

Case No.

4168

Application, Transcripts,
Small Exhibits, Etc.

BEFORE THE
NEW MEXICO OIL CONSERVATION COMMISSION
Santa Fe, New Mexico
July 9, 1969

EXAMINER HEARING

IN THE MATTER OF:

Application of Charles B. Read for
salt water disposal, Lea County,
New Mexico.

Case No. 4168

BEFORE: Daniel S. Nutter, Examiner.

TRANSCRIPT OF HEARING

MR. NUTTER: The hearing will come to order, please.

The first case this afternoon will be Case Number 4168.

MR. HATCH: Case 4168, application of Charles B. Read for salt water disposal, Lea County, New Mexico.

MR. KELLAHIN: If the Commission please, Jason Kellahin, Kellahin and Fox, Santa Fe, appearing for the applicant. We have one witness I'd like to have sworn.

(Witness sworn.)

(Whereupon, Applicant's Exhibits "A" through "E" were marked for identification.)

WILLIAM J. LeMAY

called as a witness, having been first duly sworn, was examined and testified as follows:

DIRECT EXAMINATION

BY MR. KELLAHIN:

Q Would you state your name, please?

A William J. LeMay.

Q What business are you engaged in, Mr. LeMay?

A Consulting geologist, Santa Fe, New Mexico.

Q And have you testified before the Oil Conservation Commission and made your qualifications a matter of record?

A Yes, I have.

MR. KELLAHIN: Are the witness' qualifications acceptable?

MR. NUTTER: Yes, they are.

Q (By Mr. Kellahin) Mr. LeMay, in connection with your work as a consulting geologist, have you done any work for Charles B. Read in Case 4168?

A Yes, I have. I have made an analysis of the Lynch pool, and the possibility of injecting water into the Yates, Seven Rivers -- the three formations in that area.

Q Now, referring to what has been marked as Applicant's Exhibit "A," would you identify that exhibit, please?

A Yes, Exhibit "A" is a land map of the

Lynch field area, showing the location of the proposed water injection well, indicated by the red arrow, and also the outline of the Yates, Seven Rivers reef production in the Lynch pool. The well is located approximately on the southwest end of the Lynch pool.

Q And what is the closest production from the Seven Rivers in that location?

A There is a -- one offset well, a diagonal, south with a slight diagonal southeast of the proposed injection well. Most of the wells in the southern part of the Lynch field are very marginal at the present time.

The Exhibit One also shows the land ownership for a radius of two plus miles surrounding the injection well.

Q Now, referring to what has been marked as Exhibit "B," would you identify that exhibit?

A Yes, Exhibit B is a log of the proposed injection well, which is the Charles B. Read Number One Sinclair State, located twenty-three hundred ten feet from the south and west lines of Section 2, Township 21 South, Range 33 East, in

Lea County.

It's a sonic-gammaray log, and it shows the top of the Yates formation at 3586, plus data to 216. A subsequent exhibit will have a structure map using that data and other datum.

It also shows the top of the Seven Rivers reef, and it gives the -- the subsequent workover typed in at the bottom. This well was drilled just on top of the reef and then a pipe was set and drilled a few inches into the reef to get production at a later date.

However, in 1968 the well was deepened with cable tools from 3783 to 3797 to increase the fluid recovery.

Q You now have an open hole interval from 3783 to 3797?

A That's correct.

Q And that's the disposal interval if this application is approved?

A That is correct.

Q And now referring to what has been marked as Exhibit "C," would you identify that exhibit?

A Yes, Exhibit "C" is a diagrammatic sketch

of the proposed installation of water injection equipment for the Read Sinclair State.

Going over the exhibit, there's twelve and three-quarter inch surface casing, forty-two pound casing set at 357 feet with 350 sacks of cement circulated to the surface.

A production string, four and a half inch, 9.5 pound casing was set at 3782 with a hundred sacks, and that brings up the top of the cement on that string to 2825, which is a calculated top. A temperature survey was not run.

Mr. Read proposes to plastic coat two and three-eighths inch tubing and hang it on a Baker Model "R" packer at 3682 and inject water through this tubing, in which case the annulus will be monitored at the surface with a pressure gauge and the annulus will be filled with an inert fluid.

The disposal zone on the Seven Rivers reef, as mentioned previously, the open hole interval is from 3783 to 3797.

Q Do you anticipate that this will take the water on a vacuum or what, pressure --

A Yes, with the quantities they propose to

inject, it should take it on a vacuum. They anticipate the volume would be approximately seven thousand barrels to start with, going as high as possibly fifteen thousand barrels per month, and the reef is a very porous zone and it should take those quantities on a vacuum.

Q What is the source of the water?

A The source is Mr. Read's production in the -- in Section 2 of the Lynch field.

Q Now, referring to what has been marked as Applicant's Exhibit "D," would you identify that exhibit?

A Exhibit "D" is a structure map drawn on top of the Yates formation of the southern end of the Lynch field. It shows the proposed injection well in red and the surrounding producing wells and dry holes.

Of particular note is the -- this well which never did make very much oil, but it's on a kind of an isolated pimple in there, and there are three dry holes around the one diagonal southeast from ours, which is a pull well, and it shows that the injection into this reef formation would

not affect the surrounding production.

Q Is it your testimony that it would not damage the producing wells in the area --

A No.

Q -- in your opinion?

A In my opinion, it would not.

Q Now, referring to what has been marked as Exhibit "E," would you identify that exhibit?

A Exhibit "E" is a water analysis of the Seven Rivers reef fluid which was taken from the Sinclair State Number One, which is our proposed injection well, and is very similar to the water that's going to be injected into the Sinclair State, same formation, same field. It shows what probably can be considered average, very average Seven Rivers Reef. The chemical analysis is not particularly high in chlorides. However, the sulfates are fairly high, and a fairly high concentration of sodium.

Q Were Exhibits "A" through "E" inclusive prepared by you and under your supervision?

A Yes, they were.

MR. KELLAHIN: At this time, I offer in

evidence Exhibits "A" through "E" inclusive.

MR. NUTTER: Applicant's Exhibits "A" through "E" will be admitted in evidence.

(Whereupon, Applicant's Exhibits "A" through "E" were offered and admitted in evidence.)

MR. KELLAHIN: That's all I have on direct examination.

CROSS EXAMINATION

BY MR. NUTTER:

Q Mr. LeMay, who operates these two wells in the southeast quarter of Section 2?

A Mr. Read operates the Humble State which -- no, I'm sorry. Now, that's in -- it's one of those screwy sections. The Humble State water will be north, slightly northeast of the proposed injection well. Plummer and McKinley operate the wells in the south half of Section 2. That's the diagonal from the --

Q Now, I notice that the Number One there, which is the direct east offset which -- with that circle around it, what is the significance of that?

A That was supposedly a discovery well for an extension in the field. That's why in my land map it's encircled, indicating a discovery. It really was just a step-out extension.

Q Well, now, these Number One and Two wells still both are producing, are they not?

A If my memory serves me correctly, they are low volume wells. They are not particularly good wells. I don't know if Mr. Read plans to dispose of the water from those wells or not. I know he's going to from the Humble State wells.

Q He does operate this Number One and Two wells to the southeast?

A No, no, he operates the wells slightly northeast of there.

Q The Humble State?

A The Humble State, yes sir.

Q I just wondered about those two wells, because according to your Exhibit Number "D," they are structurally lower.

A Correct.

Q Than the disposal well.

A Correct, probably, although I did not

show that in the Exhibit "D," this is an isolated pimple of water. In other words, you could probably close that if you wanted to. Those wells are lower structurally there and yet they make more oil than Mr. Read's well. Mr. Read's well could be separated entirely from the field. That's more logical.

Q It would be more logical to swing that little arm around there on Exhibit "D"?

A Yes.

Q It would just be a little --

A It never did make much --

Q How much oil did this well make?

A I've got the cumulative on that. It was completed I think in '67 and the production went down and they deepened it in '68. It was a five-barrel a day well, and I'd say that it made less than twenty thousand barrels.

Q I see; do you know how much pay is open up in these Plummer and McKinley wells?

A No, I don't. All I have again is a memory. The top pay data cut as much as Mr. Read cut, which is normal procedure. However, when the

fluid goes down, and it tends to go down in time in all these wells. They have to deepen them sometimes, and they go clear down to --

Q And the water --

A And occasionally you will hit oil zones below. I know that was done in the Wilson field, and it's very hard to predict it, but you get stringers of oil throughout the reef section.

MR. NUTTER: Are there any other questions of Mr. LeMay?

You may be excused.

(Witness excused.)

MR. NUTTER: Do you have anything further, Mr. Kellahin?

MR. KELLAHIN: That's all, Mr. Nutter, thank you.

MR. NUTTER: Does anyone have anything they wish to offer in Case 4168?

We'll take the case under advisement, and the hearing is adjourned.

I N D E XWITNESSPAGE

WILLIAM J. LeMAY

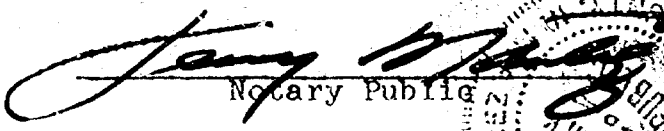

Direct Examination by Mr. Kellahin
Cross Examination by Mr. Nutter2
9EXHIBITMARKEDOFFERED AND
ADMITTEDApplicant's Exhibit's
"A" through "E"

2

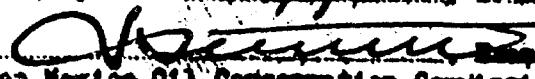
9

STATE OF NEW MEXICO }
COUNTY OF BERNALILLO }

I, JERRY MARTINEZ, Notary Public in and for the County of McKinley, State of New Mexico, do hereby certify that the foregoing and attached Transcript of Hearing before the New Mexico Oil Conservation Commission was reported by me and that the same is a true and correct record of the said proceedings, to the best of my knowledge, skill and ability.


Notary Public


My Commission Expires:
January 24, 1970.

I do hereby certify that the foregoing is a complete record of the proceedings in the Examiner hearing of Case No. 4168 heard by me on 2/9 1963.

New Mexico Oil Conservation Commission



OIL CONSERVATION COMMISSION

STATE OF NEW MEXICO

P. O. BOX 2088 - SANTA FE

87501

GOVERNOR
DAVID F. CARGO
CHAIRMAN

LAND COMMISSIONER
ALEX J. ARMijo
MEMBER

STATE GEOLOGIST
A. L. PORTER, JR.
SECRETARY - DIRECTOR

July 16, 1969

Mr. Jason Kellahin
Kellahin & Fox
Attorneys at Law
Post Office Box 1769
Santa Fe, New Mexico

Re: Case No. 4168
Order No. R-3797
Applicant:
Charles B. Read

Dear Sir:

Enclosed herewith are two copies of the above-referenced Commission order recently entered in the subject case.

Very truly yours,

A. L. PORTER, Jr.
Secretary-Director

ALP/ir

Copy of order also sent to:

Hobbs OCC X

Artesia OCC

Aztec OCC

Other State Engineer Office

BEFORE THE OIL CONSERVATION COMMISSION
OF THE STATE OF NEW MEXICO

IN THE MATTER OF THE HEARING
CALLED BY THE OIL CONSERVATION
COMMISSION OF NEW MEXICO FOR
THE PURPOSE OF CONSIDERING:

CASE No. 4168
Order No. R-3797

APPLICATION OF CHARLES B. READ
FOR SALT WATER DISPOSAL, LEA
COUNTY, NEW MEXICO.

ORDER OF THE COMMISSION

BY THE COMMISSION:

This cause came on for hearing at 9 a.m. on July 9, 1969, at Santa Fe, New Mexico, before Examiner Daniel S. Nutter.

NOW, on this 15th day of July, 1969, the Commission, a quorum being present, having considered the testimony, the record, and the recommendations of the Examiner, and being fully advised in the premises,

FINDS:

(1) That due public notice having been given as required by law, the Commission has jurisdiction of this cause and the subject matter thereof.

(2) That the applicant, Charles B. Read, is the owner and operator of the Sinclair State Well No. 1, located 2310 feet from the South line and 2310 feet from the West line of Section 2, Township 21 South, Range 33 East, NMPM, Lynch Pool, Lea County, New Mexico.

(3) That the applicant proposes to utilize said well to dispose of produced salt water into the Seven Rivers Reef formation, with injection into the open-hole interval from approximately 3783 feet to 3797 feet.

(4) That the injection should be accomplished through 2 3/8-inch plastic-lined tubing installed in a packer set at approximately 3682 feet; that the casing-tubing annulus should be filled with an inert fluid; and that a pressure gauge should

-2-

CASE No. 4168

Order No. R-3797

be attached to the annulus at the surface in order to determine leakage in the casing, tubing, or packer.

(5) That approval of the subject application will prevent the drilling of unnecessary wells and otherwise prevent waste and protect correlative rights.

IT IS THEREFORE ORDERED:

(1) That the applicant, Charles B. Read, is hereby authorized to utilize his Sinclair State Well No. 1, located 2310 feet from the South line and 2310 feet from the West line of Section 2, Township 21 South, Range 33 East, NMPM, Lynch Pool, Lea County, New Mexico, to dispose of produced salt water into the Seven Rivers Reef formation, injection to be accomplished through 2 3/8-inch tubing installed in a packer set at approximately 3682 feet, with injection into the open-hole interval from approximately 3783 feet to 3797 feet;

PROVIDED HOWEVER, that the tubing shall be plastic-lined; that the casing-tubing annulus shall be filled with an inert fluid; and that a pressure gauge shall be attached to the annulus at the surface in order to determine leakage in the casing, tubing, or packer.

(2) That the applicant shall submit monthly reports of his disposal operations in accordance with Rules 704 and 1120 of the Commission Rules and Regulations.

(3) That jurisdiction of this cause is retained for the entry of such further orders as the Commission may deem necessary.

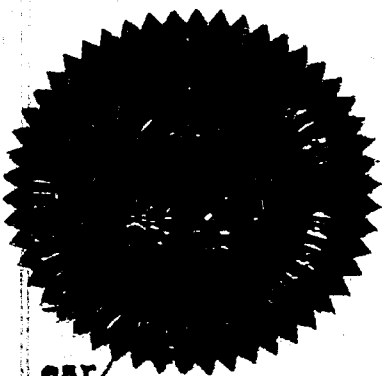
DONE at Santa Fe, New Mexico, on the day and year hereinabove designated.

STATE OF NEW MEXICO
OIL CONSERVATION COMMISSION

DAVID F. CARGO, Chairman

ALEX J. ARMIJO, Member

A. L. PORTER, Jr., Member & Secretary



esr/

DOCKET: EXAMINER HEARING - WEDNESDAY - JULY 9, 1969

9 A.M. - OIL CONSERVATION COMMISSION CONFERENCE ROOM,
STATE LAND OFFICE BUILDING - SANTA FE, NEW MEXICO

The following cases will be heard before Daniel S. Nutter, Examiner, or
Elvis A. Utz, Alternate Examiner:

CASE 4160: Application of Roger C. Hanks for pool redelineation, Roosevelt County, New Mexico. Applicant, in the above-styled cause, seeks the redelineation of certain pool boundaries to include the deletion of the NE/4 of Section 29 from the South Prairie-Cisco Pool and the extension of the Middle Allison-Pennsylvanian Pool to include all of Section 29, the SE/4 of Section 30, and the N/2 of Section 32, all in Township 8 South, Range 36 East, Roosevelt County, New Mexico.

CASE 4161: Application of Roger C. Hanks for special pool rules, Lea County, New Mexico. Applicant, in the above-styled cause, seeks the promulgation of special pool rules for the North Mescalero-Cisco Pool, Lea County, New Mexico, including a provision for 160-acre spacing and proration units and the assignment of 80-acre allowables.

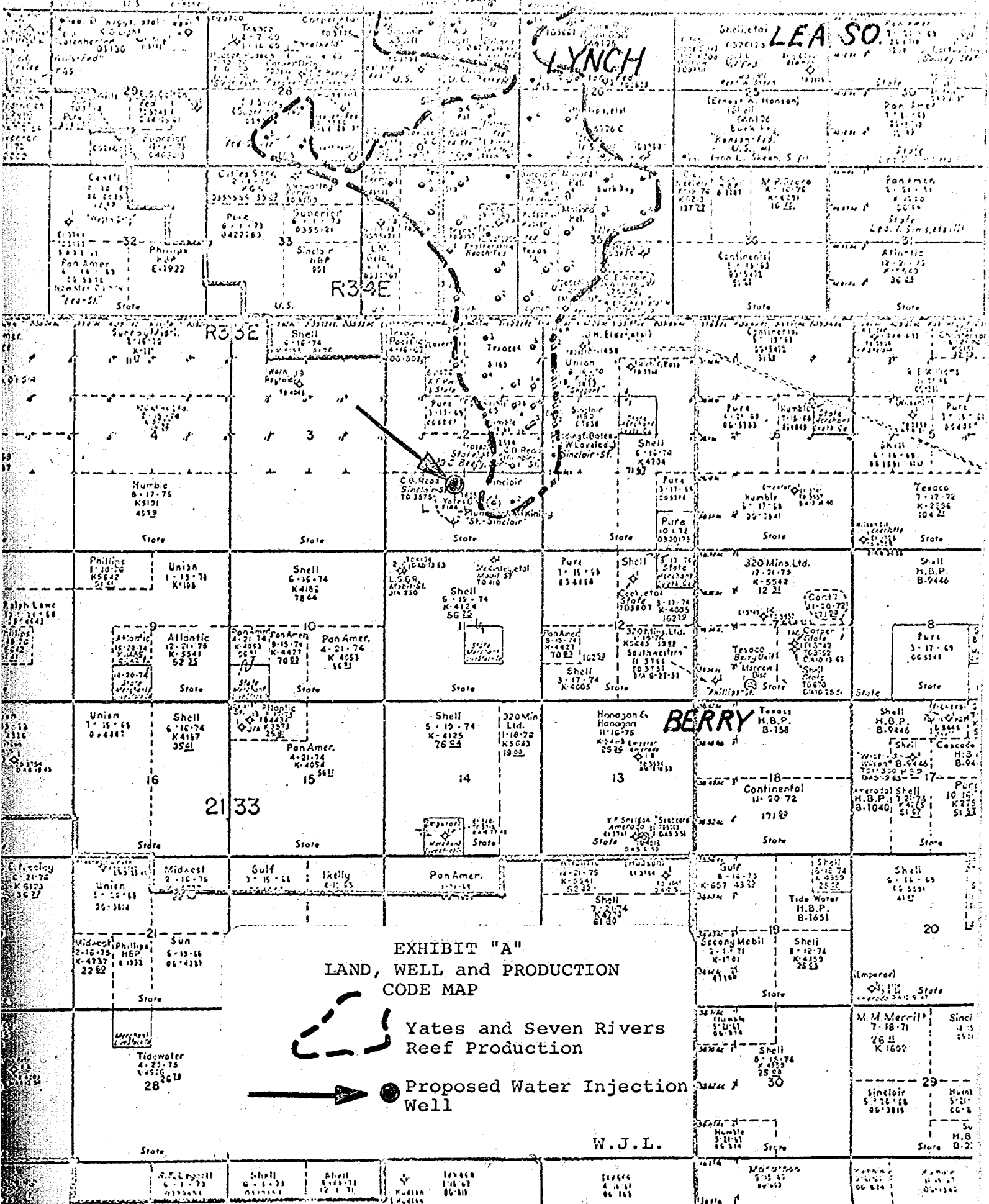
CASE 3786: (Reopened)

In the matter of Case No. 3786 being reopened pursuant to the provisions of Order No. R-3437, which order established special rules and regulations for the North Paduca-Delaware Pool, Lea County, New Mexico, including provisions for the classification of and spacing for oil and gas wells and a special gas-liquid ratio limitation. All interested parties may appear and show cause why the special rules and regulations should not be discontinued.

CASE 4162: Application of Western States Producing Company for a dual completion and salt water disposal, Roosevelt County, New Mexico. Applicant, in the above-styled cause, seeks authority to dually complete its State 30 Well No. 2 located in Unit M of Section 30, Township 7 South, Range 33 East, Roosevelt County, New Mexico, in such a manner as to permit the production of oil from the Chaveroo-San Andres Pool and the disposal of produced salt water through 8 5/8 X 4 1/2 inch casing-casing annulus into the Yates, Seven Rivers, and Queen formations in the open-hole interval from approximately 1825 feet to 3785 feet.

- CASE 4163: Application of Pan American Petroleum Corporation for a non-standard gas proration unit, Lea County, New Mexico. Applicant, in the above-styled cause, seeks approval of a 181-acre non-standard gas proration unit for its Pike Federal Well No. 1 located in Unit A of Section 6, Township 23 South, Range 38 East, Tubb Gas Pool, Lea County, New Mexico, said unit to comprise the N/2 N/2 of said Section 6.
- CASE 4164: Application of Mobil Oil Corporation for an unorthodox location, Lea County, New Mexico. Applicant, in the above-styled cause, seeks authority to drill its Fristoe Well No. 8 at an unorthodox location 2470 feet from the North line and 430 feet from the East line of Section 3, Township 25 South, Range 37 East, Langlie Mattix Pool, Lea County, New Mexico.
- CASE 4165: Application of Sam Boren for special pool rules, Lea County, New Mexico. Applicant, in the above-styled cause, seeks the promulgation of special pool rules for the East Bagley-Pennsylvanian Pool, Lea County, New Mexico, including a provision for 160-acre spacing and proration units and the assignment of 80-acre allowables.
- CASE 4166: Application of Sam Boren for a dual completion and salt water disposal, Lea County, New Mexico. Applicant, in the above-styled cause, seeks authority to dually complete his Barbera State "A" Well No. 1 located in Unit P of Section 6, Township 12 South, Range 34 East, Lea County, New Mexico, in such a manner as to permit the production of oil from the East Bagley-Pennsylvanian Pool and the disposal of produced salt water through the intermediate casing-production casing annulus into the San Andres and Glorieta formations in the open-hole interval from approximately 4060 feet to 6562 feet.
- CASE 4167: Application of Charles B. Read for a dual completion and salt water disposal, Lea County, New Mexico. Applicant, in the above-styled cause, seeks authority to dually complete his Hobbs "Y" Well No. 1 located in Unit J of Section 29, Township 12 South, Range 34 East, Lea County, New Mexico, in such a manner as to permit the production of oil from the East Hightower-Pennsylvanian Pool and the disposal of produced salt water through the intermediate casing-production casing annulus into the San Andres, Glorieta, Yeso, and Abo formations in the open-hole interval from approximately 4195 feet to 7720 feet.

- CASE 4168: Application of Charles B. Read for salt water disposal, Lea County, New Mexico. Applicant, in the above-styled cause, seeks authority to dispose of produced salt water into the Seven Rivers Reef formation in the open-hole interval between 3783 feet and 3797 feet in his Sinclair State Well No. 1 located 2310 feet from the South and West lines of Section 2, Township 21 South, Range 33 East, Lynch Pool, Lea County, New Mexico.
- CASE 4169: Application of Mask, Jennings, Keohane and Westall for an exception to Order No. R-3221, as amended, Eddy County, New Mexico. Applicants, in the above-styled cause, seek an exception to Order No. R-3221, as amended, which order prohibits the disposal of water produced in conjunction with the production of oil on the surface of the ground in Lea, Eddy, Chaves and Roosevelt Counties, New Mexico, after January 1, 1969. Said exception would be for applicants' wells in the E/2 NW/4 and the NE/4 of Section 2, Township 19 South, Range 31 East, Shugart Pool, Eddy County, New Mexico. Applicants seek authority to dispose of salt water produced by said wells in an unlined surface pit located in Unit C of said Section 2.
- CASE 4170: Application of H. C. Hood for pool redelineation, Lea County, New Mexico. Applicant, in the above-styled cause, seeks the redelineation of the High Plains-Pennsylvanian Pool by the deletion of the SW/4 of Section 14 and the SE/4 of Section 15, Township 14 South, Range 34 East, Lea County, New Mexico.



BEFORE EXAMINER NUTTER
OF CONSERVATION COMMISSION
Appl EXHIBIT NO. 17
CASE NO. 4168

T/Yates 3586 (4216)

3600

EXHIBIT B

Charles B. Read
No. 1 Sinclair State
2310' FS&WL
Sec. 2, T-21-S, R-33-E
Lea County, New Mexico

SONIC-GAMMARAY

3700

FD 3797
FD 3783

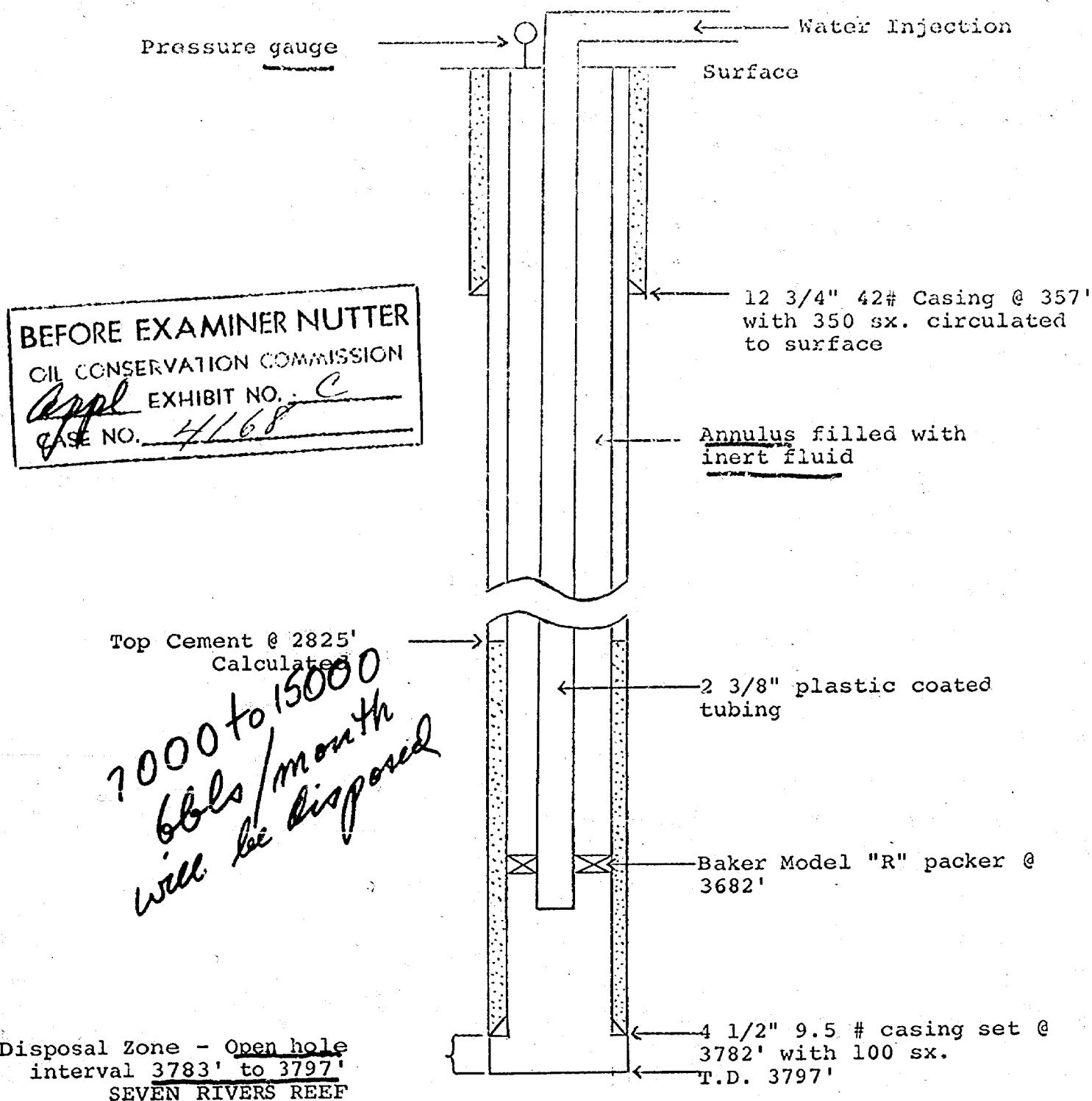
T/Seven Rivers Reef 3775

Deepened well with Cable
Tools from 3783' to 3797'. →
D. 3797 (10-19-68)

Pay Zone 3781-83 Scratched top
of pay in Seven Rivers "Reef"

BEFORE EXAMINER NUTTER
OIL CONSERVATION COMMISSION
Appl EXHIBIT NO. *B*
CASE NO. *4168*

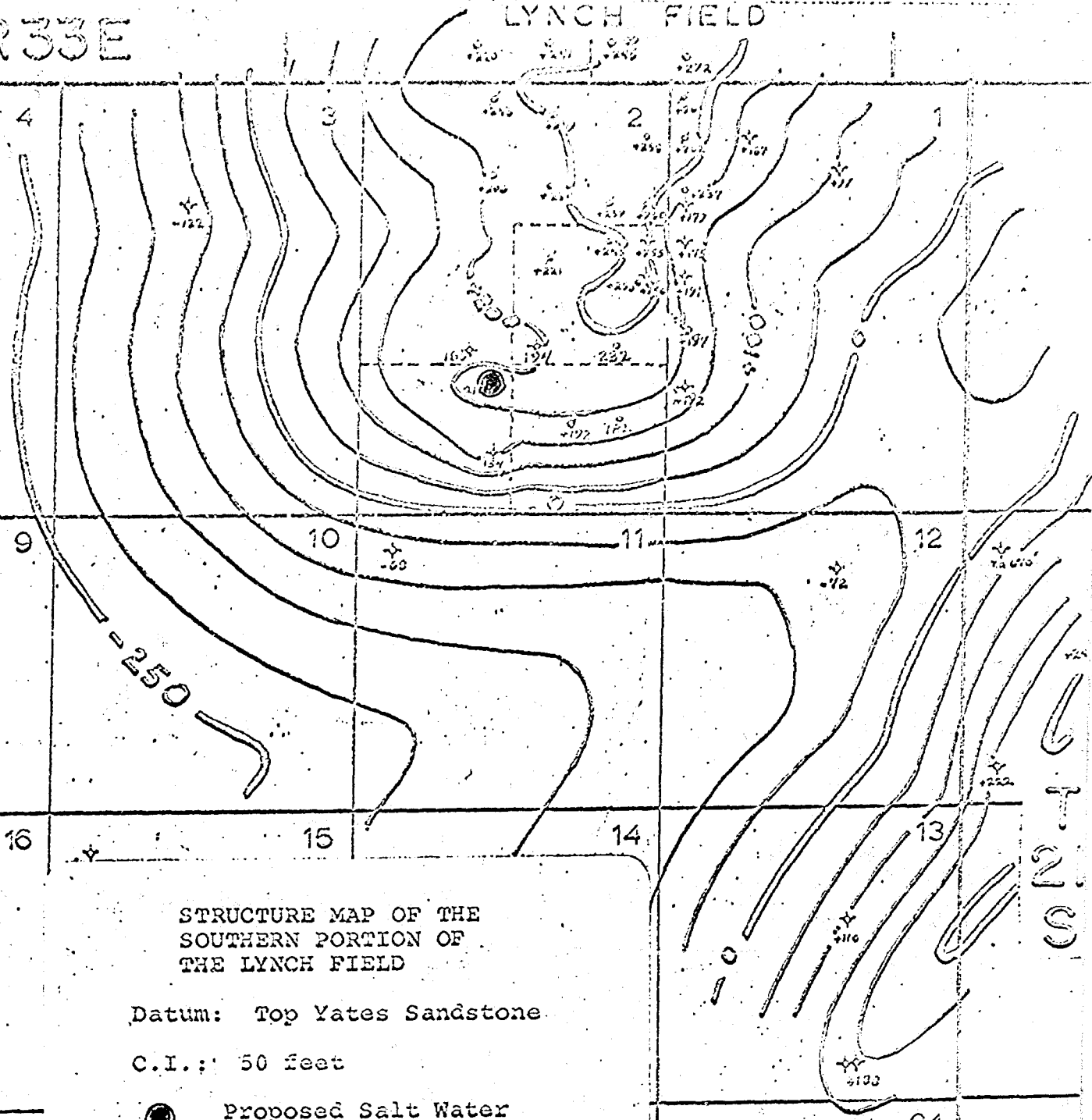
EXHIBIT "C"



DIAGRAMMATIC SKETCH of Proposed Installation of Water Injection Equipment for the CHARLES B. READ No. 1 SINCLAIR STATE Section 2, T-21-S, R-33-E, Lea County, New Mexico.

R33E

LYNCH FIELD



STRUCTURE MAP OF THE
SOUTHERN PORTION OF
THE LYNCH FIELD

Datum: Top Yates Sandstone

C.I.: 50 feet



Proposed Salt Water
Injection Well

W.J.L.

BEFORE EXAMINER NUTTER

OIL CONSERVATION COMMISSION

EXHIBIT NO. 11

CASE NO. 4168

HALLIBURTON COMPANY
LOVINGTON, NEW MEXICO

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

Date August 1, 1944.....

Date Received

.....

Location	Field	Source
----------	-------	--------

Sulfides, H_2S 340.....

Appl EXHIBIT NO. E
C. NO. 4168

Security submitted
LELBURTON COMPANY
By *[Signature]*
Date *11-11-1946* Division *11-11-1946*

This report is limited to the described sample tested. Any user of this report agrees that Halliburton shall not be liable for any loss or damage, whether due to act or omission, resulting from such report or its use.

BEFORE THE OIL CONSERVATION COMMISSION
OF THE STATE OF NEW MEXICO

APPLICATION OF CHARLES B. READ)
FOR SALT WATER DISPOSAL BY INJECTING)
PRODUCED SALT WATER INTO THE SEVEN)
RIVERS REEF FORMATION IN HIS SINCLAIR)
STATE NO. 1, LOCATED 2310 FEET FROM)
THE SOUTH AND WEST LINES OF SECTION)
2, TOWNSHIP 21 SOUTH, RANGE 33 EAST,)
N.M.P.M., LEA COUNTY, NEW MEXICO.)

Case 4168

A P P L I C A T I O N

COMES NOW Charles B. Read and respectfully presents this Application to the Oil Conservation Commission of the State of New Mexico for an Order permitting him to dispose of produced salt water through plastic coated tubing into the Seven Rivers Reef formation into the open hole interval between 3783 feet and 3797 feet in his Sinclair State No. 1 located 2310 feet FS&WL, Section 2, Township 21 South, Range 33 East, N.M.P.M., Lea County, New Mexico, and in support thereof, states:

1. Attached hereto marked Exhibit "A" is a plat showing the location of Applicant's well hereinabove described and the location of all other wells within a radius of two miles therefrom. This plat also indicates the lessees of record within this two mile radius. All such wells are now producing from the Yates and Seven Rivers Reef formations in the Lynch Pool.
2. Attached hereto marked Exhibit "B" is the log of Applicant's well hereinabove described.
3. Attached hereto marked Exhibit "C" is a diagrammatic sketch of Applicant's well hereinabove described showing all casing strings, including diameters and setting depths, quantity used and tops of cement, perforated or open hole intervals, tubing strings, including diameters and setting depths, and the type and location of packers, if any.

DOCKET MADE

6-25-69

4. Attached hereto marked Exhibit "D" is a structure map of the Lynch Pool, contoured on the top of the Yates formation and showing the location of the proposed water injection well.

5. The salt water to be disposed of would be that produced from Applicant's wells in the Lynch field, the anticipated volume of which would be approximately 7,000 to 15,000 barrels per month which would be injected through 2 3/8 inch plastic coated tubing below a packer set at approximately 3,682 feet. The casing-tubing annulus would be filled with inert fluid and monitored at the surface with a pressure gauge.

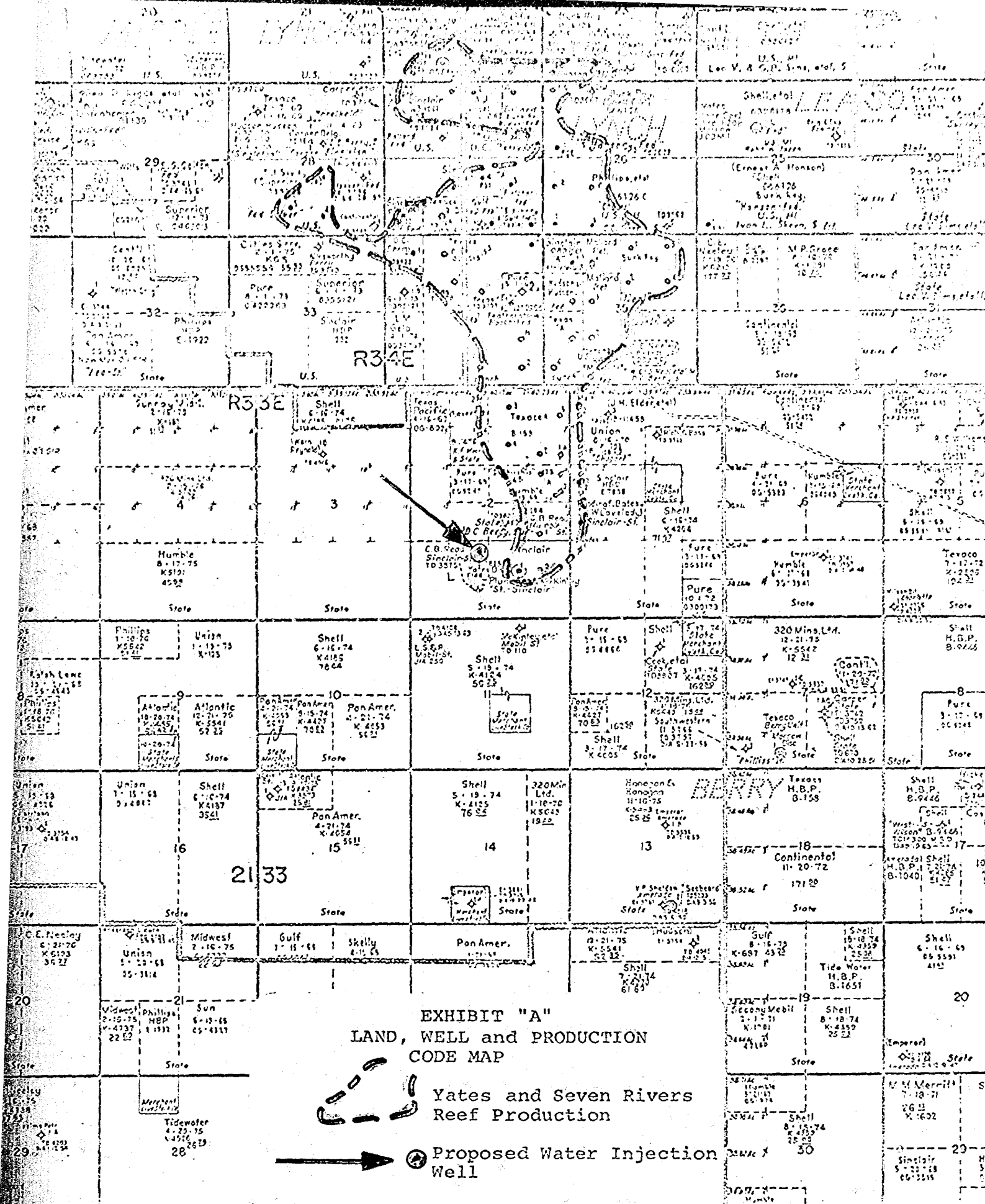
WHEREFORE, Applicant requests that this Application be set for examiner hearing and that after such hearing this Commission enter its Order authorizing the salt water disposal and dual completion as herein requested.

Respectfully submitted,

CHARLES B. READ

By

William J. LeMay
William J. LeMay, Agent



T/Yates 3586 (+216)

3600

EXHIBIT B

Charles B. Read
No. 1 Sinclair State
2310' FS&WL
Sec. 2, T-21-S, R-33-E
Lea County, New Mexico

SONIC-GAMMARAY

3700

FD 3783
TD 3783

T/Severn River Reef 3775

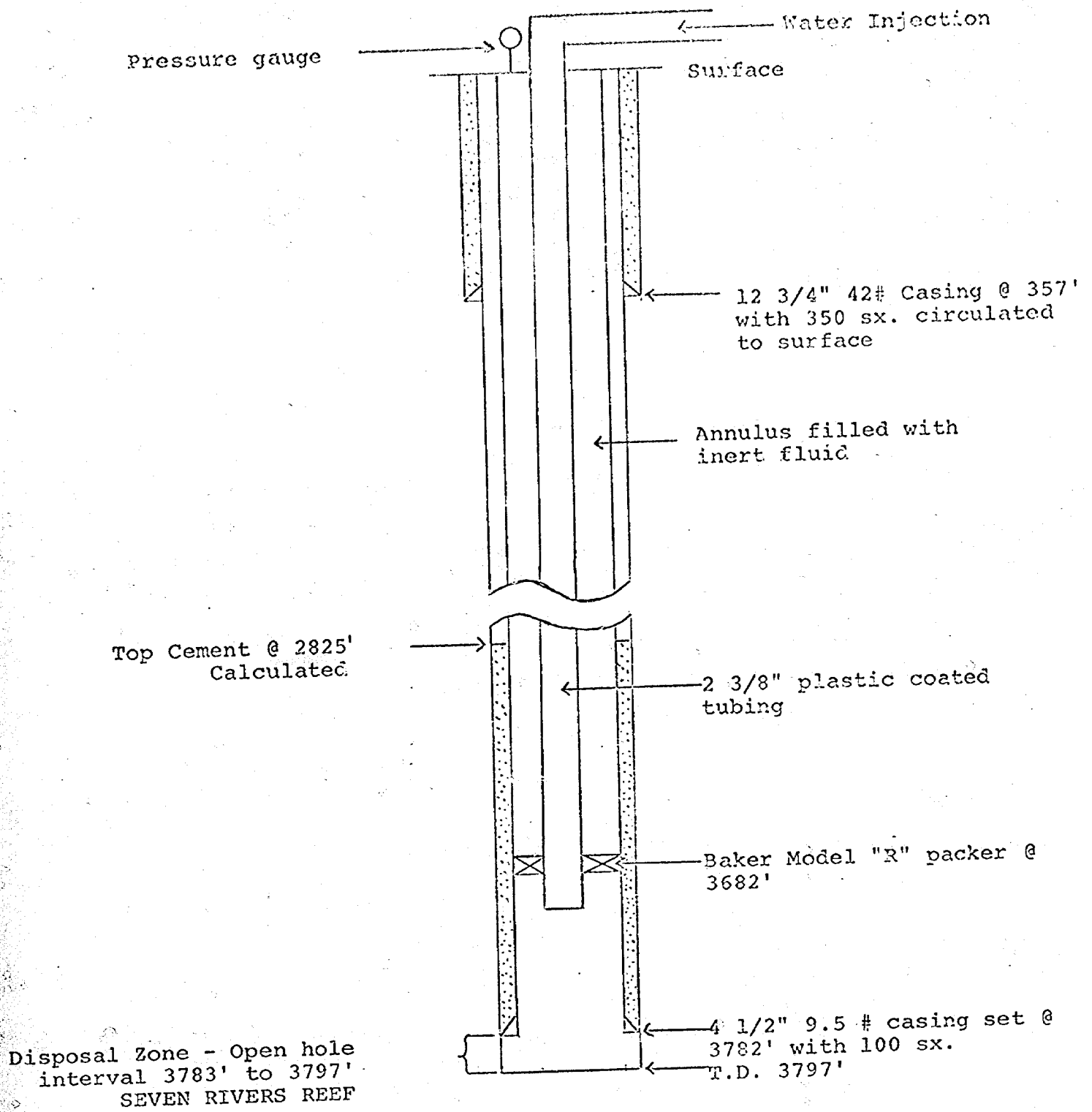
Deepened well with Cable
Tools from 3783' to 3797'. →
T.D. 3797 (10-19-68)

BEST AVAILABLE COPY

Pay Zone 3781-83 scratched top
of pay in Severn River "Reef"

Case 4/68

EXHIBIT "C"

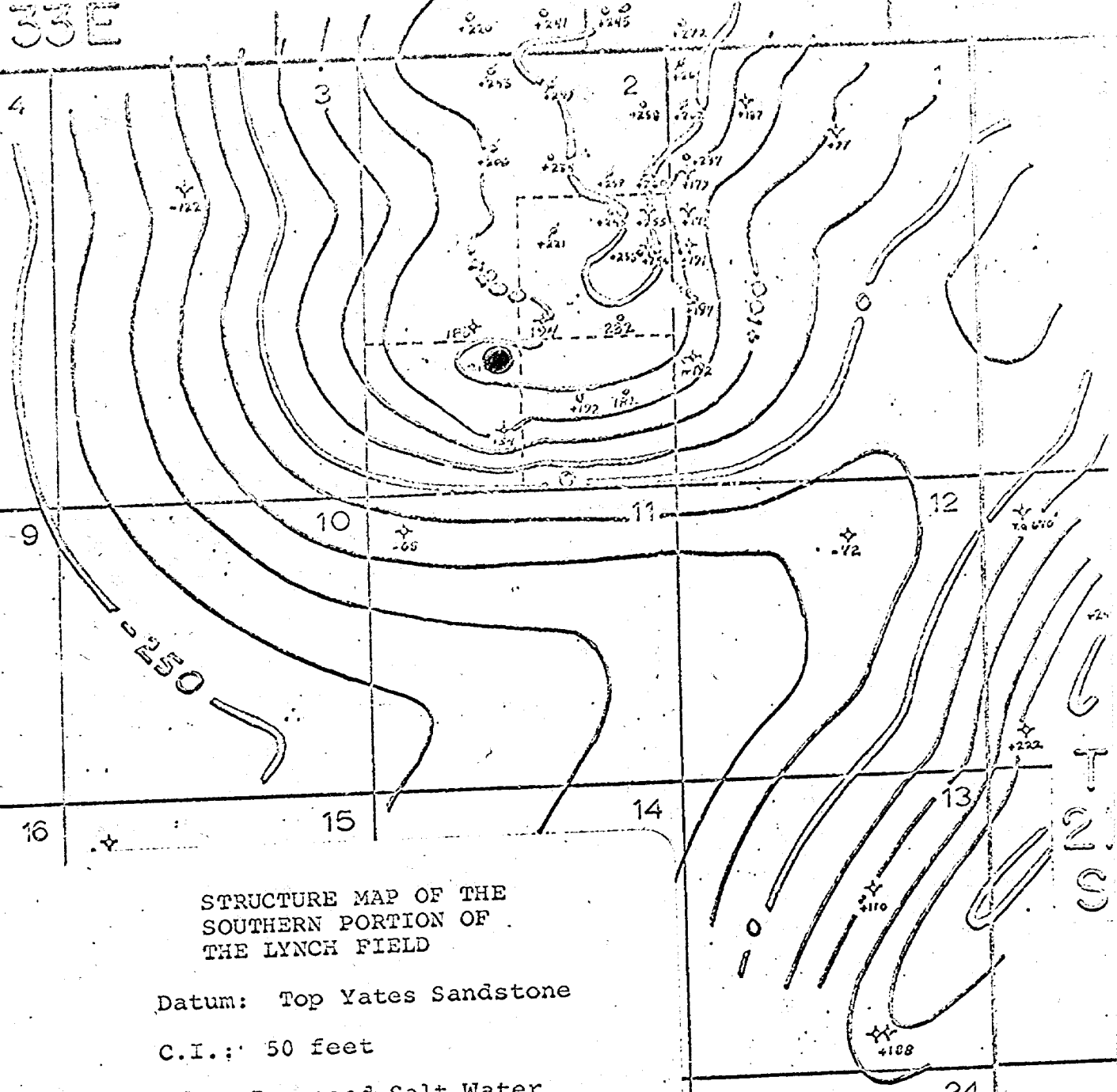


DIAGRAMMATIC SKETCH of Proposed Installation of Water Injection Equipment for the CHARLES B. READ No. 1 SINCLAIR STATE Section 2, T-21-S, R-33-E, Lea County, New Mexico.

Case 4/68

R33E

LYNCH FIELD



STRUCTURE MAP OF THE
SOUTHERN PORTION OF
THE LYNCH FIELD

Datum: Top Yates Sandstone

C.I.: 50 feet

● Proposed Salt Water
Injection Well

W.J.L.

BEST AVAILABLE COPY

Case 4/68

HALLIBURTON DIVISION LABORATORY
 HALLIBURTON COMPANY
 LOVINGTON, NEW MEXICO

No. 11-55-00

LABORATORY REPORT

Date February 27, 1968

This report is the property of Halliburton Company and neither it nor any part thereof nor a copy thereof is to be published or disclosed without first securing the express written approval of laboratory management; it may however, be used in the course of regular business operations by any person or concern and employees thereof receiving such report from Halliburton Company.

Date Received

To: Oklahoma, State

Oklahoma, State

Oklahoma, State

Well & Lease Circle State 1 Depth Formation

Location Field Source

Specific gravity 60/60 °F 1.011

Color, filtrate Clear

pH 6.6

Resistivity 0.695

° 71 °F ppm (mp)

Chlorides, Cl 7,600

Sulfates, SO₄ 3,100Alkalinity, HCO₃ 1,415

Calcium, Ca 760

Magnesium, Mg 335

Iron, Fe Nil

Sodium, Na* 5,335

Sulfides, H₂S 2.0

BEST AVAILABLE COPY

Remarks Scale stability test - This water is capable of producing Calcium Carbonate scale at temperatures above 86°F.

ppm equals Parts per million uncorrected or milligrams per liter
 * includes Potassium as Na.

Laboratory Analyst

Frewer

Respectfully submitted

HALLIBURTON COMPANY

By Rex L. Hammack, Jr., Division Chemist

NOTICE

This report is limited to the described sample tested. Any user of this report agrees that Halliburton shall not be liable for any loss or damage, whether due to act or omission, resulting from such report or its use.

Case 468

DRAFT

GMH/esr

BEFORE THE OIL CONSERVATION COMMISSION
OF THE STATE OF NEW MEXICO

IN THE MATTER OF THE HEARING
CALLED BY THE OIL CONSERVATION
COMMISSION OF NEW MEXICO FOR
THE PURPOSE OF CONSIDERING:

CASE No. 4168

Order No. R- ~~4168~~

3797

APPLICATION OF CHARLES B. READ
FOR SALT WATER DISPOSAL, LEA
COUNTY, NEW MEXICO.

ORDER OF THE COMMISSION

BY THE COMMISSION:

This cause came on for hearing at 9 a.m. on July 9, 1969,
at Santa Fe, New Mexico, before Examiner Daniel S. Nutter

NOW, on this _____ day of July, 1969, the Commission, a
quorum being present, having considered the testimony, the record,
and the recommendations of the Examiner, and being fully advised
in the premises,

FINDS:

(1) That due public notice having been given as required by
law, the Commission has jurisdiction of this cause and the subject
matter thereof.

(2) That the applicant, Charles B. Read,
is the owner and operator of the Sinclair State Well No. 1,
2310 feet from the South line and 2310 feet from the West line
located ~~xxxxxxx~~ of Section 2, Township 21 South, Range
33 East, NMPM, Lynch Pool, Lea
County, New Mexico.

(3) That the applicant proposes to utilize said well to
dispose of produced salt water into the Seven Rivers Reef
formation, with injection into the open-hole interval
from approximately 3783 feet to 3797 feet.

(4) That the injection should be accomplished through
2 3/8-inch plastic-lined tubing installed in a packer set at

approximately 3682 feet; that the casing-tubing annulus should be filled with an inert fluid; and that a pressure gauge should be attached to the annulus ~~or the annulus left open~~ at the surface in order to determine leakage in the casing, tubing, or packer.

(5) That approval of the subject application will prevent the drilling of unnecessary wells and otherwise prevent waste and protect correlative rights.

IT IS THEREFORE ORDERED:

(1) That the applicant, Charles B. Read,
is hereby authorized to utilize ~~his~~ his Sinclair State Well No. 1,
2310 feet from the South line and 2310 feet from the West line
located ~~xxx~~ of Section 2, Township 21 South, Range
33 East, NMPM, Lynch Pool, Lea
County, New Mexico, to dispose of produced salt water into the
Seven Rivers Reef formation, injection to be accomplished through
2 3/8-inch tubing installed in a packer set at approximately
3682 feet, with injection into the open-hole interval
from approximately 3783 feet to 3797 feet;

PROVIDED HOWEVER, that the tubing shall be plastic-lined;
that the casing-tubing annulus shall be filled with an inert
fluid; and that a pressure gauge shall be attached to the annulus
~~or the annulus left open~~ at the surface in order to determine
leakage in the casing, tubing, or packer.

(2) That the applicant shall submit monthly reports of ~~xxx~~ his
disposal operations in accordance with Rules 704 and 1120 of the
Commission Rules and Regulations.

(3) That jurisdiction of this cause is retained for the
entry of such further orders as the Commission may deem necessary.

DONE at Santa Fe, New Mexico, on the day and year hereinabove
designated.

CASE 4168: Application of CHAS.
B. READ FOR SALT WATER DISPOSAL,
LEA COUNTY, NEW MEXICO.