

Brazil #21, 1490' FNL, 1650' FEL, N 1/2, NW/4
Sec. 11, Twp. 28S, R 15E
Wilson Co., Kansas

11-28-15E
SEP
P1

Drill Contractor: Drill Energy, Inc.

API Number 15-205-22,257

Casing: 24'6"

Elevation:

Date Started: 9/30/81

Date Finished: 10/2/81

DRILL LOG

<u>Depth</u>	<u>Description</u>	<u>Depth</u>	<u>Description</u>
0-11	Limestone	377-403	Limestone, dark (hard)
11-13	Shale, gray	403-415	Sandy Limestone
13-20	Limestone	415-420	Sandy Shale, gray
20-121	Shale, gray & Clay	420-437	Sand
121-140	Limestone	437-440	Limestone
140-212	Shale, gray	440-450	Shale, gray
212-241	Limestone	450-454	Limestone
241-256	Shale, gray	454-460	Shale, gray
256-260	Sandy Shale	460-463	Limestone
260-280	Sand	463-472	Limestone, white
280-282	Coal *	472-478	Limestone, dark
282-283	Shale, brown	478-481	Shale, dark
283-288	Shale, greenish gray & Clay	481-482	Shale, black
288-295	Sandy Shale, light green	482-536	Limestone (strong gas odor)
295-297	Sandy Shale, gray	536-545	Shale, black
297-310	Limestone, brown	545-553	Shale, gray
310-320	Sandy Shale, gray	553-567	Shale, black (strong gas odor)
320-323	Limestone	567-584	Sandy Shale, gray
323-325	Sandy Shale, gray	584-590	Shale, gray
325-336	Limestone	590-592	Limestone
336-360	Limestone, white	592-594	Sandy Limy Shale
360-367	Limestone, grayish	594-604	Shale, gray & green
367-370	Limestone, white	604-606	Limestone
370-377	Limestone, hard		

PC
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DRILL LOG

<u>Depth</u>	<u>Description</u>	<u>Depth</u>	<u>Description</u>
606-610	Shale, green	826-836	Sandy Shale, green
610-618	Shale, dark	836-895	Sand (show)
618-622	Limestone & Shale, gray	895-910	Shale, dark & gray
622-637	Limestone	910-920	Limestone
637-638	Shale, black	920-981	Shale, black & dark (a little coal)
638-640	Shale, green & Limestone	981-992	Shale, black & dark (a little sand odor)
640-653	Sand	992-1006	Shale, gray (little sandy)
653-66	Sandy Shale	1006-1009	Shale, black & dark & Coal
66-670	Shale, gray	1009-1010	Sand, white (no show or odor)
670-673	Sand & Sandy Shale	1010-1036	Sand, brown (show & odor)
673-676	Sandy Shale	1036-1040	Shale, dark & black w/little coal
676-680	Sand (little coal)	1040-1046	Limestone & Shale, gray & dark
680-687	Shale, gray	1046-1050	Sandy Limestone (odor & show)
687-689	Sandy Shale	1050-1053	Coal
689-720	Sandy Shale, gray	1053-1061	Sandy Shale, & Coal
720-725	Sandy Shale, gray	1061-1065	Coal, Sand & Sandy Shale (little odor)
725-742	Shale, gray	1065-1067	Sandy Shale, no odor
742-752	Limestone (little coal)	1067-1069	Sand (little show & little odor)
752-756	Limestone & Shale, dark	1069-1071	Sandy Shale (no odor)
756-760	Limestone	1071-1085	Sand (odor & show)
760-788	Shale, dark (strong gas odor)	1085-1090	Sandy Shale, gray
788-792	Shale, green	1090-1098	Sand (odor & show)
792-810	Limestone		
810-814	Shale, black		
814-816	Shale, gray		
816-822	Limestone		
822-826	Shale, dark		

PL
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DRILL LOG

<u>Depth</u>	<u>Description</u>
1098-1108	Sandy Shale, gray
1108-1112	Sand
1112-1114	Sandy Shale, gray
1114-1118	Sand, gray
1118-1121	Sandy Shale, gray
1121-1124	Sand
1124-1132	Sandy Shale, gray
1132-1154	Sand
1154-1160	Shale, green or Clay
1160-1165	Sand, white
1165-1167	Coal
1167-1175	Shale, dark & gray & Coal
1175-1188	Shale, dark gray
1188-1200	Limestone & Chert

T. D. AT 1200'