

DRILL HOLE: Sartin # 22
DATE STARTED: February 16, 1980
DATE COMPLETED: February 19, 1980
LOGGED BY: MRG

CASING ELEV. 846.38
TOTAL DEPTH: 301'
CONTRACTOR: Lamampco
DRILLER: Jim Miller

- 30 - 40 - Limestone, brownish, fossiliferous; silty 100%, U.V. poor show without fluid; fair show with
- 40 - 50 - Limestone, gray and brown, silty, locally fossiliferous 70%
Shale, black, trace of pyrite 30%, U.V. poor show without fluid; good with
- 50 - 60 - Shale, black, silty 60%
Siltstone, light gray, poorly indurated, trace of pyrite crystals 40%
- 60 - 70 - Siltstone, gray and brown, locally micaceous 100%
- 70 - 80 - Siltstone to very fine grain sandstone, gray, micaceous 70%
Shale, gray, silty 30%
- 80 - 90 - Shale, gray, silty carbonaceous 85%
Siltstone, light gray, trace of pyrite 15%
- 90 - 130 - Shale, gray, silty, carbonaceous 100%
- 130 - 140 - Shale, dark gray, silty, calcareous, locally fossiliferous 75%
Coal fragments 20%
Siltstone light gray, micaceous 5%
- 140 - 150 - Limestone, medium gray crystalline 75%
Shale, light gray, silty 15%
Coal fragments 10%
- 150 - 160 - Limestone, light gray, very silty, micaceous 90%
Shale, black, very calcareous 10%
- 160 - 162 - Siltstone, light gray, micaceous, calcareous 90%
Shale, black 10%, U.V. good show

CORE # 1 - 162 - 182.1

- 162 - 173.0 Shale gray, silty shale 162 - 162.8. Sandy shale 163.5~~5~~; 164.5-164.7; (165.5-165.6) (165.7-166.2) (166.5-166.9) (167.4-167.9) All ooze oil.
- 173.0 - 178 - Very shaley sandstone fine grained brown micaceous, shale break 177.6 - 177.8 Shaley sand oozes oil very slowly
- 178 - 179 - Shale, gray, silty uniform
- 179 - 182 - Sandstone, fine grained brown micaceous, shaley. Shale breaks (179.7 - 179.8), (179.9-180), (180.8-181.3); (181.8-182.1)
All contacts regular ranging from 80 degrees from core axis to nearly horizontal. Sand oozes free oil slowly.

No presence of water on freshly broken surfaces. Pit show poor rainbow only.

CORE # 2 - 182.1 - 202.6

- 182.1 -188.6 Sandstone, fine grained brown micaceous Interlaminated shale carbonaceous material and sand 182.1 -182.4. Little oil oozes here: (184.3-184.4) no oil ooze here.
- 188.6 -189.8 Shale, gray, silty. Carbonaceous seam 1/16" at 188.8 about 80 degree from core axis.
- 189.8 -202.6 Sandstone, fine grained, brown, micaceous, specks of lime throughout. Carbonaceous laminations 1/8" at 193.0; (195.3-196.0) No oil ooze. Interlaminated shale mica carbonaceous material and sand. 196.7-197.6 no oil ooze here. Sand becomes dark and asphaltic below 201.5. Shale pebble 1" by 1" 193.1 shale rip clasts 194.5-194.9 3" by 2". Core oozes some free oil (182.1 -185.3) first water mixed with oil 182.7. Pit show light cover. Overnight oil leakage from previous core possible
- 202 -205 - Sandstone, fine grained brown and gray micaceous and carbonaceous 100% U.V. good show
- 205 -210 - Sandstone, fine grained, brown, slightly calcareous micaceous carbonaceous 80%; U.V. good show Shale, gray, silty 20%
- 210 -215 - Limestone, light gray, silty, trace of pyrite 70%
Shale, black, silty 30%
- 215 -220 - Shale, gray, silty, slightly calcareous 50%
Shale, black, silty 30%
Limestone, brown, locally crystalline 20%
- 220 -225 - Shale, gray, silty, local inclusions of brown subrounded metal oxides 85%
Shale, black, silty, trace of pyrite, calcareous 15%
- 225 -230 - Siltstone, light gray, micaceous, carbonaceous 70%
Shale, gray, silty 30%
- 230 -235 - Siltstone, light gray, micaceous, carbonaceous 80%
Shale, gray, silty 20%
- 235 -240 - Siltstone to very fine grained sandstone micaceous and carbonaceous 100%
- 240 -250 - Shale; gray, silty 80%
Siltstone, gray, carbonaceous, calcareous 20%
- 250 -260 - Shale, black, silty, calcareous, trace of pyrite 80%
Shale, gray, silty 20%
- 260 -270 - Limestone (light gray-tan), silty and crystalline 70%
Shale, gray, silty 15%
Shale, black, silty, calcareous 15%
- 270 -280 - Shale, gray, silty 35%
Shale, black, silty 35%
Limestone, light gray totan, silty 30%
- 280 -290 - Siltstone, light gray, local inclusions of light brown well rounded metal oxides 1-3mm 95%;
Shale, black, silty 5%
- 290 -300 - Siltstone, light gray local inclusions of light brown well rounded metal oxides 1-3mm 55%
Shale, gray, silty, local inclusions of well-rounded brown metal oxides 1 mm 30%
Limestone, light gray, silty 15%