James Ray #2 VDMR # 3415 Miller #62 API #45-105-19716-00-03 OPERATOR: Rouge Oil Company A-7-65 FARM: James Ray WELL NUMBER : 2-LOCATION: Lee County, Rose Hill Quadrange, south end Martin Creek Fenster LATE LONG: 1330 ELEVATION: TOTAL DEPTH: 1470 ft. DRILLING COMMENCED: DRILLING COMPLETED: 1948 RESULT: Producer, now plugged and abandoned PARTIAL GEOLOGIC LOG INTERVAL DESCRIPTION 0-397 NOT DESCRIBED. 397-411 Shale, dk. gy; micaceous, thin bedded, slightly silty (50%); sandstone, white-reddish brownreddish gray -medium gray, v. fn to coarse grained, well-sorted to poorly sorted, generally sub-to well rounded and well cemented (50%) 411-421 Shale, dk. gray as above (95%); Limestone calcarenite, very muddy, white w/ brownish-red mud matrix (5%) Sandstone, mostly white to pale green, lesser 421-431 amts.m. gray, fine to coarse grained, generally clean & grain supported; subangular to subrounded quartz grains w/ low porosity (90%); Shale and limestone calcarenite as above Sandstone, as above, med. to coarse grained, 431-447 some cuttings have good porosity; minor silty shale, dk. gray Sandstone, white to pale green, med. to coarse 447-457 grained, well-sorted subangular qtz, grainsupported, good porosity (60%); Shale, dk. gray, thin bedded, micaceous (40%) Sandstone, as above, some v. coarse, qtz. grains, 457-468 angular to subangular, generally disassociated (may indicate friable nature?) (80%) Shale, as above (20%) Shale, dk. gray, micaceous, thin bedded, slightly 468-473 silty; minor Sandstone, as above (may be cavings)

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2.	INTERVAL	DESCRIPTION
-	475-482	Shale, as above, w/ minor sandstone w/ minor reddish-gray-brown calcarenite similar to 411- 421 interval except more hematitic (probably thin iron horizon)
•	482-491	Same as above
	491-500	Shale, dk. gray, micaceous, thin bedded w/ minor hematite
	500-509	Shale, as above, (75%); Sandstone, white-brown- gray varisties, v. fn. to med. grained, mostly clean, tho some have muddy matrix; some sandstone is pyritic
·	509-520	Sandstone, white-creme-reddish brown-gray, fn. to med. (w/ minor coarse) grained, well-sorted subangular to subrounded, grain supported w/ minor whitish intragranular clay (60%); Shale, as above (40%)
	520-533	Sandstone and shale, as above
	533-544	Shale, (70%) and sandstone (30%) as above
	544-554	Shale, dk. gray, micaceous, silty;and siltstone, dk. gray, micaceous.
	554-748	Interval not examined
	748-758	Limestone, m. gray-gray brown, v. fn. xln. argillaceous, grainy texture, and shale, dk. gray, very limy w/ minor white, silty limestone; minor mudstone, dk. reddish-brown to red, limy
	758-770	Limestone and shale as above: rare brach fossils
	770-787	Mudstone, dark red-reddish brown, micaceous, very limy (70%); shale and argillaceous limestone, as above, (30%)
	787-797	Mudstone, dark red, as above (75%); w/ limestone & shale as above; Much of the limestone has a greenish tint.
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DESCRIPTION INTERVAL Mudstone, as above (70%); w/ very argillaceous 797-807 limestone, dk. gray to dk. greenish gray v. fine grained, granular texture 807-817 Mudstone, as above (40%) limestone, dk. gray, fine crystalline, fairly dense (40%); shale, dk. greenish gray, thin bedded, limy, soft, micaceous Limestone as above (70%), more argillaceous 817-823 than above; shale, as above (30%) Limestone & shale as above w/ occasional brach. 823-830 fragment 830-1073 Not examined Shale, dk. gray, thin bedded, soft and limestone, 1073-1084 m. dk. gray,-m. gy. brown fn. xln.argillaceous/ silty (very small quantity sample) 1084-1090 Shale, as above (80%); Limestone as above plus minor amts. white-creme-lt. brown.coarse xln. or fine granular calcite As above 1090-1100 As above w/ trace Bentonite (?) pale green w/ 1100-1110 minute mica flakes disseminated in mostly calcareous matrix; minor fossil fragments. As above w/ rare rounded, dark gray, 1/2 mm. 1110-1120 clasts in limy mud matrix Shale, dk. gray, fairly soft (90%); Limestone 1120-1130 very silty/argillaceous, as above w/ fairly abundant brachiopod & other fossil fragments As above, shale generally more limy 1130-1138 As above 1138-1148 Shale, as above (80%); Limestone, m. gy. brown, 1148-1158 coarse xln. w/ minor amts. of limestone as above, brachiopod (?) fossils & molds abundant; occasional dk. gy. clasts. As above 1158-1168 As above 1168-1178

INTERVAL

1178-1644

1644-1654

1654-1664

Limestone, as above, m. dk. gy brown (70%) shale (20%); Limestone, white, xln.to chalky (10%); minor fossil fragments.

Limestors, m. dk. gy-m. gray-m. dk. gy brown, fine to med. coarse xln, (60%); shale, dk. gray, slightly limy (30%); Limestone, white/creme,

DESCRIPTION

Not examined

chalky, soft (10%)

As above, w/ minor calcarenite, lime mud-supported

1678-1690

1664-1678

Limeston, m. gray - m. lt gy brown-creme/white varieties (50%); Shale, dk. gray, slightly limy (50%)

1690-1700

1700-1707

As above, w/ minor amts of smoky gray chert

Limestone, m. dk. gray, fn. xln, very argillaceous (50%); shale, as above (30%); Limestone, as above (20%); occasional brach, fragment.

1707-1718

Limestone/limy shale, dark gray, fine crystalline, very argillaceous (80%); Limestone, white-cremelt. brown, coarse crystalline to fine grainy/ chalky (20%)

1718-1728

1728-1738

as above (40%); occasional fossils, rare fine pyrite xls. Limestone, very argillaceous/limy shale (80%); Limestone, lt. colored varieties as above (20%) Minor Bentonite, pale green, finely granular, siliceous w/ fine flakes of bronze mica; Minor

Limestone, very argillaceous to slightly limy

shale (60%); Limestone, lt. colored varieties

lime mud-supported Calcarenite: coarse, wellrounded, dk. brn-gray, micro-xln clasts in lt. brown, fn. xln. matrix

Limestone, dk. gray, argillaceous/limy shale (50%) Limestone, m. lt. brown-med.brown-dk. gray brown creme/white, coarse xln to fine xln, some grainy (50%); Minor Bentonite pale green to m. dk. greenish gray, w/ dissem. mica flakes(CAVINGS?)

1748-1752

1738-1748

Limestone, creme to med. brown varieties (60%) Limestone, very argillaceous/shale, dk. gray (40%)

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INTERVAL

1752-1761

DESCRIPTION

Limestone, lt. colored varieties (75%); Dk. gray, argillaceous limestone & shale (25%)

As above

As above

1773-1779

1761-1773

1779-1791

limestone, med. brown-m. dk. gy. brown, fn. xln.to med. xln (60%); Shale, dk. gy. (30%) Bentonite pale green, dissem. bronze flakes (10%) w/ minor silicifid limestone or shale

1791-1802

As above

Collar in Upper Portion of Clinton Shale(Estimated) Top of Poor Valley Ridge Mbr.285'Top of Hagan Shale Mbr.468'(Approximate) Top of Sequatchie Fm.555'Top of Reedsville Shale812'(Estimated) Top of Trenton Limestone1220'Top of Eggleston Limestone1781'

Reported Oil Pay 1460' (Miller & Fuller, 1954) Reedsville Shale Approx. 50 ft. thicker than normal.