WILLIAM R. ATKINSON

Geologist

P. O. BOX 1142 PHONE MAIN 4-2811
14 WEST SECOND STREET
RES. PH. MAIN 4-2257
LIBERAL, KANSAS 67901

GEOLOGICAL REPORT

Lee Banks
W. R. Atkinson
Beacon Resources Corp.
Rustman #1
SW NE SE Sec. 12-33S-34W
Seward County, Kansas

by

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Commencement Date:	11/27/69
Completion Date:	12/13/69
Elevation:	2875 K.B. 2865 G.L.
Total Depth:	5900' Driller 5898' Great Guns
Contractor:	Sage Drilling Co., Rig #3
Electrical Surveys:	Great Guns Gamma Ray, Neutron, Guard, Sonic and Caliper
Casing:	Surface: 8 5/8" @ 1604' Production: 5 1/2" @ 4436'
Special Equipment:	Baroid Gas Detecting Equipment in operation from approximately 3980 feet to T.D.

FORMATION TOPS AND STRUCTURAL COMPARISONS

	Lee Banks et al #1-12 Rustman SW NE SE Sec. 12-33S-34W	Falcon Seaboard Katie M. Lee #1 NE NE Sec. 12-33S-34W	Relative Position
Winfield	2652 (+223)	2646 (+215)	8' high
Wreford	2866 (+9)	2863 (-2)	11' high
Heebner Shale	4168 (-1293)	4176 (-1315)	22' high
Toronto	4190 (-1315)	4196 (-1335)	20' high
Lansing	4310 (-1435)	4317 (-1456)	21' high
Lansing "B" Zone	4326 (-1451)	4336 (-1475)	24' high
Lansing "C"Zone	4358 (-1483)	4366 (-1505)	22' high
Kansas City	4608 (-1733)	4608 (-1747)	14' high
Hodges	5825 (-1950)	4798 (-1937)	13' low
Checkerboard	4876 (-2001)	4857 (-1996)	5' low
Marmaton	5012 (-2137)	4984 (-2123)	14' low
Cherokee	5213 (-2338)	5188 (-2327)	11' low
Morrow Shale	5610 (-2735)	5578 (-2717)	18' low
Chester	5862 (-2987)	5820 (-2959)	28' low
Total Depth	5900	6425	

A four foot up-hole adjustment was necessary to correlate all drill pipe measurements to the open hole log measurements. All formation tops, sample descriptions and drill stem test depths given in this report are corrected to log depths.

SAMPLE DESCRIPTIONS

Toronto - 4190

4190-4224 Medium gray, fine crystalline, fossiliferous, oolitic rough textured limestone with excellent small vug, fossil-cast and intercrystalline porosity. Some visable fractures. Very faint fluorescence and no cut in carbontetrachloride. No free oil in wet samples, no stain in dry samples.

Below 4210 the limestone was logged as becoming somewhat lighter gray in color and some small indistinct oolites and oolicasts were noted.

Methane mud gas readings from the zone were logged as follows:
4190-4194 increase to maximum reading of 57 units.
4194-4196 decrease to minimum reading of 12 units.
4196-4206 increase to off scale reading of at least 180 units.
4206-4208 decrease to minimum reading of 32 units.
4208-4221 increase to maximum reading of 60 units at 4213 and a gradual decrease to zero at test depth of 4221 with minor peaks of 52 units at 4216 and 43 units at 4219.
No accurate appraisal of gas readings was possible while drilling the bottom 3 feet of the zone from test depth of 4221 to 4224 because of the contamination of the mud system by gas and oil produced during D.S.T. #1.

Drill stem test no. 1 was run to evaluate the shows described above.

D.S.T. #1 - 4198-4221 corrected to log depths
(4202-4225 reported depths)
Tool open 30 minutes with GTS/5 min.
Gas gauged 100 Mcfpd at 5 minutes.
Gas gauged 205 Mcfpd at 10 minutes.
Gas gauged 273 Mcfpd at 15, 20 and 30 minutes.
Shut in 30 minutes.
Tool re-opened for 75 minutes.
Gas gauged 388 Mcfpd at 5 minutes.

Gas gauged 581 Mcfpd at 10 minutes.
Gas gauged 581 Mcfpd at 15 minutes.
Gas gauged 534 Mcfpd at 20 minutes.
Spray of mud at 25 minutes.
Spray of oil at 30 to 75 minutes.
Shut in 60 minutes.

Because of darkness and the added danger of fire while pulling this test with the derrick lights on, the test was allowed to hang in the hole for approximately 12 hours while waiting for daylight.

Recovery was 675 feet of clean gassy oil (38° gravity at58°F) and 150 feet of water. (A water sample caught 90 feet from bottom contained 33,000 p.p.m. Na Cl while the bottom sample contained 42,900 p.p.m. Na Cl and Ph of 7.6 to 8.0. The mud system filtrate prior to the test contained 16,500 p.p.m. Na Cl and Ph of 10.5. After running D.S.T. #1 the mud system filtrate contained 21,450 p.p.m. Na Cl.

Because Toronto formation water recovered during production tests of the Falcon-Seaboard #1 Lee well located NE NE Sec. 12-33S-34W contained 120,000 p.p.m. Na Cl, only a very small percentage, if any, of the water recovered on D.S.T. #1 is believed to be formation water. Water loss of the mud system at the time of drilling the Toronto was 32.0.)

(all pressure readings reported are office corrected.)
ISIP 1214 in 30 minutes.
IFP 147 to 366.
FPP 345-373.
FSIP 1215 in 60 minutes.
HMP 2026-2016.

Lansing B Zone - 4326
4332-4339 Gray, fine crystalline, mealy textured slightly chalky limestone with fair to good intercrystalline and vug porosity. Faint fluorescence, no cut. Very slight oil stain in part. A maximum mud gas increase of 32 units of methane was logged from this interval.

D.S.T. #2 - 4232-4248
Tool open 30 minutes with good blow, no GTS.
Shut in 30 minutes.
Tool re-opened 60 minutes with good blow.

GTS/6 minutes. Gas TSTM throughout remainder of flow period. Gas volume estimated at approximately 20-25 Mcfpd.
Recovery 25 feet gas cut mud.
IFP 46-52.
ISIP 1275 in 30 minutes.
FFP 61-70.
FSIP 1145 in 45 minutes.
HMP 2147-2137.

Lansing C Zone - 4358
4364-4382 Gray and tan, fine crystalline, slightly chalky, slightly oolitic, very oolicastic limestone with excellent oolicastic porosity and good intercrystalline porosity between oolicasts. Only faint fluorescence and no cut was noted in most sample fragments but some pieces of coarsely oolitic limestone with good interoolitic porosity with good tan oil saturation which displayed excellent fluorescence and cut were noted.

A maximum mud gas reading of 111 units of methane was logged from this zone.

D.S.T. #3 - 4360-4382
Tool open 30 minutes with strong blow.
GTS/1 1/2 minutes.
Gas gauged 542 Mcfpd at 5 minutes.
Gas gauged 495 Mcfpd at 10 minutes.
Gas gauged 480 Mcfpd at 15 minutes.
Gas gauged 466 Mcfpd at 20 minutes.
Gas gauged 452 Mcfpd at 25 minutes.
Gas gauged 445 Mcfpd at 30 minutes.
Shut in 30 minutes.
Re-opened 90 minutes.
Gas gauged 480 Mcfpd at 5 and 10 minutes.
Gas gauged 466 Mcfpd at 15 minutes.
Gas gauged 425 Mcfpd at 20 minutes.
Gas gauged 418 Mcfpd at 25 minutes.
Gas gauged 411 Mcfpd at 30, 35 and 40 minutes.
Gas gauged 404 Mcfpd at 45 minutes.
Gas gauged 397 Mcfpd at 50, 55 and 60 minutes.
Spray of mud at 65 minutes.
Spray of oily mud at 75 minutes.
Spray of muddy oil at 80 minutes.
Spray of clean oil at 90 minutes.
Shut in 45 minutes.

Test left in hole approximately 8 hours before pulling while waiting for daylight.
Recovered was 1030 feet of clean gassy oil (39° gravity at 58°F), 60 feet of gas cut muddy oil and 30 feet of slightly oil cut muddy water. (Bottom water sample contained 135,300 p.p.m. Na Cl. Mud system filtrate at time of drilling the zone contained 29,700 p.p.m. Na Cl and water loss was 10.4.)

Kansas City - 4608

4608-4622 White, cream and tan, slightly mealy textured, dense, slightly oolitic, very oolicastic, chalky limestone with good large and small oolicast porosity but very poor to no matrix porosity between oolicasts. No free oil, but some very slight spotted oil stain in part.

A very slight methane gas increase of 2 to 3 units was logged from 4616-4620.

Although this zone appears to be productive from log calculations it is not believed to be so because of the poor quality matrix porosity and lack of mud gas shows indicative of productive capacity. This zone should however, be carefully evaluated and possibly drill stem tested on any nearby test wells drilled in the area.

4800-4810 Gray, microcrystalline limestone with some very, very small isolated vug and fossilcast porosity. Dark brown oil saturation and stain with good fluorescence and cut.

Irregular mud gas increases of from 3 to 5 units were logged from this zone. Because of the way the interval drilled and the type of gas kicks noted, it was felt the zone could possibly be fractured enough to give it pearmeability. For this reason it was included in D.S.T. #4 to be described below.

4810-4816 Dark brown, very dense, lithographic limestone. No shows.

4816-4825 Black carbonaceous shale. Methane gas increase of 47 units at 4818, 36 units at 4821 and 50 units at 4824.

Hodges - 4825

4825-4832 Gray, fine crystalline, calcitic, fossiliferous limestone with good intercrystalline and vug porosity. Good oil stain, good fluorescence and good cut. Methane gas increase of 14 units.

4842-4856 Gray and tan, very fine crystalline to dense, oolitic, partially oolicastic limestone. Some good intercrystalline porosity between oolicasts, but mostly poor. Some very slight spotted oil stain. Five unit methane gas increase from 4842-4852.

Because of the poorer quality oil show and smaller methane gas show in the interval below 4842, it was excluded from D.S.T. #4 which was run to evaluate the shows described above.

D.S.T. #4 - 4800-4835 straddle test, T.T.D. 4856.
Tool open 20 minutes with very weak blow for 6 minutes and died.
Shut in 40 minutes.
Recovered 30 feet of mud.
Recovery filtrate contained 42,900 p.p.m. Na Cl.
Mud system filtrate prior to test contained 24,750 p.p.m. Na Cl.
FP 40-40.
SIP 83 in 40 minutes.
HMP 2279-2268.

Marmaton - 5012

5012-5038 Tan to brown, fine crystalline, oolitic and oolicastic limestone. Good oolicastic porosity and good intercrystalline matrix porosity between oolicasts. Slight dull fluorescence, but no cut. A methane mud gas increase of 8 units was logged from 4812 to 4818, zero from 4818 to 4820 and 4 units from 4820 to 4826 where drilling was suspended, samples were circulated out of the hole. When drilling was resumed again after deciding not to drill stem test this zone, a 4 unit methane gas increase was logged from 4826 to 4836.

Morrow - 5610

5610-5616 Black carbonaceous shale.

5616-5622 Mottled gray, chalky lime and black, very dense, hard limestone.

5622-5638 Interbedded gray and black shales with many small and medium sized, loose, subrounded, quartz grains and crystals. One small cluster of quartz crystals which displayed good fluorescence and cut was noted. Four thin, sharp gas increases of 8 units, 27 units, 25 units and 17 units of methane with intervening zero readings were logged from this interval.

5638-5660 Gray shale with streaks of light and dark gray,dense, chunky, limestone. A complete lack of loose quartz grains was noted through this interval, as well as the lack of any methane gas increases.

5660-5680 Gray shale and limestone as described above with a notable increase of small subrounded quartz grains. An 18 unit methane gas increase was logged from 5660 to 5664 and a 24 unit increase between 5668 and 5678.

5680-5707 Gray and black shales with streaks of gray and black, dense, slightly chalky limestone with some black chert.

D.S.T. #5 was run to condemn the Upper and Middle Morrow intervals.

D.S.T. #5 - 5618-5707
Tool open 20 minutes with very weak blow.
Shut in 30 minutes.
Re-opened for 15 minutes with a few bubbles and died.
Shut in 30 minutes.
Recovered 10 feet of mud with no shows.
IFP 25-120
ISIP 269 in 30 minutes.
(Note: The above pressures are false due to partial plugging of tool by heavy mud.)
FFP 44-41.
FSIP 79 in 30 minutes.
HMP 2699-2689

5707-5730 Pyritic gray shales and brown, red and rust colored shales.

5730-5770 Gray and brown, shaley, dirty, chalky, slightly oolitic, fossiliferous nonporous limestones interbedded with gray, black and brown shales.

5770-5830 Gray and rust colored, dirty, shaley, limey, glauconitic, nonporous quartz sandstones, light to dark gray and light to dark tan, coarse crystalline, coarsely fossiliferous, chalky, nonporous, sandy limestones and interbedded gray and black shales.

5830-5862 Gray and tan, chalky, coarse crystalline, fossiliferous, sandy, nonporous limestones, limey, glauconitic, conglomeratic sandstones and interbedded black shales.

Chester - 5862

5862-5864	Gray and tan, coarse crystalline, oolitic, crinoidal, chalky limestone.
5864-5878	Black shale.
5878-T.D.	Chalky, fossiliferous limestone as described above, interbedded with gray, black, red and brown shales and gray subwaxey shales.

Based on the results of D.S.T. #1 and #3, 5 1/2" casing was run and cemented at 4436' for a completion attempt in the Lansing C Zone and the Toronto.

Original signed by:
W. R. Atkinson

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Geologist