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GEOLOGICAL REPORT

PINTAIL PETROLEUM, LTD.
#2 DICKMAN 'A'
C NE NE, SECTION 17-17S-24W
NESS COUNTY, KANSAS

Commenced:	14 May 1993	Elevation:	2456 KB 2451 GR
Completed:	21 May 1993		
Contractor:	Mallard JV	Surface Pipe:	8-5/8" @ 219 w/125 sx
Production:	Mississippi Oil	Production Pipe:	5-1/2" @ 4418 w/300 sx

One foot drilling time was kept from 1720' to 1774' and from 3700' to rotary total depth.

Following are sample and log tops and descriptions of zones of interest including shows of oil or gas and drill stem tests.

<u>ANHYDRITE</u>	<u>1744</u>	<u>+712</u>	<u>EL 1742</u>	<u>+714</u>
<u>BASE ANHYDRITE</u>	<u>1774</u>	<u>+687</u>	<u>EL 1772</u>	<u>+684</u>
<u>HEEBNER</u>	<u>3772</u>	<u>-1314</u>	<u>EL 3780</u>	<u>-1322</u>
<u>LANSING</u>	<u>3815</u>	<u>-1359</u>	<u>EL 3822</u>	<u>-1366</u>
<u>BASE KANSAS CITY</u>	<u>4105</u>	<u>-1649</u>	<u>EL 4112</u>	<u>-1656</u>
<u>PAWNEE</u>	<u>4238</u>	<u>-1782</u>	<u>EL 4238</u>	<u>-1782</u>
<u>FORT SCOTT</u>	<u>4317</u>	<u>-1861</u>	<u>EL 4318</u>	<u>-1861</u>

4319-4323
EL 4319-4323

Fossiliferous, light tan limestone with fair pinpoint and vugular porosity. Fair show of free oil and bright fluorescence with rich stain. No odor.

CHEROKEE

4345 -1889

EL 4344 -1888

4406-4410

Fine grained, slightly dolomitic sand. Glassy with poor visible porosity. Fair show of free oil, odor, bright fluorescence and even stain. Green and green shale laminations and some glauconite. Tested by DST #1.

MISSISSIPPI

4419 -1963

EL 4419 -1963

4419-4426

EL 4419-4426

Fine crystalline, light tan dolomite. Fossiliferous with good solution porosity. Good show of free oil, odor, fluorescence, stain and saturation. Rare, white chert with some tight, fine crystalline, light grey dolomite and barren porosity. Tested by DST #1.

DRILL STEM TEST #1

4340-4426

Open 30 minutes, closed 45 minutes, open 90 minutes, closed 60 minutes. Weak blow, build to 9" end of 2nd opening.

Recovered: 120' Oil
200' Muddy gassy oil (55% oil,
35% mud

IFP 50#-98#
FFP 128#-197#
HYD 2148#-2090#

IBHP 1250#
FBHP 1234#
Temp 124

ROTARY TOTAL DEPTH

4426 -1870

The Cherokee Sand did not develop in the #2 Dickman 'A', but serendipity held and the Mississippi porosity was fairly high and drill stem tested oil. Log analysis showed no porous sand and it was decided to set pipe at 4419' to attempt a Mississippi completion.

Respectfully submitted,

Walter Innes Phillips

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