

U. S. LAND OFFICE -----
SERIAL NUMBER --**I-149-Ind. 8476**
LEASE OR PERMIT TO PROSPECT --**I-Sec. 244**

Colleges: C
UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

LOCATE WELL CORRECTLY

Company BENSON-MONTIN Address 1501 REPUBLIC BUILDING, OKLAHOMA CITY
 Lessor or Tract GALLEGOS CANYON UNIT Field WEST KUTZ State NEW MEXICO
 Well No. 37 Sec. 19 T. 28N R. 12W Meridian N.M.P.M. County SAN JUAN
 Location 1594 ft. N. of 8 Line and 1716 ft. E. of W Line of Sec. 19 Elevation 5767

The information given herewith is a complete and correct record of the well and all work done thereon so far as can be determined from all available records.

Signed Albert R. Green

Date October 12, 1953 Title Field Superintendent

The summary on this page is for the condition of the well at above date.

Commenced drilling August 22, 1951 Finished drilling September 11, 1953

OIL OR GAS SANDS OR ZONES

(Denote gas by G)

No. 1, from 1187 to 1538 (0) No. 4, from 1538 to 1538 (0)

No. 2, from 1538 to 1538 (0) No. 5, from 1538 to 1538 (0)

No. 3, from 1538 to 1538 (0) No. 6, from 1538 to 1538 (0)

IMPORTANT WATER SANDS

No. 1, from _____ to _____

No. 2, from _____ to _____

No. 3, from _____ to _____

No. 4, from _____ to _____

CASING RECORD

Size casting	Weight per foot	Threads per inch	Make	Amount	Kind of shoe	Cut and pulled from	Perforated		Purpose
							From—	To—	
6-5/8"	26#	8	IN	931	Texas Pattern				Surface
5-1/2"	14#	8	J-35	2400	"	"			Production

MUDDING AND CEMENTING RECORD

Size casing	Where set	Number sacks of cement	Method used	Mud gravity	Amount of mud used
8-5/8"	102	60	Pump & Plug		
5-1/2"	1495	100	" " "		

PLUGS AND ADAPTERS

Heaving plug—Material None Length _____ Depth set _____

Adapters—Material _____ Size _____

SHOOTING RECORD

Size	Shell used	Explosive used	Quantity	Date	Depth shot	Depth cleaned out
4 ^N	Tin	SNG	80 quarts	9-11-53	1505-38	1538

TOOLS USED

Rotary tools were used from Surface feet to 1495 feet, and from _____ feet to _____ feet

Cable tools were used from 1495 feet to 1538 feet, and from _____ feet to _____ feet

DATES

Run Tubings:		Potential Test:	
September 14	1953	Put to producing	October 9, 1953

The production for the first 24 hours was barrels of fluid of which% was oil;% emulsion;% water; and% sediment. Gravity, °Bé.

If gas well, cu. ft. per 24 hours 1,350,000 Gallons gasoline per 1,000 cu. ft. of gas _____

Rock pressure, lbs. per sq. in. ----- 450

EMPLOYEES

Crow, Benson & Martin -----, Driller (Hoary) -----, Driller
 Benson-Martin -----, Driller (Cable Tools) -----, Driller

FORMATION RECORD

FROM—	TO—	TOTAL FEET	FORMATION
Surface	1467	1467	Surface Sand and Shale, Ojo Alamo, Kirtland and Fruitland formations
1467	1478	11	Coal
1478	1483	5	Shale
1483	1487	4	Coal
1487	1538	51	Pictured Cliffs Sand

FORMATION RECORD—Continued[illegible]

16-43004-2 U. S. GOVERNMENT PRINTING OFFICE

HISTORY OF OIL OR GAS WELL

It is of the greatest importance to have a complete history of the well. Please state in detail the dates of redrilling, together with the reasons for the work and its results. If there were any changes made in the casing, state fully, and if any casing was "sidetracked" or left in the well, give its size and location. If the well has been dynamited, give date, size, position, and number of shots. If plugs or bridges were put in to test for water, state kind of material used, position, and results of pumping or bailing.

8-14-53 "Notice of Intention to Drill" approved by U.S.G.S.

8-22-53 Moved in rotary tools. Spudded. Set 8-5/8" casing.

8-23-53 Tested 8-5/8" casing.

8-25-53 TD 1495'. Set 5-1/2" casing.

9-6-53 Moved in cable tools. Tested 5-1/2" casing.

9-11-53 TD 1538'. Shot from 1505' to 1538' with 80 quarts SNG.

9-14-53 Cleaned out to 1538'. Ran 72 joints of 1" tubing to 1525'.

10- 9-53 State Potential Test.

DOE DE OIP DE CBO DEBENT

070-10107-11-10

PHILIP H. KATZ

$$E_{\text{eff}} = E_{\text{eff}}^{\text{eff}} + \frac{1}{2} \frac{dE_{\text{eff}}}{dt} \quad (1)$$

1997, 1998, 1999, 2000, 2001, 2002, 2003, 2004, 2005, 2006, 2007, 2008, 2009, 2010, 2011, 2012, 2013, 2014, 2015, 2016, 2017, 2018, 2019, 2020, 2021, 2022, 2023, 2024, 2025, 2026, 2027, 2028, 2029, 2030, 2031, 2032, 2033, 2034, 2035, 2036, 2037, 2038, 2039, 2040, 2041, 2042, 2043, 2044, 2045, 2046, 2047, 2048, 2049, 2050, 2051, 2052, 2053, 2054, 2055, 2056, 2057, 2058, 2059, 2060, 2061, 2062, 2063, 2064, 2065, 2066, 2067, 2068, 2069, 2070, 2071, 2072, 2073, 2074, 2075, 2076, 2077, 2078, 2079, 2080, 2081, 2082, 2083, 2084, 2085, 2086, 2087, 2088, 2089, 2090, 2091, 2092, 2093, 2094, 2095, 2096, 2097, 2098, 2099, 2100, 2101, 2102, 2103, 2104, 2105, 2106, 2107, 2108, 2109, 2110, 2111, 2112, 2113, 2114, 2115, 2116, 2117, 2118, 2119, 2120, 2121, 2122, 2123, 2124, 2125, 2126, 2127, 2128, 2129, 2130, 2131, 2132, 2133, 2134, 2135, 2136, 2137, 2138, 2139, 2140, 2141, 2142, 2143, 2144, 2145, 2146, 2147, 2148, 2149, 2150, 2151, 2152, 2153, 2154, 2155, 2156, 2157, 2158, 2159, 2160, 2161, 2162, 2163, 2164, 2165, 2166, 2167, 2168, 2169, 2170, 2171, 2172, 2173, 2174, 2175, 2176, 2177, 2178, 2179, 2180, 2181, 2182, 2183, 2184, 2185, 2186, 2187, 2188, 2189, 2190, 2191, 2192, 2193, 2194, 2195, 2196, 2197, 2198, 2199, 2200, 2201, 2202, 2203, 2204, 2205, 2206, 2207, 2208, 2209, 2210, 2211, 2212, 2213, 2214, 2215, 2216, 2217, 2218, 2219, 2220, 2221, 2222, 2223, 2224, 2225, 2226, 2227, 2228, 2229, 2230, 2231, 2232, 2233, 2234, 2235, 2236, 2237, 2238, 2239, 2240, 2241, 2242, 2243, 2244, 2245, 2246, 2247, 2248, 2249, 2250, 2251, 2252, 2253, 2254, 2255, 2256, 2257, 2258, 2259, 2260, 2261, 2262, 2263, 2264, 2265, 2266, 2267, 2268, 2269, 2270, 2271, 2272, 2273, 2274, 2275, 2276, 2277, 2278, 2279, 2280, 2281, 2282, 2283, 2284, 2285, 2286, 2287, 2288, 2289, 2290, 2291, 2292, 2293, 2294, 2295, 2296, 2297, 2298, 2299, 2300, 2301, 2302, 2303, 2304, 2305, 2306, 2307, 2308, 2309, 2310, 2311, 2312, 2313, 2314, 2315, 2316, 2317, 2318, 2319, 2320, 2321, 2322, 2323, 2324, 2325, 2326, 2327, 2328, 2329, 2330, 2331, 2332, 2333, 2334, 2335, 2336, 2337, 2338, 2339, 2340, 2341, 2342, 2343, 2344, 2345, 2346, 2347, 2348, 2349, 2350, 2351, 2352, 2353, 2354, 2355, 2356, 2357, 2358, 2359, 2360, 2361, 2362, 2363, 2364, 2365, 2366, 2367, 2368, 2369, 2370, 2371, 2372, 2373, 2374, 2375, 2376, 2377, 2378, 2379, 2380, 2381, 2382, 2383, 2384, 2385, 2386, 2387, 2388, 2389, 2390, 2391, 2392, 2393, 2394, 2395, 2396, 2397, 2398, 2399, 2400, 2401, 2402, 2403, 2404, 2405, 2406, 2407, 2408, 2409, 2410, 2411, 2412, 2413, 2414, 2415, 2416, 2417, 2418, 2419, 2420, 2421, 2422, 2423, 2424, 2425, 2426, 2427, 2428, 2429, 2430, 2431, 2432, 2433, 2434, 2435, 2436, 2437, 2438, 2439, 2440, 2441, 2442, 2443, 2444, 2445, 2446, 2447, 2448, 2449, 2450, 2451, 2452, 2453, 2454, 2455, 2456, 2457, 2458, 2459, 2460, 2461, 2462, 2463, 2464, 2465, 2466, 2467, 2468, 2469, 2470, 2471, 2472, 2473, 2474, 2475, 2476, 2477, 2478, 2479, 2480, 2481, 2482, 2483, 2484, 2485, 2486, 2487, 2488, 2489, 2490, 2491, 2492, 2493, 2494, 2495, 2496, 2497, 2498, 2499, 2500, 2501, 2502, 2503, 2504, 2505, 2506, 2507, 2508, 2509, 2510, 2511, 2512, 2513, 2514, 2515, 2516, 2517, 2518, 2519, 2520, 2521, 2522, 2523, 2524, 2525, 2526, 2527, 2528, 2529, 2530, 2531, 2532, 2533, 2534, 2535, 2536, 2537, 2538, 2539, 2540, 2541, 2542, 2543, 2544, 2545, 2546, 2547, 2548, 2549, 2550, 2551, 2552, 2553, 2554, 2555, 2556, 2557, 2558, 2559, 2560, 2561, 2562, 2563, 2564, 2565, 2566, 2567, 2568, 2569, 2570, 2571, 2572, 2573, 2574, 2575, 2576, 2577, 2578, 2579, 2580, 2581, 2582, 2583, 2584, 2585, 2586, 2587, 2588, 2589, 2590, 2591, 2592, 2593, 2594, 2595, 2596, 2597, 2598, 2599, 2600, 2601, 2602, 2603, 2604, 2605, 2606, 2607, 2608, 2609, 2610, 2611, 2612, 2613, 2614, 2615, 2616, 2617, 2618, 2619, 2620, 2621, 2622, 2623, 2624, 2625, 2626, 2627, 2628, 2629, 2630, 2631, 2632, 2633, 2634, 2635, 2636, 2637, 2638, 2639, 2640, 2641, 2642, 2643, 2644, 2645, 2646, 2647, 2648, 2649, 2650, 2651, 2652, 2653, 2654, 2655, 2656, 2657, 2658, 2659, 2660, 2661, 2662, 2663, 2664, 2665, 2666, 2667, 2668, 2669, 2670, 2671, 2672, 2673, 2674, 2675, 2676, 2677, 2678, 26

1. *Chlorophyll a* (Chl *a*)

1. *Journal of the American Medical Association*, 1997; 277: 1033-1036.