G.T.O., Inc.

303 Anderson • Castle Rock, CO 80104
(303) 688-6822

George T. Olds
Petroleum Geologist

GEOLOGICAL REPORT

BEACON EXPLOR. CO. # 1-27 ST. JOHN
NW SE SW Sec. 27, T. 8 S.-R. 25 W.
Graham Co., Kansas

Spud: 11-8-84
P & A: 11-17-84
Contractor: Abercrombie Rig 8

Elev: 2399 KB
2394 GL (L&S)

Surf. Csg.: 8 5/8" 20#
8 rd @ 219' w/175
sx Cl.A, 2% gel,
3% CaCl, did circ.

All Measurements are Electric Log Measurements.

FORMATION TOPS:

		Compared to: Pet. Inc. #1 Richmeier "E" dry hole ½ mi. east
Stone Corral Anhydrite	2108 (+291)	19' high
Base Anhydrite	2144 (+255)	16' high
Topeka Ls.	3452 (-1053)	10' high
Heebner Sh.	3664 (-1265)	12' high
Toronto Ls.	3686 (-1287)	15' high
Lansing Ls.	3700 (-1301)	16' high
Base Kansas City Gr.	3928 (-1529)	9' high
		Cambria #1 Culley "A" Lans. producer 3/4 mi. NW
Marmaton Ls.	3958 (-1559)	19' low
Pawnee Ls.	4050 (-1651)	15' low
Ft. Scott Ls.	4115 (-1716)	10' low
Shaley Conglomerate	4200 (-1801)	
Miss. Osage	4244 (-1845)	1' high
Miss. Gilmore City	4271 (-1872)	10' low
		Bay #1 Schied, Lans. producer 1½ mi. NW
Viola Chert	4344 (-1945)	31' high
Viola Dolomite	4370 (-1971)	45' high
Arbuckle Dolomite	4424 (-2025)	34' high
Total Depth	4460	

ZONES OF POROSITY/OIL SHOWS:

Zone	Ø	Sw	Samples	Remarks
Dakota to Base Anhydrite 970-2144	Comp. Density-Neutronlog gas crossover effect is apparent in several zones because eval. of primary obj. Ls. required use of Ls. matrix parameters. (con't)		none	The Gulf Coast Oil Co. # 1(?) ½ mi/ east reported 3 gas and one oil showings on its 1930 Drillers Log of this cable-tool hole. Comp. Density-Neutron survey was run to evaluate these sands.

Had a sandstone matrix
been used it would reduce
crossover by 7% Ø,
eliminating any significant
crossover in this interval.

Wabaunsee-Shawnee				
3150-3664	8-16%	38-48%	Chalky. No vis. Ø, no sample shows.	
Lansing				
3701-3706	8-19	38-48	Chalky, no vis. Ø, N.S.	"A" Zone. Tested by DST # 1.
3733-36	8-12	41-49	Gd. vug. Ø, SFO live &sho sticky black oil. P. wtry stn., no flor or odor.	"B" Zone. Tested by DST # 1.
3746-47	7	47	No vis. Ø, N.S.	"C" Zone. Tested by DST # 1.

DRILLSTEM TEST NO. 1: 3693-3757: Rec. 186' WM, 806' MW/75"
ISIP=866#/45" FSIP=825#/90"
IFP=93-259#/15" FFP=165-435#/60"
Hydros=1829-1829# BHT failed
Sampler Rec: 2000 ml. water @ 100#. R_w=0.15 @ 68.7°F, Cl=49,000 PPM.
Charts appear normal.

3778-83	4-14	32-48	Gd. vug. Ø,SFO, f. scat. stn.,lt. odor, no flor.	"G"Zone.Tstd. by DST # 2.

DRILLSTEM TEST NO. 2: 3761-87: Rec. 20' SOCM (2% oil)/60"
ISIP=1074#/30" FSIP=1228#/60"
IFP=61-61#/15" FFP=61-61#/45"
Hydros=1948-1845# BHT=104°
Sampler Rec: 100 ml oil,1100 ml. mud @ 80#
Charts appear normal.

3836-37	9	48	No vis. Ø, N.S.	"H" Zone. Tested by DST # 3.
3856-58	19	47	v.P. pp Ø,SSFOG, gd. flor, no odor	"I" Zone. Tested by DST # 3.
3876-78	14	42	Chalky, black residue. Much "I" zone-appearing smpls w/ SSFOG	"J" Zone. Tested by DST # 3.

DRILLSTEM TEST NO. 3: 3818-82: Rec. 5' mud/60"
ISIP=766#/30" FSIP=827#/60"
IFP=71-61#/15" FFP=61-61#/45"
Hydros=2010-1855# BHT=102°
Sampler Rec: 1200 ml oil-spotted mud @ 60#.
Charts appear normal.

3896-98	10	36	v.p. vug. Ø,SFO,p. scat. stn., p. flor, no odor	"K" Zone. Tested by DST # 4.
3914-16	4	100	No smples.-bit plugged @ 3916'	"L" Zone. Tested by DST # 4.
3920-22	4	100	2 pc. VSSFO-"K" zone cave?	"L" Zone. Tested by DST # 4.

DRILLSTEM TEST NO. 4: 3884-3925: Rec. 1' mud/60"
ISIP=51#/30" FSIP=41#/60"
IFP=41-31#/15" FFP=41-31#/45"
Hydros=1952-1809# BHT=102°
Sampler Rec: 2000 ml oil-spotted mud @ 20#.
Charts appear normal.

Miss. Osage				
4244-60	24	45	Frsh. chert, gd. Ø, N.S.	
Miss. Gilmore City				
4271-4320	4-13	36-49	Ls. Crs. Xln., chlky, no vis. Ø, N.S.	
Viola Chert				
4345-70	17	46	Smpls. predom. sh., trc. varicol. frsh chert, N.S.	
Viola Dolomite				
4370-4424	15-25	45-49	F. gran. buff dolo., gd. vug. Ø, N.S.	
Arbuckle Dolomite				
4436-53	16	40-50	Dolo., off-white, crs. Xln, v. gd. vug. Ø, N.S.	Circ. was lost completely @ 4460'. Three 80-bbl. pits of 8-12 #/bbl. LCM was pumped & partial returns regained. The resistive zone 4443-50 may be resistive due to LCM buildup.

REMARKS:

The objective Lansing zones were thoroly condemned by drillstem test results.

Altho the Viola and Arbuckle formations appear to be structurally high to closest electric-log control wells (2 mi. southeast and 1½ mi. northwest), a cable-tool dry hole ½ mile east logged HFW at horizons correlating to Miss. Osage, Viola Chert, and Arbuckle Dolomite in the # 1-27 St. John. Using these correlations to compare structure, the # 1-27 St. John is 2' low on the Miss. Osage, 11' high on the Viola Chert and 18' high on the Arbuckle. No sample shows were seen below the base of the Kansas City Group.

Should Beacon undertake additional drilling on this Prospect this apparent lack of hydrocarbon accumulation in good reservoir rocks should be considered.

Respectfully,

Geo Olds

George T. Olds
Wellsite Geologist