

SPOT LOG

DRILL HOLE: GRAY #12
PROP. OWNER: D. D. Gray
DRILL CONTRACTOR: Carter Land & Cattle, Inc.
DRILL OPERATOR: H. Reed
DATE STARTED: 4/16/79
CASING LEFT IN HOLE: 47' of 7" O.D. Surface
Casing; 299.35' of 4" Casing, cemented in

LOC: NE, SE, Sec. 34, T30S, R21E
330' N of Gray 7

LOGGED BY: JWE
ELEV:
DATE COMPLETED: 4/20/79
TOTAL DEPTH: 300'

April 18, 1979

158 - 162 - Shale, light green, large chips
162 - 164 - Shale, dark gray - black
164 - 169 - Siltstone, black, shaly
169 - 172 - Shale, light gray; underclay, minor
Numerous woody fragments and pyritized leaf impressions ? Slight oil odor
170 - 171 - Trace coal

Core #1 - 172 - 192

172 - 173 - Shale, light gray; shale - sandstone contact is gradual over 4 inches;
interbedded sand - shale laminae
173 - 176 1/2 - Sandstone, brown; oozing oil
176 1/2 - 177 - Sandstone, 1/4" spaced thin shale laminae
177 - 181.8 - Sandstone, brown
181.8 - 185.7 - Shale, light brown
185.7 - 187.4 - Sandstone, brown; oozing oil and gas
187.4 - 187.8 - Sandstone, dark brown to black with shale pebbles
187.8 - 192 - Sandstone, brown

Comment: Ken says definite water at 186.5

Core #2 - 192 - 203.8

192 - 198 1/2 - Sandstone, light gray
198 1/2 - 199 - Sandstone, with shale laminae
199 - 200 - Sandstone, tan
200 - 201 - Sandstone, very dark brown to black
201 - 203.8 - Sandstone, brown with numerous fine shale laminae

Comment: Had to pull core at 203.8 because core barrel plugged off

→ Core catcher not needed.

April 19, 1979

Continued to core Core #2

204 - 205 - Sandstone, dark brown
205 - 205 1/2 - Shale, sandy, dark gray
205 1/2 - 209 - Sandstone, dark brown
209 - 209 1/2 - Sandstone, dark brown with millimeter coal and shale laminae
210.8 - 1/4" to 1/8" shale elongate pebbles
209 1/2 - 213.8 - Sandstone, dark brown
212 1/2 - 2" of shale thin laminae

Core #3 - 214 - 234

- 214 - 222 - Sandstone, medium brown; few shale laminae
 - 222 - Few shale pebbles elongate
- 222 - 227 - Sandstone, brown, uniform, few coal fragments
- 227 - 228 - Sandstone, dark brown with 2 - 1/4" coal layers
- 228 - 229 1/2 - Shale, light gray with highly distorted and over-turned laminae
- 229 1/2 - 234 - Sandstone, dark brown
 - Shale pebbles at 229 1/2 and 232
 - Coal 5%

Core #4 - 234 - 254

- 234 - 236 - Sandstone, fine grained, dark brown
- 236 - 238 - Sandstone, dark brown with huge shale pebbles
- 238 - 240 - Sandstone, dark brown with shale pebbles concentrated from 3" to 6" above base
- 240 - 254 - Shale, light to medium gray

T. D. @ 300' on April 20, 1979

- 258 - 259 - Shale, black; coal, 10%
 259 - 261 - Shale, black
 261 - 264 - Shale, black; siltstone, brown
 264 - 266 - Shale, black; coal
 266 - 272 - Shale, medium to dark gray
 272 - 274 - Shale, dark gray
 274 - 277 - Shale, medium gray; shale, dark gray
 277 - 280 - Shale, black; shale, gray; siltstone, brown
 280 - 284 - Shale, black; shale, brown, silty
 284 - 289 - Siltstone, greenish-gray; shale, black
 289 - 291 - Shale, greenish-gray, silty
 291 - 304 - Shale, gray
 304 - 314 - Shale, dark gray
 314 - 315 - Shale, silty, brown 70%; shale, black 30%
 315 - 319 - Shale, black; shale, light gray, soft
 319 - 326 - Siltstone, greenish-gray
 326 - 329 - Siltstone, greenish-gray 70%; sandstone, fine 30%
 329 - 331 - Sandstone, fine grained, greenish-gray; no oil
 331 - 332 - Siltstone, greenish-gray
 332 - 333 - Siltstone, shaly; shale, gray
 333 - 334 - Siltstone, brown and greenish-gray
 334 - 335 - Shale, silty, gray; siltstone, brown
 335 - 336 - Shale, silty
 336 - 340 - Shale, medium gray and dark gray
 340 - 359 - Shale, dark gray [Measuring casing]
 359 - 389 - Shale, gray [Irregular spot log - all shale?]
 389 - 409 - Shale, gray [Strip log - rough lithology, drilled after dark]
 409 - 440 - Shale, gray
 440 - 444 - Shale, gray; shale, black
 444 - 454 - Shale, gray and dark gray
 454 - 490 - Shale, gray
 490 - 491 - Shale with pyrite, hard spot
PENN 491 - 501 - Shale, gray
MISS 501 - 505 - Chert, white; super hard
 505 - 508 - Chert, white
 508 - 512 - Chert 20%; limestone, brown 80%
 512 - 529 - Limestone, brown 85%; chert, white 15%
 529 - 532 - Limestone, brown; no chert
 532 - end of large hole