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GEOLOGIC REPORT

Mid-Continent Energy Corp. #1 Hays

SW NE SW 12-12S-34W

Logan County, Kansas

Daily Progress

10-17 Moved on location, set 8 5/8" casing at 367', shut down due to rain
10-21 Drilled out beneath surface casing at 3:00 p.m.
10-22 1643', drilling
10-23 2769', drilling
10-24 3509', drilling
10-25 3990', drilling
10-26 4283', running DST #1
10-27 4495', drilling
10-28 4680', running DST #2, TD of 4780' reached at 3:30 p.m.
10-29 4 1/2" production casing set at 4764' with 180 sacks on bottom, DV tool at 1758', cemented to surface with 550 sacks, plug down at 2:45 p.m.

Service Companies:

Drilling Contractor: Allen Drilling, Rig 2
Drilling Mud: Mud Co
Drill Stem Tests: Western Testing
Electric Logs: Electra Log, Inc., RAG, Sonic MSG
Cement: Sun Oil Well Cementing

Formation Tops (E-Logs):

	#1 Hays SW NE SW 12-12-34 KB 3180	Structural Relation To Pet. Inc. H-1 Moore SW SE 12-12-34
Top Anhydrite	2648 (+532)	-8
Base Anhydrite	2670 (+510)	-9
Heebner	4056 (-876)	-4
Lansing	4105 (-925)	-7
Stark Shale	4332 (-1152)	-6
Base Kansas City	4396 (-1216)	-3
Pawnee	4526 (-1346)	Flat
Upper Cherokee Shale	4576 (-1396)	Flat
Johnson Zone	4569 (-1479)	+1
Weathered Mississippi	4736 (-1556)	Flat
Mississippi	4740 (-1560)	+8
Total Depth	4780 (-1600)	

Shows and DST's (E-Log Depths):

There were numerous minor oil shows from the Lansing down where traces to slight shows of free oil were noted in the samples. Though these zones were not tested, the electric logs indicated these zones were of no commercial value. The Lansing-Kansas City E zone (4188-92), F zone (4200-04), I zone (4301-05) and a Cherokee limestone (4625-28) were porous but calculated wet. The Lansing-Kansas City G zone (4248-54), J zone (4323-26), K zone (4342-48), Fort Scott (4566-70), and a Cherokee limestone (4584-87) were non-porous on the electric logs.

4263-68 Lansing-Kansas City "H" Zone
Limestone, tan, fine grained, rounded fossil grains, slightly chalky in part, poor to fair moldic porosity, faint odor, fluorescence and stain in 20% of sample, slight to fair show of free gassy oil. (Packstone-Grainstone) E-Log calculates 5-7% porosity, 120-200 ohms resistivity, 52 to 29% water saturation.

DST #1 4239-4280 (E-Log Depth)
30-30-30-30, weak blow on both open periods
Recovered: 45' of oil specked mud
Flow Pressures: 50-50, 50-50
Shutin Pressures: 1234-1174
Hydrostatic Pressures: 2117-2097
Bottom Hole Temperature: 116 degrees F

4271-75 Johnson Zone
Limestone, tan to brown, mostly fine crystalline, slightly fossiliferous, some poor to fair vugular porosity, faint odor, stain of fractures, good saturated stain in vugs, slight show of free oil overall (Wackestone and Mudstone). E-Log calculates 8% porosity, 250 ohms resistivity (average), and 26% water saturation.

4275-88 Limestone, white to light tan, slightly fossiliferous, chalky in part, scattered pinpoint porosity with stain and trace of free oil (Wackestone). E-Log indicates no porosity throughout.

DST #2 4252-4278 (E-Log Depth)
30-30-45-60, strong blow on both open periods
Recovered: 532' of clean, slightly gassy oil (gravity 29 degrees), 60' of gas in pipe, 62' of oil cut mud (40% oil)
Flow Pressures: 50-101, 152-223
Shutin Pressures: 1075-1055
Hydrostatic Pressures: 2386-2356
Bottom Hole Temperature: 128 degrees F

Recommendation and Summary:

Production casing was run in the #1 Hays well in order to further test the oil shows in the Johnson Zone. It is recommended that the interval from 4661 to 4665 be perforated with 4 shots per foot and stimulated as necessary. No other zones in the well had shows that merit testing.

The captioned well started off 9' low on the Base of the Anhydrite to the Petroleum Incorporated H-1 Moore, a diagonal offset to the southeast. Structure was gained throughout the well and the Johnson Zone was found 1 foot high and the Mississippi was found 8 feet high to the key well.

The Johnson Zone is better developed in the captioned well where there appears to be 4 feet of pay whereas the H-1 Moore had only two feet of pay. Substantially more oil should be recovered from this zone in the #1 Hays well.

Respectfully Submitted

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