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GEOLOGIST'S REPORT
 DRILLING TIME AND SAMPLE LOG

OPERATOR: Howell Oil Co., Inc.
 LEASE: Sabin B-16
 WELL NO. 16
 ELEVATION: 1490'

FIELD: Burdett
 LOCATION: 330' ENLT 430' FULG
 SEC. 3 T1P. 28 S. R6E. 41W
 COUNTY: Reno STATE: Kansas
 COMING: E-8511 Drilling Co. R1 9 3
 CONDUIT: 4.1-1-2018 COMP. 4-18-2018
 RIG: 38317
 RIGS SAVED FROM: 2700' to 38394'

DEPT. 1418
 MEASUREMENTS ARE ALL FROM K.B.
 CASING RECORD:
 SURFACE 1 7/8" @ 51'
 PRODUCTION 5 1/2"

SHALES EXAMINED FROM 30250' to 38394'
 GEOLOGICAL SUPERVISION FROM 28500' to 38394'
 MUD UP 2700'

ELECTRICAL SURFERS:
 Force Inducted by Surfer
 Density - Neutron
 Porosity

FORMATION	TOP LOG	MINI TOP SURFER	STRONG
Franklin Limestone	2527	-0283 2527-1079	100%
Lawrence	2576	-0288 2552-1072	100%
Clatskanie	3176	-0296 3179-1174	100%
Waukegan	3162	-0285 3144-1174	100%
Waukegan	3155	-0285 3144-1174	100%
Waukegan	3148	-0285 3144-1174	100%
Waukegan	3141	-0285 3144-1174	100%
Waukegan	3134	-0285 3144-1174	100%
Waukegan	3127	-0285 3144-1174	100%
Waukegan	3120	-0285 3144-1174	100%
Waukegan	3113	-0285 3144-1174	100%
Waukegan	3106	-0285 3144-1174	100%
Waukegan	3099	-0285 3144-1174	100%
Waukegan	3092	-0285 3144-1174	100%
Waukegan	3085	-0285 3144-1174	100%
Waukegan	3078	-0285 3144-1174	100%
Waukegan	3071	-0285 3144-1174	100%
Waukegan	3064	-0285 3144-1174	100%
Waukegan	3057	-0285 3144-1174	100%
Waukegan	3050	-0285 3144-1174	100%
Waukegan	3043	-0285 3144-1174	100%
Waukegan	3036	-0285 3144-1174	100%
Waukegan	3029	-0285 3144-1174	100%
Waukegan	3022	-0285 3144-1174	100%
Waukegan	3015	-0285 3144-1174	100%
Waukegan	3008	-0285 3144-1174	100%
Waukegan	3001	-0285 3144-1174	100%
Waukegan	2994	-0285 3144-1174	100%
Waukegan	2987	-0285 3144-1174	100%
Waukegan	2980	-0285 3144-1174	100%
Waukegan	2973	-0285 3144-1174	100%
Waukegan	2966	-0285 3144-1174	100%
Waukegan	2959	-0285 3144-1174	100%
Waukegan	2952	-0285 3144-1174	100%
Waukegan	2945	-0285 3144-1174	100%
Waukegan	2938	-0285 3144-1174	100%
Waukegan	2931	-0285 3144-1174	100%
Waukegan	2924	-0285 3144-1174	100%
Waukegan	2917	-0285 3144-1174	100%
Waukegan	2910	-0285 3144-1174	100%
Waukegan	2903	-0285 3144-1174	100%
Waukegan	2896	-0285 3144-1174	100%
Waukegan	2889	-0285 3144-1174	100%
Waukegan	2882	-0285 3144-1174	100%
Waukegan	2875	-0285 3144-1174	100%
Waukegan	2868	-0285 3144-1174	100%
Waukegan	2861	-0285 3144-1174	100%
Waukegan	2854	-0285 3144-1174	100%
Waukegan	2847	-0285 3144-1174	100%
Waukegan	2840	-0285 3144-1174	100%
Waukegan	2833	-0285 3144-1174	100%
Waukegan	2826	-0285 3144-1174	100%
Waukegan	2819	-0285 3144-1174	100%
Waukegan	2812	-0285 3144-1174	100%
Waukegan	2805	-0285 3144-1174	100%
Waukegan	2798	-0285 3144-1174	100%
Waukegan	2791	-0285 3144-1174	100%
Waukegan	2784	-0285 3144-1174	100%
Waukegan	2777	-0285 3144-1174	100%
Waukegan	2770	-0285 3144-1174	100%
Waukegan	2763	-0285 3144-1174	100%
Waukegan	2756	-0285 3144-1174	100%
Waukegan	2749	-0285 3144-1174	100%
Waukegan	2742	-0285 3144-1174	100%
Waukegan	2735	-0285 3144-1174	100%
Waukegan	2728	-0285 3144-1174	100%
Waukegan	2721	-0285 3144-1174	100%
Waukegan	2714	-0285 3144-1174	100%
Waukegan	2707	-0285 3144-1174	100%
Waukegan	2700	-0285 3144-1174	100%
Waukegan	2693	-0285 3144-1174	100%
Waukegan	2686	-0285 3144-1174	100%
Waukegan	2679	-0285 3144-1174	100%
Waukegan	2672	-0285 3144-1174	100%
Waukegan	2665	-0285 3144-1174	100%
Waukegan	2658	-0285 3144-1174	100%
Waukegan	2651	-0285 3144-1174	100%
Waukegan	2644	-0285 3144-1174	100%
Waukegan	2637	-0285 3144-1174	100%
Waukegan	2630	-0285 3144-1174	100%
Waukegan	2623	-0285 3144-1174	100%
Waukegan	2616	-0285 3144-1174	100%
Waukegan	2609	-0285 3144-1174	100%
Waukegan	2602	-0285 3144-1174	100%
Waukegan	2595	-0285 3144-1174	100%
Waukegan	2588	-0285 3144-1174	100%
Waukegan	2581	-0285 3144-1174	100%
Waukegan	2574	-0285 3144-1174	100%
Waukegan	2567	-0285 3144-1174	100%
Waukegan	2560	-0285 3144-1174	100%
Waukegan	2553	-0285 3144-1174	100%
Waukegan	2546	-0285 3144-1174	100%
Waukegan	2539	-0285 3144-1174	100%
Waukegan	2532	-0285 3144-1174	100%
Waukegan	2525	-0285 3144-1174	100%
Waukegan	2518	-0285 3144-1174	100%
Waukegan	2511	-0285 3144-1174	100%
Waukegan	2504	-0285 3144-1174	100%
Waukegan	2497	-0285 3144-1174	100%
Waukegan	2490	-0285 3144-1174	100%
Waukegan	2483	-0285 3144-1174	100%
Waukegan	2476	-0285 3144-1174	100%
Waukegan	2469	-0285 3144-1174	100%
Waukegan	2462	-0285 3144-1174	100%
Waukegan	2455	-0285 3144-1174	100%
Waukegan	2448	-0285 3144-1174	100%
Waukegan	2441	-0285 3144-1174	100%
Waukegan	2434	-0285 3144-1174	100%
Waukegan	2427	-0285 3144-1174	100%
Waukegan	2420	-0285 3144-1174	100%
Waukegan	2413	-0285 3144-1174	100%
Waukegan	2406	-0285 3144-1174	100%
Waukegan	2399	-0285 3144-1174	100%
Waukegan	2392	-0285 3144-1174	100%
Waukegan	2385	-0285 3144-1174	100%
Waukegan	2378	-0285 3144-1174	100%
Waukegan	2371	-0285 3144-1174	100%
Waukegan	2364	-0285 3144-1174	100%
Waukegan	2357	-0285 3144-1174	100%
Waukegan	2350	-0285 3144-1174	100%
Waukegan	2343	-0285 3144-1174	100%
Waukegan	2336	-0285 3144-1174	100%
Waukegan	2329	-0285 3144-1174	100%
Waukegan	2322	-0285 3144-1174	100%
Waukegan	2315	-0285 3144-1174	100%
Waukegan	2308	-0285 3144-1174	100%
Waukegan	2301	-0285 3144-1174	100%
Waukegan	2294	-0285 3144-1174	100%
Waukegan	2287	-0285 3144-1174	100%
Waukegan	2280	-0285 3144-1174	100%
Waukegan	2273	-0285 3144-1174	100%
Waukegan	2266	-0285 3144-1174	100%
Waukegan	2259	-0285 3144-1174	100%
Waukegan	2252	-0285 3144-1174	100%
Waukegan	2245	-0285 3144-1174	100%
Waukegan	2238	-0285 3144-1174	100%
Waukegan	2231	-0285 3144-1174	100%
Waukegan	2224	-0285 3144-1174	100%
Waukegan	2217	-0285 3144-1174	100%
Waukegan	2210	-0285 3144-1174	100%
Waukegan	2203	-0285 3144-1174	100%
Waukegan	2196	-0285 3144-1174	100%
Waukegan	2189	-0285 3144-1174	100%
Waukegan	2182	-0285 3144-1174	100%
Waukegan	2175	-0285 3144-1174	100%
Waukegan	2168	-0285 3144-1174	100%
Waukegan	2161	-0285 3144-1174	100%
Waukegan	2154	-0285 3144-1174	100%
Waukegan	2147	-0285 3144-1174	100%
Waukegan	2140	-0285 3144-1174	100%
Waukegan	2133	-0285 3144-1174	100%
Waukegan	2126	-0285 3144-1174	100%
Waukegan	2119	-0285 3144-1174	100%
Waukegan	2112	-0285 3144-1174	100%
Waukegan	2105	-0285 3144-1174	100%
Waukegan	2098	-0285 3144-1174	100%
Waukegan	2091	-0285 3144-1174	100%
Waukegan	2084	-0285 3144-1174	100%
Waukegan	2077	-0285 3144-1174	100%
Waukegan	2070	-0285 3144-1174	100%
Waukegan	2063	-0285 3144-1174	100%
Waukegan	2056	-0285 3144-1174	100%
Waukegan	2049	-0285 3144-1174	100%
Waukegan	2042	-0285 3144-1174	100%
Waukegan	2035	-0285 3144-1174	100%
Waukegan	2028	-0285 3144-1174	100%
Waukegan	2021	-0285 3144-1174	100%
Waukegan	2014	-0285 3144-1174	100%
Waukegan	2007	-0285 3144-1174	100%
Waukegan	2000	-0285 3144-1174	100%
Waukegan	1993	-0285 3144-1174	100%
Waukegan	1986	-0285 3144-1174	100%
Waukegan	1979	-0285 3144-1174	100%
Waukegan	1972	-0285 3144-1174	100%
Waukegan	1965	-0285 3144-1174	100%
Waukegan	1958	-0285 3144-1174	100%
Waukegan	1951	-0285 3144-1174	100%
Waukegan	1944	-0285 3144-1174	100%
Waukegan	1937	-0285 3144-1174	100%
Waukegan	1930	-0285 3144-1174	100%
Waukegan	1923	-0285 3144-1174	100%
Waukegan	1916	-0285 3144-1174	100%
Waukegan	1909	-0285 3144-1174	100%
Waukegan	1902	-0285 3144-1174	100%
Waukegan	1895	-0285 3144-1174	100%
Waukegan	1888	-0285 3144-1174	100%
Waukegan	1881	-0285 3144-1174	100%
Waukegan	1874	-0285 3144-1174	100%
Waukegan	1867	-0285 3144-1174	100%
Waukegan	1860	-0285 3144-1174	100%
Waukegan	1853	-0285 3144-1174	100%
Waukegan	1846	-0285 3144-1174	100%
Waukegan	1839	-0285 3144-1174	100%
Waukegan	1832	-0285 3144-1174	100%
Waukegan	1825	-0285 3144-1174	100%
Waukegan	1818	-0285 3144-1174	100%
Waukegan	1811	-0285 3144-1174	100%
Waukegan	1804	-0285 3144-1174	100%
Waukegan	1797	-0285 3144-1174	100%
Waukegan	1790	-0285 3144-1174	100%
Waukegan	1783	-0285 3144-1174	100%
Waukegan	1776	-0285 3144-1174	100%
Waukegan	1769	-0285 3144-1174	100%
Waukegan	1762	-0285 3144-1174	100%
Waukegan	1755	-0285 3144-1174	100%
Waukegan	1748	-0285 3144-1174	100%
Waukegan	1741	-0285 3144-1174	100%
Waukegan	1734	-02	