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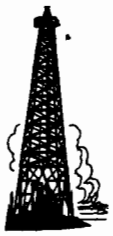

R & R Exploration, Inc.
P.O. Box 1198
Hays, Kansas

GEOLOGICAL REPORT

Gabel #1-29
NE-NW-NW of Section 29,
Township 14 south, Range 19 west
Ellis County, Kansas

March 13, 1984

R & R Exploration, Inc.
P.O. Box 1198
Hays, Kansas 67601

Geological Report:	Gabel #1-29 NE-NW-NW, 29-14S-19W Ellis County, Kansas
Contractor:	Revlon Drilling, Inc. Rig 1 Russell, Kansas
Drilling Commenced:	March 1, 1984
Drilling Completed:	March 7, 1984
Casing Record:	8' 5/8" surface casing set at 504' with 250 sacks.
Samples:	Saved from 3000' to 3860' R.T.D.
Drilling Time:	Recorded and plotted from 3000' to 3860' R.T.D. A copy of the plotted drilling time/lithology log is included with this report.
Drill Stem Tests:	None.
Electric Log:	Gamma-Guard: Sidewalk Neutron Log. Done by Welex, Hays, Kansas.
Well Status:	Pipe set waiting for further testing.
Elevations:	Laughlin-Simmons and Company Wichita, Kansas

Kelly Bushing	2173
Ground Level	2168
Measurements From	K.B.

Formation	Electric Log		Sample Log	
	Depth	Datum	Depth	Datum
Anhydrite	1448	+ 725	1440	+ 733
Topeka Limestone	3159	- 986	3159	- 986
Heebner Shale	3422	-1249	3422	-1249
Toronto Limestone	3448	-1275	3445	-1272
Lansing Formation	3472	-1299	3470	-1297
B. Kansas City	3712	-1539	3717	-1544
Marmaton Chert	3752	-1579	3752	-1579
Gorham Sand	3778	-1605	3776	-1603
Arbuckle Dolomite	3788	-1615	3788	-1615

REMARKS AND RECOMMENDATIONS:

Structurally, the Gabel #1-29 is high to the offsetting producing well (Gabel #1) and the saltwater disposal well (Gabel #1) at all zones of interest, including the Topeka, Lansing, and Arbuckle.

Based upon the samples, structural position and the calculations of the electric log, it was mutually decided by those involved with this project to set production casing for the purpose of further testing on March 7, 1984.

Respectfully submitted,

Paul A. Montoia

PAM/kl

SUMMARY OF LITHOLOGY
(samples not lagged)

3000-3010	Shale gray, minor red. Limestone gray, chalky. Common pyrite.
3010-3020	As above.
3020-3030	Shale gray. Limestone light gray to bone white, chalky.
3030-3040	As above.
3040-3050	Limestone white, gray, chalky. Shale gray. Very minor pyrite.
3050-3060	Limestone white, chalky with common fine crystalline. Minor trace of pinpoint porosity, no show. Shale gray.
3060-3070	As above.
3070-3080	Limestone gray, chalky. Shale gray.
3080-3090	Shale gray, grayish-green, scattered red. Limestone gray, chalky. Minor fossil fragments.
3090-3100	As above.
3100-3110	Limestone gray, white, chalky. Shale gray.
3110-3120	Shale gray. Limestone white, gray, chalky. Very minor trace of pinpoint porosity, no show.
3120-3130	As above.
3130-3140	As above.
3140-3150	Shale gray. Limestone gray, chalky.
3150-3160	As above. TOPEKA
3160-3170	As above. 3159
3170-3180	Limestone gray, tan, chalky. Shale gray. - 986
3180-3190	Shale gray, green. Limestone white, chalky.
3190-3200	Limestone white, gray, chalky. Very minor trace of pinpoint porosity, no show. Shale gray.
3200-3210	As above.
3210-3220	Limestone gray, chalky. Very minor scattered pinpoint porosity, no show. Shale gray.
3220-3230	Limestone tan, gray, fine crystalline to dense chalky. Scattered pinpoint porosity, no show. Shale gray.
3230-3240	Limestone tan, dense chalky. Very minor trace of oolicastic porosity, no show. Shale gray.
3240-3250	Limestone tan, dense chalky. Shale gray.
3250-3260	As above with minor trace of fossil fragments.
3260-3270	Limestone tan, brown, fine crystalline to white chalky. Shale gray, black carbonaceous.
3270-3280	Limestone brown, fine crystalline to bone white chalky. Shale gray.
3280-3290	Limestone brown, dense chalky. Minor trace of pinpoint porosity, no show. Shale gray.
3290-3300	Limestone brown, fine crystalline to sucrosic. Shale gray. Common pinpoint porosity, no show.
3300-3310	As above with minor tan chert.
3310-3320	As above.
3320-3330	Limestone tan, brown, dense chalky. Common pinpoint porosity, no show. Common fossil fragments. Minor brown chert. Shale gray.
3330-3340	As above with common pinpoint porosity, no show.

3340-3350	Limestone tan, gray, dense chalky. Shale gray.	
3350-3360	Limestone gray, brown, fine crystalline with minor fossil fragments. Shale gray, green.	
3360-3370	As above with minor black carbonaceous shale, faint odor.	
3370-3380	Limestone tan, brown, fine crystalline. Fossiliferous. Shale gray.	
3380-3390	As above.	
3390-3400	Limestone white, tan, dense chalky. Shale gray.	
3400-3410	Limestone white, chalky to sucrosic with brown oil, no odor, very poor saturation, pinpoint to vuggy porosity.	
3410-3420	As above with no show.	
3420-3430	Limestone tan, gray, dense chalky. Shale gray, black carbonaceous.	HEEBNER 3422
3430-3440	Limestone tan, gray, dense chalky. Shale gray, black.	-1249
3440-3450	Limestone tan, brown, chalky. Shale gray.	TORONTO
3450-3460	Shale gray. Limestone tan, brown, fine crystalline.	3445
3460-3470	As above with minor trace of pinpoint porosity, no show.	-1272
3470-3480	As above with very scattered tan fine crystalline.	LANSING
3480-3490	Limestone tan, brown, fine crystalline. Shale gray, green.	3470 -1297
3490-3500	Limestone tan, gray, dense chalky to fine crystalline. Very minor trace of brown oil, no free oil, no odor, tite. Shale gray.	'B' 3488 -1315
3500-3510	Limestone tan, fine crystalline to white dense chalky with very minor trace of free oil, surface stain only, faint odor, barren porosity, cuts with lighter fluid. Minor oolitic lime.	'C' 3496 -1323
3510-3520	As above.	'D'
3520-3530	Limestone creme, tan, dense chalky. Shale gray.	3517
3530-3540	Limestone white, chalky with fair odor, no show, tite. Shale gray, black.	-1344 'E'
3540-3550	As above with minor trace of free oil. Scattered to minor pinpoint porosity.	3532 -1359
3550-3560	Limestone white, chalky. Very minor trace of pinpoint porosity with minor brown oil, faint odor, poor saturation, mostly tite. Shale gray, green.	'F' 3538 -1365
3560-3570	Limestone tan, fine crystalline. Faint odor. Shale green. Minor tan chert.	'G' 3558
3570-3580	As above.	-1385
3580-3590	As above.	
3590-3600	As above.	
3600-3610	Limestone creme, white, fine crystalline. Shale gray, black.	'H' 3600
3610-3620	Shale gray, green. Limestone white, tan, chalky with minor trace of brown oil, poorly saturated, faint odor.	-1427
3620-3630	Limestone creme, fine crystalline with sparse show as above. Strong odor. Shale black carbonaceous.	'I' 3628
3630-3640	Limestone creme, tan, fine crystalline to oolitic with oolicastic porosity, strong odor, brown oil, free oil when broken.	-1455
3640-3650	As above with minor trace of pinpoint porosity.	
3650-3660	Limestone white, fine crystalline with brown oil, well saturated, tite.	'J' 3653 -1480

3660-3670	Shale gray, greenish-gray. Limestone white, fine crystalline with scattered show as above.	
3670-3680	Limestone white, tan, fine crystalline to chalky. Shale gray.	
3680-3690	As above.	'K'
3690-3700	As above with common black shale.	3680
3700-3710	Limestone tan, creme, fine crystalline. Shale gray.	-1507
3710-3720	As above.	'L'
3720-3730	As above with scattered shale.	3704
3730-3740	Shale red. Limestone tan, white, dense chalky to fine crystalline.	-1531 B. K.C.
3740-3750	Shale red, green. Limestone tan, white, fine crystalline.	3717 -1544
3750-3760	As above.	MARMATON
3760-3770	Limestone tan, fine crystalline to sucrosic. Scattered free oil, good strong odor.	3752 -1579
3770-3780	As above with tan chert.	GORHAM
	1/2 Hr. Sand clear to transparent clusters, well saturated, with good live brown oil, good odor, rounded, medium to coarse grain, excellent porosity, intergranular.	3776 -1603
3780-3790	As above.	ARBUCKLE
3790-3800	Dolomite tan, sucrosic with brown oil, well saturated, strong odor, bubbles present, fair pinpoint porosity.	3788 -1615
3800-3810	As above with less show.	
3810-3820	As above with less show of strong odor.	
3820-3830	As above.	
3830-3840	As above.	
3840-3850	As above.	
3850-3860	As above.	