

LIFE FROM WHICH OIL EVOLVED ONCE INHABITED LARGE INLAND SEA

Which Covered What is Holt County and O'Neill Area, Millions of Years Before the Advent of Man.

Fossil Remains of Sea and Plant Life Found In This Part of Nebraska, Gives Evidence that Oil is Here.

Exclusive to the Frontier by Ray E. Colton, D. Sc., Oil and Gas Science Writer.

NOTE

In another article of this series, the writer pointed out the visible evidence which appears in Holt and adjoining counties, which makes the potential recovery of crude oil under proper drilling operations, possible in this part of Nebraska. In this article, information rarely revealed to the reading public is presented for your entertainment and education. Facts given here are based on actual field research of major oil producing companies, and from findings of the American Petroleum Institute. Republishing of any of the wording of this article by any other newspaper, is prohibited.

RAY E. COLTON

WHAT IS OIL?

Until six months ago, the true origin of crude oil was not known, but recent laboratory and field scientific research work on the part of the staffs of major oil companies coupled with findings of the American Petroleum Institute, have clarified this mystery, which has existed ever since the ancient Persians and Greeks discovered the "dirt that burns" as they termed it. The term petroleum as applied to crude oil is derived from the Greek words Petro meaning petrol, and Oleum, meaning rock, in other words "rock oil".

The theory held by some laymen, namely; that oil was evolved from the remains of giant dinosaurs "terrible lizards", which roamed Nebraska and elsewhere during the Triassic-Jurassic periods of the major Mesozoic geologic era, or from colossal whales and other mammals which swam the long vanished seas of Paleozoic geologic times, about three hundred million years ago, is decidedly unlikely. In the first place there was not sufficient of these forms of reptilian and mammal life on the earth at any time to cause any large accumulation of oil, and secondly, as it has been established by field work, that fossil remains of these forms of prehistoric life are usually found in terrestrial or land formations, it certainly appears that this theory would be blasted, as these formations are unsuitable for any commercial accumulation of crude oil.

The findings of science in respect to the true origin of crude oil, are as follows:

The inorganic theory of oil's origin.

This theory is based on the fact that chemical reactions resulting from gases buried deep in the earth, which, when cooled at the surface, result in petroleum, especially the action of deep-seated water upon deep-buried carbides of iron and nickel. The gaseous emanations from volcanoes appears to bear out this theory, but the geological evidence of commercial oil occurrences fails to support this theory. So we will eliminate this theory, which while having some merit, yet fails to fit into the recent findings as to oil's true origin.

The organic theories as to oil's origin, have recently been accepted as final by the field petroleum industry of the world.

These theories fall under the three following classes:

- 1-Origin of oil from marine vegetable material.
- 2-Origin of oil from marine animal material.
- 3-The combination of both marine animal and marine vegetable material.

The word marine is used as the occurrence of oil is closely related to sediments which carry marine fossil remains. Evidence of oil's evolution from organisms of

marine and vegetable matter is plainly shown by the minute marine diatoms, seaweed, and other sea life, which appear during test well drilling for oil.

During the drilling of the Pawnee Royalty Company's R. H. Boice No. 1, located three miles west of Falls City, Nebraska, and which is now producing commercial amounts of crude oil, which are taken to the refinery of the Searles Refining Corporation at Omaha, numerous fossil remains of marine shell life, appeared as further evidence that marine life must have caused the formation of the crude oil in prehistoric geologic times. Until new evidence, having concrete basis is presented, the marine-vegetable matter as causing oil, will continue to be accepted by the petroleum industry.

HOW OIL FORMED

Oil formed first from the dying marine and marine vegetable matter into what are termed as "source beds". Finally, after lying dormant for countless centuries, during which time the organisms of the dead marine and plant life fermented, the petroliferous mass, i. e. crude oil, began to migrate to what are termed as "adjacent porous" rocks. The movement which caused this migration, as has been determined by recent field work in producing oil fields, was principally one of hydrostatic pressure of concealed gases, however, such forces as earth movements and induration and dehydration of the oil mass, could also have been contributing factors to the migration.

ROCKS MUST BE POROUS

In order that the rocks attracting the oil from its source beds be able to hold the matter, they must be porous as well as permeable, and such reservoirs must be encased in what is termed geologically as impermeable strata, that is rocks having the physical attraction of porosity, such as limestones, sandstones and shales. This is necessary, in order that the attracted mass may have freedom of movement within the strata, but have no escape from it. From what can be determined by surface studies made in Holt County and area radiating from O'Neill, this favorable condition no doubt exists beneath this part of Nebraska.

GEOLOGICAL TEST IS PLANNED FOR HOLT AND ADJOINING COUNTIES

Information recently reaching the writer, who is in close touch with major and independent oil operators in Tulsa, Oklahoma City, Dallas, Houston and other oil centers, is to the effect, that several of the operators will take advantage of South Dakota's recent request that exploitation for oil search be started west of the Missouri River, and that these operators will seek acreage in Boyd and Holt counties, Nebraska for a field seismograph test using the gravitational system of geophysics. The seismograph is a very delicate scientific instrument, formerly used for the purpose of registering earthquakes. It is now used along with successive charges of dynamite, which create an artificial earthquake, and register the reflection of echoes coming from beneath the earth, which in turn are carried to a revolving cylinder located inside of the seismograph. Thus the correct position of underlying strata which may contain oil "pools" are located, and acreage believed suitable for test well drilling purposes, are selected from the area which has registered the best reports from beneath the surface. The whole system is based on reflection of sound, and it has been instrumental in developing some of the largest oil fields of Texas, Kansas, Oklahoma and Illinois. A test of this type was responsible

Resolutions Adopted At Republican Convention

At the republican county convention held in this city the following resolutions were adopted by the convention.

We, the duly elected delegates of the Republican party in Holt County, Nebraska, in convention assembled at O'Neill, Nebraska, this 25th day of April, A. D., 1940, with a full realization of the many serious questions confronting the nation and state today, hereby adopt the following Resolutions.

I. Resolved: that we hold the Republican party to be the party of peace, progress and achievement; the party best suited to lead the country out of the present morass of debt, unemployment and bureaucracy. The only party that has and will protect the country and its constitutional liberties.

II. We condemn the failure of the present administration to reduce the costs and functions of government, as promised, and call attention to the enormous increase in the functions and cost of government. We direct attention to the historical fact that in our whole history Republican administrations have paid the debt incurred while the Democrats were in power.

III. We condemn the great increase in bureaucracy and in commissions, boards and bureaus created and fostered by the present State and Federal administrations; we condemn the vast centralization of power in Washington and in Lincoln fostered and encouraged by the present democratic administrations; we condemn the vesting of legislative and judicial powers in administrative boards, bureaus, commissions and agencies. We advocate a decentralization of government and a return thereof to the people, together with a return of legislative power to the legislature and judicial powers to the Courts.

IV. We endorse the candidacy of all Republican Senatorial and Congressional nominees, together with all of the Republican nominees for State and County offices and Recommend them to the voters as capable and economical and devoted to the American theory of Government and we pledge them our hearty support.

V. We heartily endorse the candidacy of Dwight Griswold for Governor. We direct attention to the fact that he is a resident of northern Nebraska, thoroughly familiar with the troubles, problems and needs of the entire State and its people, including those engaged in farming and stock raising. His many years experience in the Legislature, together with his business experience, particularly qualify him for this office at this time.

VI. We recommend our candidate for the United States Senate, Hugh Butler, and heartily commend him to all voters. He has been farmer, laborer and merchant and is familiar with and sympathetic to all the many problems of each.

VII. We condemn the present primary system and advocate its amendment so that a convention of the party may, prior to the primary, examine the qualifications of the several candidates who aspire for the offices to be filled, and by vote recommend to the party those most qualified and capable.

VIII. We affirm our belief in the American tradition which limits the tenure of the President of the United States to two terms.

IX. We invite all citizens who believe in the American system of free democratic government, administered with honesty, efficiency, courtesy and economy, to support the Republican candidates.

Arthur J. Rannels,
Frank Nelson,
G. E. Moor,
H. L. Barita,
Ira H. Moss,
Julius D. Cronin.

Mr. and Mrs. Roy Sauers entertained their bridge club at a seven o'clock dinner at the Bakery, followed by cards at their home on Wednesday evening.

for the location of the producing oil well near Falls City in southeastern Nebraska.

Standard Oil Company of California appears to be most interested here, and it is the opinion of the writer that if any test wells are drilled, this company will be the one which does the drilling. The scouts of this company have been very active in western Nebraska this year, and also in northwestern South Dakota. They have also been here in Holt County, as stated before.

Yes, Oil and natural gas are now believed possible of recovery from beneath this part of Nebraska, and seeps and shows which have been found along the Elkhorn River in Inman township, Holt County, are influencing factors in coming activity.

The Weather

The weather the past week has been very cold with exceedingly high winds blowing practically every day, and some moisture falling on Saturday and Sunday, bringing the total for April to 3.26. Small grain is in good condition and most of the farmers are getting ready to plant corn, the ground being in a better spring planting condition than for several years.

A comparison between the years 1939 and 1940 is shown below:

	1939	1940
January	.34	.29
February	.99	.69
March	.99	2.50
April	1.47	3.26

The weather chart for the past week follows:

	High	Low	Prec.
Thursday	48	39	
Friday	48	38	
Saturday	50	45	.51
Sunday	69	50	.03
Monday	69	42	
Tuesday	51	35	
Wednesday	58	31	

Special Music Program Next Tuesday Evening

A special music program will be presented by St. Mary's and O'Neill High students on Tuesday, May 7, at 8 p. m., in the new high school auditorium, with a new stage and curtains just installed. The admission will be 10 and 25c. The proceeds of this program will be used to help send music contestants from both schools to the National Contest at Kansas City.

Following is the program:

- Trumpet Trio, Howard Graves, Dorothy Lowery, Dorothy Yocum. "The Golden Trumpets" by Egmeyer.
- Saxophone Solo, Robert Schumacher. "Danse Hongroise", by Hagar-Weidoff.
- Vocal Solo, Genevieve Graves. "Ich Liebe Dich" by Grieg and "Ho Mr. Piper" by Curran.
- Bass Solo, Philip Yarnall. "Beelzebub" by Cartozzi.
- Clarinet Quartette, Keith Vincent, Lydia Halva, Marion Olson and Jerry Toy. "Country Dance" by Krenek.
- Trombone Solo, Robert Parkins. "Thoughts of Yesterday" by Clay Smith.
- French Horn Solo, Roy Lundgren. "Friendship" by Gottwald.
- Vocal Solos, Davene Loy. "Rose In Bud" by Forester and "The Nightingale has a Lyre of Gold" by Whepley.
- Clarinet Solo, Alma Wallace. "Caminando" by Erdresen.
- Combined O'Neill High and St. Mary's High School Bands. March, "Monarch" by Olivadoti and a novelty march, "On the Mall" by Goldman.
- Combined Bands and Mixed Chorus, "Onward Ye Peoples" by Sibellus.

Every student appearing on this program has qualified to participate in the National Regional Contest to be held at Kansas City, Mo., on May 9, 10 and 11. Every number presented by soloists or small groups is from the National Contest list for 1940.

Vocational Ag. Students Make Good Showing

Wednesday morning, twelve vocational agriculture students and Prof. and Mrs. Mathis left for the Vocational Agriculture contest at Lincoln.

This was the largest contest ever held in Lincoln, as there were over 800 boys from 65 schools. All of the boys had very keen competition.

The students, when not working, went sightseeing in Lincoln. They went through the state capitol building and many other places of interest in the capitol city of our state.

The results of the contest were announced at the close of the banquet Friday evening. In the egg grading contest John Schmidt received a ninth place ribbon; the dairy management team, Clifford Burival and George Hendricks won a sixth place ribbon; Maurice Grutsch received a second place ribbon in judging hogs.

The boys from this city did very good work, considering that this was their first year in Vocational Agriculture. Several schools have been in it over ten years. The boys hope to do better next year.

C. E. Jones made a business trip to Kearney on Monday.

4-H Leaders Meet

With the 1940 4-H program well under way in Holt county, leaders training meetings in home economics clubs will be given by Miss Verna C. Glandt at the Stuart Library on Wednesday, May 8, and in the assembly room of the court house in O'Neill on Thursday, May 9. The training meetings will start at 10:00 A. M. and finish at 3:00 P. M.

All home economics 4-H leaders are invited and they will receive material which will be very helpful in cycle projects.

This year promises to be one of the best girls 4-H club years the county has had and leaders will profit by attendance at these meetings.

CARD OF THANKS

We wish to take this means of expressing our thanks to our kind friends and neighbors for their help and sympathy during the illness and death of our mother.

The Hynes Family.

O'Neill Drug Company Opened For Business

The O'Neill Drug Company opened their doors this morning, ready to take care of the medicinal needs of the people in this section of the state. While we have a new drug store, in name as well as location, it is still owned by Charles E. Stout, who has been engaged in the drug business in this city for over a quarter of a century. He will be assisted in the store by John V. Sullivan, an O'Neill boy who started in the drug business under Mr. Stout a good many years ago and since then has worked in many of the classiest drug stores in Omaha and Chicago, having been for ten years in the latter city. John will be the manager of the new store and he and Charles will make a team that are bound to go places in the drug business in this section of the state.

Their store has been redecorated, and its shelves are stocked with goods, of various brands, making one of the most complete stocks that was ever brought to this section of the state. If it is supposed to be found in a drug store, you can find it here and their constant aim will be to please. The Frontier extends congratulations to the O'Neill Drug and hope that their fondest dreams will be realized.

NOTICE

Bids will be received by the City Council for a man to work on the streets. A man only. No team. Bids will be received on or before May 7, 1940, at 8 p. m., and opened at the Council meeting on that date, at the City Council Chambers.

Turkey Raisers Meet Here Last Friday

About fifty turkey raisers of this county were in O'Neill last Friday and attended a meeting at the Golden Hotel, sponsored by the O'Neill hatchery, which was addressed by staff members of Dr. Salsbury's Laboratories of Charles City, Iowa. The meeting started at 10 o'clock Friday morning and continued until 5 o'clock in the afternoon. Poultry dealers here say that it was the most successful meeting ever held in this city.

It is estimated that there are about 250,000 turkeys in this county, so it can readily be seen that the raising of turkeys has become one of the prominent industries of the county and it was only a few years ago that 5,000 turkeys could not be found in the entire county. Those in attendance at the meeting Friday were highly delighted with the program presented and extended their thanks to the O'Neill Hatchery for making the meeting possible.

Mrs. R. R. Smith and Mrs. Harry Clauson entertained their bridge club at a dessert luncheon at the home of Mrs. Smith on Wednesday evening. Mrs. C. J. Gatz winning high, Mrs. Edward Gatz winning low and Mrs. O. M. Herre, the traveling prize.

One of the Real Pioneers Passes Away Thursday

Mrs. Catherine Hynes died at her home northwest of this city last Thursday morning, after an illness of several years, of cancer, at the age of 68 years, 2 months and 16 days. The funeral was held last Saturday morning from the Catholic church in this city, Rev. Father Parr officiating and burial in Calvary cemetery, at the side of her husband who passed away in November, 1904. Notwithstanding the condition of the roads, which were made almost impassable by the heavy rains, the funeral was a very large one, practically all of the people in the northern part of the county, braving the muddy roads to come to O'Neill to pay tribute to this old pioneer and friend.

Catherine Kelly was born at Morristown, N. J., on February 9, 1872, and came to this county with her parents in 1878, her family being among the pioneer settlers in the northern part of the county and she grew to womanhood in this county. On October 18, 1886, she was united in marriage to Austin Hynes, the ceremony being performed in this city. Nine children were born to this union, all of whom are living and are left to mourn the passing of a kind and affectionate mother and advisor. The children are: Mrs. Louis Sullivan, Pasco, Wash.; John Hynes, O'Neill; Dennis Hynes, Atkinson; Mathew, Austin, Bernard, Mrs. Pearl Engelgan and William, of O'Neill; Mrs. P. J. Dillon, Grand Coulee, Wash.

Mrs. Hynes was one of the real pioneers of the county, having been a resident of the county for sixty-two years, in fact all of her life except six years, as she was but six years of age when her parents came to the county. She endured all the hardships and vicissitudes of the pioneers, but persevered and finally won success. She was a remarkable woman. Her husband passed away thirty-six years ago, leaving her with a family of nine children, all in their teens. Others would have quailed at the task of raising this family, but not Mrs. Hynes, she kept her family together and brought them up to be good and useful citizens of the community. Shortly after her strenuous life of taking care of the little ones was ended she was attacked with an incurable illness and shortly passed away. A noble mother has passed away and she will be mourned, not only by her immediate family, but by a host of friends in the county.

Time About Up For Taking Of Census

In a letter received from Mrs. Ina B. Bosse, district supervisor, bureau of the census, Norfolk, Neb., under date of April 29, she states that the time for completing the census is nearly up, and that as it is the wish of the census bureau to enumerate every one, man, woman and child, anyone who think that he has not been counted, will please drop a card to the district office of the census bureau, Norfolk, Nebraska, and arrangements will be made to have someone call. We think that O'Neill has grown considerably in the past ten years and as it is to the best interests of the community to have every one enumerated, if, for any reason you haven't been counted, or think you haven't been, drop a card to Norfolk.

Mr. and Mrs. Orley Straney, of Garden City, Kansas, left for their home Tuesday morning, after visiting here at the home of Mr. and Mrs. Flora Lewis and Mr. and Mrs. Ray Eidenmiller.

Mrs. John Grutsch received word Saturday that her aunt, Mrs. Chas. Allen, had passed away that morning at the home of her son-in-law, Dr. C. E. Mickel at St. Paul, Minn. Mr. and Mrs. Allen were residents of Holt county many years and made frequent trips back to the old home town. Mrs. Allen was a charming lady and had many warm friends around O'Neill, who will be saddened by her death.

SOUTHEASTERN BREEZES

By Romaine Saunders

If you are interested in the statistical figures of debt and expenditures here is the picture: In 1932 the national government yearly expenditure totaled four and a half billion dollars with the debt standing at nineteen and a half billion. In 1940 the debt stands at 43 billion with a yearly expenditure of nineteen and a half billion. One billion a year is the interest bill. The New Deal's "more abundant life."

A linotype slug got lost from this column last week, rendering one paragraph something of a jumble. Printers have such calamities overtake their compositions daily but if it is not involved in a costly commercial job they are lucky. In the paragraph mentioned I quoted a doctor of philosophy as saying "western civilization is doomed." The correction, "western civilization" as it is out here is not doing badly.

If my memory this last day of April is reliable—and I think it is—there was rain practically every day during April, 1894. And there never was a worse summer in Holt county. A soggy, wet day in April of that year a small group of men were at the old E. M. Ward barn on East Douglas street complaining about the weather. The late Joe Hunter prophetically spoke up: "It will be dry enough this summer." Came May, June, July—a summer of furnace heat and withering winds. And on into August and early autumn and then winter and still no moisture since those wet days in April. And years after with abundance of rain when some were again disposed to complain of the weather, Dan Cronin said that no one who had seen the drought of '94 should kick about too much rain.

The sale of a 32-acre ranch in Sheridan County reminds me of a Lincoln citizen who came here after disposing of his ranch in Thomas county to try his hand at business in the city. He found it more work than profit and has endeavored to buy the ranch back at an advance in price, but the owner declines to sell. Somehow when one has lived out there in the cattle country he finds himself a misfit elsewhere. And ranchers who come into the state capitol look with envy on the magnificent growth of grass at the state house grounds. The dense carpet of deep green spread around our matchless state house is itself a fascinating scene in the fresh beauty of early spring.

A 33-year-old as the keynote and one under forty as the likely nominee at the G. O. P. National Convention bespeaks for vim and vigor as the republican ranks form for onslaught on the New Deal.

Our primary is not so much a system for the selection from the conglomerate mass the best timber for public office, but rather a means of expressing personal likes and dislikes for our neighbors.

Mr. and Mrs. Henry Martin and son, Allen, entertained 16 guests at dinner Sunday at their home to celebrate the birthday of her mother, Mrs. Charles Wrede. Those present were Mrs. P. J. Lansworth and son John of O'Neill; Mr. and Mrs. Clarence Wrede and family, of Opportunity, Neb.; Mr. and Mrs. W. R. Easton and son Charles of Fremont, Neb.; and Mr. and Mrs. Earl Wrede and family of O'Neill.

Matt Ernest, one of the pioneers of this county, suffered a paralytic stroke while in town yesterday afternoon and is quite seriously ill at the home of his daughter-in-law in this city. Matt's many friends hope that he will speedily recover.

Edward Quinn left Sunday for Grand Island, to resume his studies there after spending the past week here with his parents, Mr. and Mrs. E. F. Quinn.