



Gulf Coast Sequestration, LLC (G1037)  
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 (713) 997-3145 | www.gcscarbon.com

## FIGURE C.1-1 Project Minerva Area of Review Reference Map

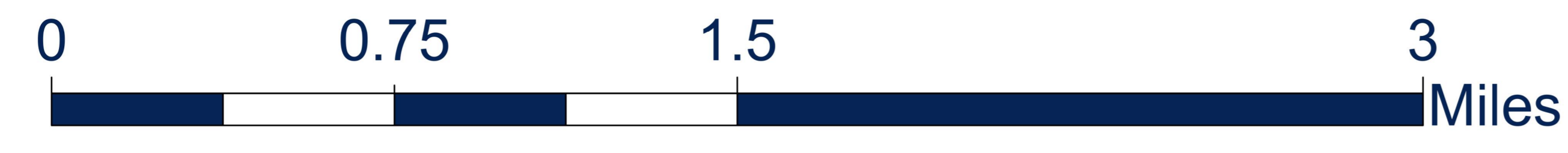
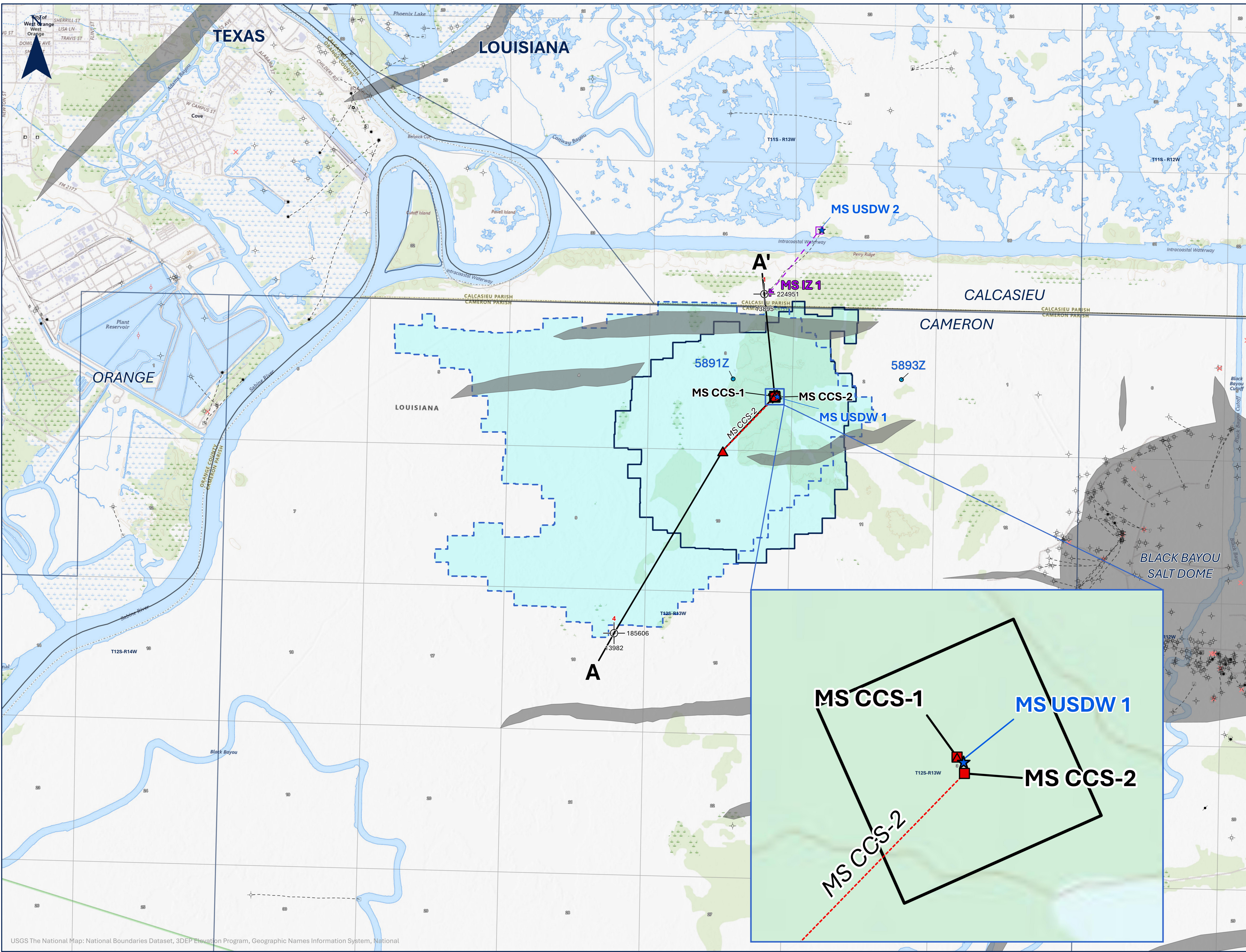
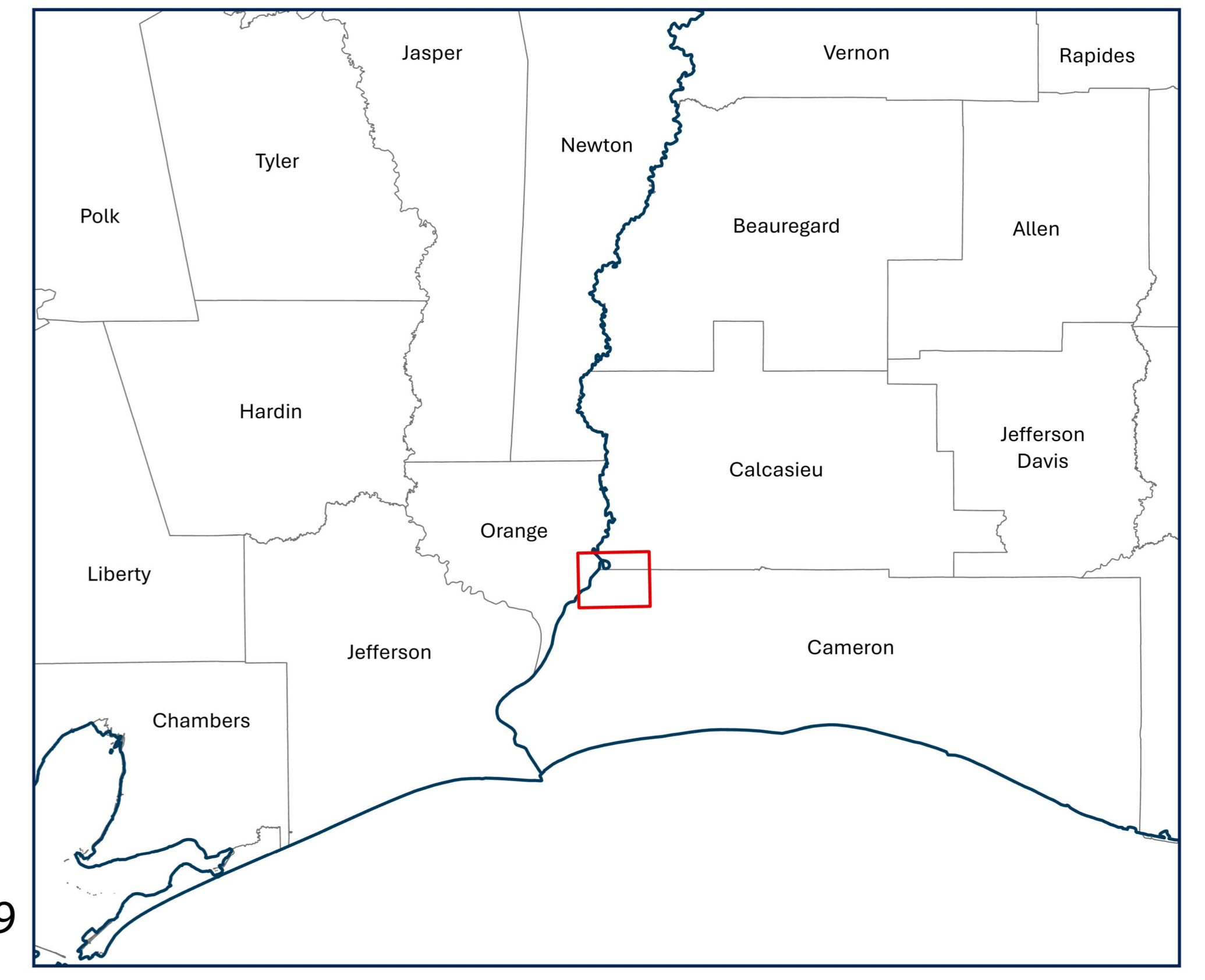
### MAP LEGEND

- ▲ Injection Well (Bottom Hole)
- Injection Well (Surface)
- - - Injection Well Trajectory (Proposed)
- A-A' Cross-Section Line
- Max Extent of Pressure Front
- Max Extent of Stable CO2 Plume
- Delineated Area of Review
- Top Upper Frio Faults
- Proposed Well Pad
- Parishes
- Townships & Ranges
- Sections
- + In-Zone Bottom Location
- In-Zone Surface Location
- ★ Above Confining Zone Monitoring Well (Vertical)
- - - In-Zone Well Trajectory
- Water Well Status: Active
- Well Status: Other
- ★ ACTIVE-PRODUCING
- DRILLED
- ✦ DRY & PLUGGED
- ✦ INACTIVE
- ★ ORPHAN
- ✕ PERMIT EXPIRED
- ✦ PLUGGED & ABANDONED
- ✦ REVERTED
- ★ SHUT\_IN
- ✦ TEMPORARILY ABANDONED
- ✦ UNABLE TO LOCATE
- Surface Location
- - - Well Trajectory

### Well Labels

- Map ID
- Serial Number
- Total Depth (TVDSS)

**Note:**  
 See Figure C.1-2 for Cross-Section  
 Associated with A-A' Line

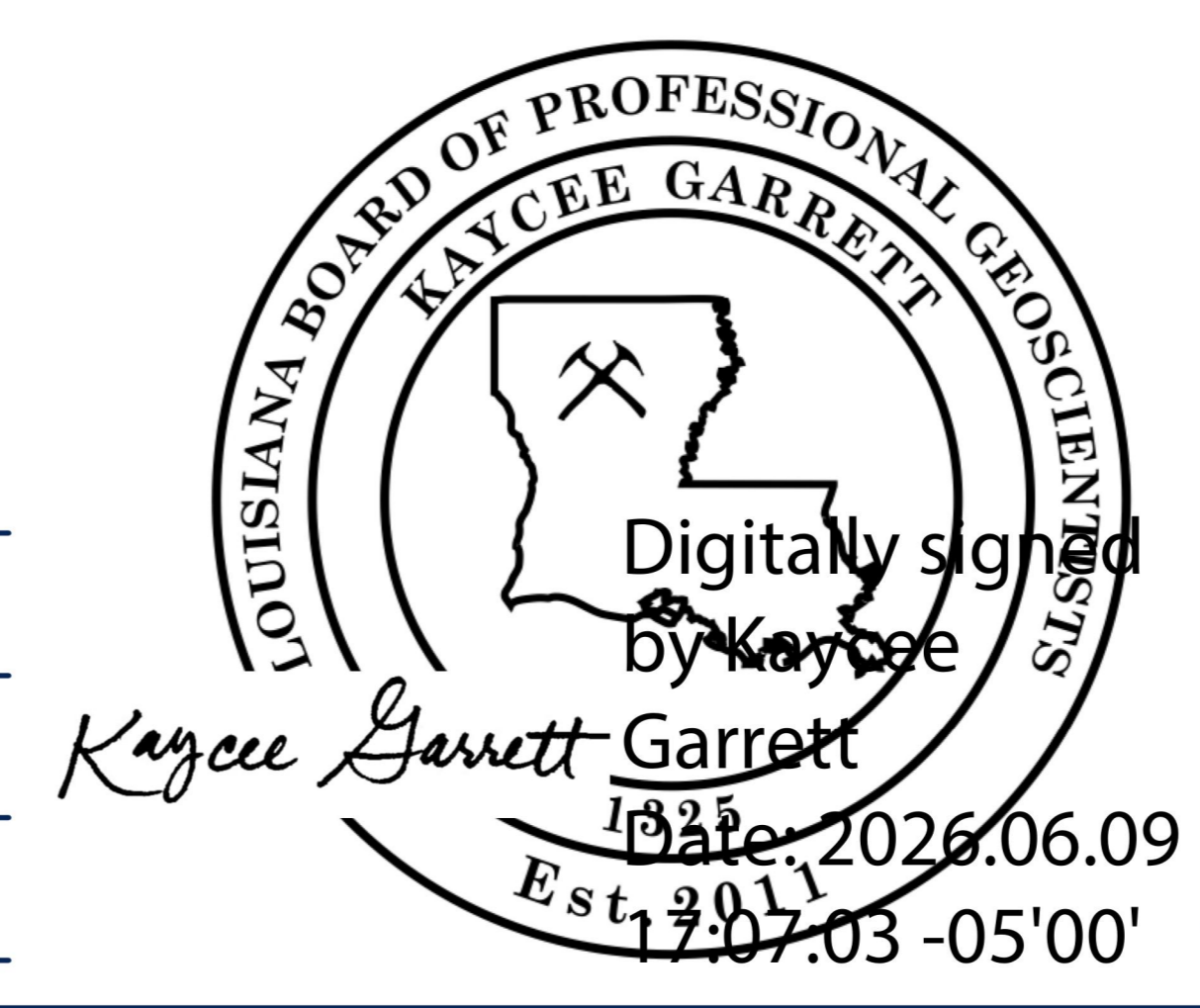


Culture Data Sources: Louisiana Department of Conservation and Energy (LDCE) Strategic Online Natural Resources Information System (SONRIS) and Cameron Parish Tax Assessors Office

MAP DETAILS			
PREPARED BY	R WENCEL	DATE	6/9/2026 3:12 PM
APPROVED BY	K GARRETT	DATE	06/09/2026
MAP SCALE	1:16,000	TOPO SCALE	1:24000
PAGE SIZE	A0 (46.81 W X 33.11 H)		

SPATIAL REFERENCE	
PCS	NAD 1927 State Plane Louisiana South (FIPS 1702)
GCS	GCS North American 1927
DATUM	North American 1927
PROJECTION	Lambert Conformal Conic

PROJECT MINERVA DETAILS	
WELLS	Minerva South CCS Well Nos. 001 and 002
LOCATION	Cameron Parish, Louisiana
EPA PROJECT ID	R06-LA-0002
LDENR APPL NOS	45031 & 45032





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## Delineated Area of Review



**A**

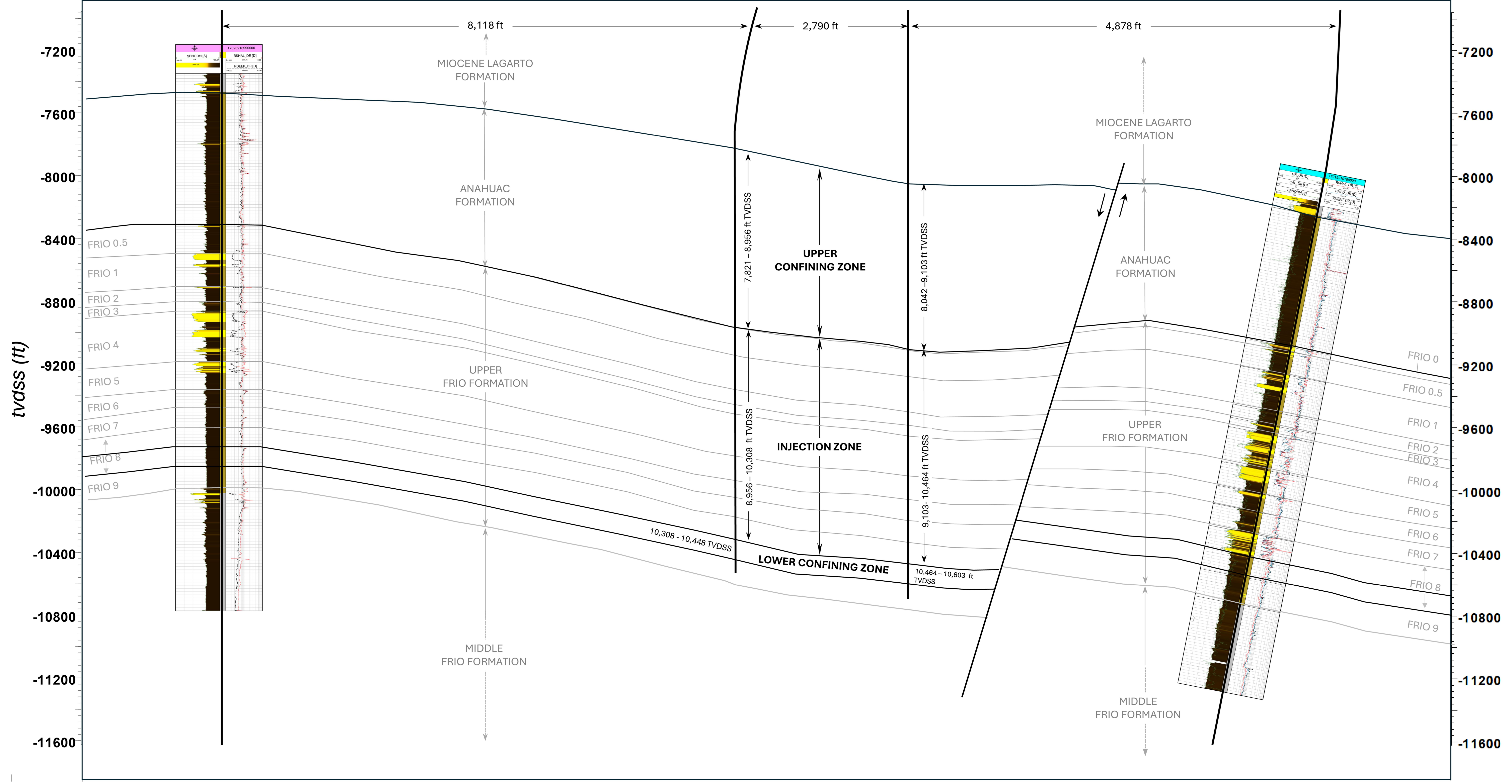
**A'**

**4**  
Cameron Parish School Board "E"  
Well No. 001, SN 185606  
API 170232189900  
Cameron Parish, Sec 016, T12S, R13W

**MS CCS 2**  
Minerva South CCS Well No. 2  
Cameron Parish, Sec 3, T12S, R13W

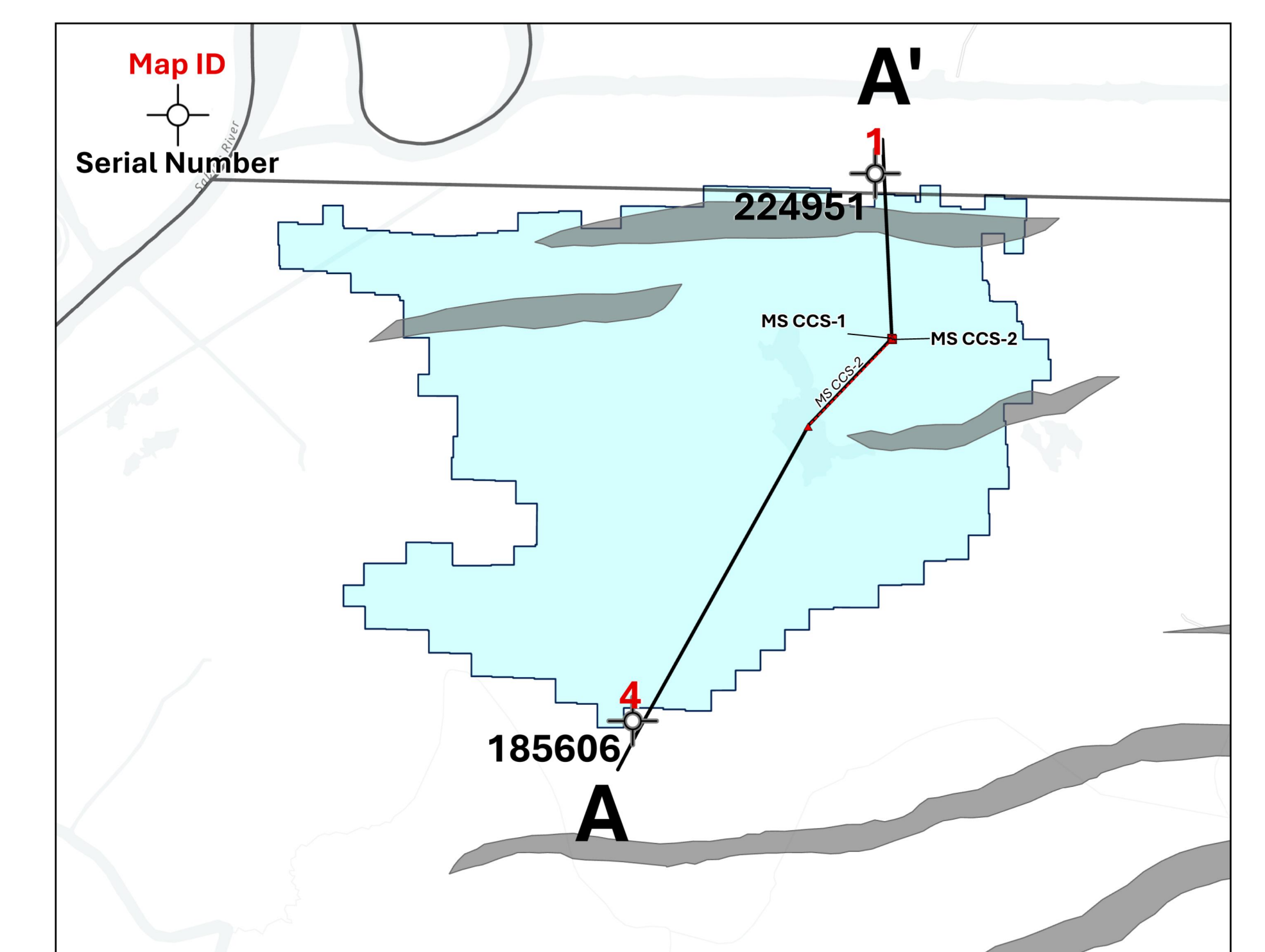
**MS CCS 1**  
Minerva South CCS Well No. 001  
Cameron Parish, Sec 3, T12S, R13W

**1**  
Stream 34 No. 001, SN 224951  
API 17019219190000  
Calcasieu Parish, Sec 35, T11S, R13W



**FIGURE C.1-2**  
**South-North (A-A') Regulatory**  
**Zones Type Section**

PROJECT MINERVA  
MINERVA SOUTH CCS WELL NOS. 001 & 002  
CAMERON PARISH, LA  
PROJECT ID: R06-LA-0002  
LDENR APPL NOS: 45031 & 45032



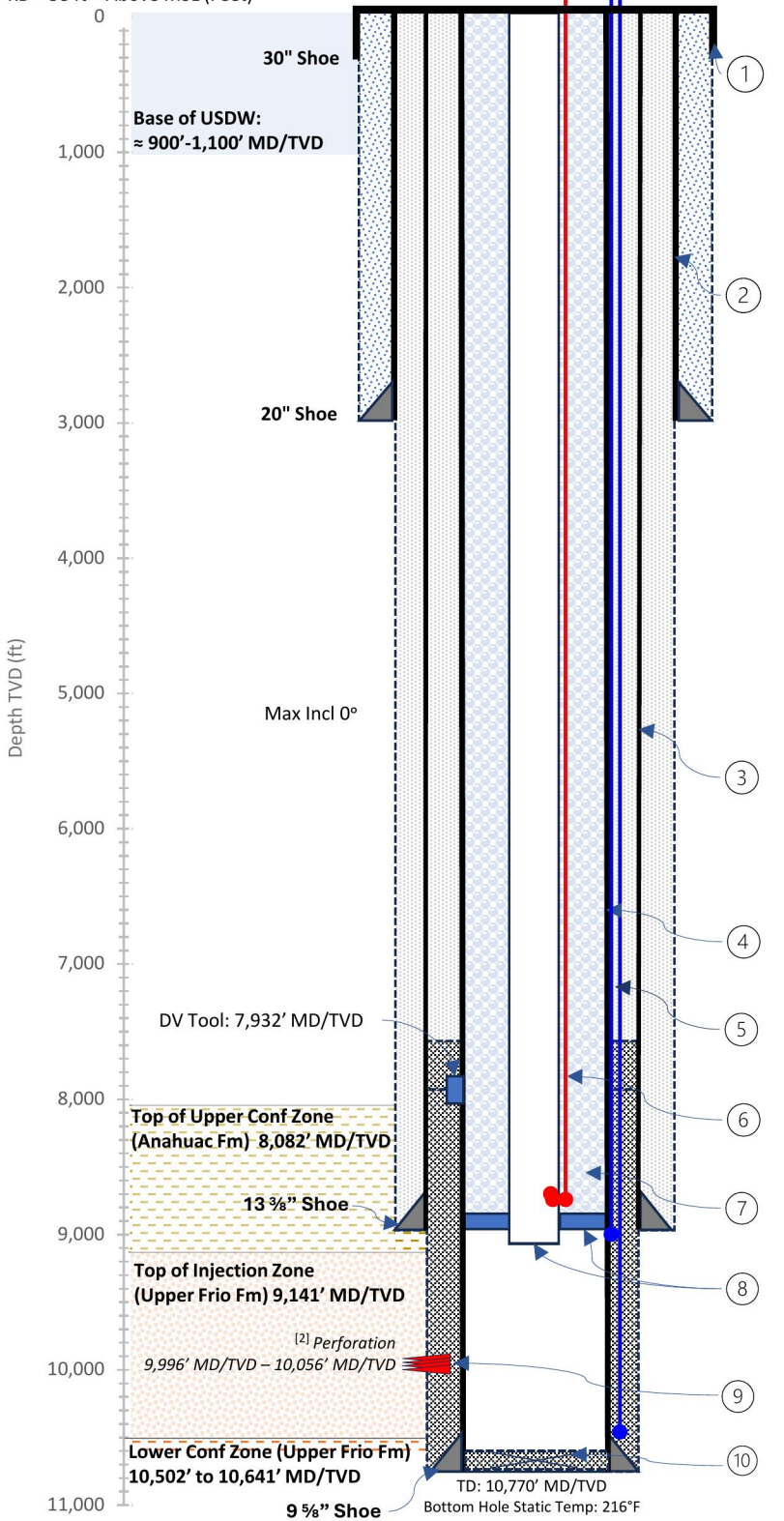
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DATE PREPARED	4/30/2026 10:15 AM
APPROVED BY	K GARRETT
DATE APPROVED	04/30/2026
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PAGE SIZE	54.33 W X 27.54 H



**Figure C.2-1 Proposed Wellbore Schematic for Minerva South CCS Well No. 001**

Referenced from KB

KB = 38 ft<sup>[1]</sup> Above MSL (Feet)



- 1. 30" Conductor Pipe:** 1.0" WT, 28" ID, 310.3 lb/ft, X56 Welded, plain-end, beveled conductor with drive shoe driven to refusal at 150' MD/TVD
- 2. 20" Surface Casing:** 133 lb/ft, L80, ER at 3,000' MD/TVD 26" Hole, expected MW 9.00 ppg  
Cemented with Type-1 cement up to the surface  
Lead slurry 11.80 ppg (2,616 sacks, 2.71 cuft/sack); Tail slurry 14.8 ppg (1,421 sacks, 1.33 cuft/sack)  
Assumed 100% excess volume.
- 3. 13 3/8" Intermediate Casing:** 13 3/8", 68 lb/ft, L80 BTC from section TD to surface. 17 1/2" Hole at 8,991' MD/TVD. Expected MW 10.00 ppg SBM. Cemented with Class H cement up to surface. Lead slurry 12.80 ppg (3,356 sacks; 2.10 cuft/sack); Tail slurry 14.8 ppg (1,433 sacks; 1.33 cuft/sack)  
Assumed 50% excess volume in open hole section.
- 4. 9 5/8" Injection Casing:** 9 5/8", 53.5 lb/ft, 25CRW-125 VAM-21, Prem Connection from 10,770' MD/TVD (Well TD) to 7,932' MD/TVD (150' above Top of Confining Zone) & 53.5 lb/ft, L80 VAM-21, Premium connection from 7,932' MD/TVD to surface. 12 1/4" Hole to 10,770' MD/TVD. Expected MW 13.50 ppg SBM.  
  
Cemented in two stages:  
Stage #1: Specialized CO<sub>2</sub> compatible cement slurry (PermaSet or equivalent) 14.8 ppg (1,013 sacks; 1.12 cuft/sack). Expected TOC at 7,932' MD/TVD. (DV tool). Assumed 20% excess.  
Stage #2: 14.3 ppg (2,055 sacks; 1.24 cuft/sack) Class H cement lead slurry + 14.8 ppg (100 sacks; 1.12 cuft/sack) specialized CO<sub>2</sub> compatible cement tail slurry (PermaSet or equivalent). Cement up to the surface. No volume excess is assumed.
- 5. DTS/DAS Fiber Optic Cable:** Downhole cable with a 150 °C temperature rating, 2 single-mode fiber acrylate clamped outside the 9 5/8" casing from surface to TD.  
Back-up fiber optic cable will be set up from surface to the depth of the 13 3/8" casing shoe.
- 6. TEC (Electrical Line):** Downhole cable attached outside of the tubing, with pressure/temperature gauge carriers. Downhole measurements in two locations – annulus and tubing; minimum pressure and temperature ratings of 10k psi and 150° C.
- 7. Annular Fluid:** 9.3 ppg CaCl<sub>2</sub> inhibited brine with corrosion control (98% MgO, magnesium oxide).
- 8. Tubing and Packer:** 4 1/2" Tubing, 15.1 lb/ft, 25CRW-125, VAM-21. End of tail at 9,100' MD/TVD; Removable Production packer at 9,050' MD/TVD; Tubing hanger at ground level.
- 9. Perforation Interval:** From 10,056' MD/TVD to 9,996' MD/TVD. Oriented perforation system.
- 10. Plug back TD:** From 10,770' MD/TVD (Shoe Depth) to 10,690' MD/TVD (Float Collar). Shoe Track

<sup>[1]</sup> Assumed KB height of 38' above MSL, value will be updated when rig is selected

<sup>[2]</sup> Exact perforation locations TBD.

**LEGEND**

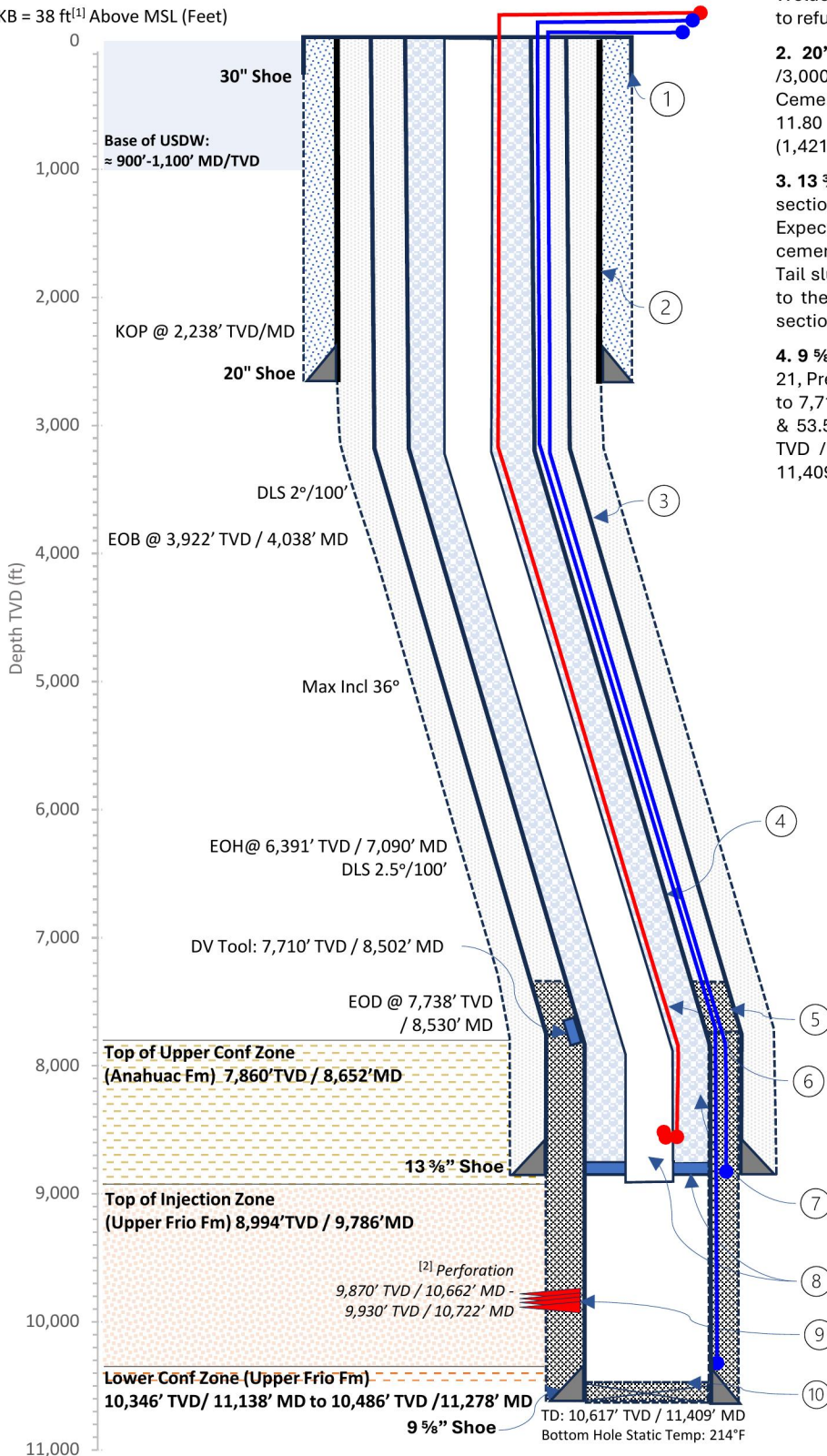
	USDW		Type 1 Cement
	Upper Confining Zone (Anahuac Fm)		Class H Cement with additives
	Injection Zone (Upper Frio Fm)		CO <sub>2</sub> compatible cement
	Lower Confining Zone (Upper Frio Fm)		CaCl <sub>2</sub> Inhibited Brine with Corrosion Control
			<sup>[2]</sup> Oriented Perforation System, included to avoid damage to fiber optic cable





**Figure C.2-2 Proposed Wellbore Schematic for Minerva South CCS Well No. 002**

Referenced from KB  
KB = 38 ft<sup>[1]</sup> Above MSL (Feet)



<sup>[1]</sup> Assumed KB height of 38' above MSL, value will be updated when rig is selected  
<sup>[2]</sup> Exact perforation locations TBD.

**LEGEND**

	USDW		Type 1 Cement
	Upper Confining Zone (Anahuac Fm)		Class H Cement with additives
	Injection Zone (Upper Frio Fm)		CO <sub>2</sub> compatible cement
	Lower Confining Zone (Upper Frio Fm)		CaCl <sub>2</sub> Inhibited Brine with Corrosion Control
			<sup>[2]</sup> Oriented Perforation System, included to avoid damage to fiber optic cable

**1. 30" Conductor Pipe:** 1.0" WT, 28" ID, 310.3 lb/ft, X56 Welded, plain-end, beveled conductor with drive shoe driven to refusal at 150' MD/TVD.

**2. 20" Surface Casing:** 133 lb/ft, L80, ER at 2,991' TVD / 3,000' MD. 26" Hole, expected MW 9.00 ppg. Cemented with Type-1 cement up to the surface. Lead slurry 11.80 ppg (2,616 sacks; 2.71 cuft/sack); Tail slurry 14.8 ppg (1,421 sacks; 1.33 cuft/sack). Assumed 100% volume excess.

**3. 13 3/8" Intermediate Casing:** 13 3/8", 68 lb/ft, L80 BTC from section TD to surface. 17 1/2" Hole at 8,844' TVD / 9,636' MD. Expected MW 10.00 ppg SBM. Cemented with Class H cement. Lead slurry 12.80 ppg (3,609 sacks; 2.10 cuft/sack) + Tail slurry 14.8 ppg (1,538 sacks; 1.33 cuft/sack). Cement up to the surface. Assumed 50% excess volume in open hole section.

**4. 9 5/8" Injection Casing:** 9 5/8", 53.5 lb/ft, 25CRW-125 VAM-21, Prem Connection from 10,617' TVD / 11,409' MD (Well TD) to 7,710' TVD / 8,502' MD (150' above Top of Confining Zone) & 53.5 lb/ft, L80 VAM-21, Premium connection from 7,710' TVD / 8,502' MD to surface. 12 1/4" Hole to 10,617' TVD / 11,409' MD. Expected MW 13.50 ppg SBM.

Cemented in two stages:

Stage #1: Specialized CO<sub>2</sub> compatible cement slurry (PermaSet or equivalent) 14.8 ppg (1,029 sacks; 1.12 cuft/sack). Expected TOC at 7,710' TVD / 8,502' MD. (DV tool). Assumed 20% excess volume in open hole section.

Stage #2: 14.3 ppg (2,209 sacks; 1.24 cuft/sack) Class H cement lead slurry + 14.8 ppg (100 sacks; 1.12 cuft/sack) specialized CO<sub>2</sub> compatible cement tail slurry (PermaSet or equivalent). Cement up to the surface. No excess volume was considered.

**5. DTS/DAS Fiber Optic Cable:** Downhole cable with a 150 °C temperature rating, 2 single-mode fiber acrylate clamped outside the 9 5/8" casing from surface to TD.

Back-up fiber optic cable will be set up from surface to the depth of the 13 3/8" casing shoe.

**6. TEC (Electrical Cables):** Downhole cable attached outside of the tubing, with pressure/temperature gauge carriers. Downhole measurements in two locations – annulus and tubing; minimum pressure and temperature ratings of 10k psi and 150° C.

**7. Annular Fluid:** 9.3 ppg CaCl<sub>2</sub> inhibited brine with corrosion control (98% MgO, magnesium oxide).

**8. Tubing and Packer:** 4 1/2" Tubing, 15.1 lb/ft, 25CRW-125, VAM-21, End of tail at 8,938' TVD / 9,730' MD; Removable Production packer at 8,888' TVD / 9,680' MD; Tubing hanger at ground level.

**9. Perforation Interval:** From 9,870' TVD / 10,662' MD to 9,930' TVD / 10,722' MD. Oriented perforation system.

**10. Plug back TD:** From 11,409' MD / 10,617' TVD (Shoe Depth) to 11,329' MD / 10,537' TVD (Float Collar). Shoe Track

