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February 8, 1985

Mid States General
2100 Goshen Road, Suite #208
Fort Wayne, Indiana 46808

Re: Your #2 Stephens
2805' FSL, 5115' FEL, (NW¼)
Section 23-T34S-R10E
Chautauqua County, Kansas
Elgin Oil & Gas Field
API #15-019-24,888

Gentlemen:

This brief geological report concludes wellsite supervision and sample examination from the above referenced well. Several significant shows were observed in the rotary mud drilling samples and are as follows: Pawnee Limestone - good show from 1667 - 1675' and True Prue Sandstone - good to excellent show from 1696 - 1714'. A less significant show was observed in the Altamont Limestone. All formations are fully described in the following lithology report. Based on the above mentioned shows, it is recommended that 4½" production casing be set for further testing.

The surveyed elevation of this well is 1062.11', from which all measurements were made. The depth mentioned below have been correlated with the cased hole gamma-ray/neutron log provided by Fisher Perforating Company of Sedan, Kansas.

DEPTH	LITHOLOGY
0 - 1000'	No samples observed.
1000 - 1018'	Sandstone - clear, frosted to white, fine to medium-grained, clean, fair porosity, no shows, fine-grained towards base.
1018 - 1165'	Gray shale, slightly silty to sandy, dark gray towards base.
1165 - 1234'	Big Salt (Layton) Sandstone - white to light gray, very fine-grained, friable, fair porosity, no shows from 1165 - 1183'; Sandstone as above, fine to very fine-grained, clean, friable, good to excellent porosity, no shows balance of zone.
1234 - 1237'	Limestone - buff to brown, fine to medium crystalline, tite, no shows.

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DEPTH	LITHOLOGY
1237 - 1293'	Gray to dark gray shale, calcareous.
1293 - 1303'	Drum Limestone - cream, buff to grayish brown, fine to coarsely crystalline, fossiliferous, tite, poor porosity, no shows.
1303 - 1354'	Redd Sandstone - clear to light gray, fine to very fine-grained, mainly clean to slightly shaley, good porosity, no significant hydrocarbon shows observed.
1354 - 1453'	Light gray to gray shale, sandy at top.
1453 - 1457'	Black shale.
1457 - 1466'	Gray shale.
1466 - 1469'	Coal
1469 - 1476'	Gray shale.
1476 - 1480'	False Cap Limestone - buff to brown, fine to medium crystalline, tite, poor porosity, no shows.
1480 - 1484'	Black shale.
1484 - 1493'	Lenapah Limestone - cream, buff to tan, fine crystalline, tite, poor porosity, no shows.
1493 - 1508'	Wayside Sandstone - light gray to light greenish gray, fine to very fine-grained, shaley to very shaley, poor to fair porosity, no shows.
1508 - 1542'	Light gray to greenish shale.
1542 - 1589'	Altamont Limestone - cream, buff to grayish, fine crystalline, tite, slight porosity, no shows from 1542 - 1556'. Black shale zone from 1556 - 1559'. Limestone as before, no shows from 1559 - 1564'. Black shale from 1564 - 1568'. Limestone as above, scattered to fair fluorescence, slight odor and staining, trace free oil when cut, non-productive zone from 1568 - 1574'; Limestone as before, no shows balance of zone.

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DEPTH	LITHOLOGY
1589 - 1597'	Light gray to gray shale, slightly silty to sandy.
1597 - 1611'	Weiser Sandstone - clear to light gray, fine to very fine-grained, friable, fair porosity, no shows.
1611 - 1663'	Gray shale to siltstone.
1663 - 1686'	Pawnee Limestone - cream, buff to grayish, fine to medium crystalline, tite, no shows from 1663 - 1667'; Limestone as above, fair to good porosity, fair odor, fair to good bright fluorescence, fair to good cut with acid, live staining, possible limited commercial oil and gas zone from 1667 - 1675'; Limestone as above, tite, poor porosity, no shows balance of zone.
1686 - 1692'	Black shale.
1692 - 1696'	Limestone - cream to buff, fine crystalline, tite, slightly sandy, no shows.
1696 - 1738'	Prue Sandstone - clear, light gray to light greenish gray, mainly fine-grained, good porosity, friable, slightly calcareous, good live staining, good to excellent fluorescence, good cut with acid, some to good free oil when washed, oil on pit, good to strong odor, probable commercial oil and gas zone from 1696 - 1714'; Sandstone as above, very slight increase in shale, fair to good porosity, decreasing show balance of zone.
1738 - 1744'	Dark gray shale.
1744 - 1780'	Oswego Limestone - buff, tan to grayish, fine to medium crystalline, tite, poor porosity, no significant shows, black shale from 1773 - 1780'.
1780'	Driller's total depth.

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Please feel free to contact me if you have any questions concerning this report.

Sincerely,

Thomas W. Oast

Thomas H. Oast
Geological Consultant

THO:pm

FORMATION TOP COMPARISON

FORMATION	YOUR #2 STPHENS WELL	*COMPARED TO YOUR #3 STEPHENS WELL
Iola Lime	----------	1123' (-65)
Layton Sand	1165' (-103)	1130' (-72)
Drum Lime	1293' (-231)	1297' (-239)
Redd Sand	1303' (-241)	1308' (-250)
Lenapah Lime	1484' (-422)	1490' (-432)
Wayside Sand	1493' (-431)	1500' (-442)
Altamont Lime	1542' (-480)	1550' (-492)
Pawnee Lime	1663' (-601)	1672' (-614)
True Prue Sand	1693' (-631)	1700' (-642)
Oswego Lime	1744' (-682)	1748' (-690)

* Your #3 Stephens Well is located 3135' FSL, 5115' FEL, Section 23-T34S-R10E. The surveyed elevation of this well is 1057.8', from which all measurements were made.