Figure 1: Location of the Live Oak CCS Hub.

Claimed as PBI

[redacted]

Figure 2: Locations of proposed injection (e.g., LO-01 M), in-zone (e.g., IOB-01), above-zone (e.g., AOB-01) and lowermost USDW observation (e.g., UOB-01) wells, oil and gas wells in the AoR, water wells within the AoR and a half mile buffer (blue), and the project Area of Review (red). Location and detailed information for each water well is included in Figure 99 and Table 15.

Claimed as PBI

[redacted]

Figure 3: Infrastructure near proposed injection and observation wells.

Claimed as PBI

[redacted]

Figure 4. Surface water and conservation areas near proposed injection and observation wells.

Claimed as PBI

[redacted]

Figure 5: Mineral tracts near proposed injection and observation wells.

Claimed as PBI

[redacted]

Figure 6: Map of the AoR and 2-mile buffer, injection and observation wells, township, range, and section lines, and municipal boundaries. Each set of injection and observation wells includes facility boundaries of a 1-acre well pad and associated access roads.

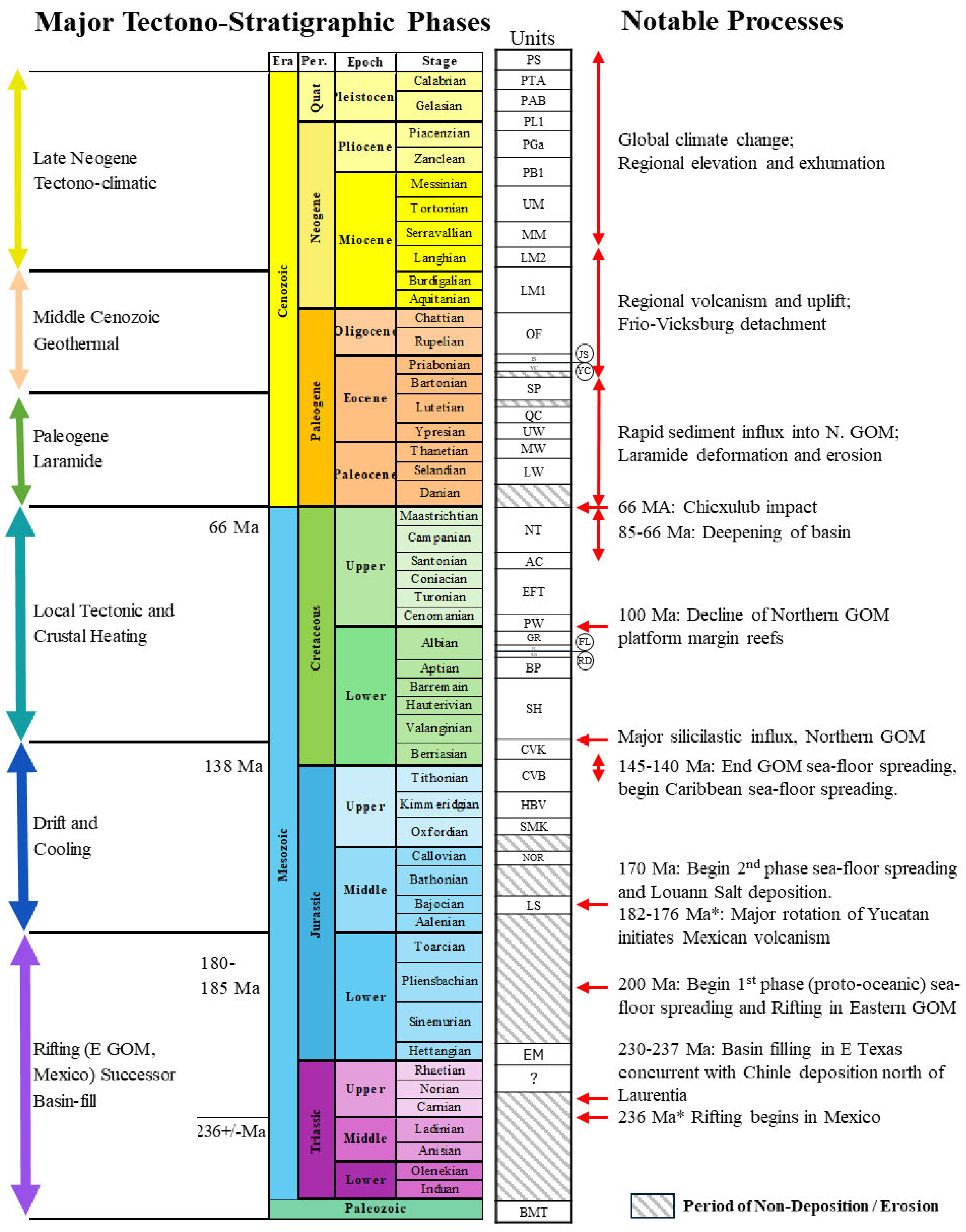


Figure 8: Major tectono-stratigraphic phases of the Gulf of Mexico basin and predecessors. AC = Austin Chalk; BMT = basement; BP = Bexar–Pine Island Shale; CVB = Cotton Valley–Bossier; CVK = Cotton Valley–Knowles; E = eastern; EFT = Eagle Ford–Tuscaloosa; EM = Eagle Mills; FL = Ferry Lake Anhydrite; GR = Glen Rose; HVB = Haynesville–Buckner; JS = Jackson–Yazoo; LM1 = lower Miocene 1; LM2 = lower Miocene 2; LS = Louann Salt; LW = lower Wilcox; MM = middle Miocene; MW = middle Wilcox; N. = northern; NOR = Norphlet; NT = Navarro–Taylor; OF = Frio Vicksburg; PAB = Pleistocene- Angulogerina B; PB1 = Miocene–Pliocene-Buliminella 1; PGa = Pliocene Globigerina altespira; PL1 = Pliocene–Pleistocene-Lenticulina 1; PS = Pleistocene; PTA = Pleistocene Trimosina A; PW = Paluxy–Washita; QC = Queen City; Quat = Quaternary; RD = Rodessa; SH = Sligo–Hosston; SMK = Smackover; SN = Smackover–Norphlet; SP = Sparta; UM = upper Miocene; UW = upper Wilcox; YC = Yegua–Cockfield. (Figure from Snedden and Galloway, 2019). *Lawton et al., (2018); Barboza-Gudina et al., (2016); Umbarger 2018; LV Ray well palynology analysis.

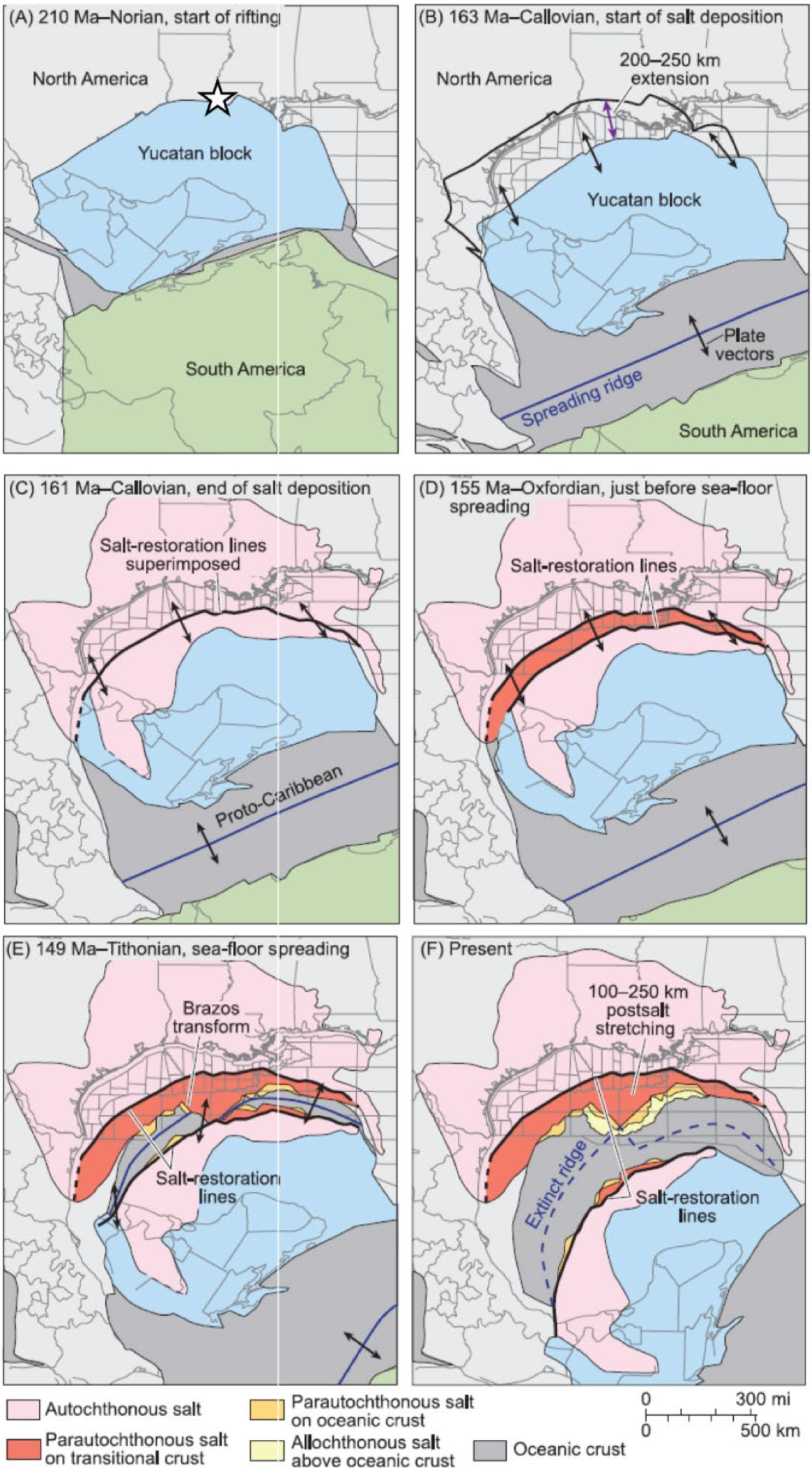


Figure 10: Sequential plate restoration of rifting, salt deposition, and seafloor spreading in the Gulf of Mexico. The approximate location of the AoR is marked with a star. (Figure from Hudec et al., 2013b)

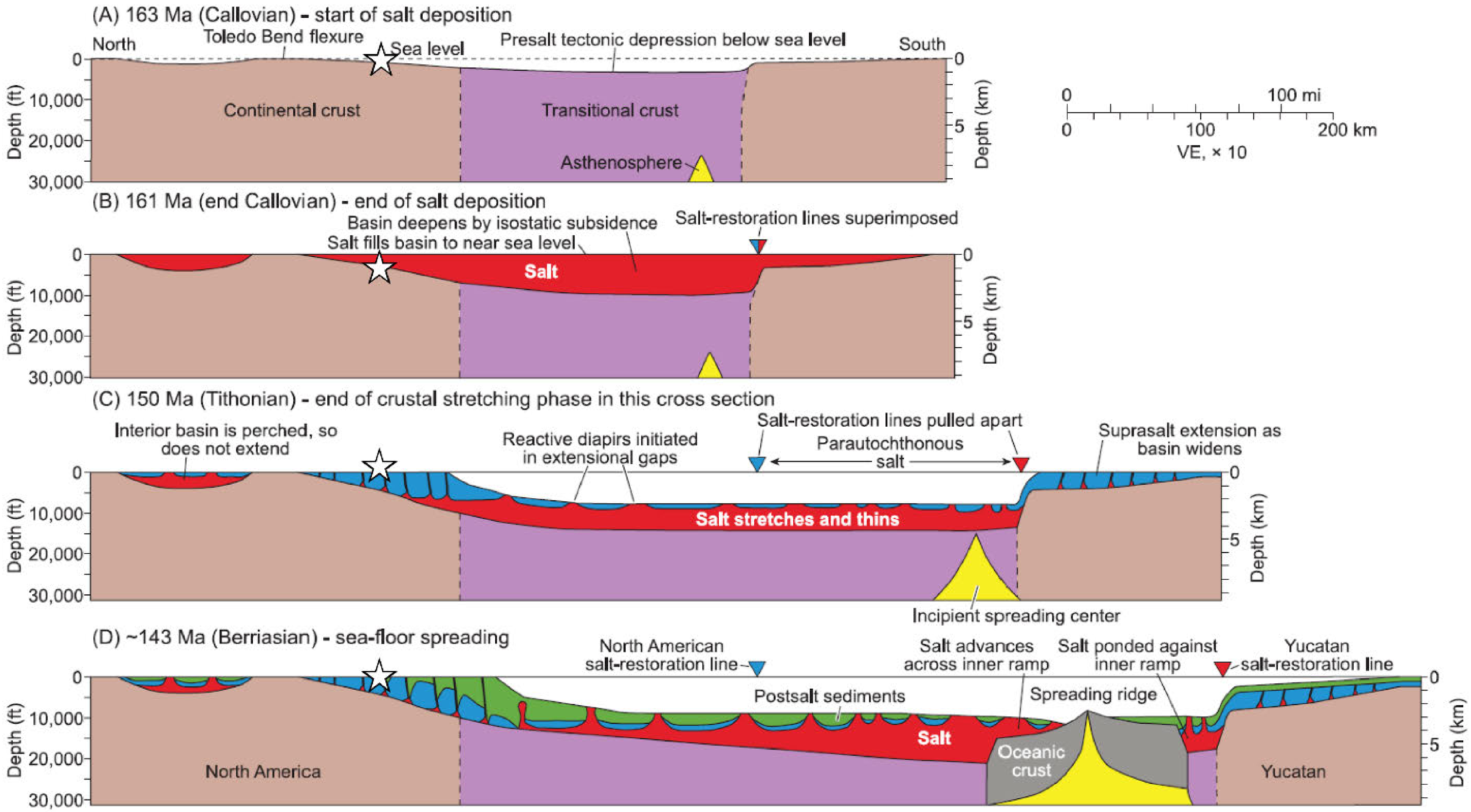


Figure 11: Schematic section restoration of basin evolution, emphasizing salt and its overburden. Internal structures in the crust are not shown. Line of section passes through the Walker Ridge salient, where seafloor spreading began relatively late. The approximate location of the AoR is marked with a star. VE = vertical exaggeration. (Figure from Hudec et al. 2013b)

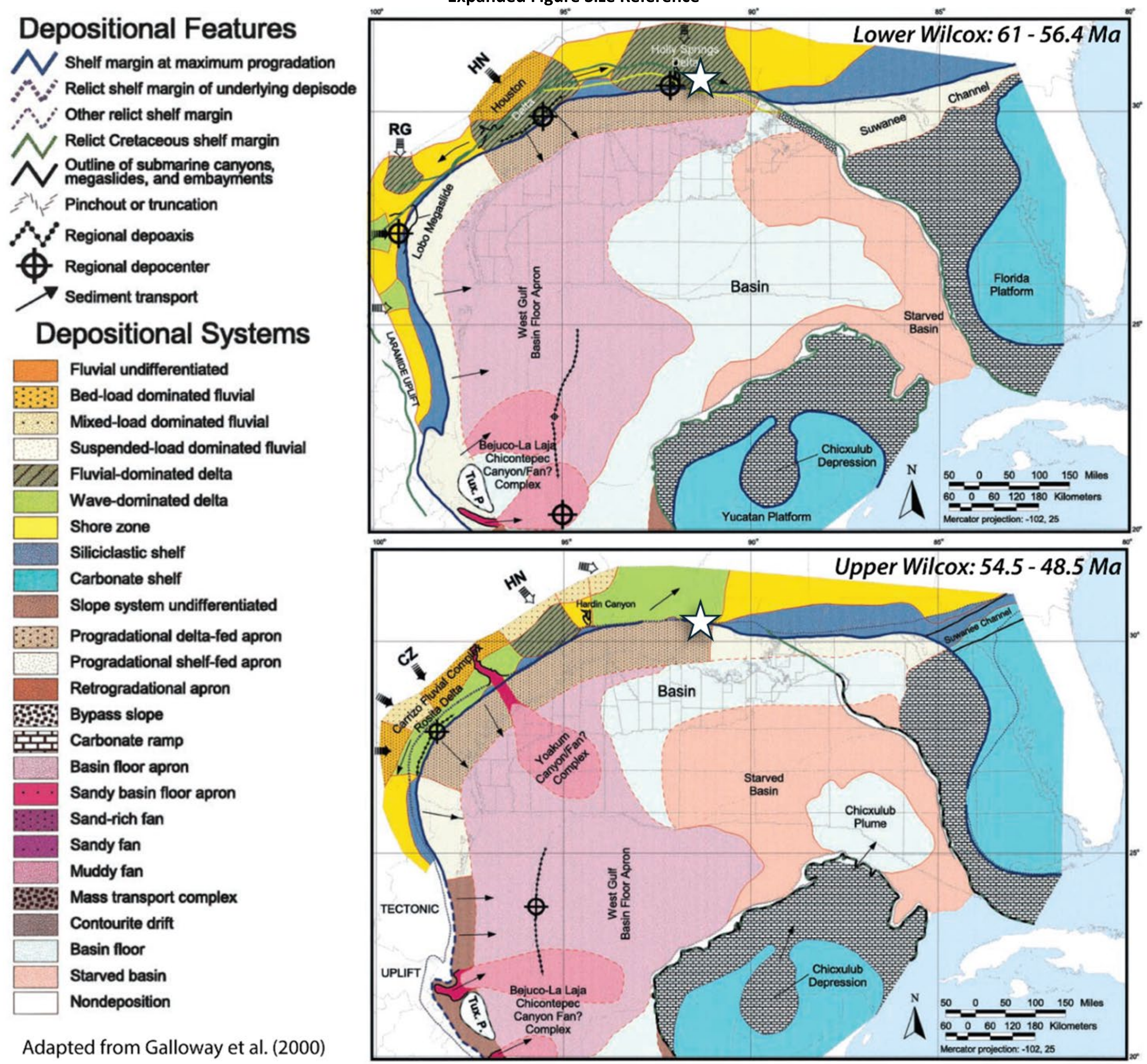


Figure 12: Paleogeography of the Lower Wilcox (LW-B, 61–56.4 Ma) (top) and the Upper Wilcox (UW-C, 48.5–54.5 Ma) (bottom) depisodes. The approximate location of the AoR is marked with a star. (Figure adapted from Galloway et al., 2000)

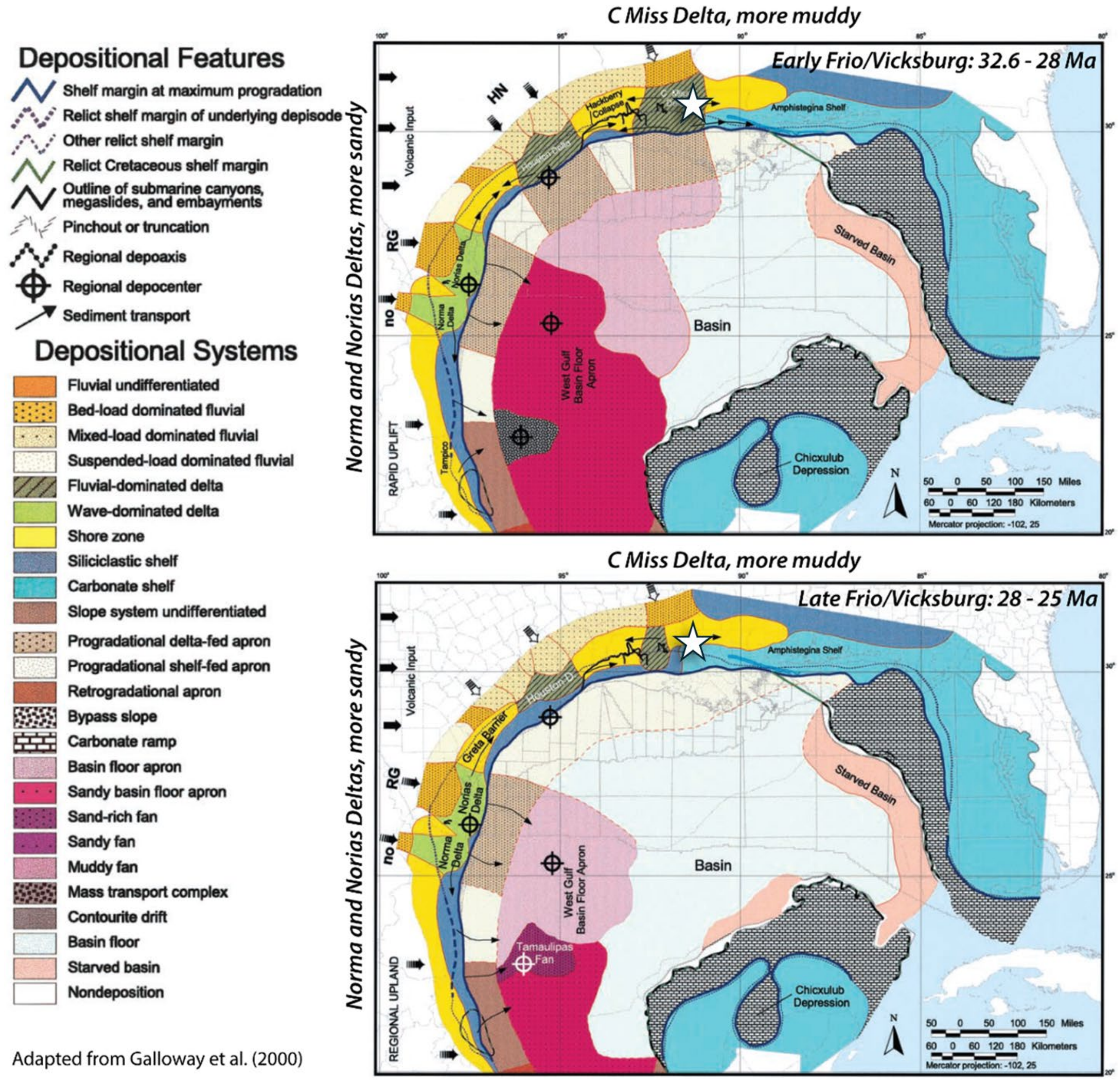


Figure 13: Paleogeography of the early Frio/Vicksburg (OF-E, 32.6–28 Ma) (top) and the late Frio/Vicksburg (OF-F, 28–25 Ma) (bottom) depisodes. The approximate location of the AoR is marked with a star. (Figure adapted from Galloway et al., 2000)

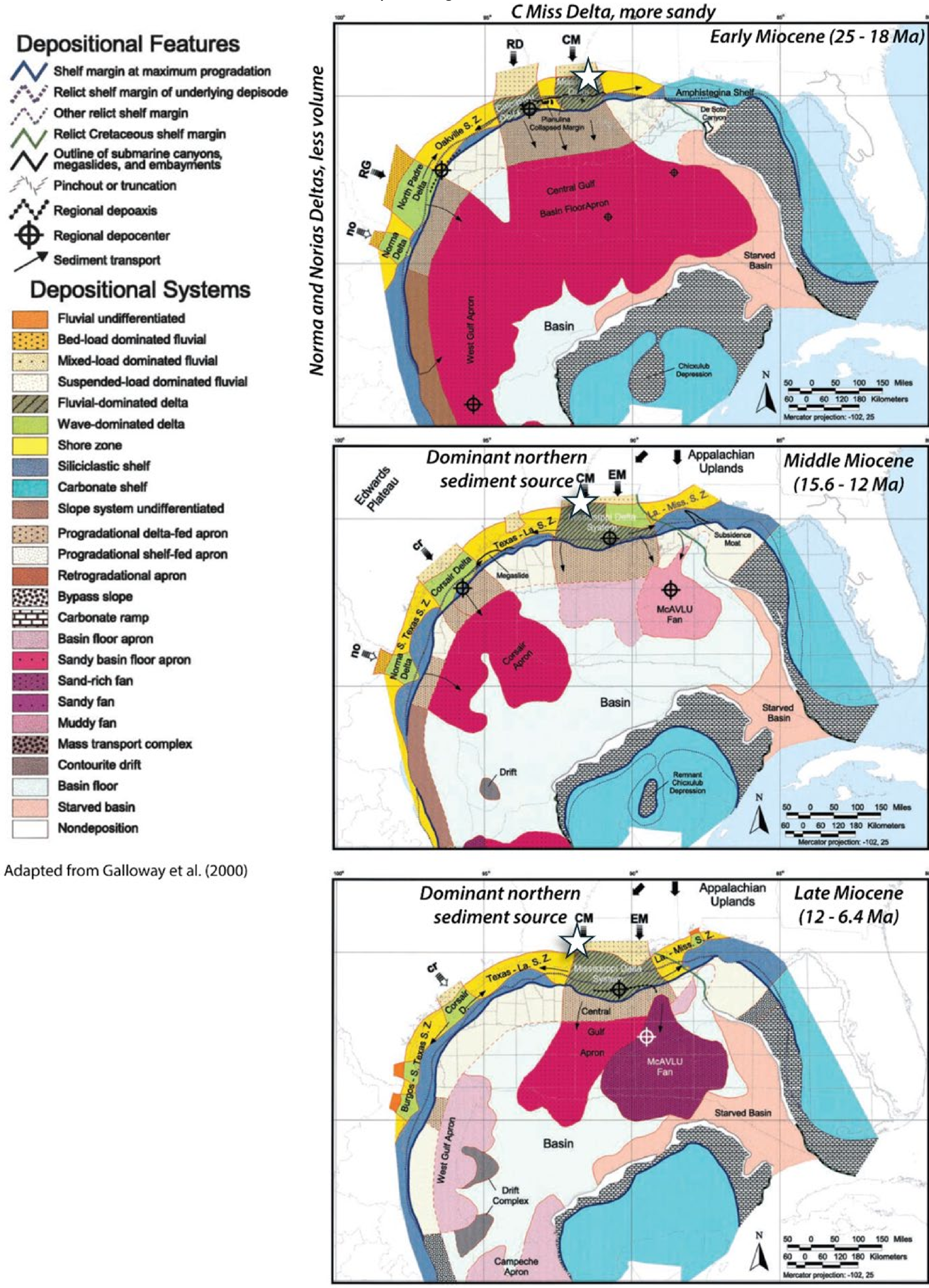


Figure 14: Paleogeography of the early Miocene (LM1-G, 25–18 Ma) (top), the middle Miocene (MM-I, 15.6–12 Ma) (middle), and the late Miocene (UM-K, 12–6.4 Ma) (bottom) depisodes. The approximate location of the AoR is marked with a star. (Figure adapted from Galloway et al., 2000)

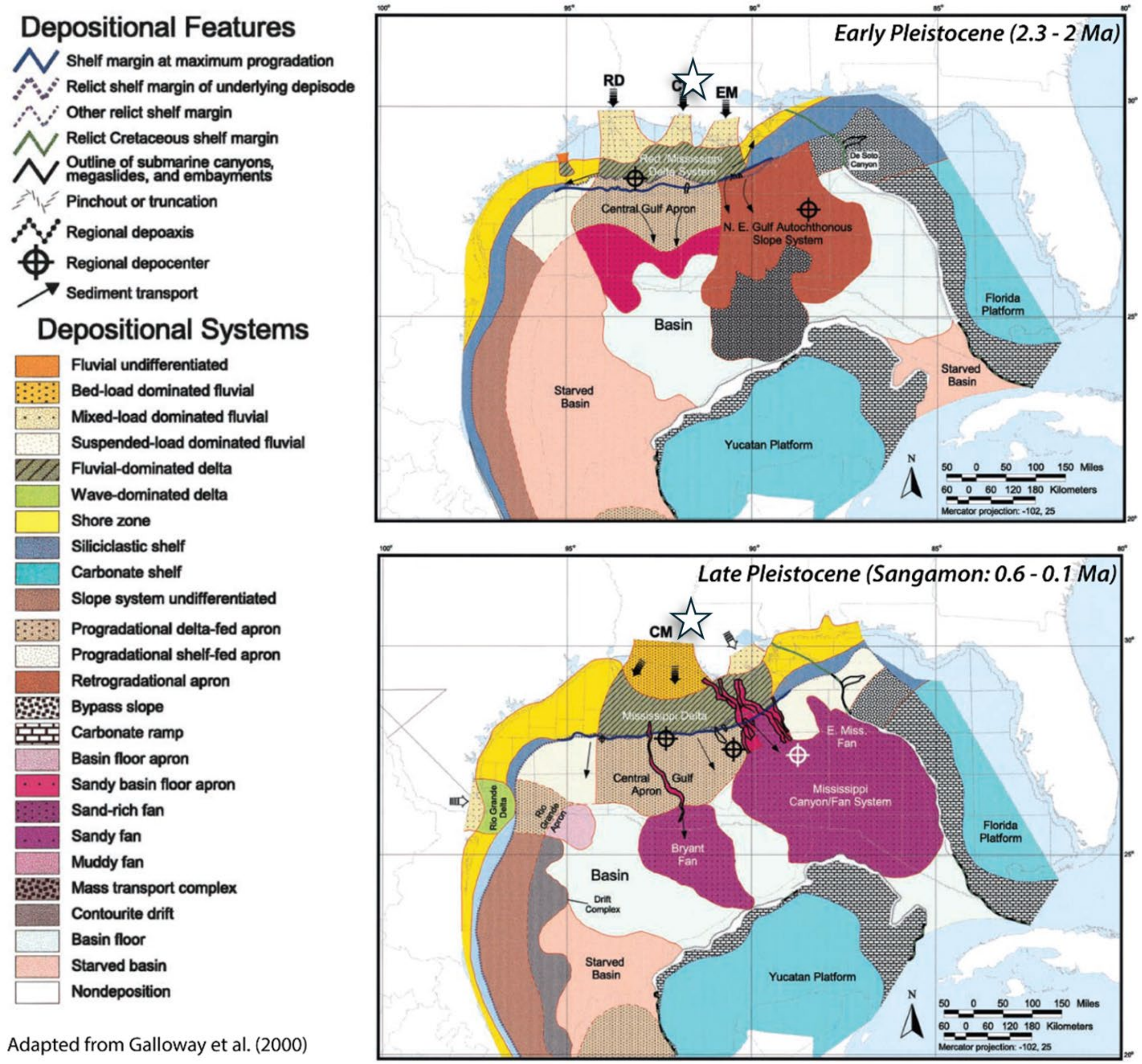


Figure 15: Paleogeography of the early phase of the Angulogerina B (PAB-P, 2.3–2) (top) and the Sangamon (PS-R, 0.6–0.1 Ma) (bottom) depisodes. The approximate location of the AoR is marked with a star. (Figure adapted from Galloway et al., 2000)

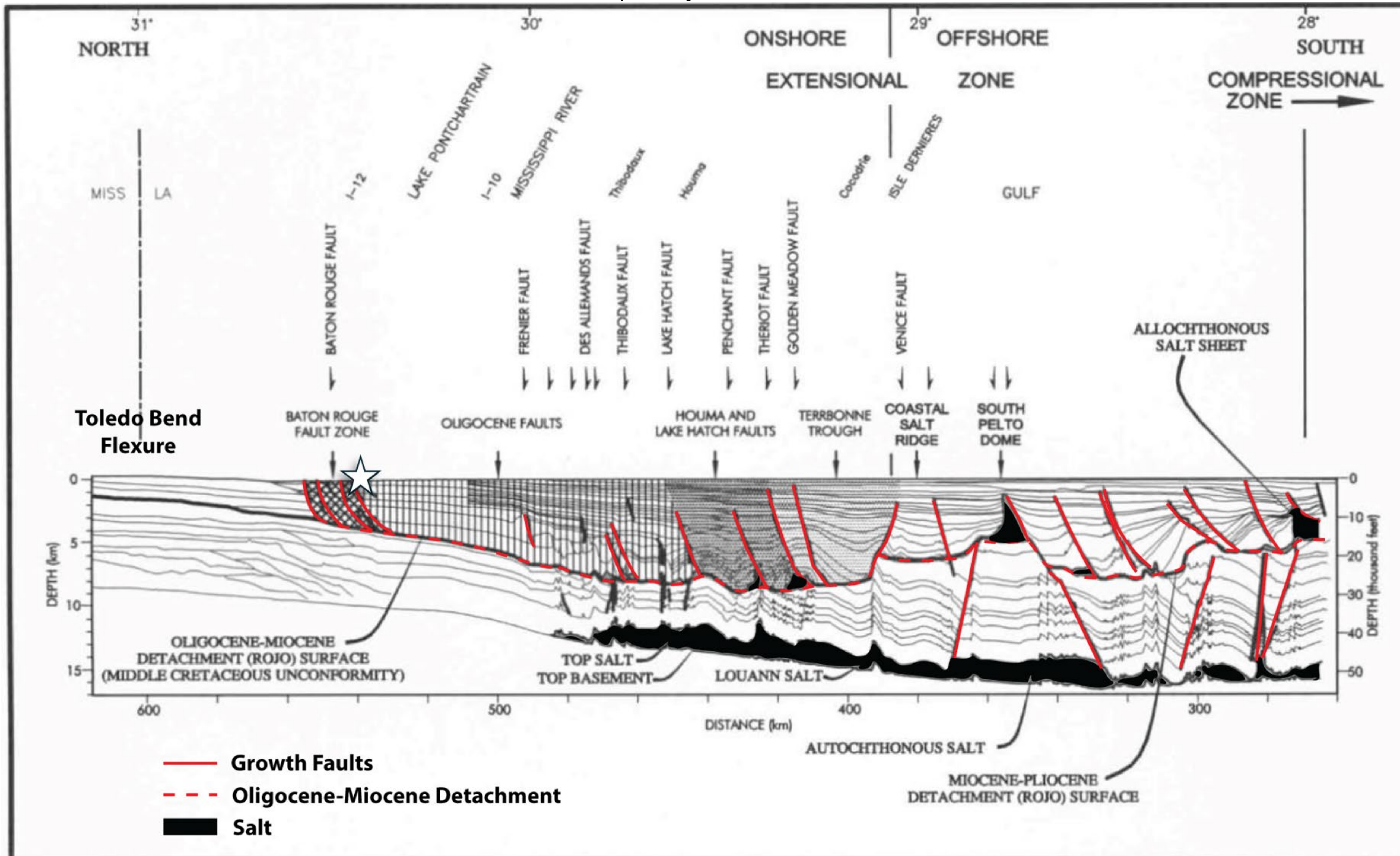


Figure 16: Segment of north-south megaregional cross-section through southeastern Louisiana showing the location of the Baton Rouge fault zone (red dashed box) in relation to the larger gravitationally-driven deformation system at the Gulf Coast. The growth faults within the Baton Rouge fault zone merge into the regional Oligocene-Miocene detachment at 3-5km depth. (Figure adapted from Gagliano et al., 2003b)

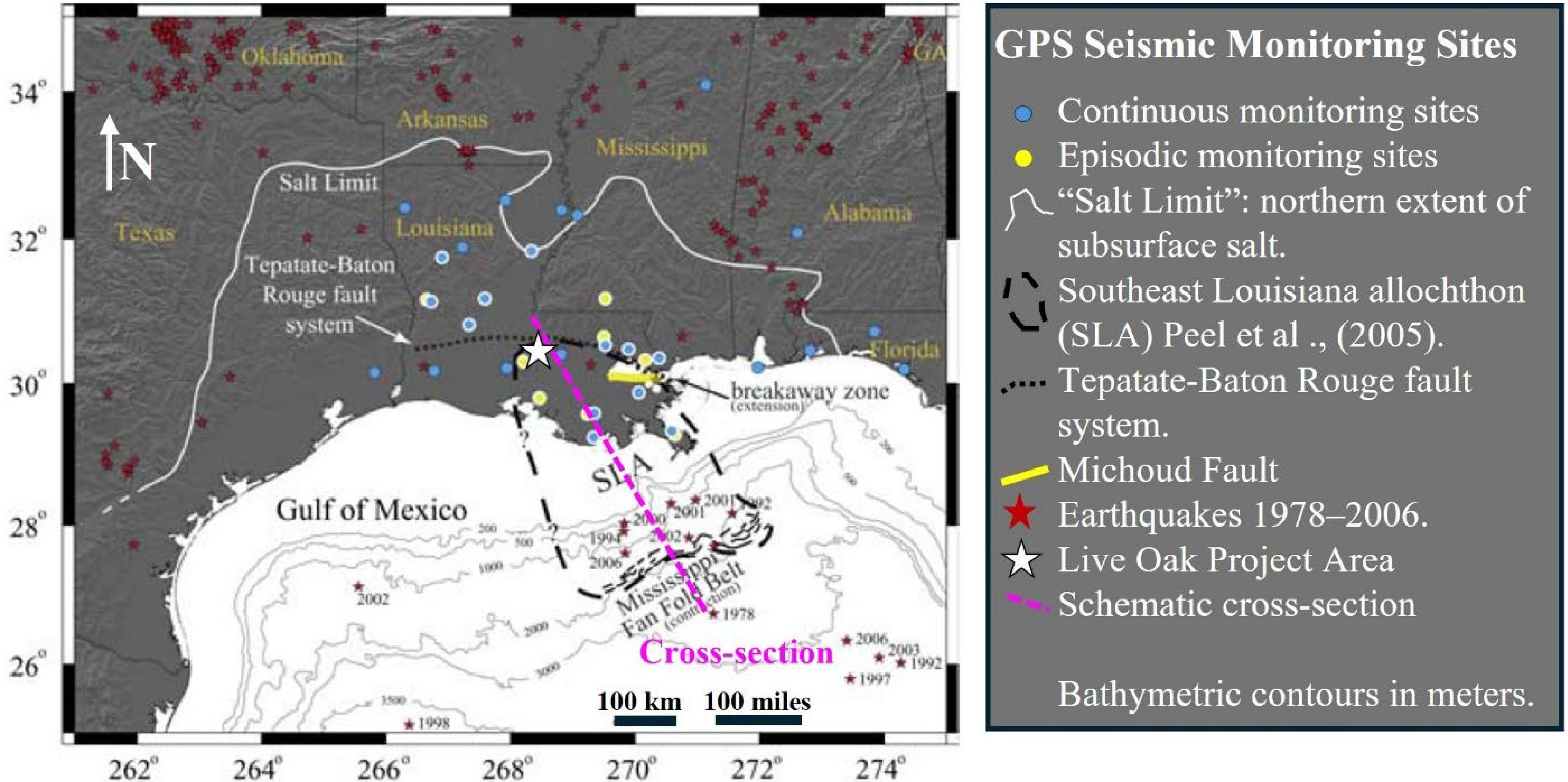


Figure 24: Shaded relief map modified from Dokka et al. (2006) showing the location of the Tepatate-Baton Rouge fault system in a complex breakaway zone with the Michoud fault at the north extent of the Southeastern Louisiana allochthon (SLA) (Peel et al., 2005), the approximate north edge of lithosphere thinned by Jurassic rifting (Worrall and Snelson, 1989). The Mississippi Fan Fold Belt, the southern extent of the SLA, is in contraction due to SLA extension. GPS sites in Louisiana are used to interpret fault slip and magnitude (Dokka et al., 2006). U.S. Geological Survey earthquakes https://earthquake.usgs.gov/earthquakes/search/.

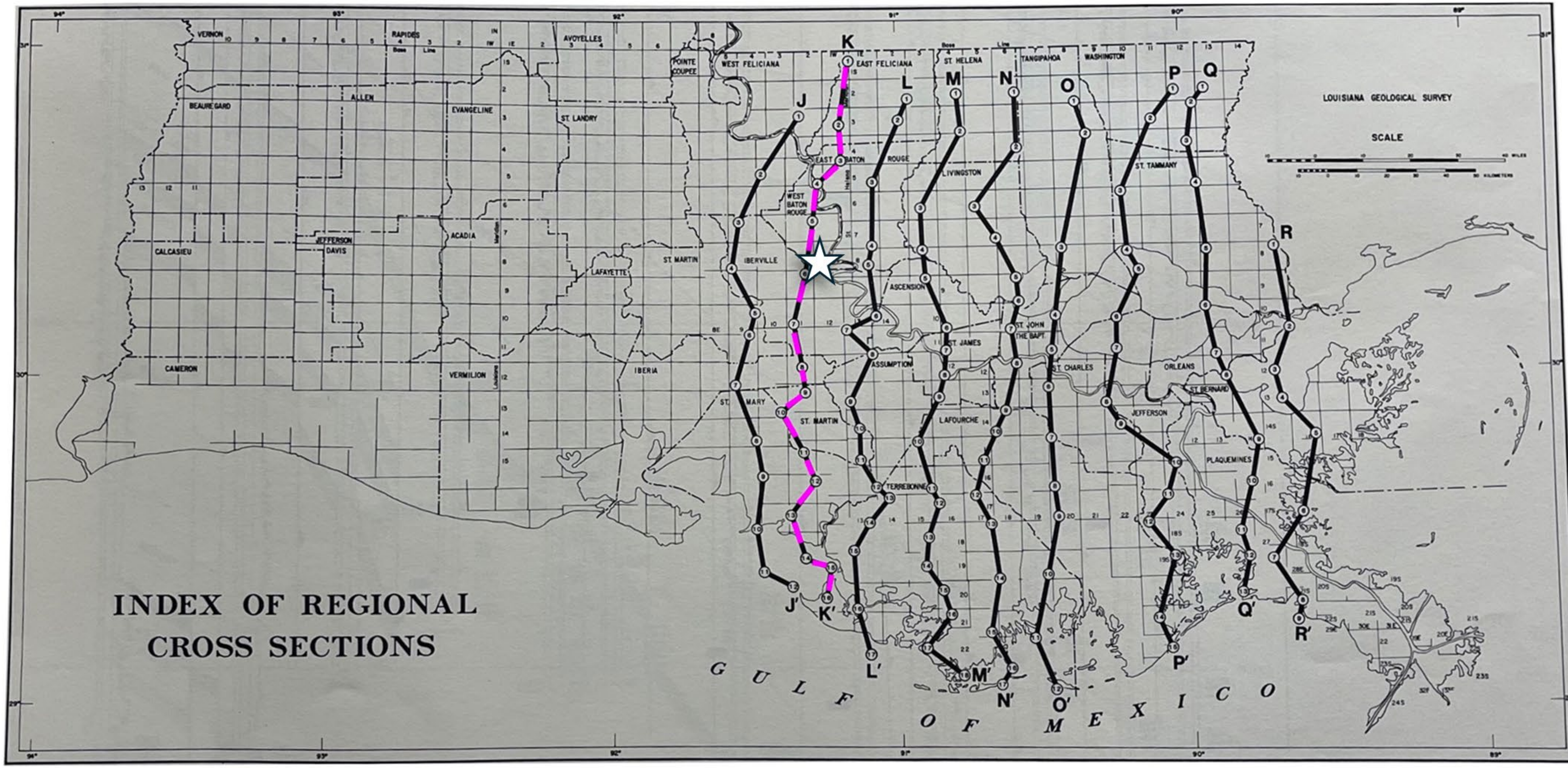


Figure 26: Location map for cross section in Figure 27. Cross section location is shown with a pink dashed line. The Live Oak Project area is shown with a star. (Figure adapted from Bebout and Guitierrez, 1983)

Claimed as PBI

[redacted]

Figure 27: Structural cross section K-K' modified from Bebout and Guitierrez (1983). Vertical exaggeration is 40X. Shallow Miocene, Deep Miocene and Frio Formation injection zone tops are highlighted in yellow. Miocene Upper, Deep Miocene sub-confining zones as well as Anahuac and Vicksburg Shale confining zones are highlighted in blue. Bebout and Guitierrez (1983) place the top of the Lower Miocene lower than Galloway et al. (2000). The portion of the cross section crossing West Baton Rouge and Iberville parishes is labeled, and the approximate project area is indicated by a star and arrow. Interpreted down-to-the-south listric normal faults interpreted by Bebout and Guitierrez (1983) are highlighted in red.

LMIC West-East Cross Section (A-A’)

Preparer: Sarah Wigginton, **Date of Preparation:** 9/09/2024, **Operator:** Live Oak CCS, LLC, **Location:** Live Oak CCS Hub

Figure 29: Strike cross section A-A’ through the project model domain (see map in Figure 28) with the depth track in feet measured depth (far left), normalized gamma ray, the spontaneous potential, and the porosity. Crossing of AoR boundary indicated in red. For detailed discussions on the petrophysical model and the specific wells used in this analysis, refer to subsection 2.5 of this Application Narrative. For associated well data see Appendix A.

LMIC North-South Cross Section #1 (B-B')

Preparer: Sarah Wigginton, **Date of Preparation:** 9/09/2024, **Operator:** Live Oak CCS, LLC, **Location:** Live Oak CCS Hub

[redacted]

Figure 30: Dip cross section B-B' through the project model domain (see map Figure 28) with the depth track in feet measured depth (far left), normalized gamma ray, the spontaneous potential, and the porosity. For detailed discussions on the petrophysical model and the specific wells used in this analysis, refer to subsection 2.5 of this Application Narrative. For associated well data see Appendix A.

LMIC North-South Cross Section #2 (C-C')

Preparer: Sarah Wigginton, **Date of Preparation:** 9/09/2024, **Operator:** Live Oak CCS, LLC, **Location:** Live Oak CCS Hub

[redacted]

Figure 31: Dip cross section C-C' through the project model domain (see map Figure 28) with the depth track in feet measured depth (far left), normalized gamma ray, the spontaneous potential, and the porosity. Crossing of AoR boundary indicated in red and inferred fault with black-dashed line. For detailed discussions on the petrophysical model and the specific wells used in this analysis, refer to subsection 2.5 of this Application Narrative. For associated well data see Appendix A.

OFIC West - East Cross Section (D-D')

Preparer: Sarah Wigginton, **Date of Preparation:** 9/09/2024, **Operator:** Live Oak CCS, LLC, **Location:** Live Oak CCS Hub

W

E

LEGEND
- Lowest Known USDW
- Confining Zone
- Injection Zone

Formation Tops:
- M8
- Yellow Sand Top
- Yellow Sand Base
- O1
- O2

Upper Confining Zone
Anahuac Formation
Age: Oligocene

Injection Target
Frio Sand
Age: Oligocene

Claimed as PBI

[redacted]

Figure 33: Dip cross section D-D' through the project model domain (see map Figure 32) with the depth track in feet measured depth (far left), normalized gamma ray, the spontaneous potential, and the porosity. For detailed discussions on the petrophysical model and the specific wells used in this analysis, refer to subsection 2.5 of this Application Narrative. For associated well data see Appendix A.

North - South Cross Section #1 (E-E’)

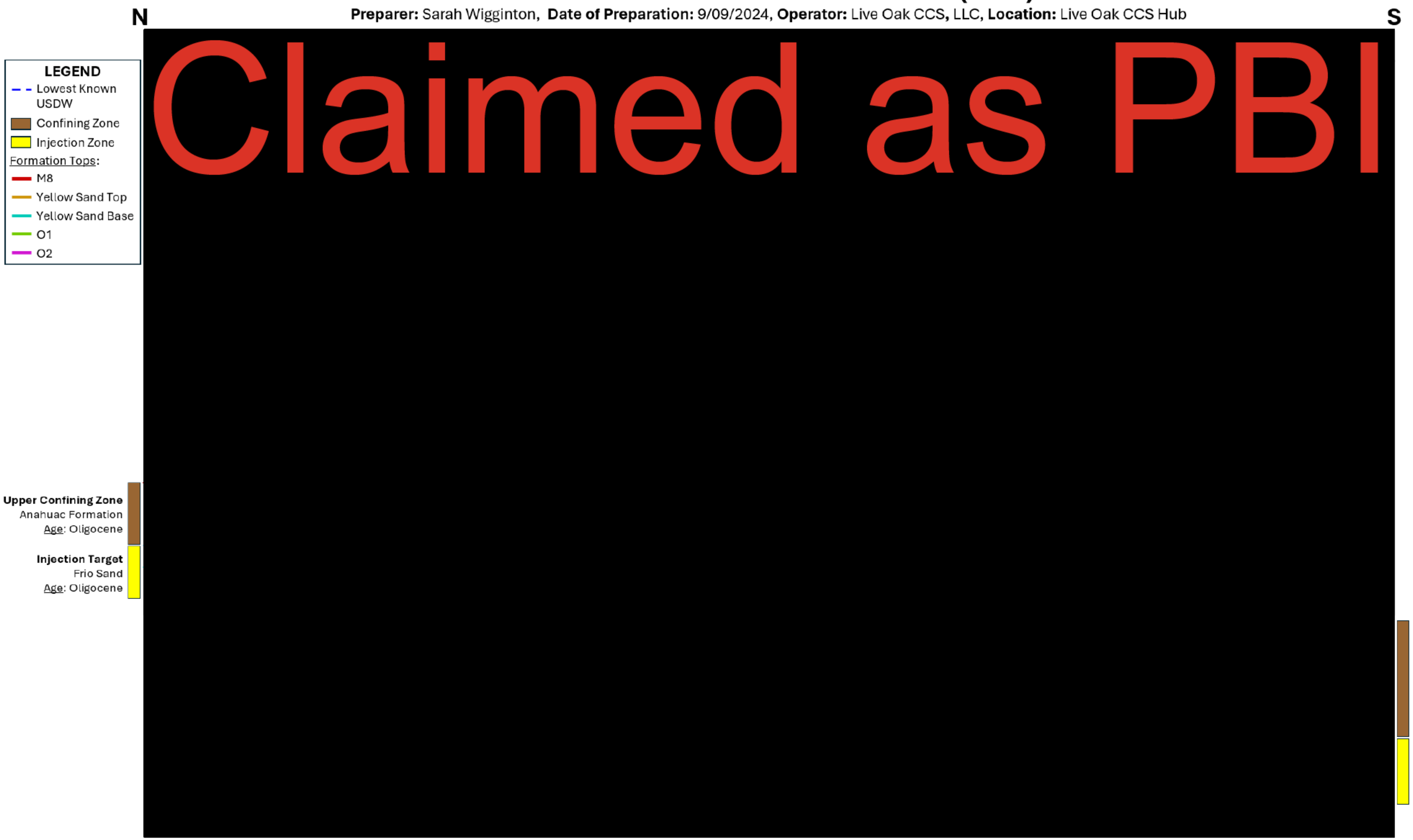
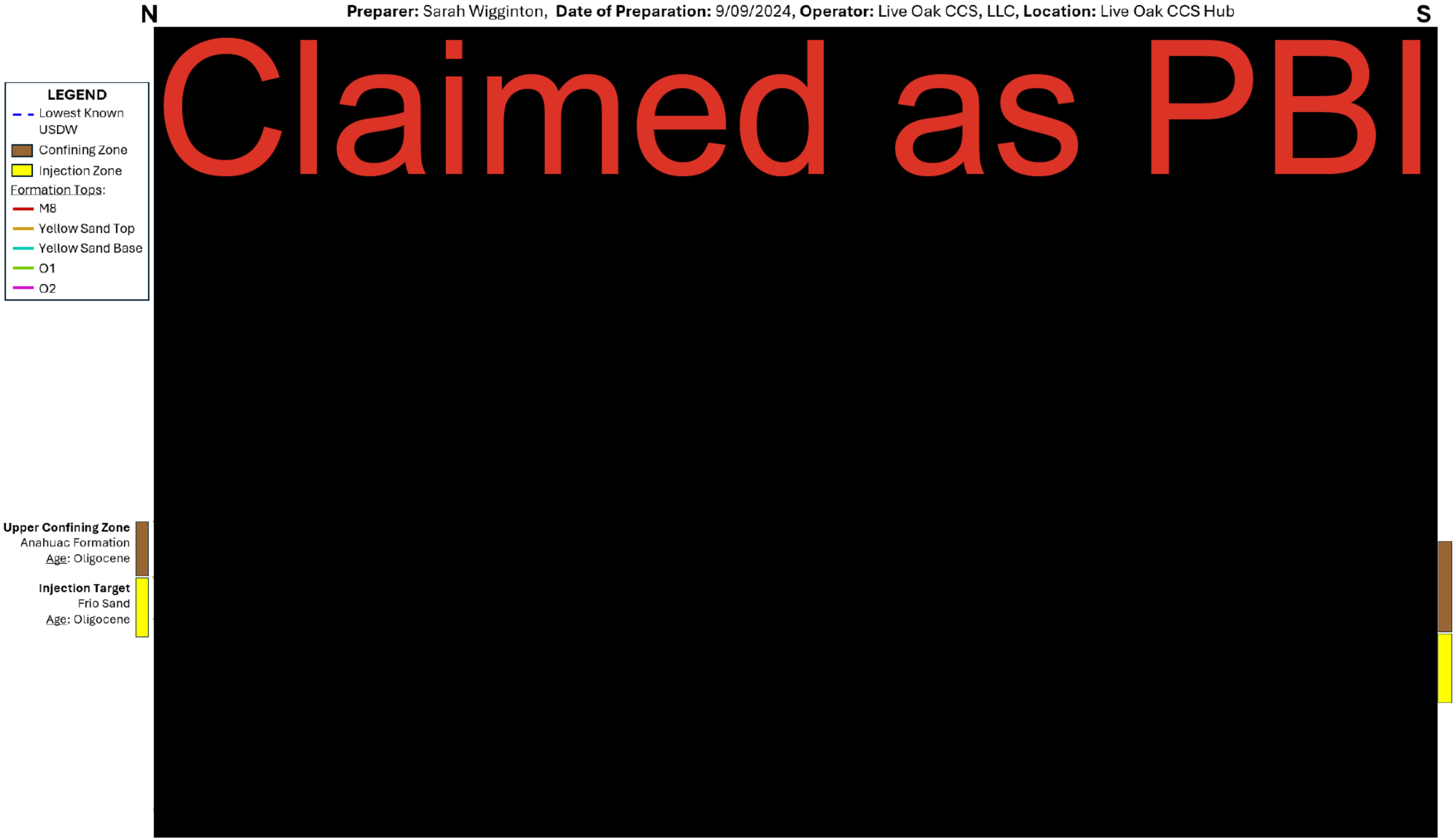


Figure 34: Dip cross section E-E’ through the project model domain (see map Figure 32) with the depth track in feet measured depth (far left), normalized gamma ray, the spontaneous potential, and the porosity. For detailed discussions on the petrophysical model and the specific wells used in this analysis, refer to subsection 2.5 of this Application Narrative. For associated well data see Appendix A.

North - South Cross Section #2 (F-F')

Preparer: Sarah Wigginton, **Date of Preparation:** 9/09/2024, **Operator:** Live Oak CCS, LLC, **Location:** Live Oak CCS Hub



[redacted]

Figure 35: Dip cross section F-F' through the project model domain (see map Figure 32) with the depth track in feet measured depth (far left), normalized gamma ray, the spontaneous potential, and the porosity. Crossing of AoR boundary indicated in red and inferred fault with black-dashed line. For detailed discussions on the petrophysical model and the specific wells used in this analysis, refer to subsection 2.5 of this Application Narrative. For associated well data see Appendix A.

Claimed as PBI

[redacted]

Figure 39: Structural Transect A, 2-D seismic projected from 2-D line [redacted] (see Figure 37 for location). Approximate location of project AoR boundary indicated in red.

Claimed as PBI

Figure 40: Structural Transect B, seismic projected from 2-D line Claimed as PBI (see Figure 37 for location). Approximate location of project AoR boundary indicated in red.

Claimed as PBI

[redacted]

Figure 41: Structural Transect C, seismic projected from 2-D line Claimed as PBI (see Figure 37 for location). Approximate location of project AoR boundary indicated in red.

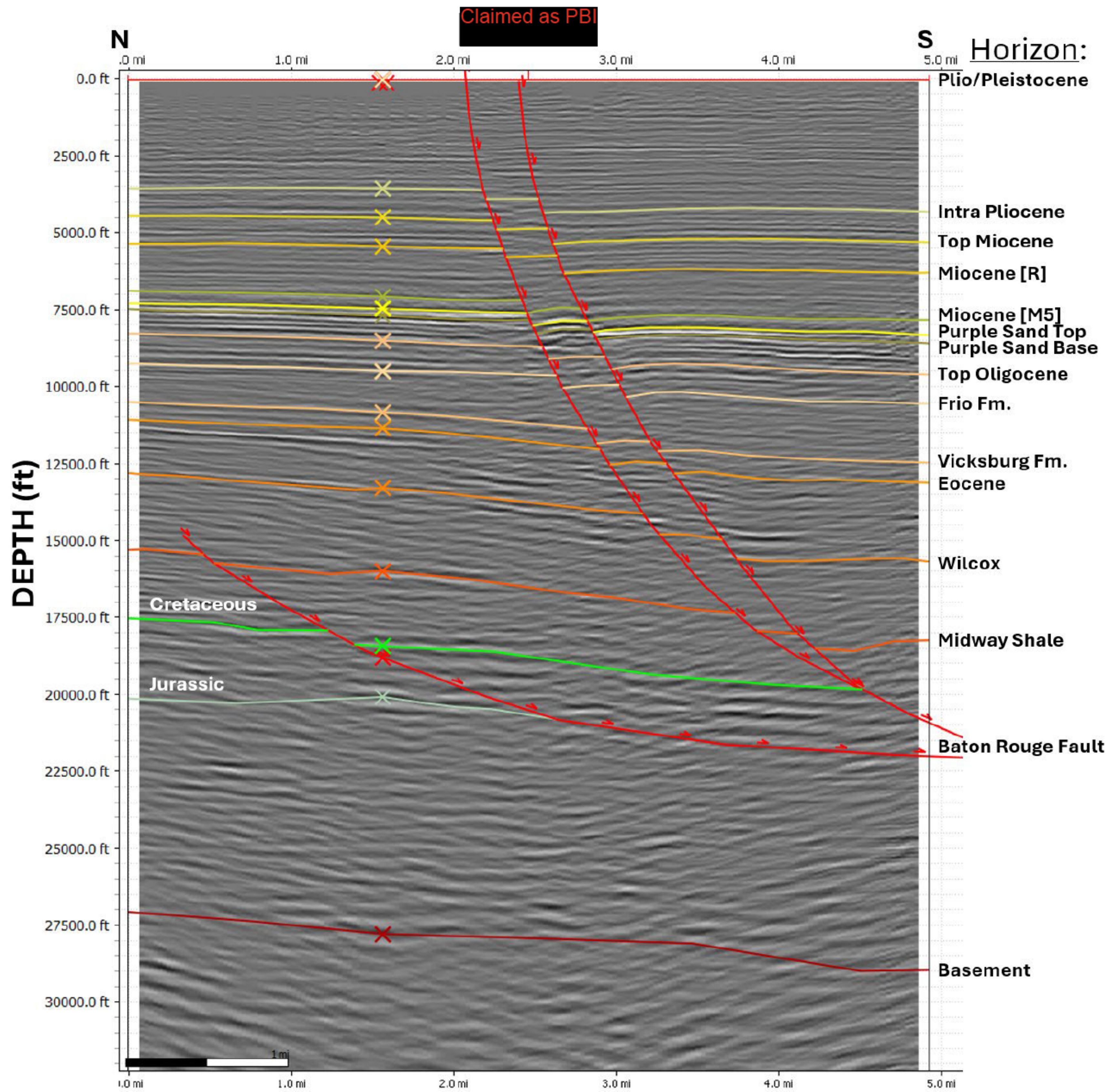


Figure 42: Structural Transect D, seismic projected from 2-D line Claimed as PBI [redacted] (see Figure 37 for location). Seismic section does not cross project AoR boundary.

CLASS VI PERMIT APPLICATION NARRATIVE
Appendix G
Expanded Figure Size Reference

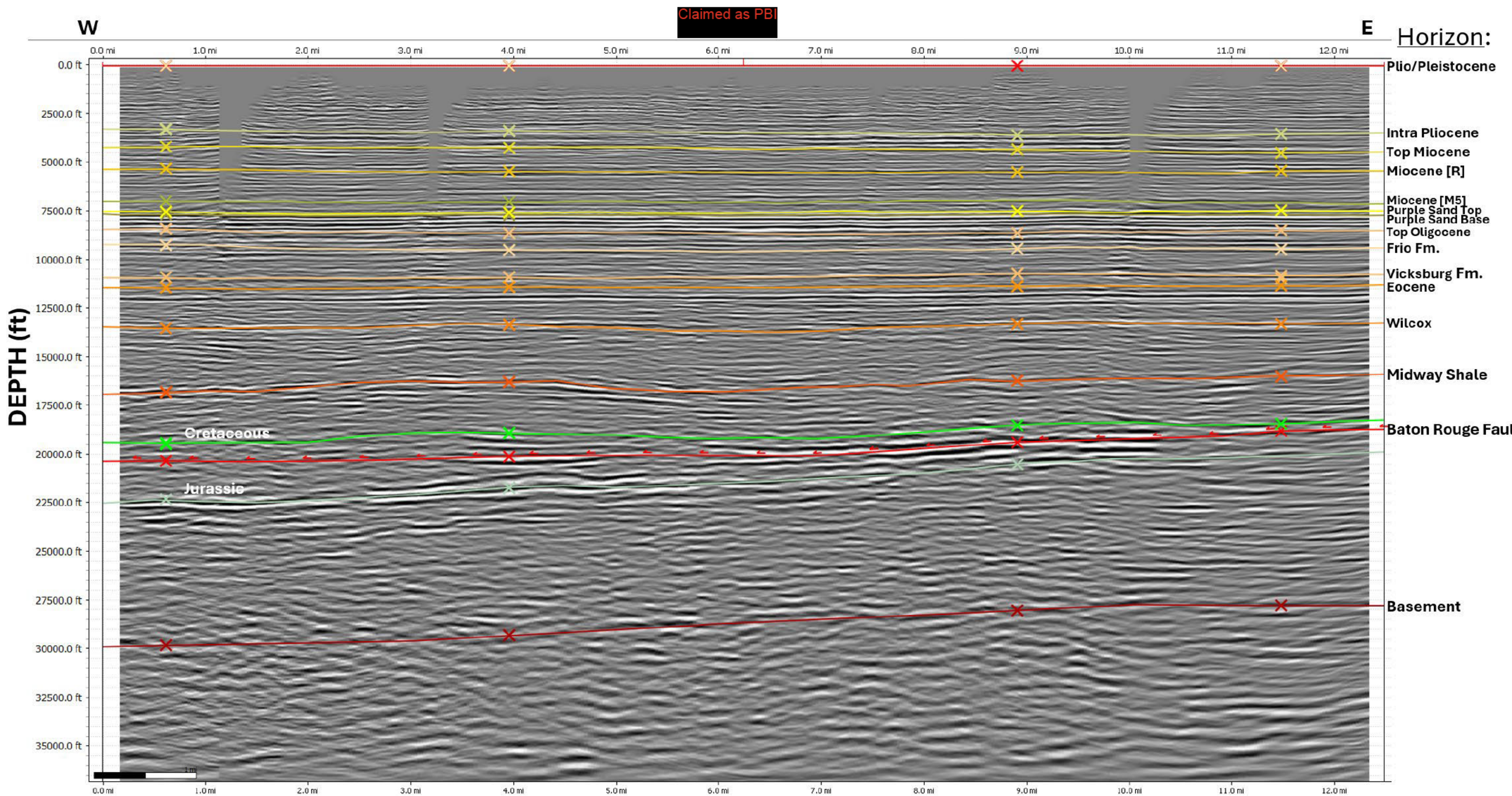


Figure 43: Structural Transect E, seismic projected from 2-D Claimed as PBI [redacted] (see Figure 37 for location map). Seismic section does not cross project AoR boundary.

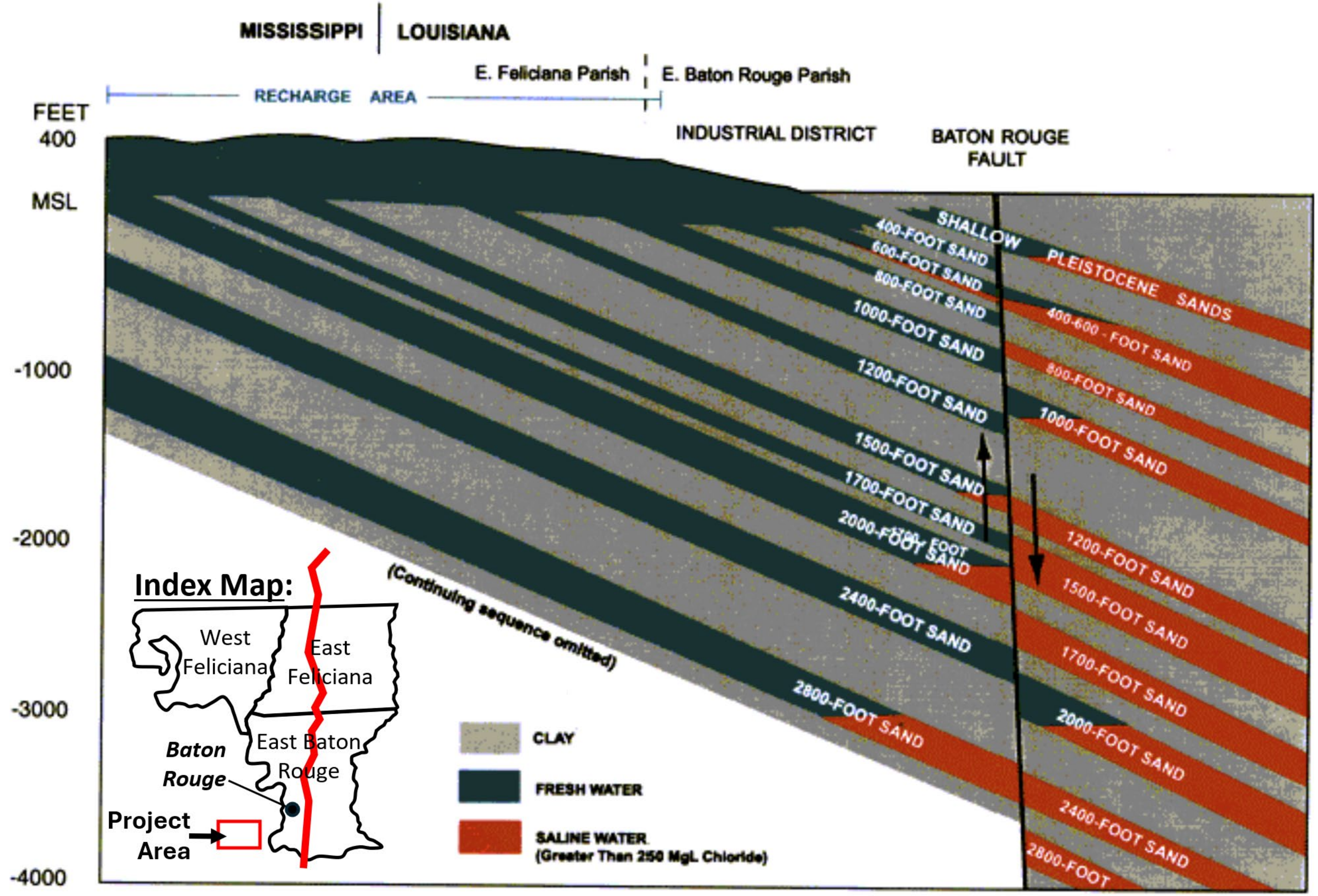


Figure 45: From Nasreen (2003): "Hydrologic cross section including saline water intrusion in the East Baton Rouge Parish and the surrounding region" (adopted from Tomaszewski, 1996).

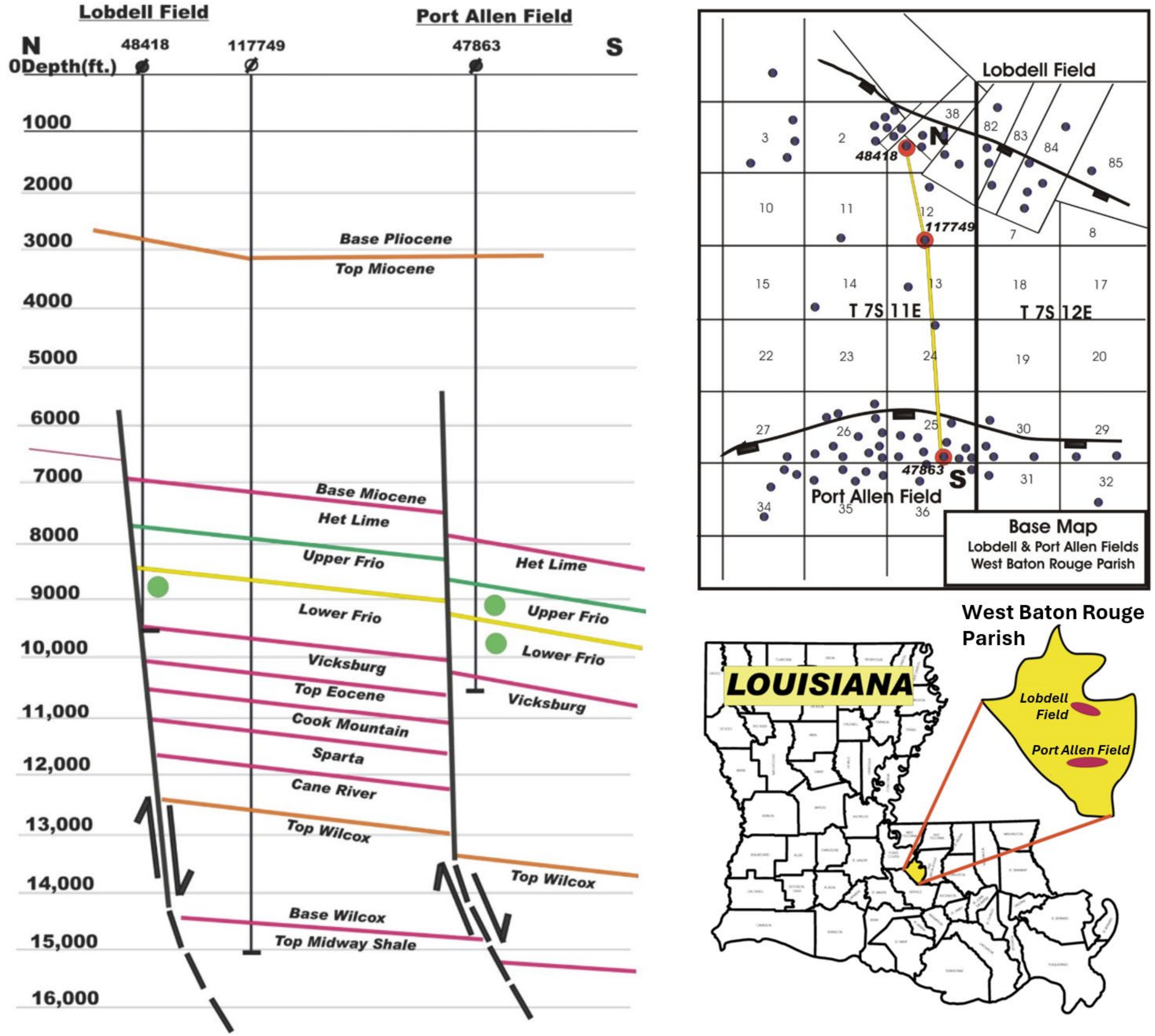


Figure 46: Structural cross section of Lobdell and Port Allen fields. (Figure adapted from Goddard et al., 2005)

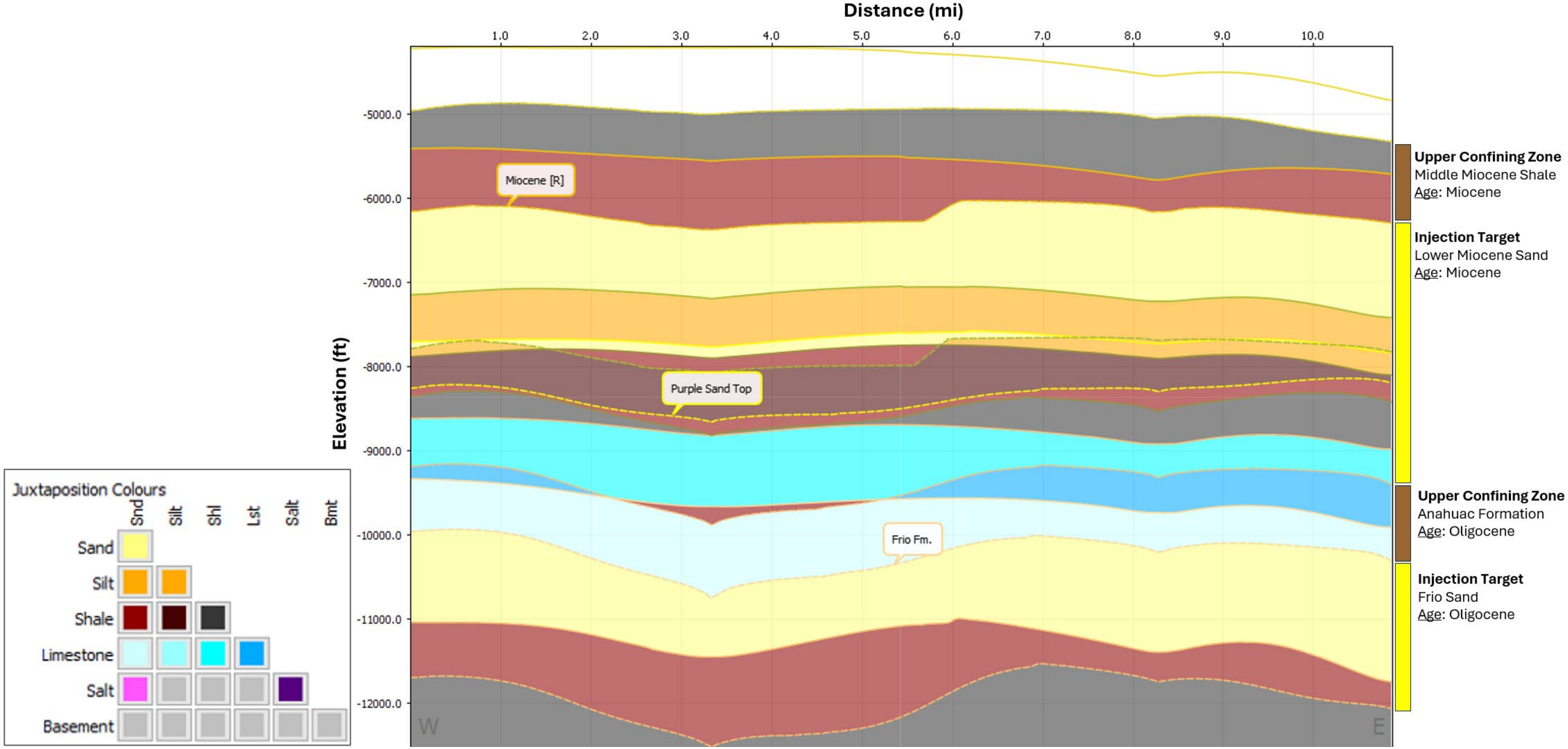


Figure 48: Allan diagram showing the lithologic juxtaposition of stratigraphic units on the W-E cross-section across the Baton Rouge Fault system north of the AoR. Solid lines indicate foot wall cutoffs of stratigraphic units, whereas dashed lines indicate hangi ng wall cutoffs of the same units. Several key stratigraphic zones are noted, these include the Miocene [R], the Purple Sand Top, and the Frio Formation.

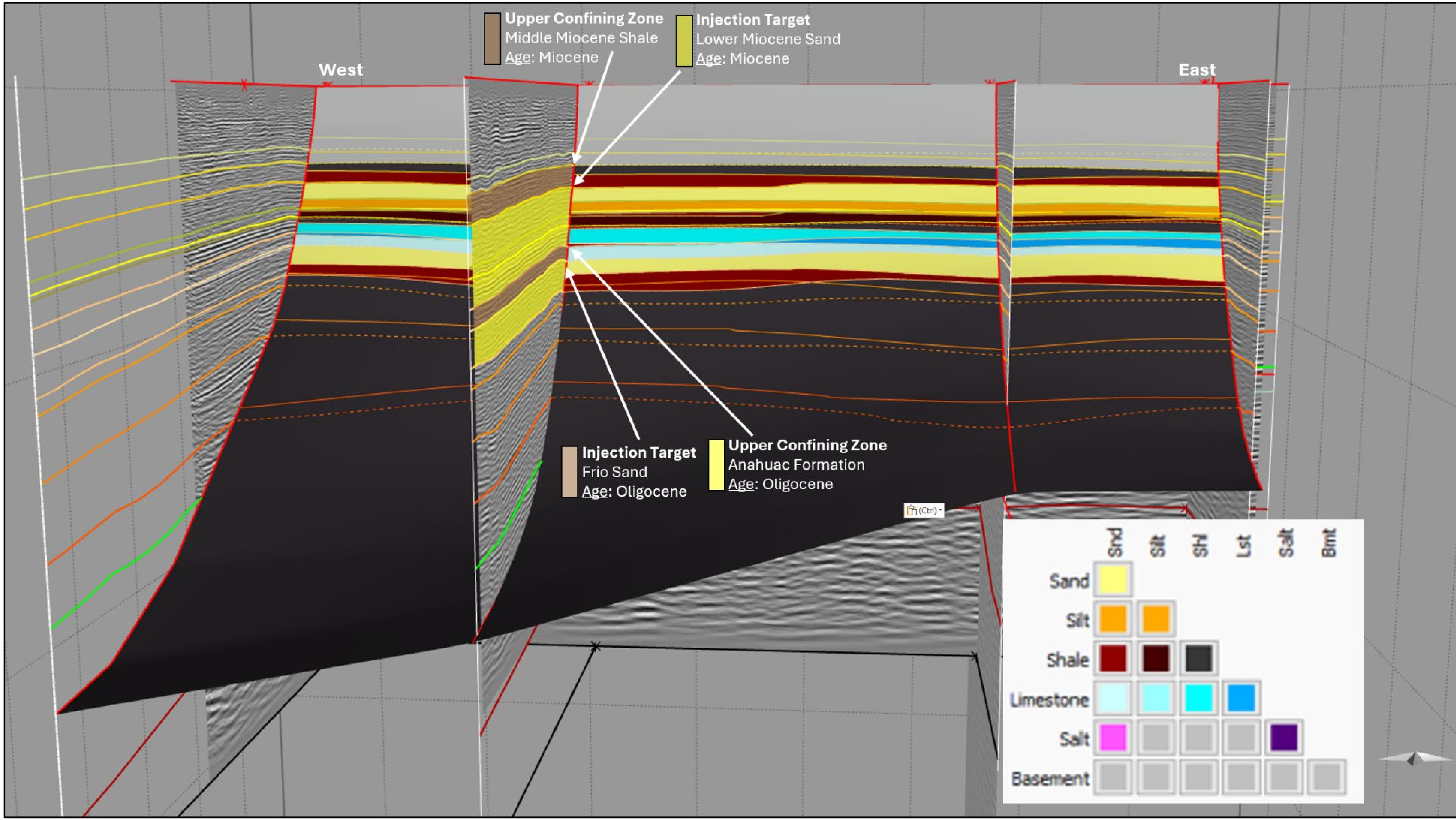


Figure 49: Three-Dimensional view of the Baton Rouge Fault plane modelled from structural transects A-E, viewed from the south looking to the north. The lithologic juxtapositions across the hanging wall and foot wall of the fault system are projected onto the Baton Rouge Fault plane. Solid lines projected onto the fault plane represent the foot wall cutoffs for respective stratigraphic horizons, whereas dashed lines projected onto the fault plane represent the respective stratigraphic hanging wall cutoffs.

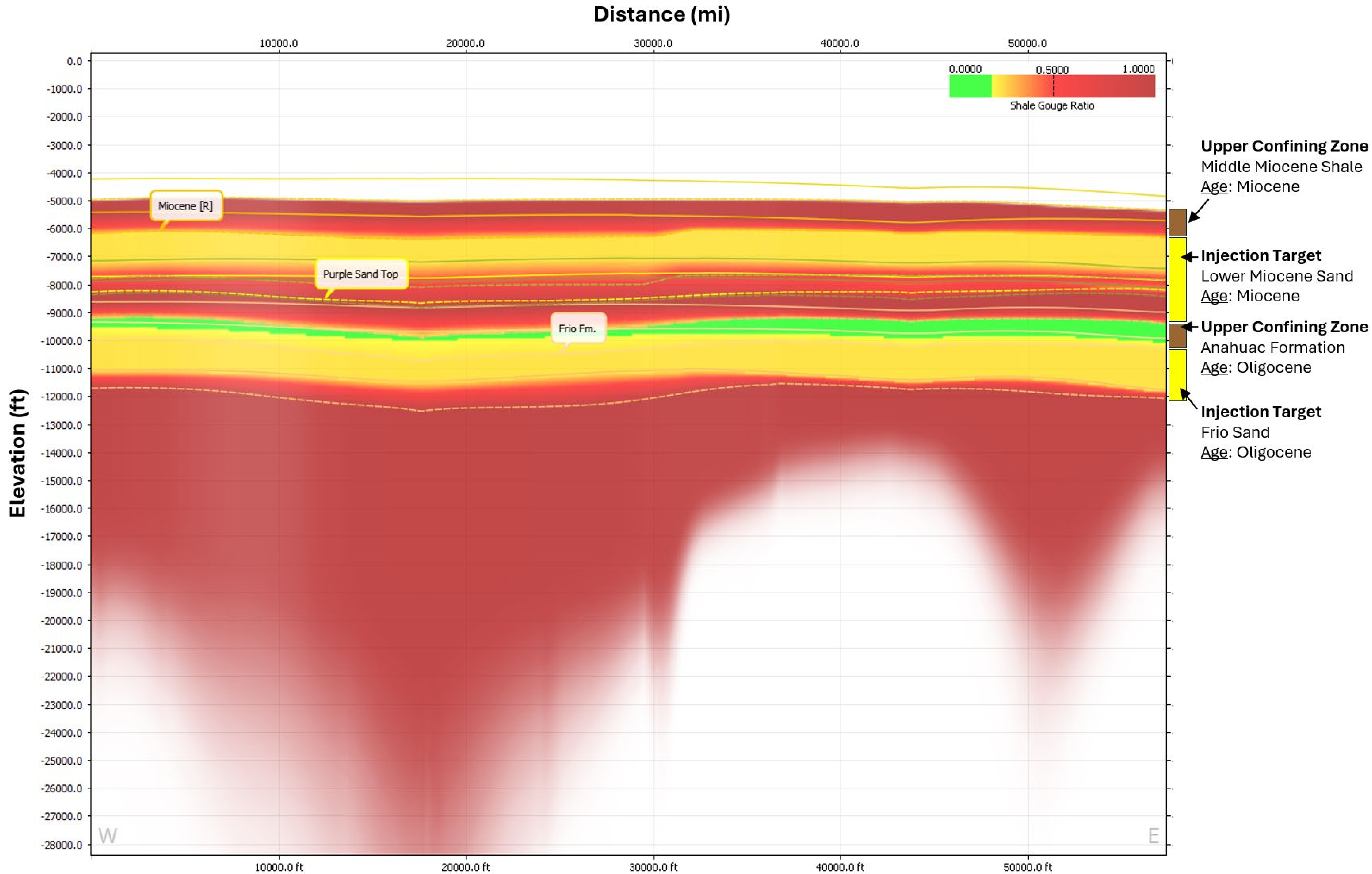


Figure 50: Shale gouge ratio calculated on the W-E cross-section across the Baton Rouge Fault. Solid lines indicate foot wall cutoffs of stratigraphic units, whereas dashed lines indicate hanging wall cutoffs of the same units. Several key stratigraphic zones are noted, these include the Miocene [R], the Purple Sand Top, and the Frio Formation. Shale gouge ratios less than 0.2 are shown in green and may represent an ineffective seal. See Figure 37 for location of the Baton Rouge Fault system relative to the project AoR.

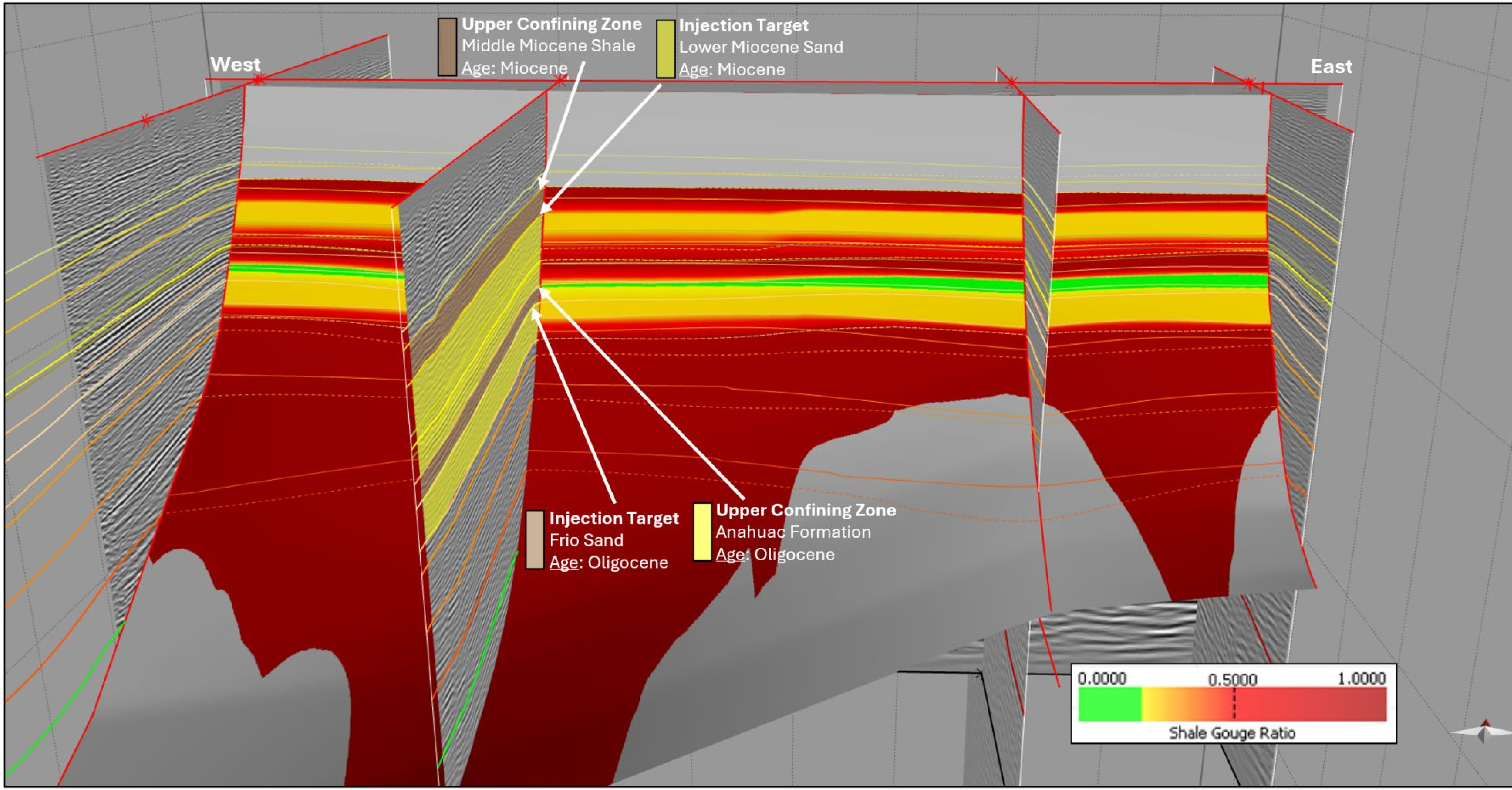


Figure 51: Three-Dimensional view of the Baton Rouge Fault plane modelled from structural transects A-E, viewed from the south looking to the north. The calculated shale gouge ratio (SGR) is projected onto the Baton Rouge Fault plane. Solid lines projected onto the Baton Rouge Fault plane. Solid lines projected onto the fault plane represent the foot wall cutoffs for respective stratigraphic horizons, whereas dashed lines projected onto the fault plane represent the respective stratigraphic hanging wall cutoffs. SGR values < 0.2 are shown in green, whereas values 0.2 and greater are shown in yellow to red and likely represent ratios of shale gouge that could be an effective fault seal.

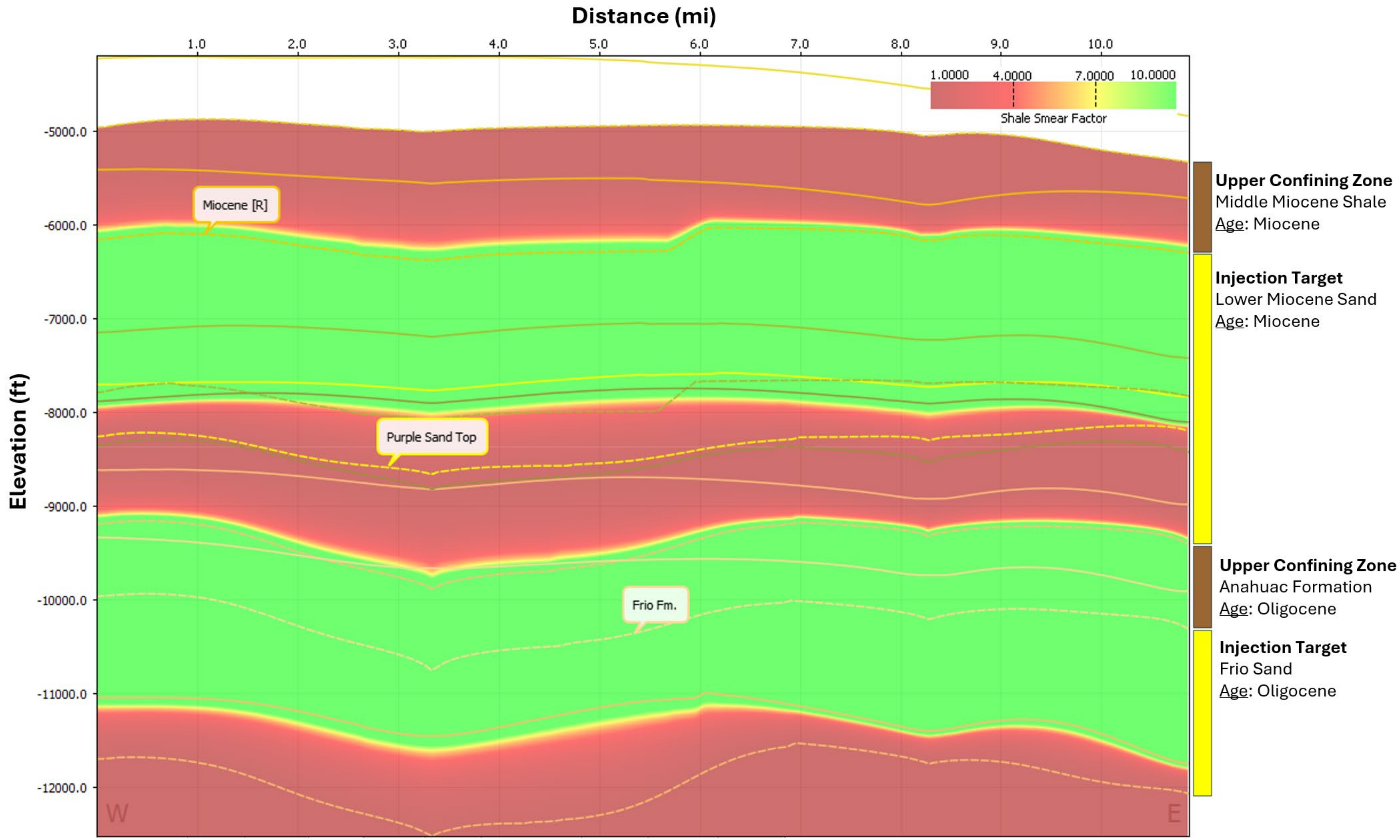


Figure 52: Shale smear factor calculated on the W-E cross-section across the Baton Rouge Fault system. Solid lines indicate foot wall cutoffs of stratigraphic units, whereas dashed lines indicate hanging wall cutoffs of the same units. Several key stratigraphic zones are noted, these include the Miocene [R], the Purple Sand Top, and the Frio Fm. Shale smear factors greater than 7 (yellow to green) suggest that the clay content in the fault zone is inadequate to provide an effective seal. See Figure 37 for location of the Baton Rouge Fault system relative to the project AoR.

Era	Period	Epoch	Series	Group or Formation	Aquifer, Confining Zone or Reservoir	Prod. (Oil / Gas)	Average Depth (ft)	Average Thickness (ft)	LO-01 M	LO-01 F	LO-02 M	LO-03 M	LO-04 F-M	LO-05 M	LO-06 M	LO-06 F
Cenozoic	Quatern.	Holo.		Alluvium	Freshwater Aquifers		0	550								
		Pleis.		Undifferentiated			550	450								
	Tertiary	Plio.					1,000	1,300								
		Mio-Plio			Base Lowermost USDW: 2,300-2,500'		2,300	1,865								
		Miocene	Upper	Upper Miocene	*Seal (Shale)*		4,165	735								
			Middle	Middle Miocene Confining Zone	Confining Zone		4,800	1,340	5,241 / 854	5,241 / 854	4,782 / 1,071	4,275 / 1,517	4,275 / 1,560	4,238 / 1,357	3,940 / 1,263	3,940 / 1,263
			Lower	Lower Miocene Sand (1) LMIC	Injection Zone	Oil, Gas	5,506	3,140	6,095 / 2,822	6,095 / 2,822	5,852 / 2,959	5,793 / 3,546	5,834 / 3,655	5,595 / 3,779	5,203 / 3,663	5,203 / 3,663
		Oligocene	Upper	Anahuac Form.	Confining Zone	Oil, Gas	8,580	1,492	8,917 / 1,814	8,917 / 1,814	8,811 / 1,384	9,339 / 1,115	9,489 / 1,353	9,374 / 977	8,867 / 698	8,867 / 698
			Middle	Frio Formation OFIC (2)	Injection Zone	Oil, Gas	9,506	877	10,731 / 1,152	10,731 / 1,152	10,195 / 1,014	10,454 / 816	10,842 / 867	10,351 / 860	9,565 / 776	9,565 / 776
			Lower	Vicksburg Shale	Confining Zone		10,383	500[1]	11,882 / ~500	11,882 / ~500	11,209 / ~500	11,269 / ~500	11,709 / ~500	11,212 / ~500	10,340 / ~500	10,340 / ~500
		Eocene	Late	Jackson	*Seal (Shale, limestone)*		10,883	700[2]								
			Middle	Claiborne Group: Cockfield, Cook Mtn, Sparta Sand, Cane River Fm, Carrizo Sand	*Seal (Shale)*; *Seal (Shale)*	Oil, Gas	11,583	1,800[2]								
			Early	Wilcox Group	*Conventional Oil/Gas Reservoir (interbedded shale)*	Oil, Gas	13,383	3,250[3]								
		Paleo.	Late / Early	Midway Group	*Seal (Shale)*		16,633	2,500[4]								
Mesozoic	Cretaceous	Upper		Navarro; Taylor Gp.; Austin Gp. / Tokio Fm. / Eutaw Fm.; Eagle Ford; Woodbine / Tuscaloosa	*Conventional Oil/Gas Reservoirs*; *Seal (Shale)*	Oil, Gas	19,133	2,500[5]								
		Lower		Washita Group (Buda Limestone); Fredericksburg Gp. (Edwards Ls./Paluxy); Glen Rose (Rodessa Fm); Pearsall Fm. – James Lm.; Sligo Fm.; Hosston Fm. – Travis Peak	*Conventional Oil/Gas Reservoirs*; *Seal (Shale)*; *Seal (Shale)*; *Seal (Shale)*	Oil, Gas	21,633	2,200[6]								
	Jurassic	Up.		Cotton Valley; Bossier Fm.; Haynesville Fm. / Gilmer Lm.; Smackover Fm. / Norphlet Fm.	*Seal (Shale)*		23,833	6,900[7]								
		Mid.		Louann Salt / Werner Formation	*Seal (Salt / Shale)*		30,733	?								
Basement																

Figure 53: Stratigraphic column in the project area. Proposed Injection Complexes: 1 – LMIC; 2 – OFIC. Depths to the top of stratigraphic units are noted with estimated thicknesses presented as average and for all injection wells. Figure modified from Swanson et al. (2013). with data from Goddard (2015), Goddard et al. (2005)[1], Roberts-Ashby et al. (2014)[2], Barker et al. (2000)[3], BeBout (1992)[4], Sohl et al. (1991)[5], McFarlen Jr. and Menes (1991)[6], Salvador (1991)[7]. USDW information from Buono (1983), Stuart et al. (1994) and discussed in subsection 2.6 of this Application Narrative.

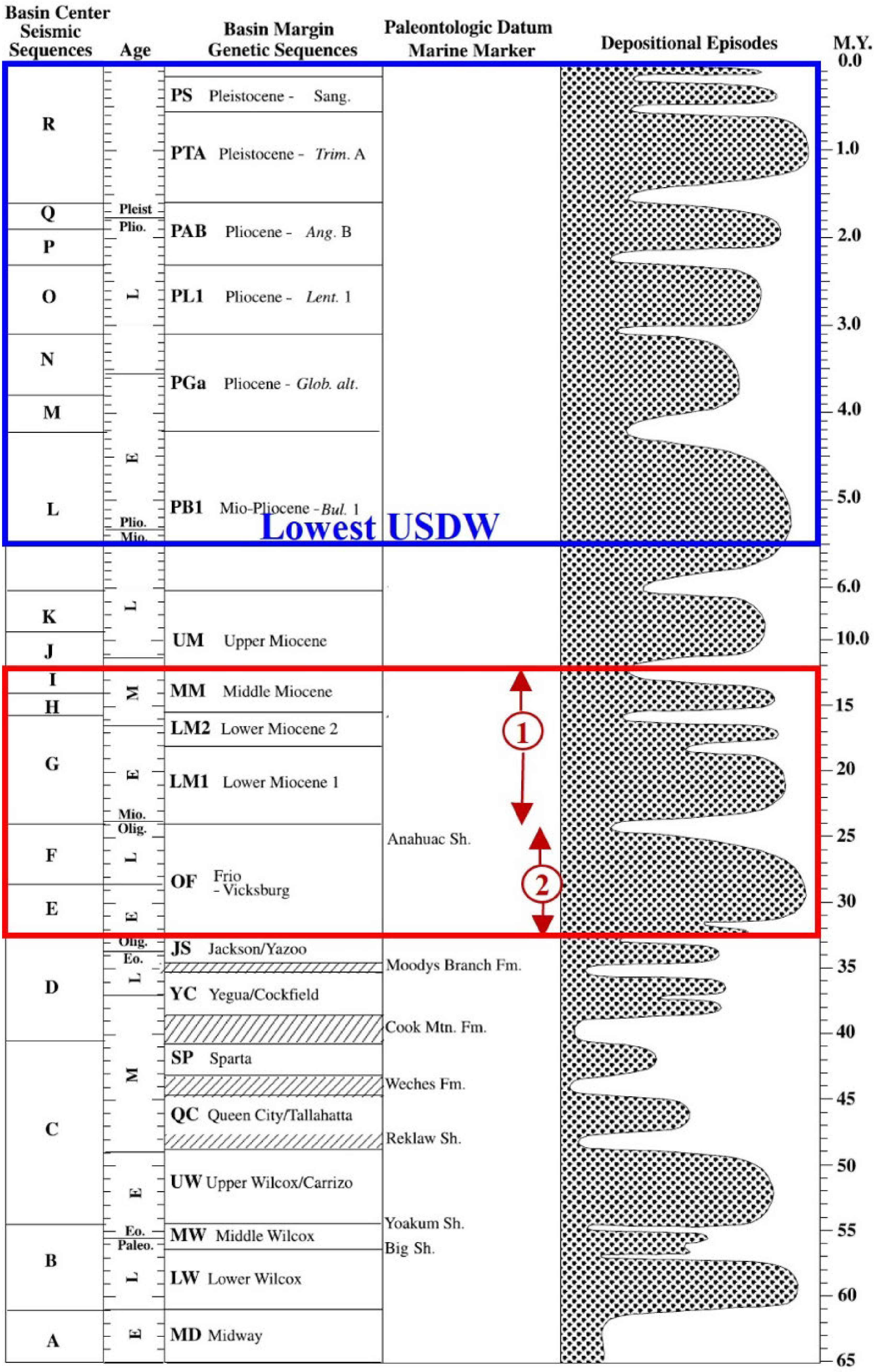


Figure 54: Regional Gulf of Mexico genetic sequences showing the volumetric contribution of each and bounding marine shale units. Freshwater and USDWs are shown in the blue box. Injection intervals are shown in the red outline. Proposed Injection Complexes; 1 – Lower Miocene Injection Complex; 2 – Oligocene Frio Injection Complex are labeled. (Figure modified from Galloway et al., 2000; Feng, 1995; Berggren et al., 1995. USDW information from Buono, 1983; Stuart et al., 1994)

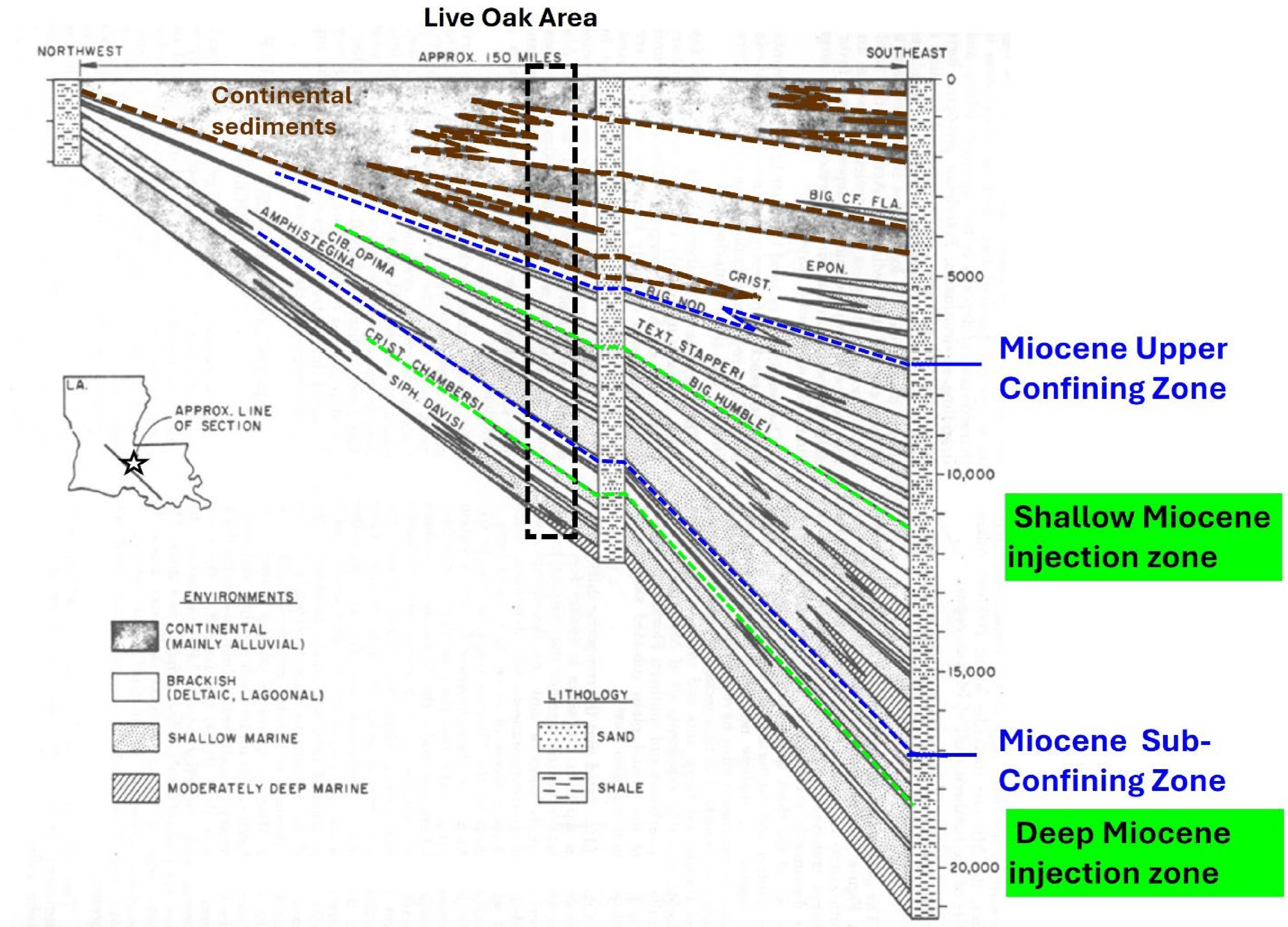


Figure 55: A Fence diagram showing the cyclical depositional pattern of Miocene strata through time in southern Louisiana. Repeated stacked sequences containing repeated lateral facies of continental, brackish, shallow marine and moderately deep marine sediments prograde seaward through time as the shoreline moves seaward. The dashed blue lines indicate the top of the Middle Miocene Confining Zone and Miocene sub-confining zone. The dashed bright green lines show the Shallow and Deep Miocene injection zones, and the brown dashed line indicates the base of continental alluvium. The project area is indicated on the location map with a star and on the fence diagram with a black dashed rectangle. Figure modified from Rainwater, 1964.

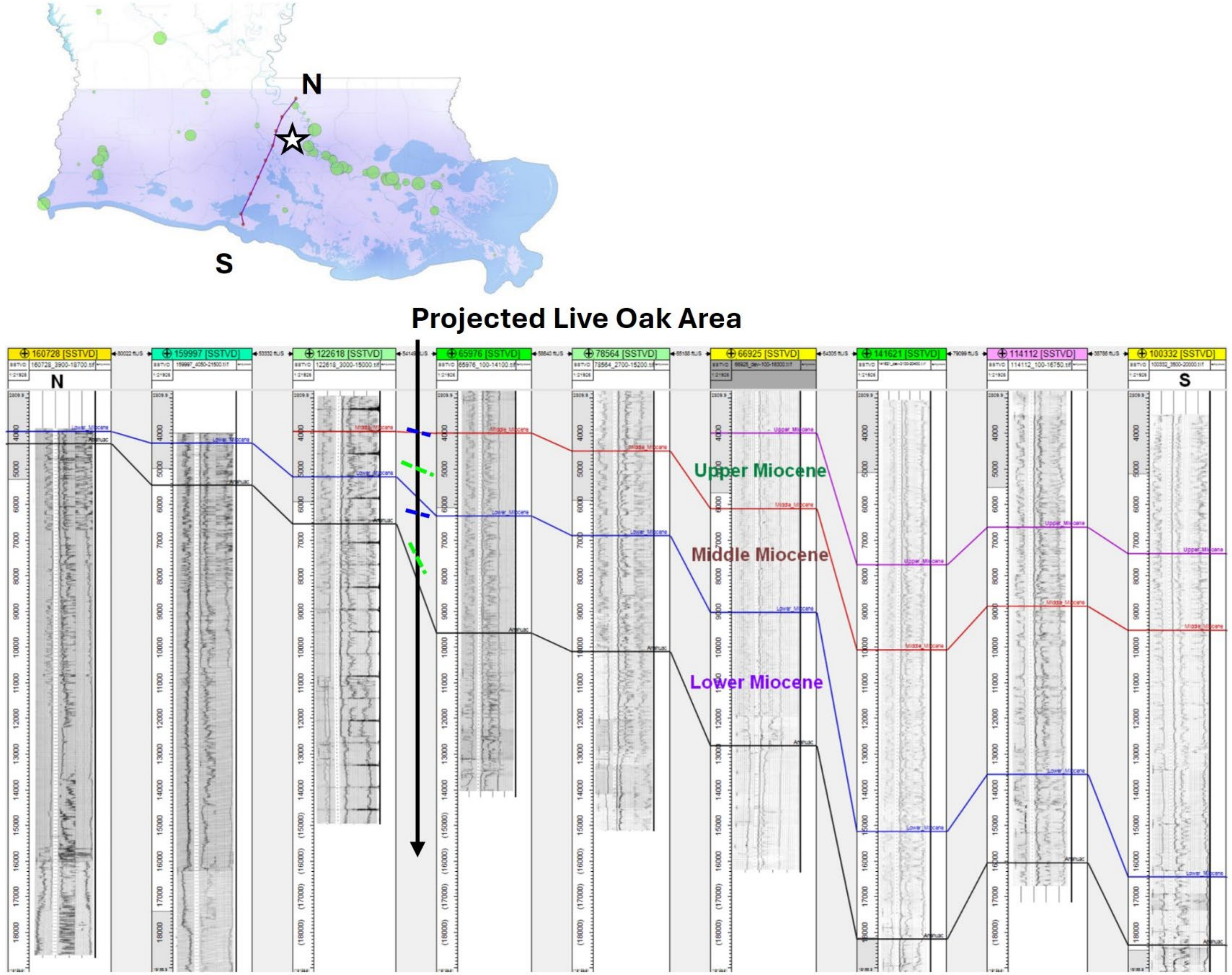


Figure 56: A regional cross section through South Louisiana schematically showing the large-scale intervals of the Miocene. Modified from Zulqarnian et al., 2013. Project area shown with a star on the location map, the dashed blue lines are the Middle Miocene upper confining zone and Miocene sub-confining zone, and the bright green dashed lines are the Shallow and Deep Miocene injection zones. As indicated, Upper, Middle, and Lower Miocene are delineated by work in Galloway,1989; Galloway et al., 2000; Limes and Stipe, 1959; Olariu et al., 2019. Upper, Middle, and Lower Miocene are delineated by work in Galloway, 1989; Galloway et al., 2000; Limes and Stipe, 1959; Olariu et al., 2019.

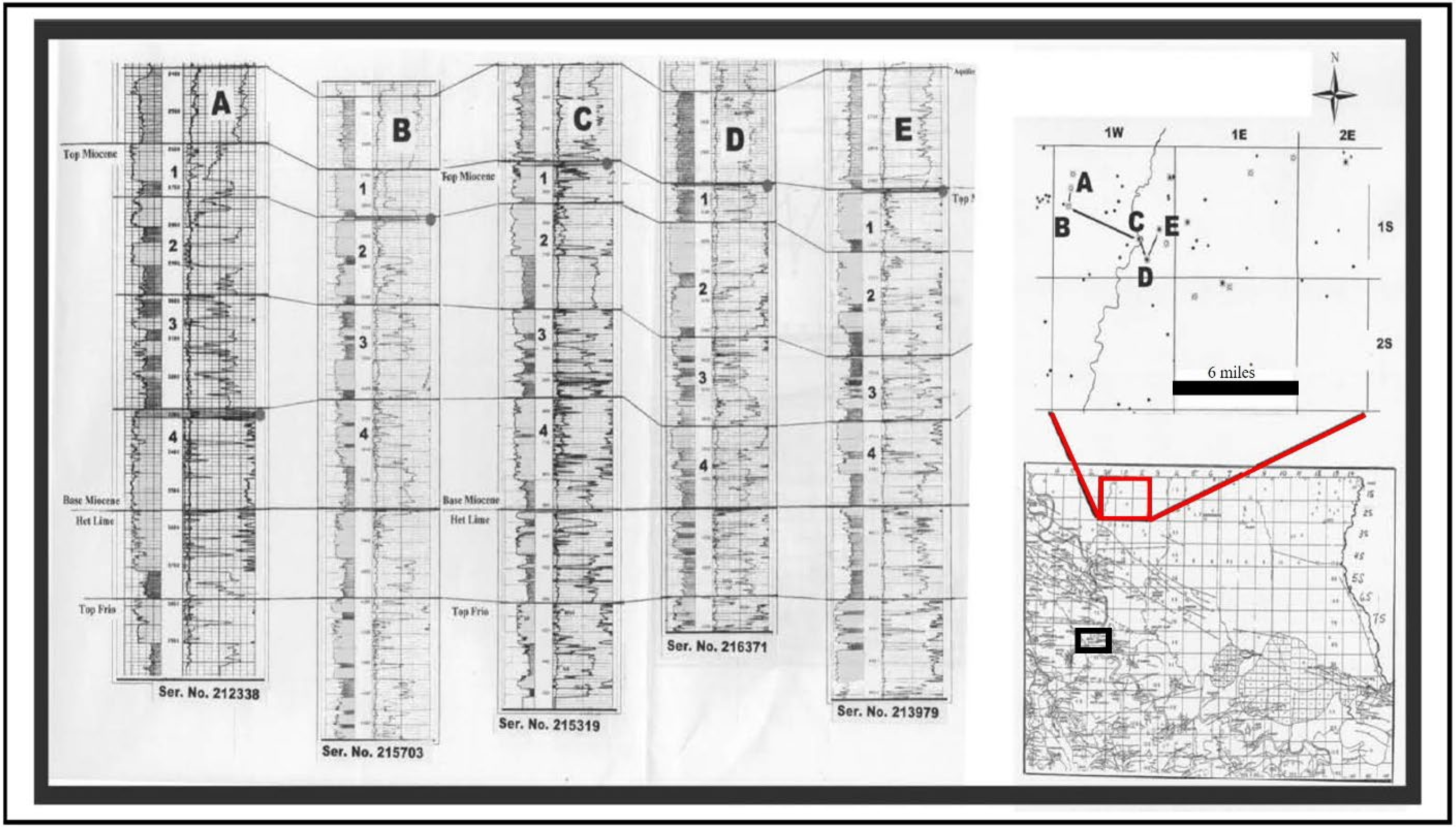


Figure 57: Cross section showing the Miocene and its upper confining zone across the West and East Feliciana parishes within the greater Florida parishes area. The black rectangle on the location map shows the project area. As indicated in the text, this is a regional top seal for the Miocene in this area. Modified from Goddard and Zimmerman, 2003.

Claimed as PBI

Figure 58: Type log for the LMIC and OFIC in the Claimed as PBI (API No. Claimed as PBI locations for well nos. 31, 32, and 49 in Figure 20, Figure 21, and Table 2) well in West Baton Rouge parish showing the Middle Miocene Confining Zone, Lower Miocene Sands injection zone, Anahuac Formation confining zone and Frio Formation injection zone.

Middle Miocene Confining Zone
(Top Miocene to Miocene S)

Preparer: Sarah Wigginton, **Date of Preparation:** 9/04/2024,
Operator: Live Oak CCS, LLC, **Location:** Live Oak CCS Hub

Claimed as PBI

[redacted]

Figure 59: Top structure (top) and isochore (bottom) of the Middle Miocene Confining Zone (structure C.I. = 250'; depths SSTVD; Isochore C.I. = 50') with the six potential LMIC injection sites shown. See information for LMIC petrophysical wells in Figure 20 and Table 2.

Lower Miocene Sands (Miocene (S) to M8)

Preparer: Sarah Wigginton, **Date of Preparation:** 9/04/2024, **Operator:** Live Oak CCS, LLC, **Location:** Live Oak CCS Hub

Claimed as PBI

[redacted]

Figure 62: Top structure (top) and isochore (bottom) of the Lower Miocene Sand (structure C.I. = 250'; depths SSTVD; Isochore C.I. = 100') with the six potential LMIC injection sites shown. See information for LMIC petrophysical wells in Figure 20 and Table 2.

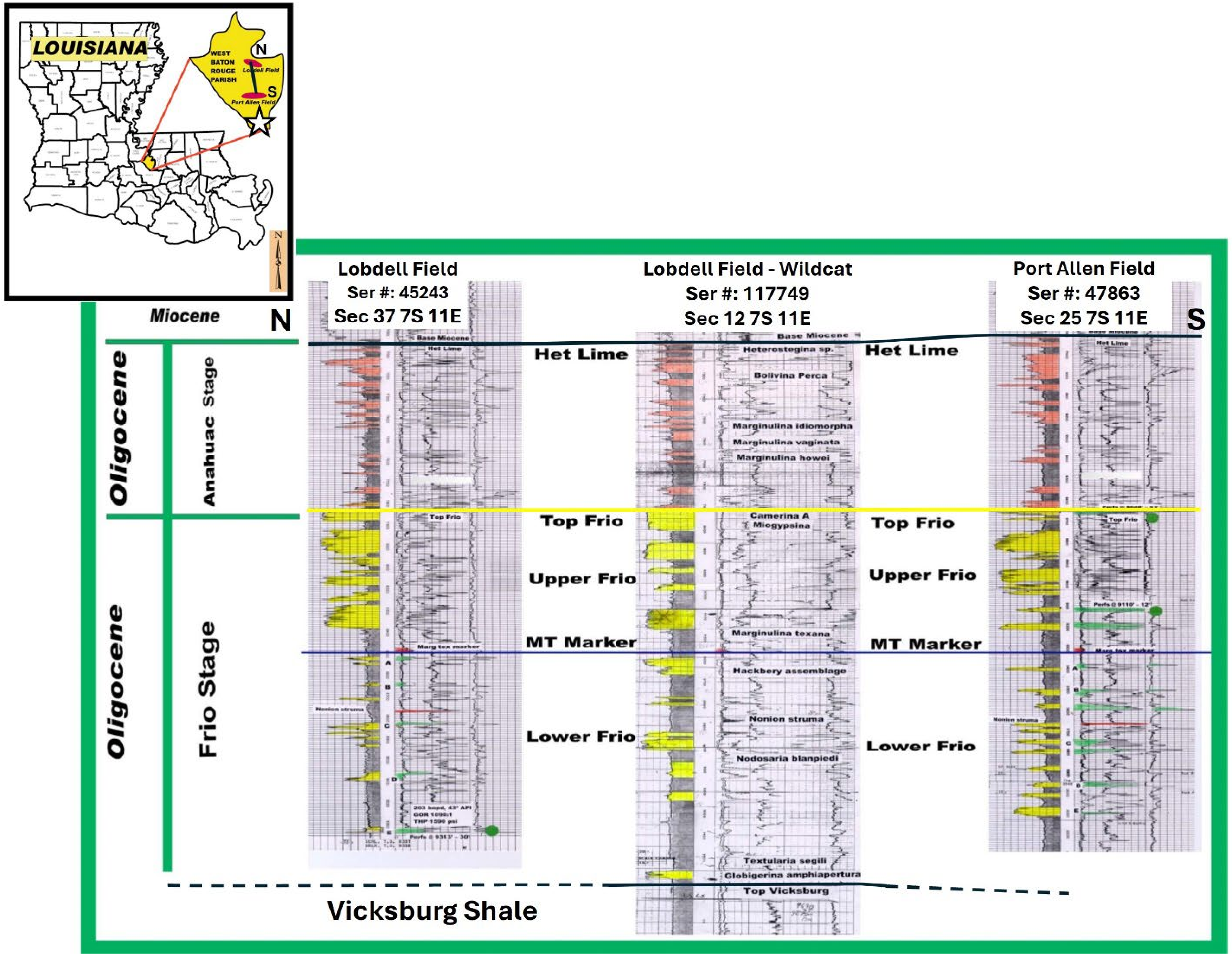


Figure 66: Stratigraphic cross-section showing the shaly and limey Anahuac Formation upper confining zone in central West Baton Rouge parish north of the project area which is identified with a star on the location map. The Frio Formation injection interval, and the top of the Vicksburg Shale lower confining zone are also shown. The stratigraphic datum is the MT Marker within the Marginulina texana paleontological interval. Modified from Goddard et al., 2005.

Anahuac Formation (M8 to Yellow Sand Top)

Preparer: Sarah Wigginton, **Date of Preparation:** 9/04/2024,
Operator: Live Oak CCS, LLC, **Location:** Live Oak CCS Hub

Claimed as PBI

[redacted]

Figure 68: Top structure (left) and isochore (right) of the Anahuac Formation (structure C.I. = 150'; depths SSTVD; Isochore C.I. = 200') with the three potential OFIC injection sites shown. See information for OFIC petrophysical wells in Figure 21 and Table 2.

Frio Formation (Yellow Sand Top to O2)

Preparer: Sarah Wigginton, **Date of Preparation:** 9/04/2024,
Operator: Live Oak CCS, LLC, **Location:** Live Oak CCS Hub

Claimed as PBI

[redacted]

Figure 70: Top structure (left) and isochore (right) of the Frio Formation (structure C.I. = 500'; depths SSTVD; Isochore C.I. = 100') with the three potential OFIC injection sites shown. See information for OFIC petrophysical wells in Figure 21 and Table 2.

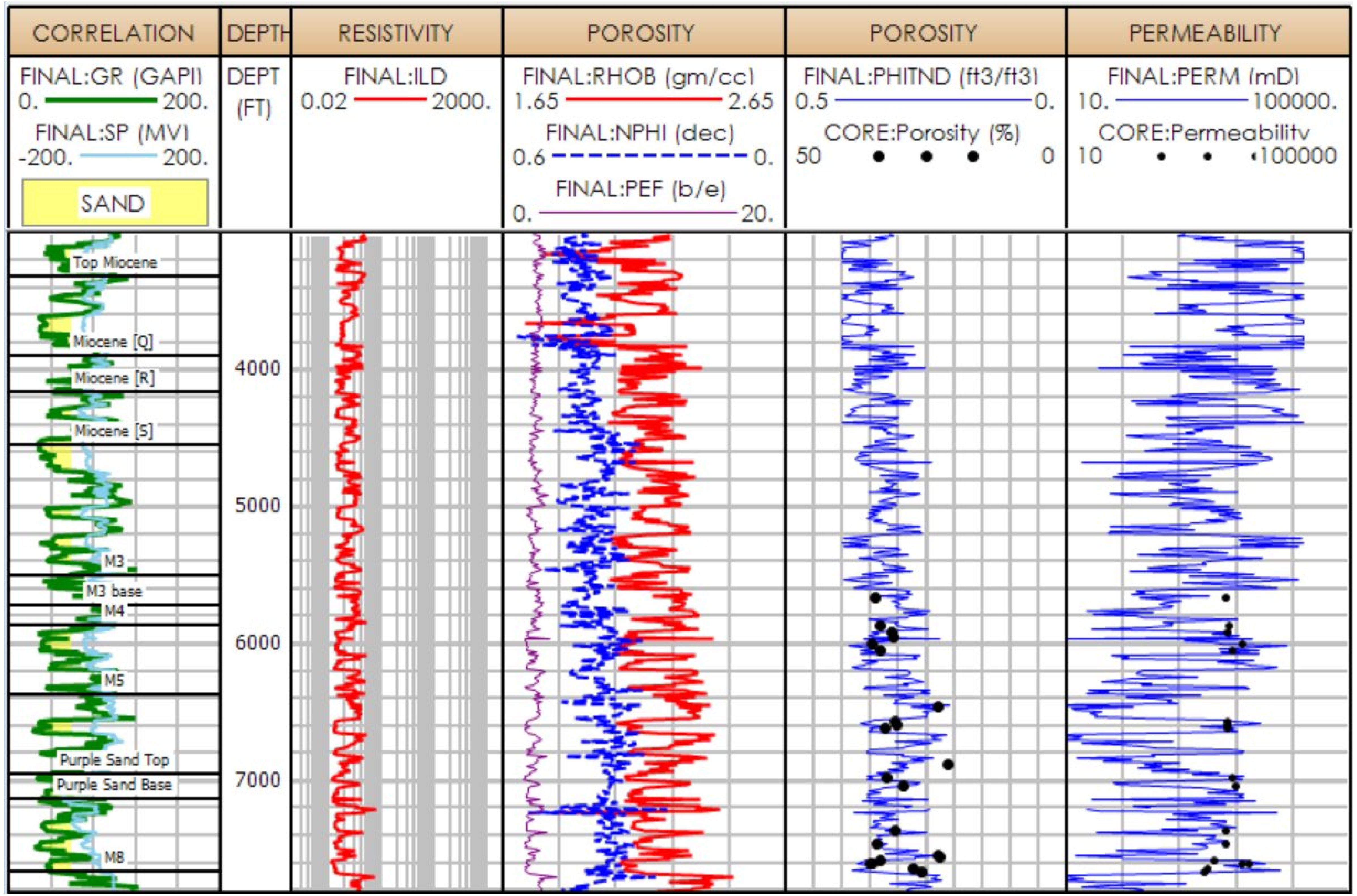


Figure 71: Representative log section through the Lower Miocene Injection Complex showing the vertical variability and locations of core points used in the petrophysical modeling. The log display shows the gamma ray and spontaneous potential logs (far left), the depth track in feet measured depth, the porosity curves, the calculated porosity curve with core data points, and the calculated permeability curve with core data points (far right). Data from API No. [redacted] (see well No. 1 in Figure 20 and Table 2).

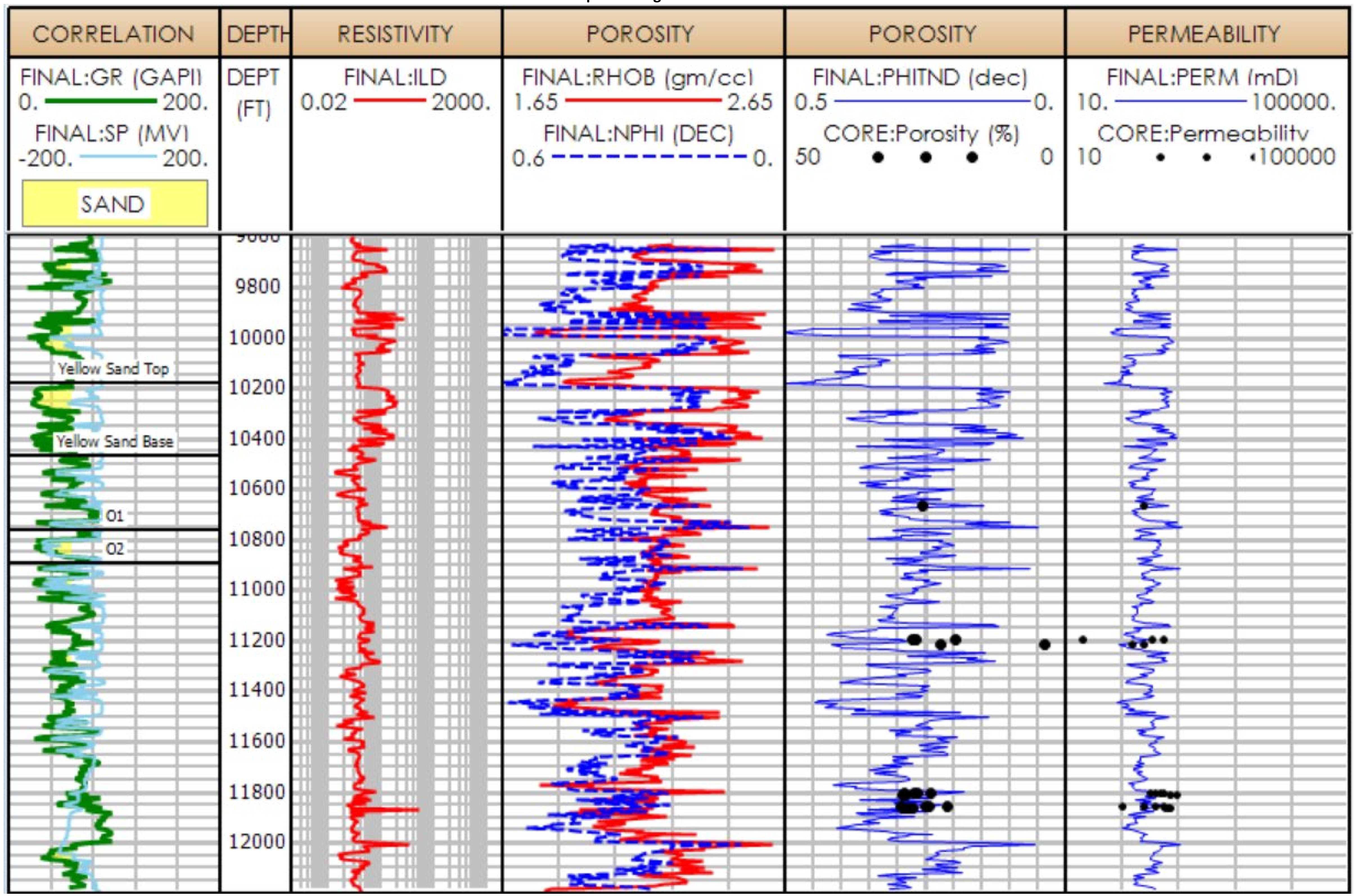


Figure 72: Representative log section through the Oligocene Frio Injection Complex showing the vertical variability and locations of core points used in the petrophysical modeling. The log display shows the gamma ray and spontaneous potential logs (far left), the depth track in feet measured depth, the porosity curves, the calculated porosity curve with core data points, and the calculated permeability curve with core data points (far right). Data from API No. Claimed as PBI **(see well No. 16 in Figure 21 and Table 2).**

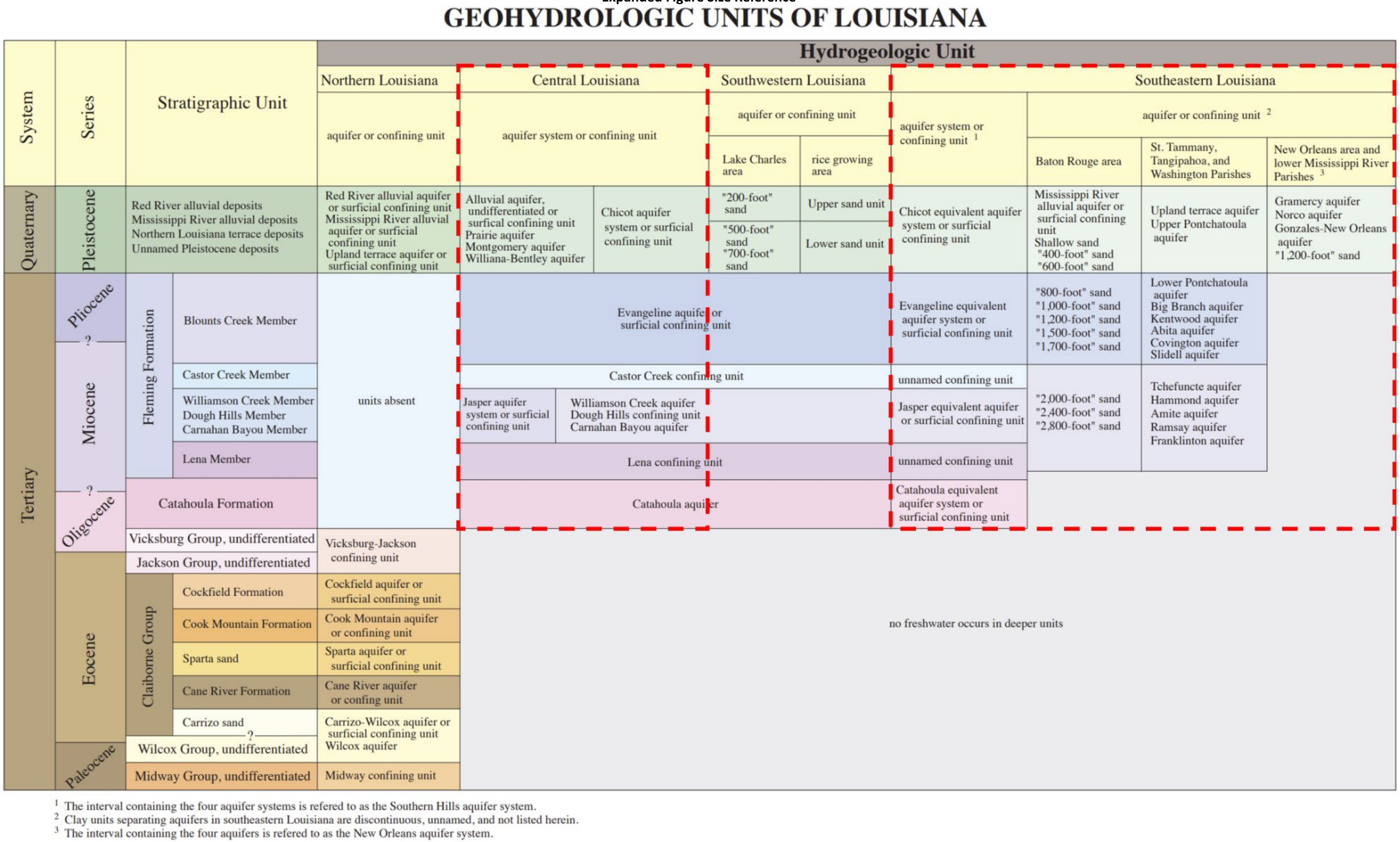


Figure 86: Hydrostratigraphic column for the state of Louisiana from the United States Geological Survey. The red box outlines Central and Southeastern Louisiana, where the project area is located. Modified from Buono (1983).

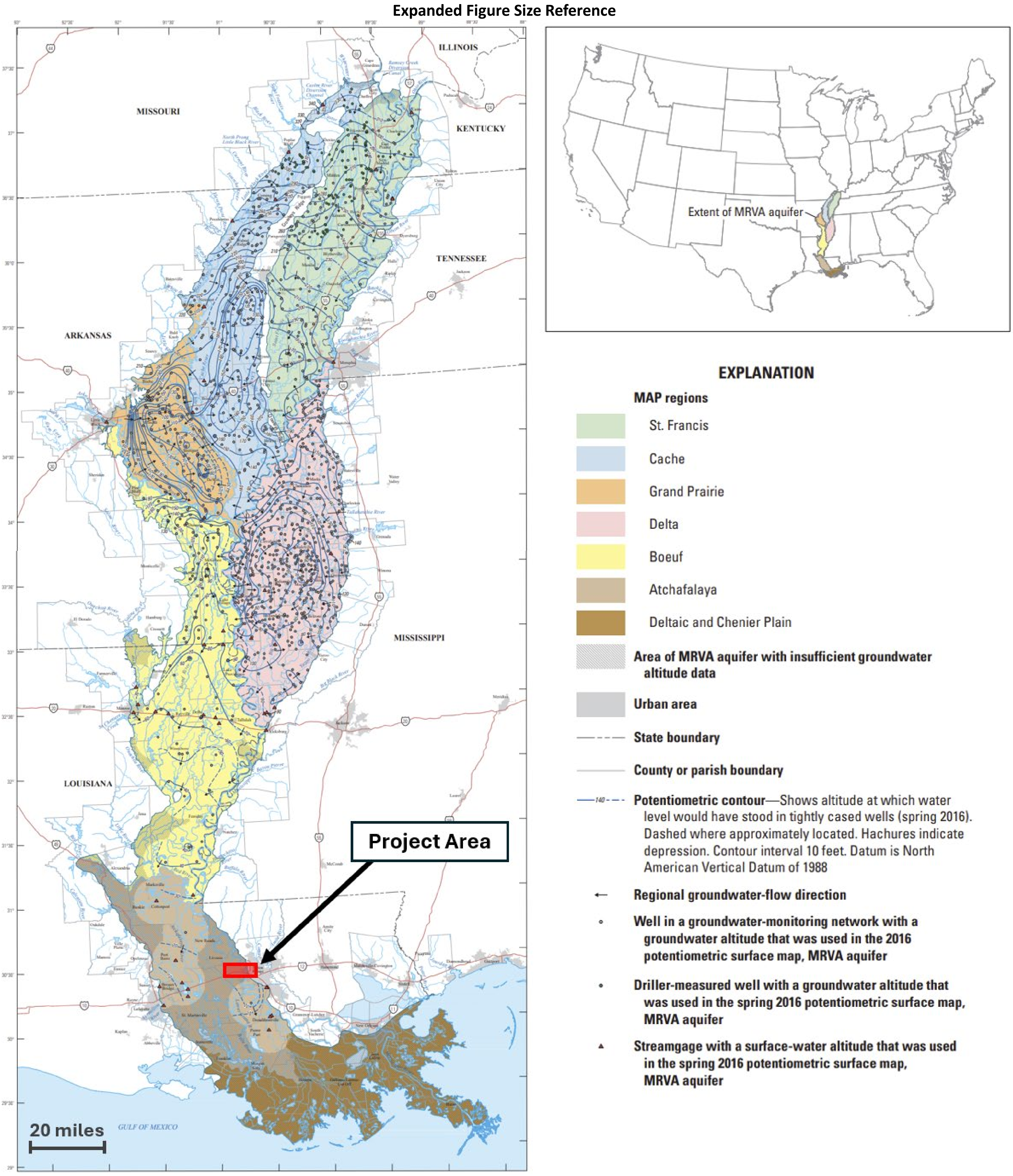


Figure 87: 2016 Potentiometric surface map of the MRV Aquifer. (Figure from McGuire et al., 2019)

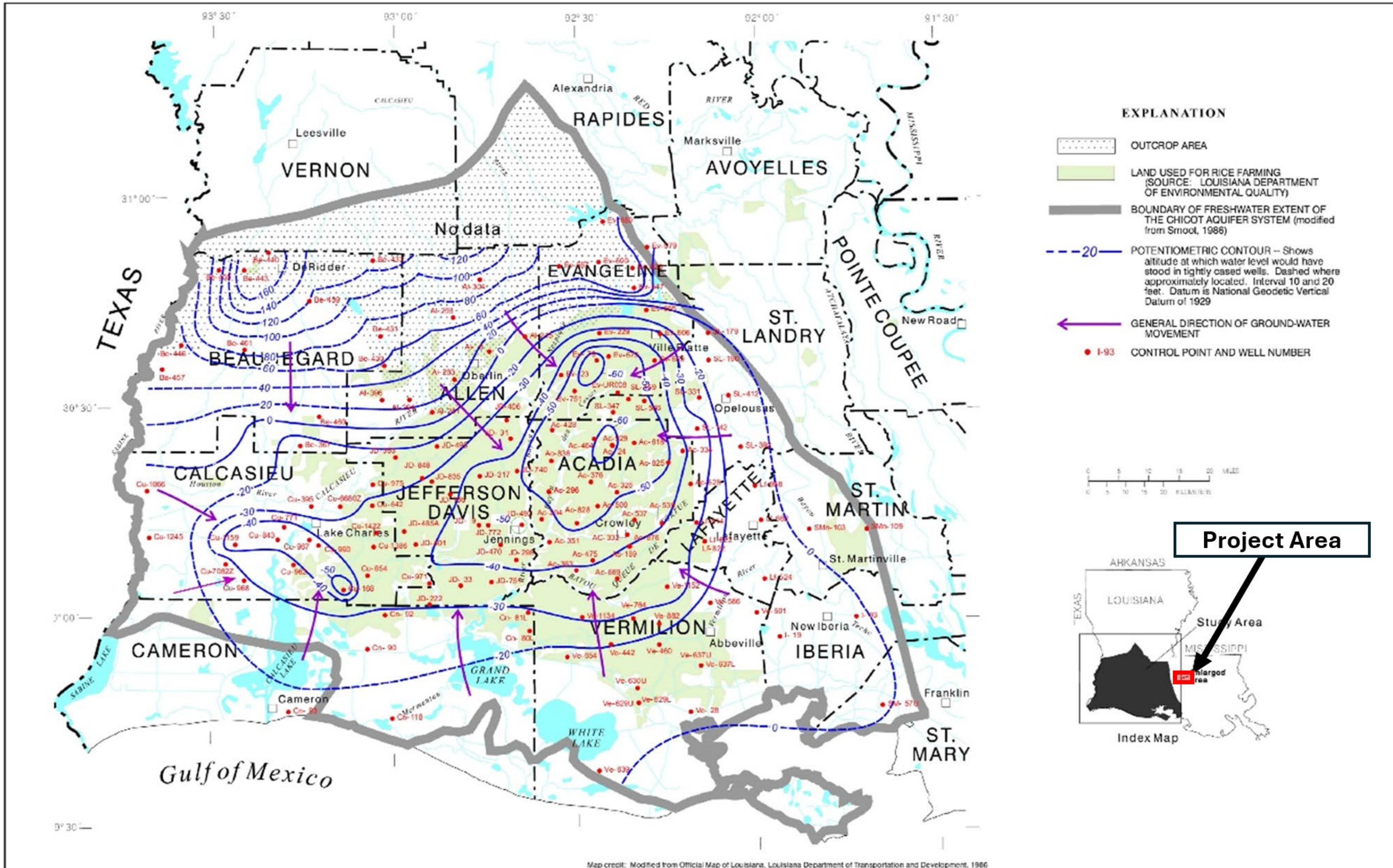


Figure 88: Potentiometric surface of the massive, upper, and 200-foot sands of the Chicot Aquifer System in southwestern Louisiana, January 2003. (Figure from Lovelace et al., 2004)

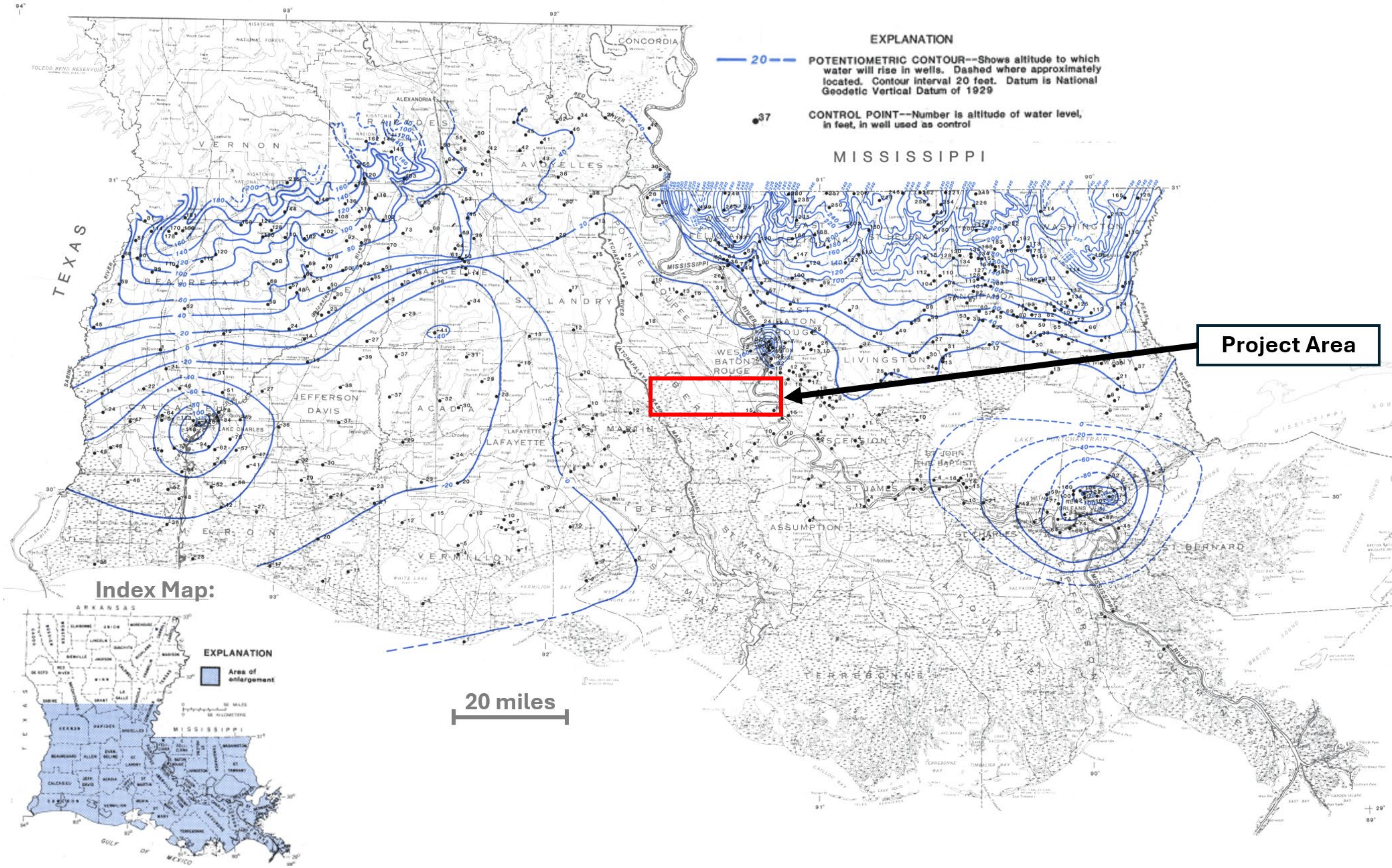


Figure 89: General potentiometric surface of Pleistocene-aged aquifers. The red box shows the project area of interest within the Southern Hills Aquifer System. (From USGS, 1980)

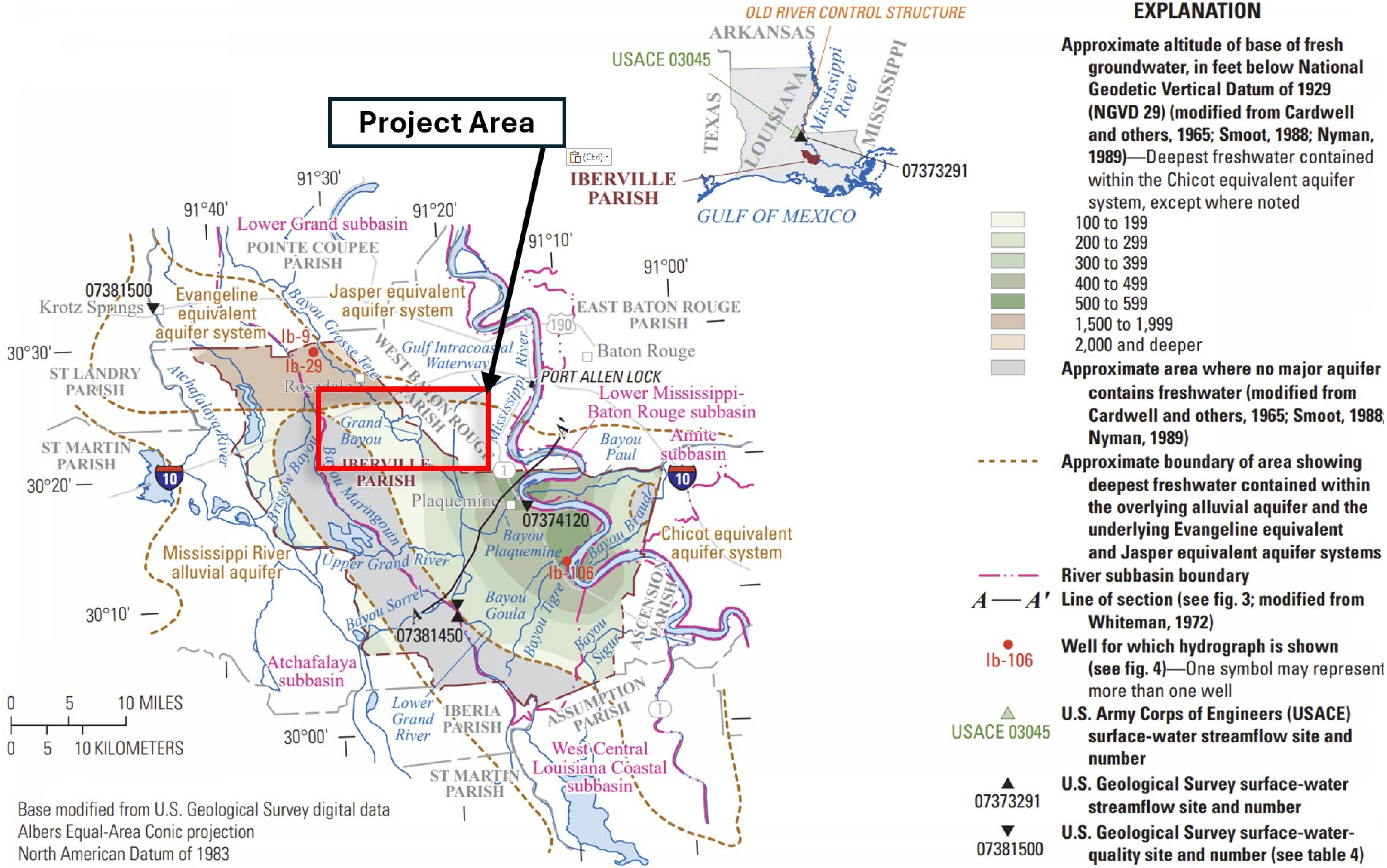


Figure 92: Map for idealized west-to-east hydrogeologic section through Iberville parish, Louisiana, showing aquifers and generalized clay and sand intervals. (Figure adapted from Lindaman and White, 2021)

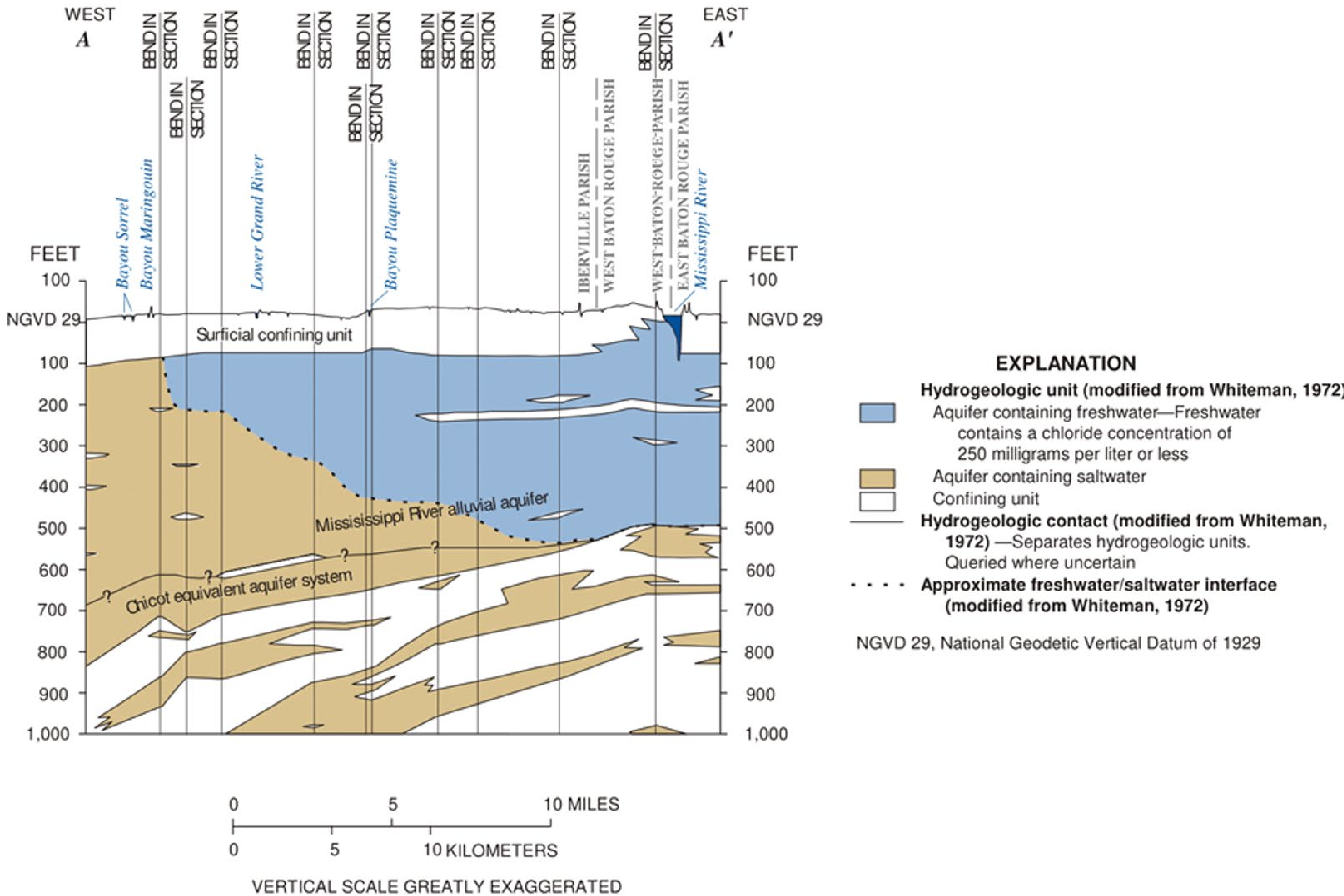


Figure 93: Map for idealized west-to-east hydrogeologic section through Iberville parish, Louisiana, showing aquifers and generalized clay and sand intervals. (Figure adapted from Lindaman and White, 2021)

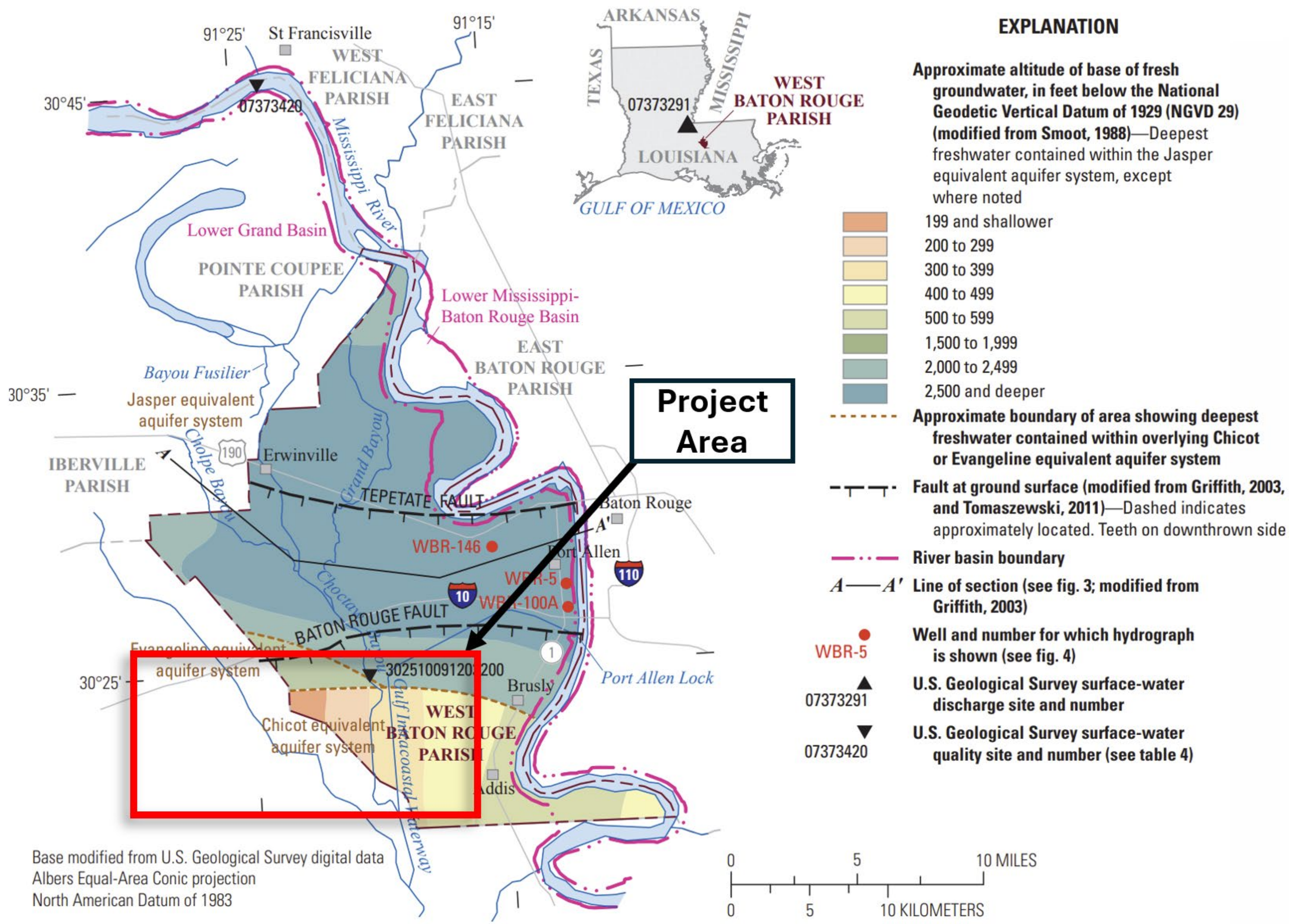


Figure 94: West-to-east hydrogeologic section through West Baton Rouge parish, Louisiana. (Figure adapted from White and Prakken, 2016)

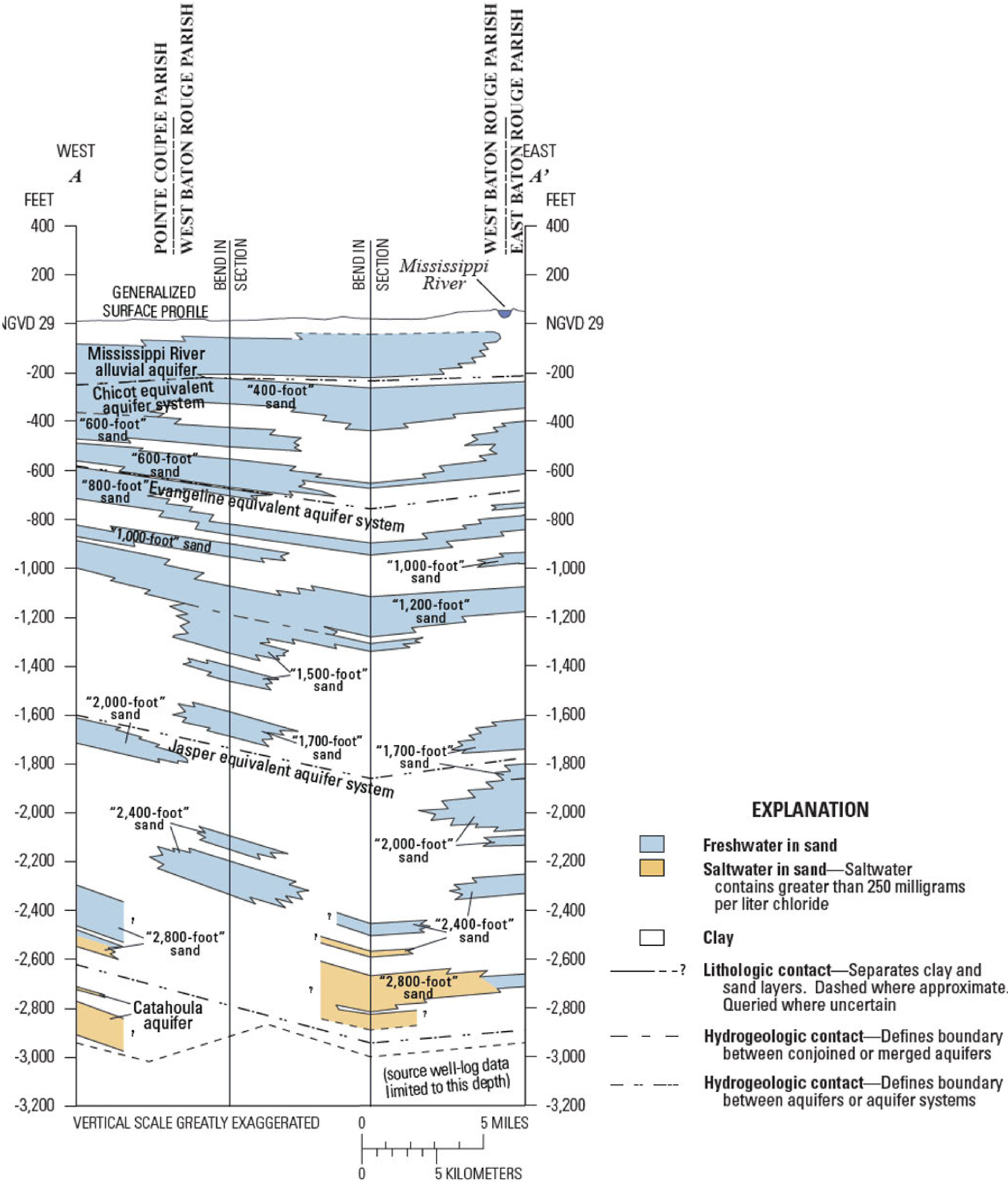


Figure 95: West-to-east hydrogeologic section through West Baton Rouge parish, Louisiana. (Figure adapted from White and Prakken, 2016)

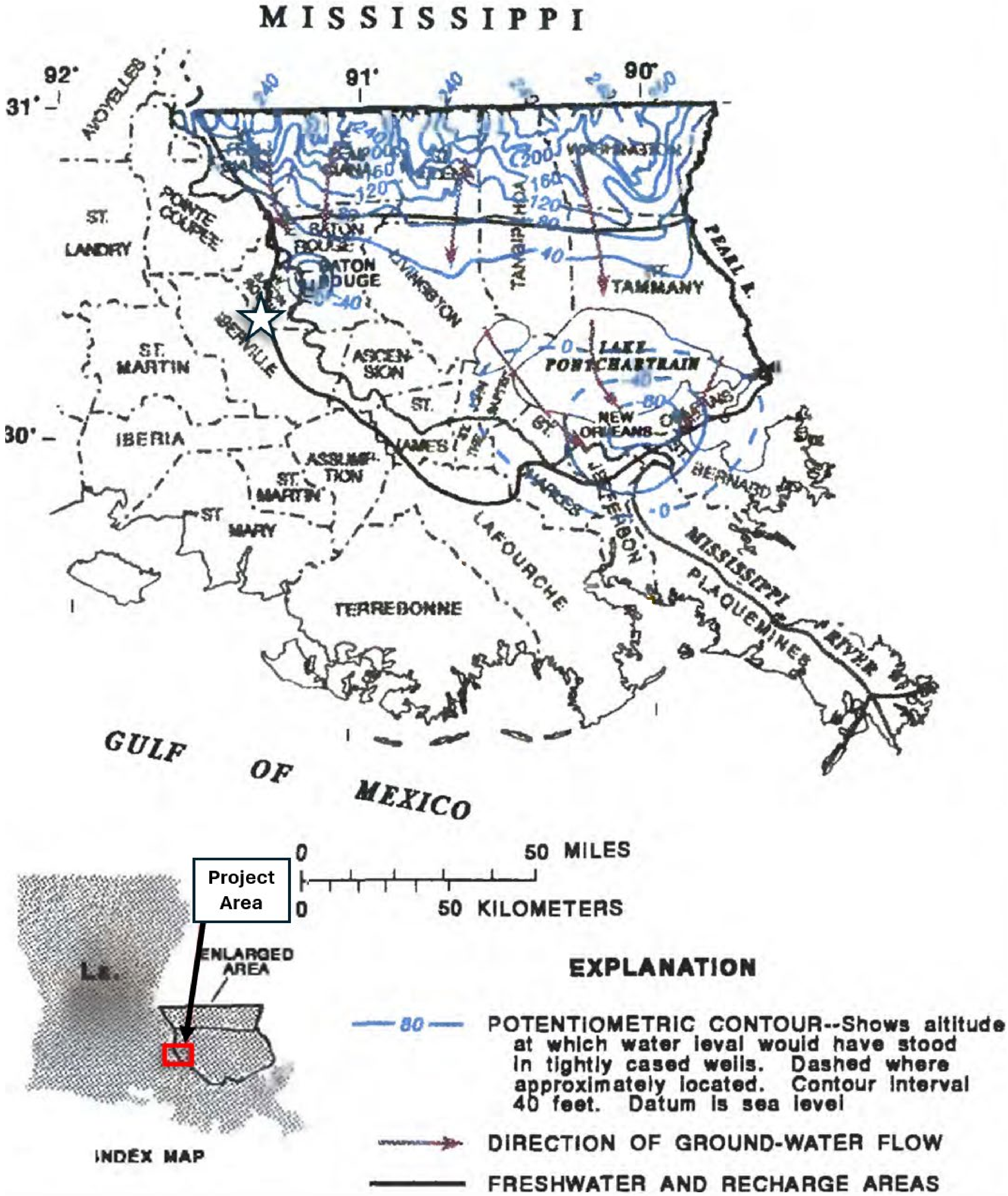


Figure 96: Potentiometric surface and direction of water movement in the Chicot equivalent aquifer system. (Figure adapted from Stuart et al., 1994)

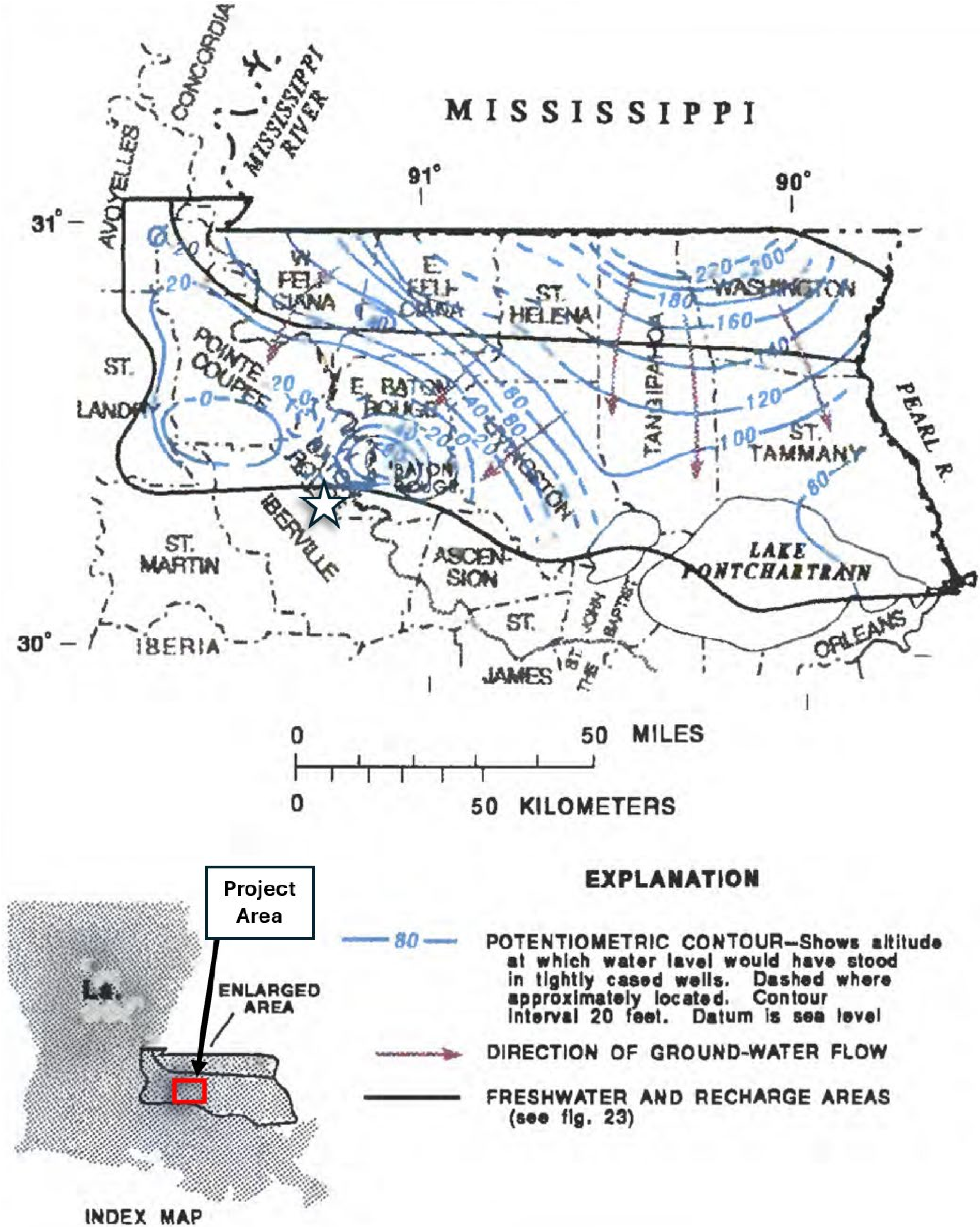


Figure 97: Potentiometric surface and direction of water movement in the Evangeline equivalent aquifer system. (Figure adapted from Stuart et al., 1994)

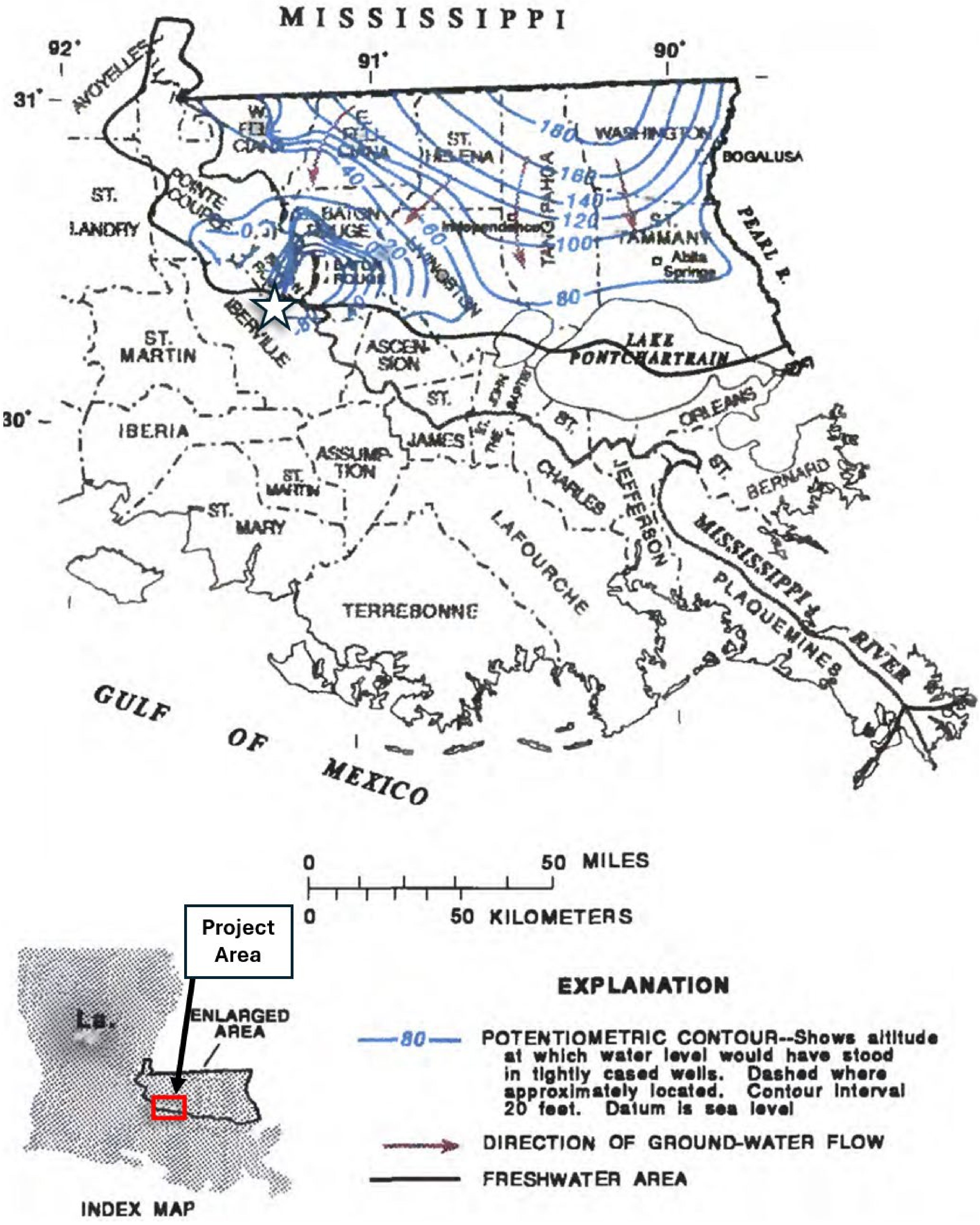


Figure 98: Potentiometric surface and direction of water movement in the Jasper Equivalent Aquifer System. (Figure adapted from Stuart et al., 1994)

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[redacted]

Figure 99: Water well data overview within AoR. Wells are referenced to first column of Table 15.

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[redacted]

Figure 100: Map of groundwater sampling wells (blue), AoR (red), and injection and observation wells. See Table 16 for further information.

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[redacted]

Figure 101: Location map of regional baseline fluid chemistry data from the USGS National Produced Waters Geochemical Database (2023). Wells used for local salinity study for the LMIC and OFIC injection zones shown with API values.