900093241401**
LOCAL WELL: **7156Z**
PARISH NUM: **023**
OWNER NAME: **DAVID V CURRIE**
WELL USE: **MONITOR**
USE DESCRIPTION: **MONITOR**
DRILLER NAME: **ICON ENVIRONMENTAL SERVICES, INC**
WELL STATUS: **NOT REPORTED**
WELL DEPTH: **15**
WATER LEVEL: **.2**
YIELD: **NOT REPORTED**
HOLE DEPTH: **15**
ELEVATION: **0004**
PLUGGED BY: **NOT REPORTED**
DATE PLUGGED: **NOT REPORTED**
DATE COMPLETED: **01/22/2015**
DRAWDOWN: **NOT REPORTED**
CASING DIAMETER: **.75**
CASING MATERIAL: **PLASTIC**
SCREEN DIAMETER: **.75**
SCREEN INTERVAL: **NOT REPORTED**
GEOLOGIC UNIT: **112CHCTC**
QUAD NUM: **214A**
TOWNSHIP/SECTION/RANGE: **12S 029 10W**
LATITUDE: **29.983333330** LONGITUDE: **-93.403888890**

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MAP ID# 26 **Distance from Property: 0.19 mi. (1,003 ft.) W**

ID NUMBER: **295901093241401**
LOCAL WELL: **6613Z**
PARISH NUM: **023**
OWNER NAME: **TALBOT CARMOUCHE & MARCELLO**
WELL USE: **MONITOR**
USE DESCRIPTION: **MONITOR**
DRILLER NAME: **ICON ENVIRONMENTAL SERVICES, INC**
WELL STATUS: **ACTIVE**
WELL DEPTH: **13**
WATER LEVEL: **7.61**
YIELD: **NOT REPORTED**
HOLE DEPTH: **13**
ELEVATION: **0005**
PLUGGED BY: **NOT REPORTED**
DATE PLUGGED: **NOT REPORTED**
DATE COMPLETED: **07/06/2011**
DRAWDOWN: **NOT REPORTED**
CASING DIAMETER: **.75**
CASING MATERIAL: **PLASTIC**
SCREEN DIAMETER: **.75**
SCREEN INTERVAL: **NOT REPORTED**
GEOLOGIC UNIT: **112CHCTC**
QUAD NUM: **214A**
TOWNSHIP/SECTION/RANGE: **12S 029 10W**
LATITUDE: **29.983611110** LONGITUDE: **-93.403888890**

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Louisiana Water Well Registry (WW)

MAP ID# 26 **Distance from Property: 0.19 mi. (1,003 ft.) W**

ID NUMBER: **295901093241401**
LOCAL WELL: **6613Z**
PARISH NUM: **023**
OWNER NAME: **TALBOT CARMOUCHE & MARCELLO**
WELL USE: **MONITOR**
USE DESCRIPTION: **MONITOR**
DRILLER NAME: **ICON ENVIRONMENTAL SERVICES, INC**
WELL STATUS: **ACTIVE**
WELL DEPTH: **13**
WATER LEVEL: **7.61**
YIELD: **NOT REPORTED**
HOLE DEPTH: **13**
ELEVATION: **0005**
PLUGGED BY: **NOT REPORTED**
DATE PLUGGED: **NOT REPORTED**
DATE COMPLETED: **07/06/2011**
DRAWDOWN: **NOT REPORTED**
CASING DIAMETER: **.75**
CASING MATERIAL: **PLASTIC**
SCREEN DIAMETER: **.75**
SCREEN INTERVAL: **NOT REPORTED**
GEOLOGIC UNIT: **112CHCTC**
QUAD NUM: **214A**
TOWNSHIP/SECTION/RANGE: **12S 029 10W**
LATITUDE: **29.983611110** LONGITUDE: **-93.403888890**

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MAP ID# 27 **Distance from Property: 0.19 mi. (1,003 ft.) W**

ID NUMBER: **295859093241401**
LOCAL WELL: **6615Z**
PARISH NUM: **023**
OWNER NAME: **TALBOT CARMOUCHE & MARCELLO**
WELL USE: **MONITOR**
USE DESCRIPTION: **MONITOR**
DRILLER NAME: **ICON ENVIRONMENTAL SERVICES, INC**
WELL STATUS: **ACTIVE**
WELL DEPTH: **16**
WATER LEVEL: **7.35**
YIELD: **NOT REPORTED**
HOLE DEPTH: **16**
ELEVATION: **0005**
PLUGGED BY: **NOT REPORTED**
DATE PLUGGED: **NOT REPORTED**
DATE COMPLETED: **07/05/2011**
DRAWDOWN: **NOT REPORTED**
CASING DIAMETER: **.75**
CASING MATERIAL: **PLASTIC**
SCREEN DIAMETER: **.75**
SCREEN INTERVAL: **NOT REPORTED**
GEOLOGIC UNIT: **112CHCTC**
QUAD NUM: **214A**
TOWNSHIP/SECTION/RANGE: **12S 029 10W**
LATITUDE: **29.983055560** LONGITUDE: **-93.403888890**

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MAP ID# 27 **Distance from Property: 0.19 mi. (1,003 ft.) W**

ID NUMBER: **295859093241401**
LOCAL WELL: **6615Z**
PARISH NUM: **023**
OWNER NAME: **TALBOT CARMOUCHE & MARCELLO**
WELL USE: **MONITOR**
USE DESCRIPTION: **MONITOR**
DRILLER NAME: **ICON ENVIRONMENTAL SERVICES, INC**
WELL STATUS: **ACTIVE**
WELL DEPTH: **16**
WATER LEVEL: **7.35**
YIELD: **NOT REPORTED**
HOLE DEPTH: **16**
ELEVATION: **0005**
PLUGGED BY: **NOT REPORTED**
DATE PLUGGED: **NOT REPORTED**
DATE COMPLETED: **07/05/2011**
DRAWDOWN: **NOT REPORTED**
CASING DIAMETER: **.75**
CASING MATERIAL: **PLASTIC**
SCREEN DIAMETER: **.75**
SCREEN INTERVAL: **NOT REPORTED**
GEOLOGIC UNIT: **112CHCTC**
QUAD NUM: **214A**
TOWNSHIP/SECTION/RANGE: **12S 029 10W**
LATITUDE: **29.983055560** LONGITUDE: **-93.403888890**

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MAP ID# 27 **Distance from Property: 0.19 mi. (1,003 ft.) W**

ID NUMBER: **295859093241401**
LOCAL WELL: **6615Z**
PARISH NUM: **023**
OWNER NAME: **TALBOT CARMOUCHE & MARCELLO**
WELL USE: **MONITOR**
USE DESCRIPTION: **MONITOR**
DRILLER NAME: **ICON ENVIRONMENTAL SERVICES, INC**
WELL STATUS: **ACTIVE**
WELL DEPTH: **16**
WATER LEVEL: **7.35**
YIELD: **NOT REPORTED**
HOLE DEPTH: **16**
ELEVATION: **0005**
PLUGGED BY: **NOT REPORTED**
DATE PLUGGED: **NOT REPORTED**
DATE COMPLETED: **07/05/2011**
DRAWDOWN: **NOT REPORTED**
CASING DIAMETER: **.75**
CASING MATERIAL: **PLASTIC**
SCREEN DIAMETER: **.75**
SCREEN INTERVAL: **NOT REPORTED**
GEOLOGIC UNIT: **112CHCTC**
QUAD NUM: **214A**
TOWNSHIP/SECTION/RANGE: **12S 029 10W**
LATITUDE: **29.983055560** LONGITUDE: **-93.403888890**

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Louisiana Water Well Registry (WW)

MAP ID# 27 **Distance from Property: 0.19 mi. (1,003 ft.) W**

ID NUMBER: **295859093241401**
LOCAL WELL: **6615Z**
PARISH NUM: **023**
OWNER NAME: **TALBOT CARMOUCHE & MARCELLO**
WELL USE: **MONITOR**
USE DESCRIPTION: **MONITOR**
DRILLER NAME: **ICON ENVIRONMENTAL SERVICES, INC**
WELL STATUS: **ACTIVE**
WELL DEPTH: **16**
WATER LEVEL: **7.35**
YIELD: **NOT REPORTED**
HOLE DEPTH: **16**
ELEVATION: **0005**
PLUGGED BY: **NOT REPORTED**
DATE PLUGGED: **NOT REPORTED**
DATE COMPLETED: **07/05/2011**
DRAWDOWN: **NOT REPORTED**
CASING DIAMETER: **.75**
CASING MATERIAL: **PLASTIC**
SCREEN DIAMETER: **.75**
SCREEN INTERVAL: **NOT REPORTED**
GEOLOGIC UNIT: **112CHCTC**
QUAD NUM: **214A**
TOWNSHIP/SECTION/RANGE: **12S 029 10W**
LATITUDE: **29.983055560** LONGITUDE: **-93.403888890**

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MAP ID# 28 **Distance from Property: 0.19 mi. (1,003 ft.) E**

ID NUMBER: **295904093235201**
LOCAL WELL: **7149Z**
PARISH NUM: **023**
OWNER NAME: **DAVID V CURRIE**
WELL USE: **MONITOR**
USE DESCRIPTION: **MONITOR**
DRILLER NAME: **ICON ENVIRONMENTAL SERVICES, INC**
WELL STATUS: **NOT REPORTED**
WELL DEPTH: **18**
WATER LEVEL: **3.74**
YIELD: **NOT REPORTED**
HOLE DEPTH: **18**
ELEVATION: **0004**
PLUGGED BY: **NOT REPORTED**
DATE PLUGGED: **NOT REPORTED**
DATE COMPLETED: **01/15/2015**
DRAWDOWN: **NOT REPORTED**
CASING DIAMETER: **.75**
CASING MATERIAL: **PLASTIC**
SCREEN DIAMETER: **.75**
SCREEN INTERVAL: **NOT REPORTED**
GEOLOGIC UNIT: **112CHCTC**
QUAD NUM: **214A**
TOWNSHIP/SECTION/RANGE: **12S 028 10W**
LATITUDE: **29.984444440** LONGITUDE: **-93.397777780**

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MAP ID# 28 **Distance from Property: 0.19 mi. (1,003 ft.) E**

ID NUMBER: **295904093235201**
LOCAL WELL: **7149Z**
PARISH NUM: **023**
OWNER NAME: **DAVID V CURRIE**
WELL USE: **MONITOR**
USE DESCRIPTION: **MONITOR**
DRILLER NAME: **ICON ENVIRONMENTAL SERVICES, INC**
WELL STATUS: **NOT REPORTED**
WELL DEPTH: **18**
WATER LEVEL: **3.74**
YIELD: **NOT REPORTED**
HOLE DEPTH: **18**
ELEVATION: **0004**
PLUGGED BY: **NOT REPORTED**
DATE PLUGGED: **NOT REPORTED**
DATE COMPLETED: **01/15/2015**
DRAWDOWN: **NOT REPORTED**
CASING DIAMETER: **.75**
CASING MATERIAL: **PLASTIC**
SCREEN DIAMETER: **.75**
SCREEN INTERVAL: **NOT REPORTED**
GEOLOGIC UNIT: **112CHCTC**
QUAD NUM: **214A**
TOWNSHIP/SECTION/RANGE: **12S 028 10W**
LATITUDE: **29.984444440** LONGITUDE: **-93.397777780**

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Louisiana Water Well Registry (WW)

MAP ID# 28 **Distance from Property: 0.19 mi. (1,003 ft.) E**

ID NUMBER: **295904093235201**
LOCAL WELL: **7149Z**
PARISH NUM: **023**
OWNER NAME: **DAVID V CURRIE**
WELL USE: **MONITOR**
USE DESCRIPTION: **MONITOR**
DRILLER NAME: **ICON ENVIRONMENTAL SERVICES, INC**
WELL STATUS: **NOT REPORTED**
WELL DEPTH: **18**
WATER LEVEL: **3.74**
YIELD: **NOT REPORTED**
HOLE DEPTH: **18**
ELEVATION: **0004**
PLUGGED BY: **NOT REPORTED**
DATE PLUGGED: **NOT REPORTED**
DATE COMPLETED: **01/15/2015**
DRAWDOWN: **NOT REPORTED**
CASING DIAMETER: **.75**
CASING MATERIAL: **PLASTIC**
SCREEN DIAMETER: **.75**
SCREEN INTERVAL: **NOT REPORTED**
GEOLOGIC UNIT: **112CHCTC**
QUAD NUM: **214A**
TOWNSHIP/SECTION/RANGE: **12S 028 10W**
LATITUDE: **29.984444440** LONGITUDE: **-93.397777780**

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MAP ID# 29 **Distance from Property: 0.19 mi. (1,003 ft.) W**

ID NUMBER: **295940093241401**
LOCAL WELL: **5171Z**
PARISH NUM: **023**
OWNER NAME: **U S DEPT ENERGY**
WELL USE: **BOREHOLE/PILOT HOLE**
USE DESCRIPTION: **PLUGGED AND ABANDONED BOREHOLE**
DRILLER NAME: **UNKNOWN**
WELL STATUS: **PLUGGED AND ABANDONDED**
WELL DEPTH: **200**
WATER LEVEL: **0.00**
YIELD: **NOT REPORTED**
HOLE DEPTH: **200**
ELEVATION: **12**
PLUGGED BY: **HOUSTON SERVICE**
DATE PLUGGED: **01/84**
DATE COMPLETED: **NOT REPORTED**
DRAWDOWN: **NOT REPORTED**
CASING DIAMETER: **NOT REPORTED**
CASING MATERIAL: **NOT REPORTED**
SCREEN DIAMETER: **NOT REPORTED**
SCREEN INTERVAL: **NOT REPORTED**
GEOLOGIC UNIT: **11200NWM**
QUAD NUM: **214**
TOWNSHIP/SECTION/RANGE: **12S 020 10W**
LATITUDE: **29.994444440** LONGITUDE: **-93.403888890**

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MAP ID# 30 **Distance from Property: 0.2 mi. (1,056 ft.) E**

ID NUMBER: **295849093234901**
LOCAL WELL: **6621Z**
PARISH NUM: **023**
OWNER NAME: **TALBOT CARMOUCHE & MARCELLO**
WELL USE: **MONITOR**
USE DESCRIPTION: **MONITOR**
DRILLER NAME: **ICON ENVIRONMENTAL SERVICES, INC**
WELL STATUS: **ACTIVE**
WELL DEPTH: **36**
WATER LEVEL: **3.7**
YIELD: **NOT REPORTED**
HOLE DEPTH: **40**
ELEVATION: **0001**
PLUGGED BY: **NOT REPORTED**
DATE PLUGGED: **NOT REPORTED**
DATE COMPLETED: **07/12/2011**
DRAWDOWN: **NOT REPORTED**
CASING DIAMETER: **.75**
CASING MATERIAL: **PLASTIC**
SCREEN DIAMETER: **.75**
SCREEN INTERVAL: **NOT REPORTED**
GEOLOGIC UNIT: **112CHCTC**
QUAD NUM: **214A**
TOWNSHIP/SECTION/RANGE: **12S 028 10W**
LATITUDE: **29.980277780** LONGITUDE: **-93.396944440**

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MAP ID# 31 **Distance from Property: 0.21 mi. (1,109 ft.) E**

ID NUMBER: **295907093235101**
LOCAL WELL: **7148Z**
PARISH NUM: **023**
OWNER NAME: **DAVID V CURRIE**
WELL USE: **MONITOR**
USE DESCRIPTION: **MONITOR**
DRILLER NAME: **ICON ENVIRONMENTAL SERVICES, INC**
WELL STATUS: **NOT REPORTED**
WELL DEPTH: **18**
WATER LEVEL: **3.86**
YIELD: **NOT REPORTED**
HOLE DEPTH: **44**
ELEVATION: **0004**
PLUGGED BY: **NOT REPORTED**
DATE PLUGGED: **NOT REPORTED**
DATE COMPLETED: **01/15/2015**
DRAWDOWN: **NOT REPORTED**
CASING DIAMETER: **.75**
CASING MATERIAL: **PLASTIC**
SCREEN DIAMETER: **.75**
SCREEN INTERVAL: **NOT REPORTED**
GEOLOGIC UNIT: **112CHCTC**
QUAD NUM: **214A**
TOWNSHIP/SECTION/RANGE: **12S 028 10W**
LATITUDE: **29.985277780** LONGITUDE: **-93.397500000**

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MAP ID# 32 **Distance from Property: 0.21 mi. (1,109 ft.) E**

ID NUMBER: **295900093235101**
LOCAL WELL: **7152Z**
PARISH NUM: **023**
OWNER NAME: **DAVID V CURRIE**
WELL USE: **MONITOR**
USE DESCRIPTION: **MONITOR**
DRILLER NAME: **ICON ENVIRONMENTAL SERVICES, INC**
WELL STATUS: **NOT REPORTED**
WELL DEPTH: **19**
WATER LEVEL: **01**
YIELD: **NOT REPORTED**
HOLE DEPTH: **44**
ELEVATION: **0004**
PLUGGED BY: **NOT REPORTED**
DATE PLUGGED: **NOT REPORTED**
DATE COMPLETED: **01/15/2015**
DRAWDOWN: **NOT REPORTED**
CASING DIAMETER: **.75**
CASING MATERIAL: **PLASTIC**
SCREEN DIAMETER: **.75**
SCREEN INTERVAL: **NOT REPORTED**
GEOLOGIC UNIT: **112CHCTC**
QUAD NUM: **214A**
TOWNSHIP/SECTION/RANGE: **12S 028 10W**
LATITUDE: **29.983333330** LONGITUDE: **-93.397500000**

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MAP ID# 32 **Distance from Property: 0.21 mi. (1,109 ft.) E**

ID NUMBER: **295900093235101**
LOCAL WELL: **7152Z**
PARISH NUM: **023**
OWNER NAME: **DAVID V CURRIE**
WELL USE: **MONITOR**
USE DESCRIPTION: **MONITOR**
DRILLER NAME: **ICON ENVIRONMENTAL SERVICES, INC**
WELL STATUS: **NOT REPORTED**
WELL DEPTH: **19**
WATER LEVEL: **01**
YIELD: **NOT REPORTED**
HOLE DEPTH: **44**
ELEVATION: **0004**
PLUGGED BY: **NOT REPORTED**
DATE PLUGGED: **NOT REPORTED**
DATE COMPLETED: **01/15/2015**
DRAWDOWN: **NOT REPORTED**
CASING DIAMETER: **.75**
CASING MATERIAL: **PLASTIC**
SCREEN DIAMETER: **.75**
SCREEN INTERVAL: **NOT REPORTED**
GEOLOGIC UNIT: **112CHCTC**
QUAD NUM: **214A**
TOWNSHIP/SECTION/RANGE: **12S 028 10W**
LATITUDE: **29.983333330** LONGITUDE: **-93.397500000**

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MAP ID# 32 **Distance from Property: 0.21 mi. (1,109 ft.) E**

ID NUMBER: **295900093235101**
LOCAL WELL: **7152Z**
PARISH NUM: **023**
OWNER NAME: **DAVID V CURRIE**
WELL USE: **MONITOR**
USE DESCRIPTION: **MONITOR**
DRILLER NAME: **ICON ENVIRONMENTAL SERVICES, INC**
WELL STATUS: **NOT REPORTED**
WELL DEPTH: **19**
WATER LEVEL: **01**
YIELD: **NOT REPORTED**
HOLE DEPTH: **44**
ELEVATION: **0004**
PLUGGED BY: **NOT REPORTED**
DATE PLUGGED: **NOT REPORTED**
DATE COMPLETED: **01/15/2015**
DRAWDOWN: **NOT REPORTED**
CASING DIAMETER: **.75**
CASING MATERIAL: **PLASTIC**
SCREEN DIAMETER: **.75**
SCREEN INTERVAL: **NOT REPORTED**
GEOLOGIC UNIT: **112CHCTC**
QUAD NUM: **214A**
TOWNSHIP/SECTION/RANGE: **12S 028 10W**
LATITUDE: **29.983333330** LONGITUDE: **-93.397500000**

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MAP ID# 32 **Distance from Property: 0.22 mi. (1,162 ft.) E**

ID NUMBER: **295901093235001**
LOCAL WELL: **7151Z**
PARISH NUM: **023**
OWNER NAME: **DAVID V CURRIE**
WELL USE: **MONITOR**
USE DESCRIPTION: **MONITOR**
DRILLER NAME: **ICON ENVIRONMENTAL SERVICES, INC**
WELL STATUS: **NOT REPORTED**
WELL DEPTH: **18**
WATER LEVEL: **.85**
YIELD: **NOT REPORTED**
HOLE DEPTH: **18**
ELEVATION: **0004**
PLUGGED BY: **NOT REPORTED**
DATE PLUGGED: **NOT REPORTED**
DATE COMPLETED: **01/15/2015**
DRAWDOWN: **NOT REPORTED**
CASING DIAMETER: **.75**
CASING MATERIAL: **PLASTIC**
SCREEN DIAMETER: **.75**
SCREEN INTERVAL: **NOT REPORTED**
GEOLOGIC UNIT: **112CHCTC**
QUAD NUM: **214A**
TOWNSHIP/SECTION/RANGE: **12S 028 10W**
LATITUDE: **29.983611110** LONGITUDE: **-93.397222220**

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MAP ID# 33 **Distance from Property: 0.21 mi. (1,109 ft.) E**

ID NUMBER: **295845093234801**
LOCAL WELL: **6625Z**
PARISH NUM: **023**
OWNER NAME: **TALBOT CARMOUCHE & MARCELLO**
WELL USE: **MONITOR**
USE DESCRIPTION: **MONITOR**
DRILLER NAME: **ICON ENVIRONMENTAL SERVICES, INC**
WELL STATUS: **ACTIVE**
WELL DEPTH: **27**
WATER LEVEL: **3.21**
YIELD: **NOT REPORTED**
HOLE DEPTH: **40**
ELEVATION: **0001**
PLUGGED BY: **NOT REPORTED**
DATE PLUGGED: **NOT REPORTED**
DATE COMPLETED: **07/12/2011**
DRAWDOWN: **NOT REPORTED**
CASING DIAMETER: **.75**
CASING MATERIAL: **PLASTIC**
SCREEN DIAMETER: **.75**
SCREEN INTERVAL: **NOT REPORTED**
GEOLOGIC UNIT: **112CHCTC**
QUAD NUM: **214A**
TOWNSHIP/SECTION/RANGE: **12S 028 10W**
LATITUDE: **29.979166670** LONGITUDE: **-93.396666670**

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Louisiana Water Well Registry (WW)

MAP ID# 34 **Distance from Property: 0.22 mi. (1,162 ft.) E**

ID NUMBER: **295851093234801**
LOCAL WELL: **6622Z**
PARISH NUM: **023**
OWNER NAME: **TALBOT CARMOUCHE & MARCELLO**
WELL USE: **MONITOR**
USE DESCRIPTION: **MONITOR**
DRILLER NAME: **ICON ENVIRONMENTAL SERVICES, INC**
WELL STATUS: **ACTIVE**
WELL DEPTH: **36**
WATER LEVEL: **4.8**
YIELD: **NOT REPORTED**
HOLE DEPTH: **48**
ELEVATION: **0001**
PLUGGED BY: **NOT REPORTED**
DATE PLUGGED: **NOT REPORTED**
DATE COMPLETED: **07/11/2011**
DRAWDOWN: **NOT REPORTED**
CASING DIAMETER: **.75**
CASING MATERIAL: **PLASTIC**
SCREEN DIAMETER: **.75**
SCREEN INTERVAL: **NOT REPORTED**
GEOLOGIC UNIT: **112CHCTC**
QUAD NUM: **214A**
TOWNSHIP/SECTION/RANGE: **12S 028 10W**
LATITUDE: **29.980833330** LONGITUDE: **-93.396666670**

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MAP ID# 35 **Distance from Property: 0.22 mi. (1,162 ft.) E**

ID NUMBER: **295934093235001**
LOCAL WELL: **5810Z**
PARISH NUM: **023**
OWNER NAME: **WARREN PETRO**
WELL USE: **PIEZOMETER**
USE DESCRIPTION: **PIEZOMETER**
DRILLER NAME: **PROFESSIONAL-**
WELL STATUS: **ACTIVE**
WELL DEPTH: **15**
WATER LEVEL: **2.00**
YIELD: **NOT REPORTED**
HOLE DEPTH: **15**
ELEVATION: **11**
PLUGGED BY: **NOT REPORTED**
DATE PLUGGED: **NOT REPORTED**
DATE COMPLETED: **08/97**
DRAWDOWN: **NOT REPORTED**
CASING DIAMETER: **0.50**
CASING MATERIAL: **PLASTIC**
SCREEN DIAMETER: **1.50**
SCREEN INTERVAL: **12-15**
GEOLOGIC UNIT: **112CHCTC**
QUAD NUM: **214A**
TOWNSHIP/SECTION/RANGE: **12S 021 10W**
LATITUDE: **29.992777780** LONGITUDE: **-93.397222220**

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Louisiana Water Well Registry (WW)

MAP ID# 36 **Distance from Property: 0.22 mi. (1,162 ft.) W**

ID NUMBER: **295833093241601**
LOCAL WELL: **6405Z**
PARISH NUM: **023**
OWNER NAME: **TALBOT**
WELL USE: **MONITOR**
USE DESCRIPTION: **MONITOR**
DRILLER NAME: **ICON**
WELL STATUS: **ACTIVE**
WELL DEPTH: **26**
WATER LEVEL: **10.59**
YIELD: **NOT REPORTED**
HOLE DEPTH: **26**
ELEVATION: **4**
PLUGGED BY: **NOT REPORTED**
DATE PLUGGED: **NOT REPORTED**
DATE COMPLETED: **10/09**
DRAWDOWN: **NOT REPORTED**
CASING DIAMETER: **.75**
CASING MATERIAL: **PLASTIC**
SCREEN DIAMETER: **.75**
SCREEN INTERVAL: **16-26**
GEOLOGIC UNIT: **00000000**
QUAD NUM: **214A**
TOWNSHIP/SECTION/RANGE: **12S 033 10W**
LATITUDE: **29.975833330** LONGITUDE: **-93.404444440**

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MAP ID# 36 **Distance from Property: 0.22 mi. (1,162 ft.) W**

ID NUMBER: **295833093241600**
LOCAL WELL: **6404Z**
PARISH NUM: **023**
OWNER NAME: **TALBOT**
WELL USE: **MONITOR**
USE DESCRIPTION: **MONITOR**
DRILLER NAME: **ICON**
WELL STATUS: **ACTIVE**
WELL DEPTH: **50**
WATER LEVEL: **0.75**
YIELD: **NOT REPORTED**
HOLE DEPTH: **50**
ELEVATION: **4**
PLUGGED BY: **NOT REPORTED**
DATE PLUGGED: **NOT REPORTED**
DATE COMPLETED: **10/09**
DRAWDOWN: **NOT REPORTED**
CASING DIAMETER: **.75**
CASING MATERIAL: **PLASTIC**
SCREEN DIAMETER: **.75**
SCREEN INTERVAL: **40-50**
GEOLOGIC UNIT: **00000000**
QUAD NUM: **214A**
TOWNSHIP/SECTION/RANGE: **12S 033 10W**
LATITUDE: **29.975833330** LONGITUDE: **-93.404444440**

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Louisiana Water Well Registry (WW)

MAP ID# 37 **Distance from Property: 0.22 mi. (1,162 ft.) W**

ID NUMBER: **295858093241601**
LOCAL WELL: **6612Z**
PARISH NUM: **023**
OWNER NAME: **TALBOT CARMOUCHE & MARCELLO**
WELL USE: **MONITOR**
USE DESCRIPTION: **MONITOR**
DRILLER NAME: **ICON ENVIRONMENTAL SERVICES, INC**
WELL STATUS: **NOT REPORTED**
WELL DEPTH: **38**
WATER LEVEL: **7.55**
YIELD: **NOT REPORTED**
HOLE DEPTH: **40**
ELEVATION: **0005**
PLUGGED BY: **NOT REPORTED**
DATE PLUGGED: **02/17/2015**
DATE COMPLETED: **07/05/2011**
DRAWDOWN: **NOT REPORTED**
CASING DIAMETER: **.75**
CASING MATERIAL: **PLASTIC**
SCREEN DIAMETER: **.75**
SCREEN INTERVAL: **NOT REPORTED**
GEOLOGIC UNIT: **112CHCTC**
QUAD NUM: **214A**
TOWNSHIP/SECTION/RANGE: **12S 029 10W**
LATITUDE: **29.982777780** LONGITUDE: **-93.404444440**

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MAP ID# 37 **Distance from Property: 0.22 mi. (1,162 ft.) W**

ID NUMBER: **295858093241601**
LOCAL WELL: **6612Z**
PARISH NUM: **023**
OWNER NAME: **TALBOT CARMOUCHE & MARCELLO**
WELL USE: **MONITOR**
USE DESCRIPTION: **MONITOR**
DRILLER NAME: **ICON ENVIRONMENTAL SERVICES, INC**
WELL STATUS: **NOT REPORTED**
WELL DEPTH: **38**
WATER LEVEL: **7.55**
YIELD: **NOT REPORTED**
HOLE DEPTH: **40**
ELEVATION: **0005**
PLUGGED BY: **NOT REPORTED**
DATE PLUGGED: **02/17/2015**
DATE COMPLETED: **07/05/2011**
DRAWDOWN: **NOT REPORTED**
CASING DIAMETER: **.75**
CASING MATERIAL: **PLASTIC**
SCREEN DIAMETER: **.75**
SCREEN INTERVAL: **NOT REPORTED**
GEOLOGIC UNIT: **112CHCTC**
QUAD NUM: **214A**
TOWNSHIP/SECTION/RANGE: **12S 029 10W**
LATITUDE: **29.982777780** LONGITUDE: **-93.404444440**

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MAP ID# 38 **Distance from Property: 0.23 mi. (1,214 ft.) E**

ID NUMBER: **295936093234901**
LOCAL WELL: **5811Z**
PARISH NUM: **023**
OWNER NAME: **WARREN PETRO**
WELL USE: **PIEZOMETER**
USE DESCRIPTION: **PIEZOMETER**
DRILLER NAME: **PROFESSIONAL-**
WELL STATUS: **ACTIVE**
WELL DEPTH: **15**
WATER LEVEL: **2.00**
YIELD: **NOT REPORTED**
HOLE DEPTH: **15**
ELEVATION: **11**
PLUGGED BY: **NOT REPORTED**
DATE PLUGGED: **NOT REPORTED**
DATE COMPLETED: **08/97**
DRAWDOWN: **NOT REPORTED**
CASING DIAMETER: **0.50**
CASING MATERIAL: **PLASTIC**
SCREEN DIAMETER: **1.50**
SCREEN INTERVAL: **12-15**
GEOLOGIC UNIT: **112CHCTC**
QUAD NUM: **214A**
TOWNSHIP/SECTION/RANGE: **12S 021 10W**
LATITUDE: **29.993333330** LONGITUDE: **-93.396944440**

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MAP ID# 39 **Distance from Property: 0.23 mi. (1,214 ft.) NE**

ID NUMBER: **295855093234901**
LOCAL WELL: **6624Z**
PARISH NUM: **023**
OWNER NAME: **TALBOT CARMOUCHE & MARCELLO**
WELL USE: **MONITOR**
USE DESCRIPTION: **MONITOR**
DRILLER NAME: **ICON ENVIRONMENTAL SERVICES, INC**
WELL STATUS: **ACTIVE**
WELL DEPTH: **38**
WATER LEVEL: **5.68**
YIELD: **NOT REPORTED**
HOLE DEPTH: **40**
ELEVATION: **0002**
PLUGGED BY: **NOT REPORTED**
DATE PLUGGED: **NOT REPORTED**
DATE COMPLETED: **07/08/2011**
DRAWDOWN: **NOT REPORTED**
CASING DIAMETER: **.75**
CASING MATERIAL: **PLASTIC**
SCREEN DIAMETER: **.75**
SCREEN INTERVAL: **NOT REPORTED**
GEOLOGIC UNIT: **112CHCTC**
QUAD NUM: **214A**
TOWNSHIP/SECTION/RANGE: **12S 028 10W**
LATITUDE: **29.981944440** LONGITUDE: **-93.396944440**

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Louisiana Water Well Registry (WW)

MAP ID# 40 **Distance from Property: 0.24 mi. (1,267 ft.) N**

ID NUMBER: **300000093241002**
LOCAL WELL: **5541Z**
PARISH NUM: **023**
OWNER NAME: **U S DEPT ENERGY**
WELL USE: **MONITOR**
USE DESCRIPTION: **MONITOR**
DRILLER NAME: **GERAGHTY**
WELL STATUS: **ACTIVE**
WELL DEPTH: **22**
WATER LEVEL: **0.00**
YIELD: **NOT REPORTED**
HOLE DEPTH: **22**
ELEVATION: **NOT REPORTED**
PLUGGED BY: **NOT REPORTED**
DATE PLUGGED: **NOT REPORTED**
DATE COMPLETED: **05/90**
DRAWDOWN: **NOT REPORTED**
CASING DIAMETER: **5**
CASING MATERIAL: **PLASTIC**
SCREEN DIAMETER: **5**
SCREEN INTERVAL: **12-22**
GEOLOGIC UNIT: **112CHCTC**
QUAD NUM: **214**
TOWNSHIP/SECTION/RANGE: **12S 020 10W**
LATITUDE: **30.000000000** LONGITUDE: **-93.402777780**

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MAP ID# 40 **Distance from Property: 0.24 mi. (1,267 ft.) N**

ID NUMBER: **300000093241001**
LOCAL WELL: **5540Z**
PARISH NUM: **023**
OWNER NAME: **U S DEPT ENERGY**
WELL USE: **MONITOR**
USE DESCRIPTION: **MONITOR**
DRILLER NAME: **GERAGHTY**
WELL STATUS: **ACTIVE**
WELL DEPTH: **47**
WATER LEVEL: **0.00**
YIELD: **NOT REPORTED**
HOLE DEPTH: **50**
ELEVATION: **NOT REPORTED**
PLUGGED BY: **NOT REPORTED**
DATE PLUGGED: **NOT REPORTED**
DATE COMPLETED: **05/90**
DRAWDOWN: **NOT REPORTED**
CASING DIAMETER: **5**
CASING MATERIAL: **PLASTIC**
SCREEN DIAMETER: **5**
SCREEN INTERVAL: **37-47**
GEOLOGIC UNIT: **112CHCTC**
QUAD NUM: **214**
TOWNSHIP/SECTION/RANGE: **12S 020 10W**
LATITUDE: **30.000000000** LONGITUDE: **-93.402777780**

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MAP ID# 41 **Distance from Property: 0.24 mi. (1,267 ft.) E**

ID NUMBER: **295857093234901**
LOCAL WELL: **6623Z**
PARISH NUM: **023**
OWNER NAME: **TALBOT CARMOUCHE & MARCELLO**
WELL USE: **MONITOR**
USE DESCRIPTION: **MONITOR**
DRILLER NAME: **ICON ENVIRONMENTAL SERVICES, INC**
WELL STATUS: **ACTIVE**
WELL DEPTH: **11**
WATER LEVEL: **6.56**
YIELD: **NOT REPORTED**
HOLE DEPTH: **11**
ELEVATION: **0004**
PLUGGED BY: **NOT REPORTED**
DATE PLUGGED: **NOT REPORTED**
DATE COMPLETED: **07/07/2011**
DRAWDOWN: **NOT REPORTED**
CASING DIAMETER: **.75**
CASING MATERIAL: **PLASTIC**
SCREEN DIAMETER: **.75**
SCREEN INTERVAL: **NOT REPORTED**
GEOLOGIC UNIT: **112CHCTC**
QUAD NUM: **214A**
TOWNSHIP/SECTION/RANGE: **12S 028 10W**
LATITUDE: **29.982500000** LONGITUDE: **-93.396944440**

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Louisiana Water Well Registry (WW)

MAP ID# 42 **Distance from Property: 0.25 mi. (1,320 ft.) W**

ID NUMBER: **295949093242301**
LOCAL WELL: **5771Z**
PARISH NUM: **023**
OWNER NAME: **U S DEPT ENERGY**
WELL USE: **MONITOR**
USE DESCRIPTION: **MONITOR**
DRILLER NAME: **LAYNE (ENV)**
WELL STATUS: **ACTIVE**
WELL DEPTH: **18**
WATER LEVEL: **10.50**
YIELD: **NOT REPORTED**
HOLE DEPTH: **18**
ELEVATION: **23**
PLUGGED BY: **NOT REPORTED**
DATE PLUGGED: **NOT REPORTED**
DATE COMPLETED: **04/96**
DRAWDOWN: **NOT REPORTED**
CASING DIAMETER: **2**
CASING MATERIAL: **PLASTIC**
SCREEN DIAMETER: **2**
SCREEN INTERVAL: **6-16**
GEOLOGIC UNIT: **112CHCTC**
QUAD NUM: **214A**
TOWNSHIP/SECTION/RANGE: **12S 020 10W**
LATITUDE: **29.996944440** LONGITUDE: **-93.406388890**

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MAP ID# 43 **Distance from Property: 0.25 mi. (1,320 ft.) SW**

ID NUMBER: **295939093241801**
LOCAL WELL: **5442Z**
PARISH NUM: **023**
OWNER NAME: **U S DEPT ENERGY**
WELL USE: **MONITOR**
USE DESCRIPTION: **MONITOR**
DRILLER NAME: **UNKNOWN**
WELL STATUS: **ACTIVE**
WELL DEPTH: **30**
WATER LEVEL: **8.30**
YIELD: **NOT REPORTED**
HOLE DEPTH: **30**
ELEVATION: **14**
PLUGGED BY: **NOT REPORTED**
DATE PLUGGED: **NOT REPORTED**
DATE COMPLETED: **04/81**
DRAWDOWN: **NOT REPORTED**
CASING DIAMETER: **4**
CASING MATERIAL: **PLASTIC**
SCREEN DIAMETER: **3**
SCREEN INTERVAL: **20-30**
GEOLOGIC UNIT: **112CHCTC**
QUAD NUM: **214**
TOWNSHIP/SECTION/RANGE: **12S 020 10W**
LATITUDE: **29.994166670** LONGITUDE: **-93.405000000**

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MAP ID# 44 **Distance from Property: 0.25 mi. (1,320 ft.) E**

ID NUMBER: **295816093233501**
LOCAL WELL: **5772Z**
PARISH NUM: **023**
OWNER NAME: **U S DEPT ENERGY**
WELL USE: **MONITOR**
USE DESCRIPTION: **PLUGGED AND ABANDONED MONITOR**
DRILLER NAME: **LAYNE (ENV)**
WELL STATUS: **PLUGGED AND ABANDONDED**
WELL DEPTH: **20**
WATER LEVEL: **10.50**
YIELD: **NOT REPORTED**
HOLE DEPTH: **25**
ELEVATION: **7**
PLUGGED BY: **LAYNE (ENV)**
DATE PLUGGED: **11/96**
DATE COMPLETED: **04/96**
DRAWDOWN: **NOT REPORTED**
CASING DIAMETER: **2**
CASING MATERIAL: **PLASTIC**
SCREEN DIAMETER: **2**
SCREEN INTERVAL: **8-18**
GEOLOGIC UNIT: **112CHCTC**
QUAD NUM: **214A**
TOWNSHIP/SECTION/RANGE: **12S 033 10W**
LATITUDE: **29.971111110** LONGITUDE: **-93.393055560**

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MAP ID# 45 **Distance from Property: 0.25 mi. (1,320 ft.) NE**

ID NUMBER: **295956093235201**
LOCAL WELL: **5001Z**
PARISH NUM: **023**
OWNER NAME: **DOMINION GAS**
WELL USE: **OTHER**
USE DESCRIPTION: **PLUGGED AND ABANDONED**
DRILLER NAME: **LAYNE (LA)**
WELL STATUS: **PLUGGED AND ABANDONDED**
WELL DEPTH: **476**
WATER LEVEL: **0.00**
YIELD: **NOT REPORTED**
HOLE DEPTH: **476**
ELEVATION: **NOT REPORTED**
PLUGGED BY: **WATER RESOURCES**
DATE PLUGGED: **12/75**
DATE COMPLETED: **05/46**
DRAWDOWN: **NOT REPORTED**
CASING DIAMETER: **NOT REPORTED**
CASING MATERIAL: **NOT REPORTED**
SCREEN DIAMETER: **NOT REPORTED**
SCREEN INTERVAL: **NOT REPORTED**
GEOLOGIC UNIT: **11205LC**
QUAD NUM: **NOT REPORTED**
TOWNSHIP/SECTION/RANGE: **12S 021 10W**
LATITUDE: **29.998888890** LONGITUDE: **-93.397777780**

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MAP ID# 46 **Distance from Property: 0.27 mi. (1,426 ft.) NE**

ID NUMBER: **295826093234401**
LOCAL WELL: **5856Z**
PARISH NUM: **023**
OWNER NAME: **BROWN, KENNY**
WELL USE: **DOMESTIC**
USE DESCRIPTION: **DOMESTIC**
DRILLER NAME: **J & R**
WELL STATUS: **ACTIVE**
WELL DEPTH: **325**
WATER LEVEL: **38.00**
YIELD: **NOT REPORTED**
HOLE DEPTH: **325**
ELEVATION: **7**
PLUGGED BY: **NOT REPORTED**
DATE PLUGGED: **NOT REPORTED**
DATE COMPLETED: **12/98**
DRAWDOWN: **NOT REPORTED**
CASING DIAMETER: **2**
CASING MATERIAL: **PLASTIC**
SCREEN DIAMETER: **2**
SCREEN INTERVAL: **320-325**
GEOLOGIC UNIT: **11202LC**
QUAD NUM: **214A**
TOWNSHIP/SECTION/RANGE: **12S 033 10W**
LATITUDE: **29.973888890** LONGITUDE: **-93.395555560**

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MAP ID# 47 **Distance from Property: 0.29 mi. (1,531 ft.) E**

ID NUMBER: **295856093234601**
LOCAL WELL: **7147Z**
PARISH NUM: **023**
OWNER NAME: **DAVID V CURRIE**
WELL USE: **MONITOR**
USE DESCRIPTION: **MONITOR**
DRILLER NAME: **ICON ENVIRONMENTAL SERVICES, INC**
WELL STATUS: **NOT REPORTED**
WELL DEPTH: **35**
WATER LEVEL: **.2**
YIELD: **NOT REPORTED**
HOLE DEPTH: **35**
ELEVATION: **0004**
PLUGGED BY: **NOT REPORTED**
DATE PLUGGED: **NOT REPORTED**
DATE COMPLETED: **01/22/2015**
DRAWDOWN: **NOT REPORTED**
CASING DIAMETER: **.75**
CASING MATERIAL: **PLASTIC**
SCREEN DIAMETER: **.75**
SCREEN INTERVAL: **NOT REPORTED**
GEOLOGIC UNIT: **112CHCTC**
QUAD NUM: **214A**
TOWNSHIP/SECTION/RANGE: **12S 028 10W**
LATITUDE: **29.982222220** LONGITUDE: **-93.396111110**

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MAP ID# 47 **Distance from Property: 0.29 mi. (1,531 ft.) E**

ID NUMBER: **295857093234601**
LOCAL WELL: **7146Z**
PARISH NUM: **023**
OWNER NAME: **DAVID V CURRIE**
WELL USE: **MONITOR**
USE DESCRIPTION: **MONITOR**
DRILLER NAME: **ICON ENVIRONMENTAL SERVICES, INC**
WELL STATUS: **NOT REPORTED**
WELL DEPTH: **35**
WATER LEVEL: **.69**
YIELD: **NOT REPORTED**
HOLE DEPTH: **35**
ELEVATION: **0004**
PLUGGED BY: **NOT REPORTED**
DATE PLUGGED: **NOT REPORTED**
DATE COMPLETED: **01/21/2015**
DRAWDOWN: **NOT REPORTED**
CASING DIAMETER: **.75**
CASING MATERIAL: **PLASTIC**
SCREEN DIAMETER: **.75**
SCREEN INTERVAL: **NOT REPORTED**
GEOLOGIC UNIT: **112CHCTC**
QUAD NUM: **214A**
TOWNSHIP/SECTION/RANGE: **12S 028 10W**
LATITUDE: **29.982500000** LONGITUDE: **-93.396111110**

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MAP ID# 48 **Distance from Property: 0.31 mi. (1,637 ft.) E**

ID NUMBER: **295907093234501**
LOCAL WELL: **7137Z**
PARISH NUM: **023**
OWNER NAME: **DAVID V CURRIE**
WELL USE: **MONITOR**
USE DESCRIPTION: **MONITOR**
DRILLER NAME: **ICON ENVIRONMENTAL SERVICES, INC**
WELL STATUS: **NOT REPORTED**
WELL DEPTH: **16**
WATER LEVEL: **3.62**
YIELD: **NOT REPORTED**
HOLE DEPTH: **48**
ELEVATION: **0004**
PLUGGED BY: **NOT REPORTED**
DATE PLUGGED: **NOT REPORTED**
DATE COMPLETED: **01/15/2015**
DRAWDOWN: **NOT REPORTED**
CASING DIAMETER: **.75**
CASING MATERIAL: **PLASTIC**
SCREEN DIAMETER: **.75**
SCREEN INTERVAL: **NOT REPORTED**
GEOLOGIC UNIT: **112CHCTC**
QUAD NUM: **214A**
TOWNSHIP/SECTION/RANGE: **12S 028 10W**
LATITUDE: **29.985277780** LONGITUDE: **-93.395833330**

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MAP ID# 48 **Distance from Property: 0.31 mi. (1,637 ft.) E**

ID NUMBER: **295907093234501**
LOCAL WELL: **7137Z**
PARISH NUM: **023**
OWNER NAME: **DAVID V CURRIE**
WELL USE: **MONITOR**
USE DESCRIPTION: **MONITOR**
DRILLER NAME: **ICON ENVIRONMENTAL SERVICES, INC**
WELL STATUS: **NOT REPORTED**
WELL DEPTH: **16**
WATER LEVEL: **3.62**
YIELD: **NOT REPORTED**
HOLE DEPTH: **48**
ELEVATION: **0004**
PLUGGED BY: **NOT REPORTED**
DATE PLUGGED: **NOT REPORTED**
DATE COMPLETED: **01/15/2015**
DRAWDOWN: **NOT REPORTED**
CASING DIAMETER: **.75**
CASING MATERIAL: **PLASTIC**
SCREEN DIAMETER: **.75**
SCREEN INTERVAL: **NOT REPORTED**
GEOLOGIC UNIT: **112CHCTC**
QUAD NUM: **214A**
TOWNSHIP/SECTION/RANGE: **12S 028 10W**
LATITUDE: **29.985277780** LONGITUDE: **-93.395833330**

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Louisiana Water Well Registry (WW)

MAP ID# 48 **Distance from Property: 0.31 mi. (1,637 ft.) E**

ID NUMBER: **295907093234501**
LOCAL WELL: **7137Z**
PARISH NUM: **023**
OWNER NAME: **DAVID V CURRIE**
WELL USE: **MONITOR**
USE DESCRIPTION: **MONITOR**
DRILLER NAME: **ICON ENVIRONMENTAL SERVICES, INC**
WELL STATUS: **NOT REPORTED**
WELL DEPTH: **16**
WATER LEVEL: **3.62**
YIELD: **NOT REPORTED**
HOLE DEPTH: **48**
ELEVATION: **0004**
PLUGGED BY: **NOT REPORTED**
DATE PLUGGED: **NOT REPORTED**
DATE COMPLETED: **01/15/2015**
DRAWDOWN: **NOT REPORTED**
CASING DIAMETER: **.75**
CASING MATERIAL: **PLASTIC**
SCREEN DIAMETER: **.75**
SCREEN INTERVAL: **NOT REPORTED**
GEOLOGIC UNIT: **112CHCTC**
QUAD NUM: **214A**
TOWNSHIP/SECTION/RANGE: **12S 028 10W**
LATITUDE: **29.985277780** LONGITUDE: **-93.395833330**

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MAP ID# 49 **Distance from Property: 0.31 mi. (1,637 ft.) NW**

ID NUMBER: **300003093241501**
LOCAL WELL: **5440Z**
PARISH NUM: **023**
OWNER NAME: **U S DEPT ENERGY**
WELL USE: **MONITOR**
USE DESCRIPTION: **MONITOR**
DRILLER NAME: **UNKNOWN**
WELL STATUS: **ACTIVE**
WELL DEPTH: **30**
WATER LEVEL: **8.90**
YIELD: **NOT REPORTED**
HOLE DEPTH: **30**
ELEVATION: **17**
PLUGGED BY: **NOT REPORTED**
DATE PLUGGED: **NOT REPORTED**
DATE COMPLETED: **04/81**
DRAWDOWN: **NOT REPORTED**
CASING DIAMETER: **4**
CASING MATERIAL: **PLASTIC**
SCREEN DIAMETER: **3**
SCREEN INTERVAL: **20-30**
GEOLOGIC UNIT: **112CHCTC**
QUAD NUM: **177**
TOWNSHIP/SECTION/RANGE: **12S 020 10W**
LATITUDE: **30.000833330** LONGITUDE: **-93.404166670**

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MAP ID# 50 **Distance from Property: 0.33 mi. (1,742 ft.) E**

ID NUMBER: **295940093234301**
LOCAL WELL: **5813Z**
PARISH NUM: **023**
OWNER NAME: **WARREN PETRO**
WELL USE: **PIEZOMETER**
USE DESCRIPTION: **PIEZOMETER**
DRILLER NAME: **PROFESSIONAL-**
WELL STATUS: **ACTIVE**
WELL DEPTH: **15**
WATER LEVEL: **2.00**
YIELD: **NOT REPORTED**
HOLE DEPTH: **15**
ELEVATION: **9**
PLUGGED BY: **NOT REPORTED**
DATE PLUGGED: **NOT REPORTED**
DATE COMPLETED: **08/97**
DRAWDOWN: **NOT REPORTED**
CASING DIAMETER: **0.50**
CASING MATERIAL: **PLASTIC**
SCREEN DIAMETER: **1.50**
SCREEN INTERVAL: **12-15**
GEOLOGIC UNIT: **112CHCTC**
QUAD NUM: **214A**
TOWNSHIP/SECTION/RANGE: **12S 021 10W**
LATITUDE: **29.994444440** LONGITUDE: **-93.395277780**

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MAP ID# 50 **Distance from Property: 0.32 mi. (1,690 ft.) E**

ID NUMBER: **295940093234401**
LOCAL WELL: **5812Z**
PARISH NUM: **023**
OWNER NAME: **WARREN PETRO**
WELL USE: **PIEZOMETER**
USE DESCRIPTION: **PIEZOMETER**
DRILLER NAME: **PROFESSIONAL-**
WELL STATUS: **ACTIVE**
WELL DEPTH: **15**
WATER LEVEL: **2.00**
YIELD: **NOT REPORTED**
HOLE DEPTH: **15**
ELEVATION: **10**
PLUGGED BY: **NOT REPORTED**
DATE PLUGGED: **NOT REPORTED**
DATE COMPLETED: **08/97**
DRAWDOWN: **NOT REPORTED**
CASING DIAMETER: **0.50**
CASING MATERIAL: **PLASTIC**
SCREEN DIAMETER: **1.50**
SCREEN INTERVAL: **12-15**
GEOLOGIC UNIT: **112CHCTC**
QUAD NUM: **214A**
TOWNSHIP/SECTION/RANGE: **12S 021 10W**
LATITUDE: **29.994444440** LONGITUDE: **-93.395555560**

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MAP ID# 51 **Distance from Property: 0.32 mi. (1,690 ft.) E**

ID NUMBER: **295901093234401**
LOCAL WELL: **7142Z**
PARISH NUM: **023**
OWNER NAME: **DAVID V CURRIE**
WELL USE: **MONITOR**
USE DESCRIPTION: **MONITOR**
DRILLER NAME: **ICON ENVIRONMENTAL SERVICES, INC**
WELL STATUS: **NOT REPORTED**
WELL DEPTH: **18**
WATER LEVEL: **1.42**
YIELD: **NOT REPORTED**
HOLE DEPTH: **18**
ELEVATION: **0004**
PLUGGED BY: **NOT REPORTED**
DATE PLUGGED: **NOT REPORTED**
DATE COMPLETED: **01/21/2015**
DRAWDOWN: **NOT REPORTED**
CASING DIAMETER: **.75**
CASING MATERIAL: **PLASTIC**
SCREEN DIAMETER: **.75**
SCREEN INTERVAL: **NOT REPORTED**
GEOLOGIC UNIT: **112CHCTC**
QUAD NUM: **214A**
TOWNSHIP/SECTION/RANGE: **12S 028 10W**
LATITUDE: **29.983611110** LONGITUDE: **-93.395555560**

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MAP ID# 52 **Distance from Property: 0.33 mi. (1,742 ft.) NW**

ID NUMBER: **300002093242001**
LOCAL WELL: **5441Z**
PARISH NUM: **023**
OWNER NAME: **U S DEPT ENERGY**
WELL USE: **MONITOR**
USE DESCRIPTION: **MONITOR**
DRILLER NAME: **UNKNOWN**
WELL STATUS: **ACTIVE**
WELL DEPTH: **30**
WATER LEVEL: **8.30**
YIELD: **NOT REPORTED**
HOLE DEPTH: **30**
ELEVATION: **17**
PLUGGED BY: **NOT REPORTED**
DATE PLUGGED: **NOT REPORTED**
DATE COMPLETED: **04/81**
DRAWDOWN: **NOT REPORTED**
CASING DIAMETER: **4**
CASING MATERIAL: **PLASTIC**
SCREEN DIAMETER: **3**
SCREEN INTERVAL: **20-30**
GEOLOGIC UNIT: **112CHCTC**
QUAD NUM: **177**
TOWNSHIP/SECTION/RANGE: **12S 020 10W**
LATITUDE: **30.000555560** LONGITUDE: **-93.405555560**

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Louisiana Water Well Registry (WW)

MAP ID# 53 **Distance from Property: 0.34 mi. (1,795 ft.) W**

ID NUMBER: **295836093242301**
LOCAL WELL: **6407Z**
PARISH NUM: **023**
OWNER NAME: **TALBOT**
WELL USE: **MONITOR**
USE DESCRIPTION: **MONITOR**
DRILLER NAME: **ICON**
WELL STATUS: **ACTIVE**
WELL DEPTH: **26**
WATER LEVEL: **12.52**
YIELD: **NOT REPORTED**
HOLE DEPTH: **26**
ELEVATION: **4**
PLUGGED BY: **NOT REPORTED**
DATE PLUGGED: **NOT REPORTED**
DATE COMPLETED: **10/09**
DRAWDOWN: **NOT REPORTED**
CASING DIAMETER: **.75**
CASING MATERIAL: **PLASTIC**
SCREEN DIAMETER: **.75**
SCREEN INTERVAL: **16-26**
GEOLOGIC UNIT: **00000000**
QUAD NUM: **214A**
TOWNSHIP/SECTION/RANGE: **12S 033 10W**
LATITUDE: **29.976666670** LONGITUDE: **-93.406388890**

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MAP ID# 53 **Distance from Property: 0.34 mi. (1,795 ft.) W**

ID NUMBER: **295836093242300**
LOCAL WELL: **6406Z**
PARISH NUM: **023**
OWNER NAME: **TALBOT**
WELL USE: **MONITOR**
USE DESCRIPTION: **MONITOR**
DRILLER NAME: **ICON**
WELL STATUS: **ACTIVE**
WELL DEPTH: **49**
WATER LEVEL: **12.51**
YIELD: **NOT REPORTED**
HOLE DEPTH: **49**
ELEVATION: **4**
PLUGGED BY: **NOT REPORTED**
DATE PLUGGED: **NOT REPORTED**
DATE COMPLETED: **10/09**
DRAWDOWN: **NOT REPORTED**
CASING DIAMETER: **.75**
CASING MATERIAL: **PLASTIC**
SCREEN DIAMETER: **.75**
SCREEN INTERVAL: **39-49**
GEOLOGIC UNIT: **00000000**
QUAD NUM: **214A**
TOWNSHIP/SECTION/RANGE: **12S 033 10W**
LATITUDE: **29.976666670** LONGITUDE: **-93.406388890**

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Louisiana Water Well Registry (WW)

MAP ID# 54 **Distance from Property: 0.35 mi. (1,848 ft.) N**

ID NUMBER: **300006093240301**
LOCAL WELL: **5765Z**
PARISH NUM: **023**
OWNER NAME: **U S DEPT ENERGY**
WELL USE: **MONITOR**
USE DESCRIPTION: **PLUGGED AND ABANDONED MONITOR**
DRILLER NAME: **LAYNE (ENV)**
WELL STATUS: **PLUGGED AND ABANDONDED**
WELL DEPTH: **20**
WATER LEVEL: **10.00**
YIELD: **NOT REPORTED**
HOLE DEPTH: **20**
ELEVATION: **12**
PLUGGED BY: **LAYNE (ENV)**
DATE PLUGGED: **11/96**
DATE COMPLETED: **04/96**
DRAWDOWN: **NOT REPORTED**
CASING DIAMETER: **2**
CASING MATERIAL: **PLASTIC**
SCREEN DIAMETER: **2**
SCREEN INTERVAL: **8-18**
GEOLOGIC UNIT: **112CHCTC**
QUAD NUM: **177C**
TOWNSHIP/SECTION/RANGE: **12S 021 10W**
LATITUDE: **30.001666670** LONGITUDE: **-93.400833330**

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MAP ID# 55 **Distance from Property: 0.35 mi. (1,848 ft.) NE**

ID NUMBER: **295856093234201**
LOCAL WELL: **7144Z**
PARISH NUM: **023**
OWNER NAME: **DAVID V CURRIE**
WELL USE: **MONITOR**
USE DESCRIPTION: **MONITOR**
DRILLER NAME: **ICON ENVIRONMENTAL SERVICES, INC**
WELL STATUS: **NOT REPORTED**
WELL DEPTH: **15**
WATER LEVEL: **.1**
YIELD: **NOT REPORTED**
HOLE DEPTH: **15**
ELEVATION: **0004**
PLUGGED BY: **NOT REPORTED**
DATE PLUGGED: **NOT REPORTED**
DATE COMPLETED: **01/21/2015**
DRAWDOWN: **NOT REPORTED**
CASING DIAMETER: **.75**
CASING MATERIAL: **PLASTIC**
SCREEN DIAMETER: **.75**
SCREEN INTERVAL: **NOT REPORTED**
GEOLOGIC UNIT: **112CHCTC**
QUAD NUM: **214A**
TOWNSHIP/SECTION/RANGE: **12S 028 10W**
LATITUDE: **29.982222220** LONGITUDE: **-93.395000000**

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MAP ID# 56 **Distance from Property: 0.37 mi. (1,954 ft.) E**

ID NUMBER: **295900093234101**
LOCAL WELL: **7143Z**
PARISH NUM: **023**
OWNER NAME: **DAVID V CURRIE**
WELL USE: **MONITOR**
USE DESCRIPTION: **MONITOR**
DRILLER NAME: **ICON ENVIRONMENTAL SERVICES, INC**
WELL STATUS: **NOT REPORTED**
WELL DEPTH: **13**
WATER LEVEL: **.01**
YIELD: **NOT REPORTED**
HOLE DEPTH: **13**
ELEVATION: **0004**
PLUGGED BY: **NOT REPORTED**
DATE PLUGGED: **NOT REPORTED**
DATE COMPLETED: **01/15/2015**
DRAWDOWN: **NOT REPORTED**
CASING DIAMETER: **.75**
CASING MATERIAL: **PLASTIC**
SCREEN DIAMETER: **.75**
SCREEN INTERVAL: **NOT REPORTED**
GEOLOGIC UNIT: **112CHCTC**
QUAD NUM: **214A**
TOWNSHIP/SECTION/RANGE: **12S 028 10W**
LATITUDE: **29.983333330** LONGITUDE: **-93.394722220**

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MAP ID# 56 **Distance from Property: 0.37 mi. (1,954 ft.) E**

ID NUMBER: **295901093234101**
LOCAL WELL: **7158Z**
PARISH NUM: **023**
OWNER NAME: **DAVID V CURRIE**
WELL USE: **MONITOR**
USE DESCRIPTION: **MONITOR**
DRILLER NAME: **ICON ENVIRONMENTAL SERVICES, INC**
WELL STATUS: **NOT REPORTED**
WELL DEPTH: **15**
WATER LEVEL: **.1**
YIELD: **NOT REPORTED**
HOLE DEPTH: **28**
ELEVATION: **0004**
PLUGGED BY: **NOT REPORTED**
DATE PLUGGED: **NOT REPORTED**
DATE COMPLETED: **01/15/2015**
DRAWDOWN: **NOT REPORTED**
CASING DIAMETER: **.75**
CASING MATERIAL: **PLASTIC**
SCREEN DIAMETER: **.75**
SCREEN INTERVAL: **NOT REPORTED**
GEOLOGIC UNIT: **112CHCTC**
QUAD NUM: **214A**
TOWNSHIP/SECTION/RANGE: **12S 028 10W**
LATITUDE: **29.983611110** LONGITUDE: **-93.394722220**

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Louisiana Water Well Registry (WW)

MAP ID# 57 **Distance from Property: 0.37 mi. (1,954 ft.) E**

ID NUMBER: **295909093234101**
LOCAL WELL: **7136Z**
PARISH NUM: **023**
OWNER NAME: **DAVID V CURRIE**
WELL USE: **MONITOR**
USE DESCRIPTION: **MONITOR**
DRILLER NAME: **ICON ENVIRONMENTAL SERVICES, INC**
WELL STATUS: **NOT REPORTED**
WELL DEPTH: **18**
WATER LEVEL: **3.59**
YIELD: **NOT REPORTED**
HOLE DEPTH: **44**
ELEVATION: **0004**
PLUGGED BY: **NOT REPORTED**
DATE PLUGGED: **NOT REPORTED**
DATE COMPLETED: **01/15/2015**
DRAWDOWN: **NOT REPORTED**
CASING DIAMETER: **.75**
CASING MATERIAL: **PLASTIC**
SCREEN DIAMETER: **.75**
SCREEN INTERVAL: **NOT REPORTED**
GEOLOGIC UNIT: **112CHCTC**
QUAD NUM: **214A**
TOWNSHIP/SECTION/RANGE: **12S 028 10W**
LATITUDE: **29.985833330** LONGITUDE: **-93.394722220**

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United States Geological Survey National Water Information System (NWIS)

MAP ID# 58 **Distance from Property: 0.37 mi. (1,954 ft.) E**

REPORTING AGENCY: **US GEOLOGICAL SURVEY**
SITE NUMBER: **295938093234001**
STATION NAME: **CN- 65**
SITE TYPE: **WELL**
LATITUDE: **29.994102040** LONGITUDE: **-93.394600600**
DATE DRILLED: **1958-01-22**
WELL DEPTH: **235 FEET**
HOLE DEPTH: **NOT REPORTED**
LOCAL AQUIFER: **200-FOOT SAND OF LAKE CHARLES AREA**

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MAP ID# 58 **Distance from Property: 0.38 mi. (2,006 ft.) E**

ID NUMBER: **295938093234001**
LOCAL WELL: **65**
PARISH NUM: **023**
OWNER NAME: **OXY USA**
WELL USE: **DOMESTIC**
USE DESCRIPTION: **PLUGGED AND ABANDONED DOMESTIC**
DRILLER NAME: **UNKNOWN**
WELL STATUS: **PLUGGED AND ABANDONDED**
WELL DEPTH: **235**
WATER LEVEL: **29.93**
YIELD: **NOT REPORTED**
HOLE DEPTH: **0**
ELEVATION: **NOT REPORTED**
PLUGGED BY: **LAYNE (MS)**
DATE PLUGGED: **09/91**
DATE COMPLETED: **04/57**
DRAWDOWN: **NOT REPORTED**
CASING DIAMETER: **4**
CASING MATERIAL: **NOT REPORTED**
SCREEN DIAMETER: **4**
SCREEN INTERVAL: **215-235**
GEOLOGIC UNIT: **11202LC**
QUAD NUM: **NOT REPORTED**
TOWNSHIP/SECTION/RANGE: **12S 021 10W**
LATITUDE: **29.993888890** LONGITUDE: **-93.394444440**

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MAP ID# 59 **Distance from Property: 0.38 mi. (2,006 ft.) SW**

ID NUMBER: **295936093242601**
LOCAL WELL: **5446Z**
PARISH NUM: **023**
OWNER NAME: **U S DEPT ENERGY**
WELL USE: **DOMESTIC**
USE DESCRIPTION: **PLUGGED AND ABANDONED DOMESTIC**
DRILLER NAME: **UNKNOWN**
WELL STATUS: **PLUGGED AND ABANDONDED**
WELL DEPTH: **172**
WATER LEVEL: **0.00**
YIELD: **NOT REPORTED**
HOLE DEPTH: **0**
ELEVATION: **14**
PLUGGED BY: **SOIL TESTING**
DATE PLUGGED: **07/88**
DATE COMPLETED: **NOT REPORTED**
DRAWDOWN: **NOT REPORTED**
CASING DIAMETER: **2**
CASING MATERIAL: **STEEL**
SCREEN DIAMETER: **NOT REPORTED**
SCREEN INTERVAL: **NOT REPORTED**
GEOLOGIC UNIT: **112CHCTS**
QUAD NUM: **214**
TOWNSHIP/SECTION/RANGE: **12S 029 10W**
LATITUDE: **29.993333330** LONGITUDE: **-93.407222220**

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United States Geological Survey National Water Information System (NWIS)

MAP ID# 60 **Distance from Property: 0.4 mi. (2,112 ft.) E**

REPORTING AGENCY: **US GEOLOGICAL SURVEY**
SITE NUMBER: **295938093233801**
STATION NAME: **CN- 64**
SITE TYPE: **WELL**
LATITUDE: **29.994102040** LONGITUDE: **-93.394045000**
DATE DRILLED: **1957-09-26**
WELL DEPTH: **505 FEET**
HOLE DEPTH: **512 FEET**
LOCAL AQUIFER: **200-FOOT SAND OF LAKE CHARLES AREA**

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MAP ID# 61 **Distance from Property: 0.41 mi. (2,165 ft.) E**

ID NUMBER: **295938093233801**
LOCAL WELL: **64**
PARISH NUM: **023**
OWNER NAME: **TRIDENT NGL**
WELL USE: **INDUSTRIAL**
USE DESCRIPTION: **PLUGGED AND ABANDONED INDUSTRIAL**
DRILLER NAME: **LAYNE (LA)**
WELL STATUS: **PLUGGED AND ABANDONDED**
WELL DEPTH: **504**
WATER LEVEL: **45.80**
YIELD: **NOT REPORTED**
HOLE DEPTH: **512**
ELEVATION: **NOT REPORTED**
PLUGGED BY: **LAYNE (MS)**
DATE PLUGGED: **03/92**
DATE COMPLETED: **03/57**
DRAWDOWN: **NOT REPORTED**
CASING DIAMETER: **10X4**
CASING MATERIAL: **STEEL**
SCREEN DIAMETER: **4**
SCREEN INTERVAL: **461-504**
GEOLOGIC UNIT: **11205LC**
QUAD NUM: **NOT REPORTED**
TOWNSHIP/SECTION/RANGE: **12S 021 10W**
LATITUDE: **29.993888890** LONGITUDE: **-93.393888890**

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MAP ID# 62 **Distance from Property: 0.41 mi. (2,165 ft.) E**

ID NUMBER: **295906093233901**
LOCAL WELL: **7133Z**
PARISH NUM: **023**
OWNER NAME: **DAVID V CURRIE**
WELL USE: **MONITOR**
USE DESCRIPTION: **MONITOR**
DRILLER NAME: **ICON ENVIRONMENTAL SERVICES, INC**
WELL STATUS: **NOT REPORTED**
WELL DEPTH: **18**
WATER LEVEL: **3.44**
YIELD: **NOT REPORTED**
HOLE DEPTH: **44**
ELEVATION: **0004**
PLUGGED BY: **NOT REPORTED**
DATE PLUGGED: **NOT REPORTED**
DATE COMPLETED: **01/15/2015**
DRAWDOWN: **NOT REPORTED**
CASING DIAMETER: **.75**
CASING MATERIAL: **PLASTIC**
SCREEN DIAMETER: **.75**
SCREEN INTERVAL: **NOT REPORTED**
GEOLOGIC UNIT: **112CHCTC**
QUAD NUM: **214A**
TOWNSHIP/SECTION/RANGE: **12S 028 10W**
LATITUDE: **29.985000000** LONGITUDE: **-93.394166670**

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United States Geological Survey National Water Information System (NWIS)

MAP ID# 63 **Distance from Property: 0.44 mi. (2,323 ft.) E**

REPORTING AGENCY: **US GEOLOGICAL SURVEY**
SITE NUMBER: **295938093233601**
STATION NAME: **CN- 66**
SITE TYPE: **WELL**
LATITUDE: **29.994102040** LONGITUDE: **-93.393489500**
DATE DRILLED: **1957-04-21**
WELL DEPTH: **503 FEET**
HOLE DEPTH: **506 FEET**
LOCAL AQUIFER: **200-FOOT SAND OF LAKE CHARLES AREA**

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MAP ID# 64 **Distance from Property: 0.42 mi. (2,218 ft.) E**

ID NUMBER: **295903093233801**
LOCAL WELL: **7140Z**
PARISH NUM: **023**
OWNER NAME: **DAVID V CURRIE**
WELL USE: **MONITOR**
USE DESCRIPTION: **MONITOR**
DRILLER NAME: **ICON ENVIRONMENTAL SERVICES, INC**
WELL STATUS: **NOT REPORTED**
WELL DEPTH: **14**
WATER LEVEL: **.1**
YIELD: **NOT REPORTED**
HOLE DEPTH: **14**
ELEVATION: **NOT REPORTED**
PLUGGED BY: **NOT REPORTED**
DATE PLUGGED: **NOT REPORTED**
DATE COMPLETED: **01/20/2015**
DRAWDOWN: **NOT REPORTED**
CASING DIAMETER: **.75**
CASING MATERIAL: **PLASTIC**
SCREEN DIAMETER: **.75**
SCREEN INTERVAL: **NOT REPORTED**
GEOLOGIC UNIT: **112CHCTC**
QUAD NUM: **NOT REPORTED**
TOWNSHIP/SECTION/RANGE: **NOT REPORTED NOT REPORTED NOT REPORTED**
LATITUDE: **29.984166670** LONGITUDE: **-93.393888890**

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MAP ID# 64 **Distance from Property: 0.41 mi. (2,165 ft.) E**

ID NUMBER: **295904093233901**
LOCAL WELL: **7139Z**
PARISH NUM: **023**
OWNER NAME: **DAVID V CURRIE**
WELL USE: **MONITOR**
USE DESCRIPTION: **MONITOR**
DRILLER NAME: **ICON ENVIRONMENTAL SERVICES, INC**
WELL STATUS: **NOT REPORTED**
WELL DEPTH: **19**
WATER LEVEL: **.09**
YIELD: **NOT REPORTED**
HOLE DEPTH: **19**
ELEVATION: **NOT REPORTED**
PLUGGED BY: **NOT REPORTED**
DATE PLUGGED: **NOT REPORTED**
DATE COMPLETED: **01/20/2015**
DRAWDOWN: **NOT REPORTED**
CASING DIAMETER: **.75**
CASING MATERIAL: **PLASTIC**
SCREEN DIAMETER: **.75**
SCREEN INTERVAL: **NOT REPORTED**
GEOLOGIC UNIT: **112CHCTC**
QUAD NUM: **NOT REPORTED**
TOWNSHIP/SECTION/RANGE: **NOT REPORTED NOT REPORTED NOT REPORTED**
LATITUDE: **29.984444440** LONGITUDE: **-93.394166670**

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MAP ID# 65 **Distance from Property: 0.42 mi. (2,218 ft.) E**

ID NUMBER: **295909093233801**
LOCAL WELL: **7134Z**
PARISH NUM: **023**
OWNER NAME: **DAVID V CURRIE**
WELL USE: **MONITOR**
USE DESCRIPTION: **MONITOR**
DRILLER NAME: **ICON ENVIRONMENTAL SERVICES, INC**
WELL STATUS: **NOT REPORTED**
WELL DEPTH: **18**
WATER LEVEL: **5.49**
YIELD: **NOT REPORTED**
HOLE DEPTH: **18**
ELEVATION: **0004**
PLUGGED BY: **NOT REPORTED**
DATE PLUGGED: **NOT REPORTED**
DATE COMPLETED: **01/15/2015**
DRAWDOWN: **NOT REPORTED**
CASING DIAMETER: **.75**
CASING MATERIAL: **PLASTIC**
SCREEN DIAMETER: **.75**
SCREEN INTERVAL: **NOT REPORTED**
GEOLOGIC UNIT: **112CHCTC**
QUAD NUM: **214A**
TOWNSHIP/SECTION/RANGE: **12S 028 10W**
LATITUDE: **29.985833330** LONGITUDE: **-93.393888890**

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MAP ID# 65 **Distance from Property: 0.42 mi. (2,218 ft.) E**

ID NUMBER: **295909093233801**
LOCAL WELL: **7134Z**
PARISH NUM: **023**
OWNER NAME: **DAVID V CURRIE**
WELL USE: **MONITOR**
USE DESCRIPTION: **MONITOR**
DRILLER NAME: **ICON ENVIRONMENTAL SERVICES, INC**
WELL STATUS: **NOT REPORTED**
WELL DEPTH: **18**
WATER LEVEL: **5.49**
YIELD: **NOT REPORTED**
HOLE DEPTH: **18**
ELEVATION: **0004**
PLUGGED BY: **NOT REPORTED**
DATE PLUGGED: **NOT REPORTED**
DATE COMPLETED: **01/15/2015**
DRAWDOWN: **NOT REPORTED**
CASING DIAMETER: **.75**
CASING MATERIAL: **PLASTIC**
SCREEN DIAMETER: **.75**
SCREEN INTERVAL: **NOT REPORTED**
GEOLOGIC UNIT: **112CHCTC**
QUAD NUM: **214A**
TOWNSHIP/SECTION/RANGE: **12S 028 10W**
LATITUDE: **29.985833330** LONGITUDE: **-93.393888890**

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MAP ID# 65 **Distance from Property: 0.42 mi. (2,218 ft.) E**

ID NUMBER: **295909093233801**
LOCAL WELL: **7134Z**
PARISH NUM: **023**
OWNER NAME: **DAVID V CURRIE**
WELL USE: **MONITOR**
USE DESCRIPTION: **MONITOR**
DRILLER NAME: **ICON ENVIRONMENTAL SERVICES, INC**
WELL STATUS: **NOT REPORTED**
WELL DEPTH: **18**
WATER LEVEL: **5.49**
YIELD: **NOT REPORTED**
HOLE DEPTH: **18**
ELEVATION: **0004**
PLUGGED BY: **NOT REPORTED**
DATE PLUGGED: **NOT REPORTED**
DATE COMPLETED: **01/15/2015**
DRAWDOWN: **NOT REPORTED**
CASING DIAMETER: **.75**
CASING MATERIAL: **PLASTIC**
SCREEN DIAMETER: **.75**
SCREEN INTERVAL: **NOT REPORTED**
GEOLOGIC UNIT: **112CHCTC**
QUAD NUM: **214A**
TOWNSHIP/SECTION/RANGE: **12S 028 10W**
LATITUDE: **29.985833330** LONGITUDE: **-93.393888890**

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MAP ID# 66 **Distance from Property: 0.42 mi. (2,218 ft.) W**

ID NUMBER: **295955093243201**
LOCAL WELL: **263**
PARISH NUM: **023**
OWNER NAME: **LA STORAGE, LLC**
WELL USE: **TEST HOLE**
USE DESCRIPTION: **TEST HOLE**
DRILLER NAME: **GRINER DRILLING SERVICE, INC.**
WELL STATUS: **NOT REPORTED**
WELL DEPTH: **807**
WATER LEVEL: **53**
YIELD: **147**
HOLE DEPTH: **1000**
ELEVATION: **0020**
PLUGGED BY: **NOT REPORTED**
DATE PLUGGED: **NOT REPORTED**
DATE COMPLETED: **08/12/2015**
DRAWDOWN: **107**
CASING DIAMETER: **6**
CASING MATERIAL: **STEEL**
SCREEN DIAMETER: **4**
SCREEN INTERVAL: **760-800**
GEOLOGIC UNIT: **11200NWM**
QUAD NUM: **214A**
TOWNSHIP/SECTION/RANGE: **12S 020 10W**
LATITUDE: **29.998611110** LONGITUDE: **-93.408888890**

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MAP ID# 67 **Distance from Property: 0.43 mi. (2,270 ft.) E**

ID NUMBER: **295847093233501**
LOCAL WELL: **6881Z**
PARISH NUM: **023**
OWNER NAME: **TALBOT, CARMOUCHE & MARCELLO**
WELL USE: **MONITOR**
USE DESCRIPTION: **MONITOR**
DRILLER NAME: **DEVONIAN GROUP, L.L.C.**
WELL STATUS: **ACTIVE**
WELL DEPTH: **14**
WATER LEVEL: **7.9**
YIELD: **NOT REPORTED**
HOLE DEPTH: **14**
ELEVATION: **0001**
PLUGGED BY: **NOT REPORTED**
DATE PLUGGED: **NOT REPORTED**
DATE COMPLETED: **07/20/2011**
DRAWDOWN: **NOT REPORTED**
CASING DIAMETER: **1**
CASING MATERIAL: **PLASTIC**
SCREEN DIAMETER: **1**
SCREEN INTERVAL: **NOT REPORTED**
GEOLOGIC UNIT: **112PRIR**
QUAD NUM: **214A**
TOWNSHIP/SECTION/RANGE: **12S 030 10W**
LATITUDE: **29.979722220** LONGITUDE: **-93.393055560**

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MAP ID# 68 **Distance from Property: 0.45 mi. (2,376 ft.) E**

ID NUMBER: **295938093233601**
LOCAL WELL: **66**
PARISH NUM: **023**
OWNER NAME: **TRIDENT NGL**
WELL USE: **INDUSTRIAL**
USE DESCRIPTION: **INDUSTRIAL**
DRILLER NAME: **LAYNE (LA)**
WELL STATUS: **ACTIVE**
WELL DEPTH: **503**
WATER LEVEL: **37.00**
YIELD: **2000**
HOLE DEPTH: **506**
ELEVATION: **9**
PLUGGED BY: **NOT REPORTED**
DATE PLUGGED: **NOT REPORTED**
DATE COMPLETED: **04/57**
DRAWDOWN: **21**
CASING DIAMETER: **22X10**
CASING MATERIAL: **NOT REPORTED**
SCREEN DIAMETER: **10**
SCREEN INTERVAL: **423-503**
GEOLOGIC UNIT: **11205LC**
QUAD NUM: **NOT REPORTED**
TOWNSHIP/SECTION/RANGE: **12S 021 10W**
LATITUDE: **29.993888890** LONGITUDE: **-93.393333330**

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MAP ID# 69 **Distance from Property: 0.44 mi. (2,323 ft.) N**

ID NUMBER: **300010093235601**
LOCAL WELL: **5766Z**
PARISH NUM: **023**
OWNER NAME: **U S DEPT ENERGY**
WELL USE: **MONITOR**
USE DESCRIPTION: **MONITOR**
DRILLER NAME: **LAYNE (ENV)**
WELL STATUS: **ACTIVE**
WELL DEPTH: **20**
WATER LEVEL: **6.00**
YIELD: **NOT REPORTED**
HOLE DEPTH: **20**
ELEVATION: **7**
PLUGGED BY: **NOT REPORTED**
DATE PLUGGED: **NOT REPORTED**
DATE COMPLETED: **04/96**
DRAWDOWN: **NOT REPORTED**
CASING DIAMETER: **2**
CASING MATERIAL: **PLASTIC**
SCREEN DIAMETER: **2**
SCREEN INTERVAL: **8-18**
GEOLOGIC UNIT: **112CHCTC**
QUAD NUM: **177C**
TOWNSHIP/SECTION/RANGE: **12S 021 10W**
LATITUDE: **30.002777780** LONGITUDE: **-93.398888890**

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MAP ID# 70 **Distance from Property: 0.45 mi. (2,376 ft.) W**

ID NUMBER: **295931093243001**
LOCAL WELL: **5445Z**
PARISH NUM: **023**
OWNER NAME: **U S DEPT ENERGY**
WELL USE: **DOMESTIC**
USE DESCRIPTION: **PLUGGED AND ABANDONED DOMESTIC**
DRILLER NAME: **UNKNOWN**
WELL STATUS: **PLUGGED AND ABANDONDED**
WELL DEPTH: **166**
WATER LEVEL: **0.00**
YIELD: **NOT REPORTED**
HOLE DEPTH: **0**
ELEVATION: **11**
PLUGGED BY: **SOIL TESTING**
DATE PLUGGED: **07/88**
DATE COMPLETED: **NOT REPORTED**
DRAWDOWN: **NOT REPORTED**
CASING DIAMETER: **2**
CASING MATERIAL: **STEEL**
SCREEN DIAMETER: **NOT REPORTED**
SCREEN INTERVAL: **NOT REPORTED**
GEOLOGIC UNIT: **112CHCTS**
QUAD NUM: **214**
TOWNSHIP/SECTION/RANGE: **12S 029 10W**
LATITUDE: **29.991944440** LONGITUDE: **-93.408333330**

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MAP ID# 71 **Distance from Property: 0.46 mi. (2,429 ft.) E**

ID NUMBER: **295940093233501**
LOCAL WELL: **5815Z**
PARISH NUM: **023**
OWNER NAME: **WARREN PETRO**
WELL USE: **PIEZOMETER**
USE DESCRIPTION: **PIEZOMETER**
DRILLER NAME: **PROFESSIONAL-**
WELL STATUS: **ACTIVE**
WELL DEPTH: **15**
WATER LEVEL: **2.00**
YIELD: **NOT REPORTED**
HOLE DEPTH: **15**
ELEVATION: **10**
PLUGGED BY: **NOT REPORTED**
DATE PLUGGED: **NOT REPORTED**
DATE COMPLETED: **08/97**
DRAWDOWN: **NOT REPORTED**
CASING DIAMETER: **0.50**
CASING MATERIAL: **PLASTIC**
SCREEN DIAMETER: **1.50**
SCREEN INTERVAL: **12-15**
GEOLOGIC UNIT: **112CHCTC**
QUAD NUM: **214A**
TOWNSHIP/SECTION/RANGE: **12S 021 10W**
LATITUDE: **29.994444440** LONGITUDE: **-93.393055560**

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MAP ID# 71 **Distance from Property: 0.45 mi. (2,376 ft.) E**

ID NUMBER: **295941093233601**
LOCAL WELL: **5814Z**
PARISH NUM: **023**
OWNER NAME: **WARREN PETRO**
WELL USE: **PIEZOMETER**
USE DESCRIPTION: **PIEZOMETER**
DRILLER NAME: **PROFESSIONAL-**
WELL STATUS: **ACTIVE**
WELL DEPTH: **15**
WATER LEVEL: **2.00**
YIELD: **NOT REPORTED**
HOLE DEPTH: **15**
ELEVATION: **11**
PLUGGED BY: **NOT REPORTED**
DATE PLUGGED: **NOT REPORTED**
DATE COMPLETED: **08/97**
DRAWDOWN: **NOT REPORTED**
CASING DIAMETER: **0.50**
CASING MATERIAL: **PLASTIC**
SCREEN DIAMETER: **1.50**
SCREEN INTERVAL: **12-15**
GEOLOGIC UNIT: **112CHCTC**
QUAD NUM: **214A**
TOWNSHIP/SECTION/RANGE: **12S 021 10W**
LATITUDE: **29.994722220** LONGITUDE: **-93.393333330**

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Louisiana Water Well Registry (WW)

MAP ID# 72 **Distance from Property: 0.46 mi. (2,429 ft.) NW**

ID NUMBER: **300008093242301**
LOCAL WELL: **5770Z**
PARISH NUM: **023**
OWNER NAME: **U S DEPT ENERGY**
WELL USE: **MONITOR**
USE DESCRIPTION: **MONITOR**
DRILLER NAME: **LAYNE (ENV)**
WELL STATUS: **ACTIVE**
WELL DEPTH: **18**
WATER LEVEL: **10.50**
YIELD: **NOT REPORTED**
HOLE DEPTH: **18**
ELEVATION: **17**
PLUGGED BY: **NOT REPORTED**
DATE PLUGGED: **NOT REPORTED**
DATE COMPLETED: **04/96**
DRAWDOWN: **NOT REPORTED**
CASING DIAMETER: **2**
CASING MATERIAL: **PLASTIC**
SCREEN DIAMETER: **2**
SCREEN INTERVAL: **6-16**
GEOLOGIC UNIT: **112CHCTC**
QUAD NUM: **177C**
TOWNSHIP/SECTION/RANGE: **12S 020 10W**
LATITUDE: **30.002222220** LONGITUDE: **-93.406388890**

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MAP ID# 73 **Distance from Property: 0.48 mi. (2,534 ft.) E**

ID NUMBER: **295837093233301**
LOCAL WELL: **5683Z**
PARISH NUM: **023**
OWNER NAME: **TRIDENT NGL**
WELL USE: **RIG SUPPLY**
USE DESCRIPTION: **PLUGGED AND ABANDONED RIG SUPPLY**
DRILLER NAME: **RIG WATER**
WELL STATUS: **PLUGGED AND ABANDONDED**
WELL DEPTH: **546**
WATER LEVEL: **55.00**
YIELD: **NOT REPORTED**
HOLE DEPTH: **560**
ELEVATION: **NOT REPORTED**
PLUGGED BY: **RIG WATER**
DATE PLUGGED: **12/93**
DATE COMPLETED: **10/93**
DRAWDOWN: **NOT REPORTED**
CASING DIAMETER: **4**
CASING MATERIAL: **PLASTIC**
SCREEN DIAMETER: **4**
SCREEN INTERVAL: **526-546**
GEOLOGIC UNIT: **11205LC**
QUAD NUM: **NOT REPORTED**
TOWNSHIP/SECTION/RANGE: **12S 033 10W**
LATITUDE: **29.976944440** LONGITUDE: **-93.392500000**

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MAP ID# 74 **Distance from Property: 0.5 mi. (2,640 ft.) SW**

ID NUMBER: **295934093243301**
LOCAL WELL: **5444Z**
PARISH NUM: **023**
OWNER NAME: **U S DEPT ENERGY**
WELL USE: **DOMESTIC**
USE DESCRIPTION: **PLUGGED AND ABANDONED DOMESTIC**
DRILLER NAME: **UNKNOWN**
WELL STATUS: **PLUGGED AND ABANDONDED**
WELL DEPTH: **32**
WATER LEVEL: **0.00**
YIELD: **NOT REPORTED**
HOLE DEPTH: **0**
ELEVATION: **15**
PLUGGED BY: **SOIL TESTING**
DATE PLUGGED: **07/88**
DATE COMPLETED: **NOT REPORTED**
DRAWDOWN: **NOT REPORTED**
CASING DIAMETER: **6**
CASING MATERIAL: **NOT REPORTED**
SCREEN DIAMETER: **NOT REPORTED**
SCREEN INTERVAL: **NOT REPORTED**
GEOLOGIC UNIT: **112CHCTC**
QUAD NUM: **214**
TOWNSHIP/SECTION/RANGE: **12S 029 10W**
LATITUDE: **29.992777780** LONGITUDE: **-93.409166670**

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NWIS United States Geological Survey National Water Information System

VERSION DATE: 05/14/15

This USGS National Water Information System database only includes groundwater wells. The USGS defines this well type as: A hole or shaft constructed in the earth intended to be used to locate, sample, or develop groundwater, oil, gas, or some other subsurface material. The diameter of a well is typically much smaller than the depth. Wells are also used to artificially recharge groundwater or to pressurize oil and gas production zones. Additional information about specific kinds of wells should be recorded under the secondary site types or the Use of Site field. Underground waste-disposal wells should be classified as waste-injection wells.

WW Louisiana Water Well Registry

VERSION DATE: 04/02/16

The Statewide Water Well Registration data file is maintained by the Louisiana Department of Natural Resources, Office of Conservation (DNR). This database includes wells registered with the Louisiana Department of Transportation and Development (DOTD), along with the Louisiana District of the United States Geological Survey, prior to March 1, 2010 and wells registered with the DNR after March 1, 2010. The information has been carefully prepared from the best available sources of data. It is intended for general informational purposes only and should not be considered authoritative for navigational, engineering, other site-specific uses, or any other uses. The DNR does not warrant or guarantee its accuracy, nor does DNR assume any responsibility or liability for any reliance thereon.