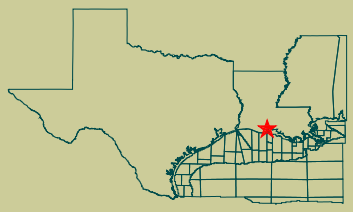
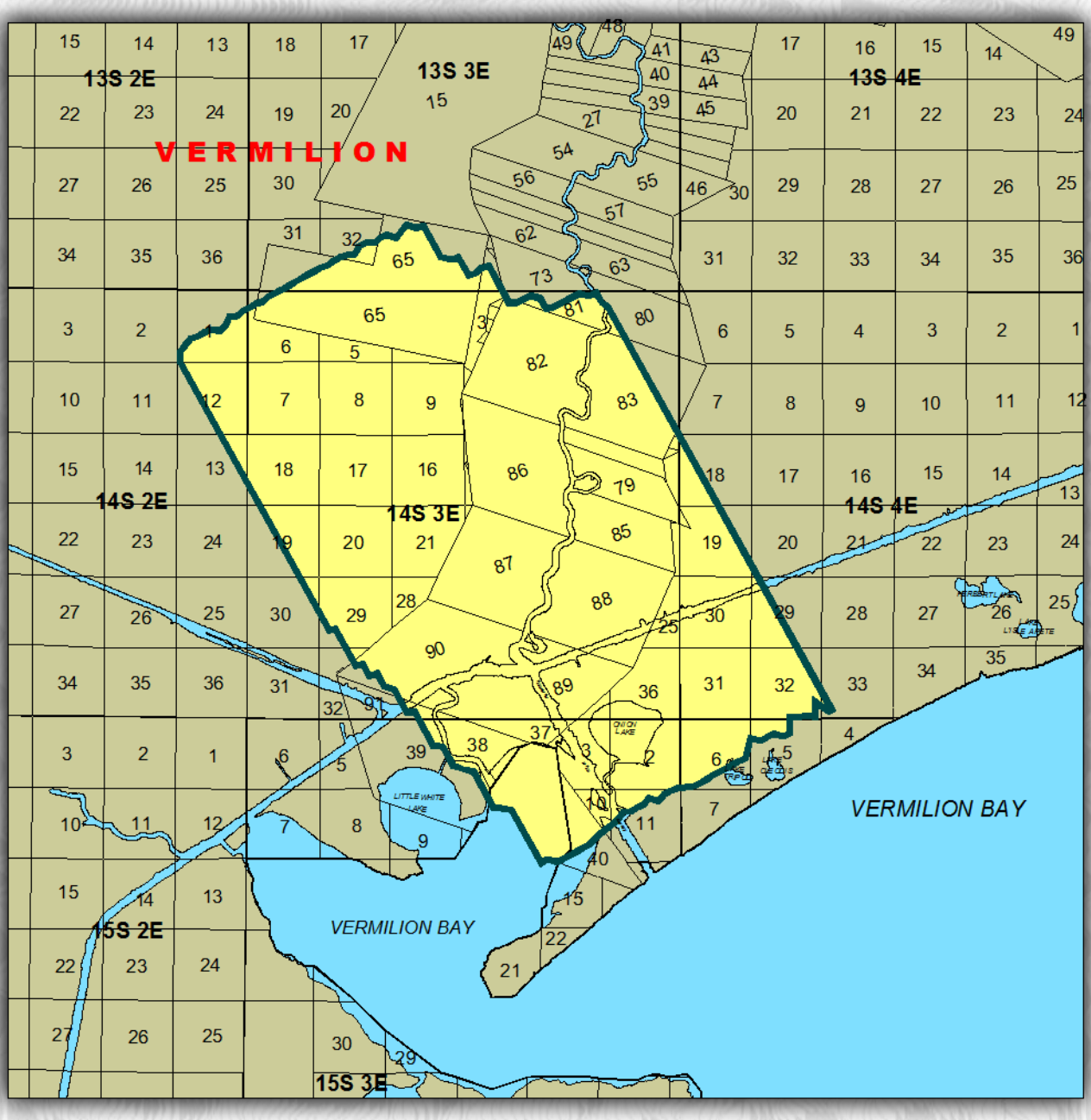
Live Oak

Louisiana Gulf Coast

45.6354 mi^2





Geophysical Pursuit 3-D Surveys

GEOPHYSICAL PURSUIT, INC.

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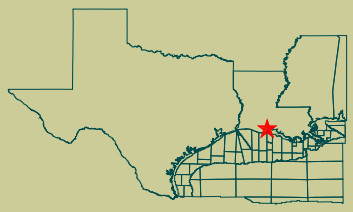

Acquisition Parameters

Contractor:	Digicon/GFS – Jan-Apr 1995
Acquisition Patch:	6Rx line x 160ch split spread brick
Receiver Lines:	NNW/SSE @ 1760ft
Receiver Interval:	220ft
Source Lines:	ENE/WSW @ 1980ft
Source Interval:	220ft
Energy Source:	11lbs Pentolite @ 120ft
Bin Size:	110 x 110 ft
Nominal Fold:	40
Average Far Offset:	18,240ft
Recording System:	SGR II
Record Length:	8 seconds @ 2ms
Available:	January 2000

Processing Parameters

PoSTM (May 1998 – Western Geophysical)

1. Demultiplex and resample to 4ms
2. Geometry Verfication
3. Spherical Divergence Correction
4. CMP Sorting
5. Surface Consistent Deconvolution
6. Surface Consistent Gain
7. Spectral Whitening
8. Datum Statics
9. Residual Statics (two passes)
10. Velocity Analysis @ ½mi (two passes)
11. DMO Stack
12. Migration
13. Post Migration Enhancement

PreStack Time Migration (March 2002 – Geotrace)

1. Demultiplex and resample to 4ms
2. Geometry verification
3. Gain recovery
4. Surface consistent spiking deconvolution
5. Datum statics (Datum=0ft, Replacement velocity=5500ft/sec)
6. CDP sort
7. Velocity analysis (1st pass)
8. Surface consistent residual statics (1st pass)
9. Velocity analysis (2nd pass)
10. Surface consistent residual statics (2nd pass)
11. Time-frequency domain noise reduction
12. Surface consistent amplitude
13. Flex binning
14. CDP offset binning (14 offsets @ 1760ft interval)
15. Kirchhoff PreStack Time Migration (PrSTM) velocity analysis
16. Kirchhoff PrSTM (output =6sec; 14 offsets @ 1760 – 24640ft)
17. CDP sort & stack
18. AGC (1000ms)
19. Time variant filter
20. Post stack noise attenuation (SNIP)

Gather Conditioning

21. ANVEL
22. Radon filter
23. Wave-number filter

HFI Processing Sequence (for CDP Gathers)

24. Band pass filter 2-4-50-60Hz
25. FXY deconvolution noise attenuation
26. Resample 2ms
27. Generate synthetic seismograms on well
28. Phase analysis at conventional frequency
29. No phase rotation required
30. HFI
    a. Design window
        i. Near offset 400–5800ms
        ii. Far offset 3600–5800ms
    b. Pre-filter 4-8-45-60Hz
    c. Phase rotation 0, Sparseness 5, Gain 8
    d. High frequency cutoff 80Hz
31. Post HFI gather noise attenuation (SFR, 60% add back)

Available Products

A. Geometry Merge gathers
B. PoSTM volume
C. K PrSTM stack volumes
    a) Raw
    b) Enhanced
    c) HFI
D. HFI PrSTM gathers

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