



Hell Creek 3D Survey

Pearl River County, MS

Acquisition Parameters (Tidelands Geophysical Co.)

Acquired	October 2000
Recording System	Opseis Eagle
Survey Size	17.631 Square Miles
Sample Rate	2 Milliseconds
Record Length	8 Seconds
Source	6.0 lbs. Dynoseis @ 150 feet average
Receiver Array	12 Phones inline over 201 feet
Bin Size	110 feet x 110 feet
Receiver Line Orientation	N - S

Patch & Box Dimensions

No Channels	872
Spread	8 lines x 109 channels
Patch	9,240 Feet x 23,760 Feet
Group Interval	220 Feet
Shot Interval	220 Feet (6 shots per salvo)
Receiver Line Interval	1,320 Feet
Shot Line Interval	311.127'/1,760 Feet (Diagonal)

Generalized Processing Sequence

- 1) Reformat
- 2) Geometry Definition & Application
- 3) Q.C. Surveying/Positioning Data
- 4) Display Field Records & Edit
- 5) 3D Refraction Statics (if necessary)
- 6) Spherical Divergence & Gain Correction
- 7) Amplitude Correction(s)
- 8) Deconvolution
- 9) Binning of Data into 110' x 110' bins
- 10) Regional Velocity Analysis
- 11) Initial Stacks
- 12) Structural Velocity Analysis
- 13) 3-D NMO Correction & Stack
- 14) 3-D Surface Consistent Residual Statics
- 15) Velocity Refinement
- 16) Second Iteration of 3-D Surface Consistent Residual Statics
- 17) 3-D DMO Correction
- 18) Velocity Analysis
- 19) Final Stack
- 20) One Pass Migration
- 21) Final Filtering & Scaling