HISTORIC CONTEXT

THE ENERGY THEME IN MANAGEMENT REGION SIX, 1912-1951

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INTRODUCTION

The National Historic Preservation Act of 1966, as amended, establishes a unique federal-state-local partnership for the identification, evaluation, and protection of significant prehistoric and historic resources. Such an ambitious task, however, would be virtually impossible without comprehensive planning. Only through a systematic approach can such resources actually be identified, evaluated, registered, and treated in a manner that is both efficient and provides a useful land-management tool. As detailed in "Archeology and Historic Preservation: Secretary of the Interior's Standards and Guidelines" (Federal Register, 29 September 1983: 44716-44742), each activity builds upon the results of the other. Planning dictates where program emphases lie and defines major goals. This, in turn, determines what shape the identification effort will take. The resources thereby identified may then be evaluated for eligibility to the National Register of Historic Places. Those listed on the National Register of Historic Places, or determined eligible, thus receive the limited protection which accompanies inclusion. Should the owner of a listed property seek available investment tax credits, the results of the comprehensive plan are incorporated in the treatment phase. Moreover, throughout the entire process, data gaps and new areas warranting attention are revealed, information which is included into future planning. In short, comprehensive preservation planning is a series of interrelated and continuous steps.

At the heart of the comprehensive planning process lies the historic context. This document groups information about historic resources according to their shared themes, chronological period, and geographic area. It provides the necessary background which, when applied with the National Register Criteria for Evaluation, makes possible a meaningful determination of a property's significance to the broad patterns of our historic, archeological, architectural, and

engineering heritage. Essentially, the context serves as the necessary link between the property as it remains today and the past which gives it special meaning.

The Oklahoma state Historic Preservation Office recognizes the fundamental importance of comprehensive planning, as reflected in its strategy for historic context development. The Office organizes the historic component of its plan around a combination of geography and theme. It has divided Oklahoma into seven management regions, using county borders as their primary dividing lines. It should also be noted that historic patterns influenced the establishment of those regions. This enables the resulting historic contexts to serve agencies and persons interested only in a particular geographic area. To further refine the process, Oklahoma's past has been divided into twelve major themes. Using this system, Oklahoma's historic contexts each pertain to a specific theme as it applies to one of the management regions. Taken together, they may assess the theme's importance to cultural resources statewide, or the various historical forces which influenced a single management region. More specialized needs are addressed by narrowing the geographic area to be studied and/or considering a sub-theme related to one of the major ones. This assures that even these very localized historic contexts relate to wider regional and state trends.

The historic context document produced for the Development of a Historic Context for the Energy Theme in Management Region #6 focuses on the Energy theme within seven central Oklahoma Counties: Canadian, Cleveland, Kingfisher, Lincoln, Logan, Oklahoma, and Payne. It examines the many forces which influenced the development of petroleum in those counties and its impact on the state as a whole. In doing so, it provides a necessary link between this element of the region's past and the extant historic resources associated with this heritage.

Preparation included consultation of the Resource Protection Planning Project documents prepared earlier for Region Six. These,

however, provided only a very general depiction of the development and impact of petroleum. Historic contexts addressing the energy theme in other regions were also utilized. Most helpful was George A. Carney's Cushing Oil Field: Historic Preservation Survey (Stillwater: Oklahoma State University, Department of Geography, 1981). The more specialized focus of the project required extensive additional research in secondary and archival resources. The notes for the Historical Narrative and the Bibliography for this context accurately reflects the degree to which reports previously prepared for the State Historic Preservation Office were utilized.

Completion of this historic context was a collaborative effort. Dr. William S. Bryans, Assistant Professor of History and Director of the Oklahoma Historic Preservation Survey at Oklahoma State University, prepared the document. Jeffrey K. Williams, AIA and Associate Professor at Oklahoma State University's School of Architecture, served as Architectural Historian. All work was performed under a contract from the Oklahoma Historical Society (40-90-2.003), utilitizing funds from the Department of the Interior, National Park Service.

REGIONAL OVERVIEW

From 1912 to 1951, the petroleum industry helped shape the development of Management Region Six, an area encompassing Canadian, Cleveland, Kingfisher, Lincoln, Logan, Oklahoma, and Payne Counties in central Oklahoma. Traditionally, historians of Oklahoma's oil industry have focused on the largest and most spectacular oil and gas fields, but to do so for this region would be misleading. Much of its petroleum development occurred in numerous small fields scattered throughout the former Unassigned Lands.

Petroleum's impact on the region began with the 1912 discovery of the Cushing field. While virtually all wells operated outside the study area, in Creek County, the town of Cushing was transformed by a boom which lasted until 1920. As the nearest community of any size, and by virtue of having railroad access, the former agricultural town soon became a small city serving as the outfitting, supply, business, and processing center for the nearby field. During the boom, Cushing experienced its share of crowding and lawlessness, but it also received a new infrastructure, utilities, schools, churches, and a variety of social institutions. As the period of flush production slowed in the late-1910s, the city settled into a less frantic pace, but remained an important oil town.

The Cushing discovery generated a great deal of interest in the surrounding area, and several new fields were consequently discovered in Payne County during the late 1910s. The most important of these was Yale-Quay, which not only became a significant producer during World War I, but also touched off booms in the towns for which the field was named.

On the strength of Cushing and Yale-Quay, oil became a mainstay of the Oklahoma economy by 1920. During the ensuing decade, the industry

only became stronger as new fields were put into production in Lincoln, Logan, Oklahoma, and Payne County. The most significant petroleum related event of the Twenties, however, came with the 1928 discovery of the Oklahoma City field. By 1951, this giant oil field had produced a staggering 670.5 million barrels of oil.

Yet the story of Oklahoma City entails a great deal more than its fabulous production record. The city experienced its own oil boom in the late-1920s and early 1930s which, partially at least, mitigated the effects of the Great Depression. Soon after the discovery, community leaders met to plan for the future and the city quickly acquired several impressive additions to its skyline. Unfortunately, drilling within the city also put officials and oil men at odds over where, and how many, wells could be sunk. The city attempted to control rampant development using its zoning authority, but only with mixed success. Producers even argued amongst themselves over the wisdom of curtailing the field's production and controlling the enormous waste of natural gas. When they proved unable to agree, and thus threatened to drive the price of oil down to disastrous levels, the Oklahoma Corporation Commission and Governor intervened -- the former through regulation and the latter by use of martial law.

These events kept Oklahoma City in the forefront of the region's petroleum activities throughout the 1930s. Still, important discoveries occurred elsewhere. Indeed, no less than thirty new fields were brought into production throughout the study area. The decade also proved to be a time of transition, especially as development began to shift toward numerous small fields rather than several large ones. This made it difficult for the state to maintain its perennial increases in petroleum production, and in 1938, a decline began.

Nevertheless, oil remained a major economic force into the 1940s and early 1950s, thanks in large measure to the combined influence of World War II and the general post-war boom. Within the region, the

trend toward the development of numerous smaller fields continued. Between 1940 and 1951 inclusive, some 154 new openings, and expansions of existing fields, occurred. The most significant petroleum development of this period came at West Edmond, discovered in 1943. It quickly became a giant producer, and for a time reversed the statewide decline in production. The proliferation of modest fields, and redeveloping of old ones through secondary recovery techniques, reflected the changing nature of the industry. While larger concerns such as Phillips Petroleum evolved into multinationals during the post-war years, many small independent companies still found Oklahoma a profitable base of operations.

In conclusion, the petroleum industry clearly shaped the region's historic evolution in a number of ways. Discoveries set off booms which sometimes created enduring oil towns like Cushing, and in others short-lived communities. Oil also added to the regional economy by creating jobs in the oil fields and refineries, and generally stimulating the local economies. Although its exact monetary impact remains impossible to quantify, one indicator exists. All the petroleum produced within the region through 1951 had a value at the well of $1,625,000,000. While an impressive sum, it would be misleading to believe, however, that the region was very significant to the statewide industry. The 1,098,323,423 barrels produced in the study area through 1951 represents just 2.5 percent of the state's total. More over, fully 62 percent of the regional total came from the Oklahoma City field.

Clearly, the petroleum industry was not as important to Region #6 as it was in other areas of the state, especially the northeast. Yet, neglecting the region's petroleum history, and the extant resources which serve as a physical link to it, means ignoring an important part of its past.

HISTORICAL NARRATIVE

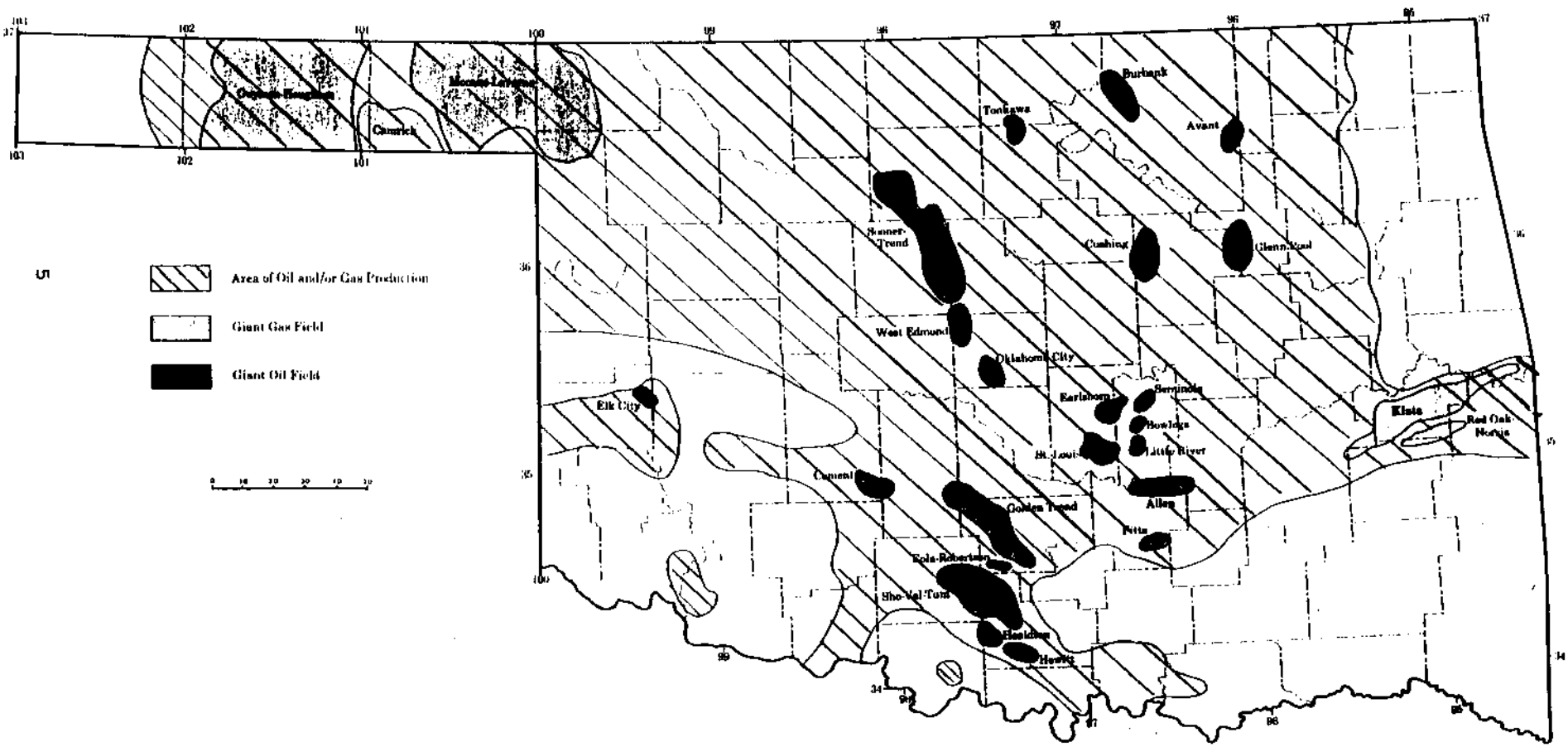
Introduction

Close examination of an Oklahoma license plate will reveal several reflective decals at its center bearing the image of an oil derrick. Its placement there is appropriate. From the first commercial well completed in Bartlesville in 1897, to the collapse of the Penn Square Bank and energy bust of the 1980s, and to the daily television reports on the price of crude on the futures market, Oklahoma and the petroleum industry have been intertwined. One historian has succinctly and accurately stated: "Oil and Oklahoma are synonomous."[1] Few states are so popularly identified with a single industry.

This narrative examines that inter-relationship as it unfolded in the State Historic Preservation Office's Management Region #6 from 1912 to 1951. The seven counties in this study area -- Canadian, Cleveland, Kingfisher, Lincoln, Logan, Oklahoma, and Payne -- originally comprised the Unassigned Lands opened to white settlement with the land run of 1889. The year 1912 represents the discovery of the spectacular Cushing field, the first strike to influence the region. The terminal date provides the context to evaluate the eligibility of petroleum related resources in these counties for the National Register of Historic Places during the next ten years.

Historians have focused primarily on the state's largest oil and gas fields, but to do so for this region would be misleading.[2] It does include the Oklahoma City field, one of the most productive in the nation's history, and all or portions of three additional giant oil fields (Cushing, Sooner Trend, and West Edmond; see Map 1). Each of these has an ultimate recovery rate of at least 100 million barrels. Yet, by 1951, the National Oil Scouts and Landmen's Association had identified a total of 216 fields in the seven-county region. Only 13 of these yielded more than 10 million barrels during the period under consideration. Therefore, the story of petroleum and its influence on

GIANT OIL AND GAS FIELDS OF OKLAHOMA



Source: John W. Morris et al., Historical Atlas of Oklahoma, 2nd ed. (Norman: University of Oklahoma Press, 1976), 70.

the development of Management Region #6 clearly involves much more than the most spectacular and well-known discoveries.[3]

The search for oil in the region began well before 1912. Shortly after the founding of Oklahoma City in 1889, an unknown wildcatter announced his intention to drill for petroleum on the burgeoning city's outskirts. Striking water at six hundred feet no doubt disappointed him, but not so the city's thirsty residents. The presence of seeps throughout Oklahoma Territory, together with the successes of drilling in Indian Territory during the early twentieth century, certainly indicated that the area likely contained oil, and the pace of exploration accelerated accordingly. In 1903, Oklahoma City hardware merchant E.J. Streeter organized the sinking of a well one-quarter mile south of Spencer in Oklahoma County; it failed to locate either oil or natural gas. One year later, Tom Slick, largely credited with the Cushing discovery eight years later, formed a partnership with Alexander Massey, a southern Kansas drilling contractor. They opened an office in the Payne County community of Tryon and leased 25,000 acres. They too met defeat, abandoning their dry well at a depth of 2,800 feet. Similar unsuccessful explorations occurred at Cushing, Ripley, Guthrie, and Chandler through 1907. At the time of statehood, the petroleum industry was more an elusive dream than a reality in the former Unassigned Lands.[4]

Cushing, 1912-1920

Cushing changed that dramatically. In 1912, the acclaimed "King of the Wildcatters," uncovered what would be Oklahoma's premiere oil field for the next eight years. While prospecting the Cushing area, Tom Slick spent the night at the Frank Wheeler farm, some twelve miles east of Cushing and a mile north of present-day Drumright. He left the next morning with a lease for drilling on the farm in his pocket. After initial difficulty in obtaining financial backing, and sinking a dry well, the Wheeler No. 1 came in on 12 March 1912. Despite attempts to

keep the find secret, news quickly spred throughout the surrounding area. The Cushing boom was on. At its peak in 1915, annual production exceeded 49 million barrels, and from 1912 to 1919, three percent of the world's oil production came from the Cushing field. Ironically, many rigs operated under leases on land that was previously regarded as worthless and consequently alloted as punishment to Creek Indians who resisted the dissolution of their tribal estate.[5]

Virtually all of the thirty-two square mile field and its wells lay outside the study area in Creek County. The discover, however, transformed the town of Cushing in Payne County. As the largest nearby community enjoying railroad access, it quickly emerged as the field's major supply, processing, and financial center. What had been a modest agricultural settlement of about 1,000 in 1910 became a bustling small city of nearly 7,500 at the peak of the boom five years later.[6]

It did not take long for the effects of the discovery to be felt. Almost immediately, Charles B. Shaffer, Slick's primary backer, established an office above the Cushing Drug Store. He and an army of "lease getters" worked from this location to secure increasingly valuable drilling sites. In June of 1912 alone, five oil supply firms located in the city to serve what became a twenty-four-hour-per-day, seven-day-per-week industry. A seemingly endless progression of wagons carrying equipment to and from the wells choked the surrounding roads with dust during dry weather and reduced them to impassable quagmires in wet.[7]

Cushing also quickly emerged as a processing center for the crude pouring forth from the nearby field. In November 1912, Shaffer purchased 200 acres northeast of the city for a refinery. The facility opened in 1913 and cost over $1 million. It had an initial daily capacity of 3,000 barrels of refined oil and gasoline, and could store an additional 140,000 barrels. The Shaffer and Smathers Consumers Refinery, currently listed on the Oklahoma Landmarks Inventory, remained

active for the next sixty years. The Deep Rock Oil Company purchased it in 1919 and sold it to Kerr-McGee in 1955. The latter firm finally closed the pioneer plant in 1972. During the 1912-1920 boom, at least twenty-nine additional refineries operated in and around Cushing.[8]

This figure does not include the casinghead gasoline plants erected in the area. The natural gas which typically accompanied crude to the surface was often wastefully vented into the air, but some of it could be captured at the wellhead and piped to these facilities. There it was processed into a distillate commonly called natural gasoline. During the field's heyday, seven such natural gasoline plants operated around Cushing.[9]

The refined petroleum and natural gasoline, of course, required access to their distant markets. With five railroad outlets by the end of 1912, up to 200 tank cars daily carried these petroleum products to consumers. Pipelines offered another means of transportation, and Cushing became known as the "Pipeline Capitol of the United States." Lines linked the field and its processing plants to West Tulsa, Missouri, Texas, Louisiana, Indiana, and Illinois. However, neither this impressive transportation network, nor the markets they served, could keep pace with the extraordinary rate of production. In April 1914, Henry Sinclair's firm, White and Sinclair, partially addressed this problem by erecting the world's largest tank farm on 160 acres southeast of the city. Its 400 tanks could store up to 60 million barrels of oil while awaiting either shipping or higher prices. Unfortunately, the Cushing field's chronic overproduction flooded the national petroleum market and made the latter all but impossible.[10]

The rush of humanity which accompanied all this activity naturally strained the city. Housing soon fell into short supply, and securing a hotel room proved extremely difficult. Many found shelter in hastily erected tents on the outskirts of town. A lucky few lodged with nearby farmers. Enterprising pool hall operators converted their

establishments into hostelries at midnight. Bone-weary oil field workers gladly paid fifty cents to a dollar per night, depending on whether they slept on the floor, in a chair, or atop a table. As the city adjusted to the exploding population, some moved into inexpensive shotgun style houses such as those that still exist on South Noble, East Cherry, North Cleveland, and South Central Streets.[11]

As in any boom town with a predominantly single male populace having plenty of time and money on its hands, Cushing experienced its share of lawlessness. Contemporaries often blamed the increasing crime rate on drug abuse, especially cocaine. Prostitution, gambling, and bootlegging could also be found, despite occassional raids by the Payne County Sheriff Department. Illegal activity was rampant enough that the sheriff permanently stationed a deputy in the city. Finally, operators took the lead in suppressing drinking and lawlessness out of economic self-interest; a jailed worker meant lost time and money on a rig, and a drunk roustabout in a moment of carelessness could destroy equipment valued at thousands of dollars. A major raid on Cushing's so-called "criminal element" on 23 June 1916 brought much of the lawlessness to an end.[12]

Not all impacts of the boom, of course, were bad. Cushing received a new electric lighting system, waterworks, and sewers in an attempt to keep pace with its growth. In 1914, Broadway became the first paved street, with others in the business district soon following. A year later, telephone service was inaugurated. Residents could choose from three newspapers and four banks. A mid-summer Chatauqua program and opera house served the cultural needs of residents. New churches, schools, and a branch of the YMCA sought to create a more wholesome community environment.[13]

Economically, the boom also stimulted non-petroleum related businesses, including several cotton gins, a cotton mill, shoe factory, and a brass and iron foundry. Businessmen in 1912 formed a Commercial

Club to promote Cushing and encourage new industry. A year later, it reorganized as the Chamber of Commerce. Clearly, oil, even with all its attendant negative impacts, raised the standard of living for many area residents.[14]

It likewise heightened their sense of identity. The city's growth in size and importance prompted residents to launch a drive for the creation of a new Shaffer County, with Cushing as its seat. They argued that traveling to Stillwater for legal business, a round trip which before paved roads might take two days, was detrimental to the area's development. A special census was conducted in the portions of Payne, Creek, and Lincoln Counties which would comprise the new county, named in honor of Charles B. Shaffer. A special election followed in January 1914. The proposal failed by sixty-two votes, but the separatist movement did awaken Payne County officials to the area's needs.[15]

Ultimately, Cushing fell victim to its own success. With daily production peaking at 300,000 barrels, the field simply produced more than the market could absorb, even with sizeable storage facilities and numerous pipelines. Consequently, prices plummetted. Oil that sold for $1.05 per barrel in February 1914 commanded only $.40 the following summer. Attempts by the Oklahoma Corporation Commission to mandate conservation and cut waste, and thereby raise the price of crude, failed. Prices rebounded during World War I, but by 1916 the period of flush production was coming to an end. In 1917, Oklahoma ranked as the nation's leaking oil producing state for the third consecutive year, but Cushing's contribution to that standing had slipped. Within three years, Healton would replace it as the state's premiere field. Nevertheless, Cushing remained an important producer well beyond World War II, and after 1920, the town that had been transformed by Slick's discovery on a Creek County farm settled into a calmer existence.[16]

The story of Cushing's development between 1912 and 1920 offers a classic illustration of the evolution of a Southwestern oil boom town.

Historian Gerald Forbes has divided this process into five phases. First, one or more wells were completed establishing the existence of petroleum. The Wheeler No. 1 served this function for the Cushing field. A period of intense leasing in the area surrounding the discovery well followed, the goal of Shaffer and his lease getters operating out of the Cushing Drug Store. The third and fourth steps typically coincided -- the drilling of numerous wells to form a productive pool and the building of towns in conjunction with this activity. In Cushing, the appearance of processing and storage facilities, the physical expansion of the city and its infrastructure, and the creation of new social political, and financial institutions all manifested this phase. Finally, intensive drilling in the field ceased once its limits were defined and attention turned toward a prolonged, steady period of production. This was post-1920 Cushing. While Cushing serves as a particularly fitting example of this model, it was repeated in varying degrees throughout the study area at different times.[17]

The 1910s: Cushing Spin-Offs

The development of the Cushing field was also important for the interest it spurred in the surrounding area, especially to its west. Even as Cushing boomed, prospectors and wildcatters scoured the eastern Payne County countryside hoping to duplicate Tom Slick's remarkable good fortune. Although they failed to uncover another giant oil field, they were, nevertheless, successful.

In 1914, for instance, the Charleston Oil Company bought in a 1861 - foot well near Ripley that initially yielded 75 barrels a day. Seeking a more productive strata, the firm drilled deeper and ruined the well when water was encountered. Other concerns -- including the New England Oil and Gas Company and the Fortune Oil Company -- also entered the field. Production, however, remained very low until a resurgence of drilling in 1923. Ultimately, the various branches of the Ripley field produced more than 2 million barrels by 1951 (See Table 1 for the

historic production of all fields discussed in this narrative and Maps 2 through 8 for their location). More impressive was its natural gas output, with the discovery well alone emitting 5 million cubic foot per day. Yet, most was simply allowed to escape into the atmosphere since no ready market then existed for this energy resource.[18]

The Roxana Petroleum Company, a predecessor of the Shell Oil Company, pioneered the Ingalls field in 1914 also. Their discovery well penetrated gas-bearing sand at 1825 feet and flowed at 15 million cubic feet daily. The Fortuna Oil Company, with two former Oklahoma Geological Survey members, D. W. Ohern and Frank Buttram in its employ, joined Roxana in developing this field. Ingalls, like Ripley, at first primarily produced natural gas which found only a limited market. Improved technology later enabled drilling into deeper oil-bearing strata, and Ingalls and its related pools produced over 10 million barrels of petroleum by 1951.[19]

Yale-Quay was by far the most impressive of the Payne County fields to emerge in the wake of Cushing. In 1914, the Alice-Katherine Oil Company sank a well which initially yielded 80 barrels a day. A light explosive charge increased the output to 250 barrels. Soon other companies erected rigs in the area, and the field grew northward toward the town of Quay and Pawnee County. During World War I, Yale-Quay contributed up to 500,000 barrels a day to the war effort. After the armistice, its period of flush production at an end, the field became a more steady, if unspectacular producer. The 29.5 million barrels it contributed to the Oklahoma petroleum industry through 1951 stands as testimony to its longevity.[20]

The emergence of Yale-Quay also impacted its namesake communities in much the same manner as Slick's Wheeler No. 1 affected Cushing. Established in 1895, Yale was an agricultural community of about 400 at the time of statehood in 1907. Enjoying access to two railroad lines, it became a major cotton processing and shipping center for the

surrounding area. The discovery of oil changed that. The town's population peaked at 6,000 during the ensuing boom. No fewer than fourteen refineries located in and around Yale, including the Twin State Refining Company with a daily capacity of 2,000 barrels. Hotels, boarding houses, schools, churches, and a hospital appeared to serve the needs of the town's growing numbers. New businesses, including several banks, opened at the intersection of Main and Broadway. The Pettis Rooming House, where oil field workers found scarce lodinging; the O.C. Dale House, which served as a temporary hospital in 1917-1918; the First Baptist Church, built with oil royalties and workers wages; and the Canfield House, home of two brothers who owned a local refinery, all stand as physical reminders of this past. By 1920, the boom at Yale had subsided, with the population leveling off at approximately 2,600.[21]

The town of Quay, straddled on the Payne and Pawnee County border, was more short-lived. With the development of the Yale-Quay field, this tiny farmining community of 150 exploded. Before long, some 5,000 people competed for the limited supply of housing, and a similar number lived in the nearby oil camps. Like Cushing, Quay experienced its own period of lawlessness, with both prostitutes and thieves especially plying their nefarious trade. What had been a small business district stretched to three-quarters of a mile, lined with hotels, boarding houses, restaurants, various retail stores, a picture show, several liveries, oil supply firms, and a Masonic Hall. During the 1920s, two catastrophic oil field fires swept into the town and virtually destroyed these establishments. This, together with the depression of the 1930s and a decline in oil production, dealt Quay a death blow. Its post office closed in 1957, and the Root Hotel, which once housed oil field workers and supply salesmen, is about all that remains.[22]

The 1920s

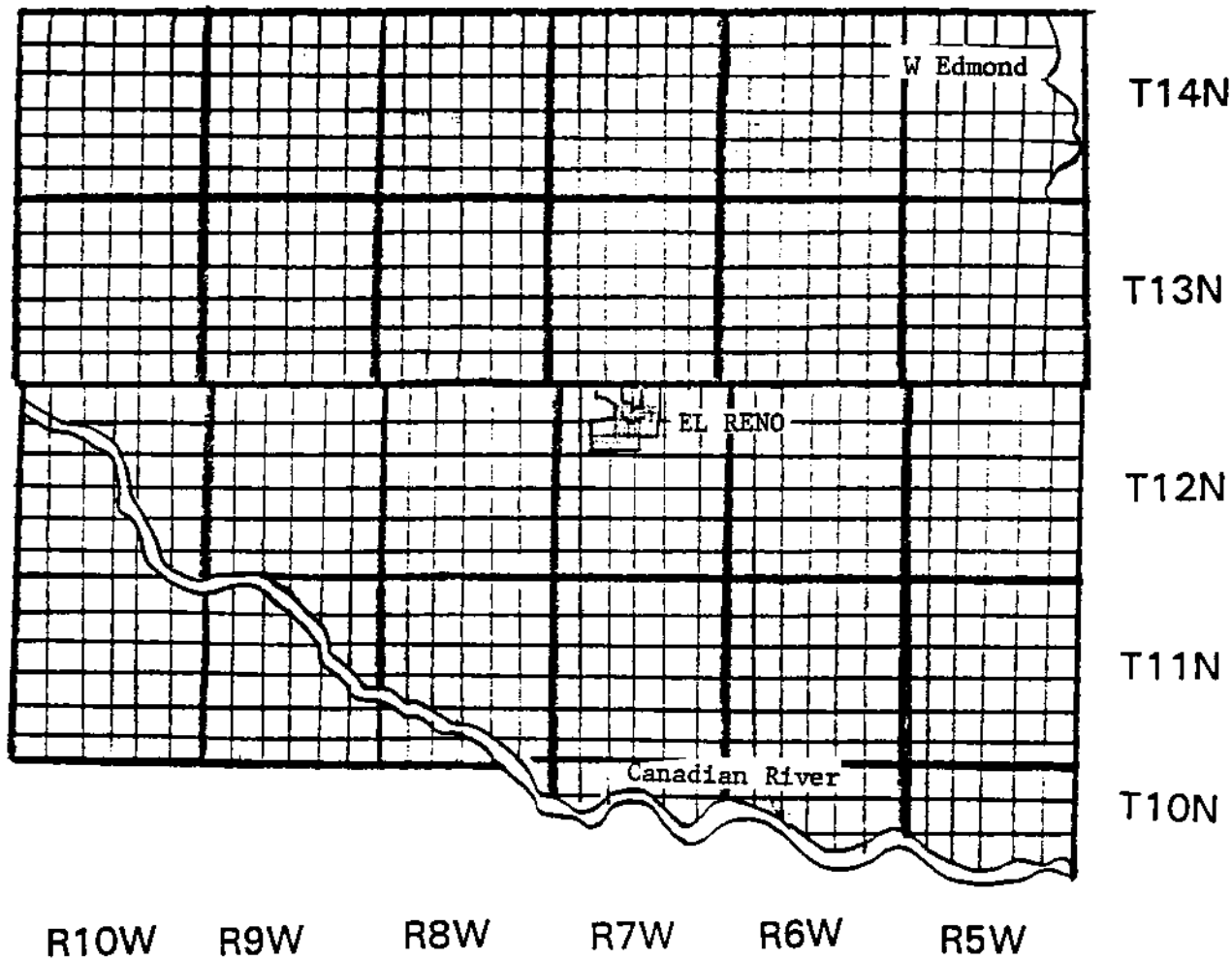
Aided by the likes of the Cushing and Yale-Quay fields, the petroleum industry became a leading economic force in Oklahoma by 1920.

During the ensuing decade, it only grew stronger. The general prosperity of the Twenties and the growing popularity of the automobile stimulated extensive exploration and drilling within the state and nationwide. Within the study area, this resulted in the discovery of several large fields and one giant. Notably absent in the industry's development during this period, however, were Canadian, Cleveland, and Kingfisher Counties.[23]

Lincoln County especially enjoyed a flurry of activty. During the Cushing boom, its northeastern portion received a great deal of attention and several test wells were sunk. But commercial production awaited discovery of the Stroud field in the fall of 1923 by the Union Petroleum and Supply Company. Its well tapped the extraordinarily productive Wilcox sand and yielded a valuable high-gravity crude. The find touched off a rush to the area during which operators descended on the small town of Key West, just east of the discovery well. Companies paid dearly to drill on the townsite and derricks soon filled its lots. Few of these, however, returned a profit because they were spaced so closely together that no one extracted enough to make a respectable return on their investment. More orderly development followed the first year, and by 1951, the 7,840 acre field had produced over 18.5 million barrels of oil.[24]

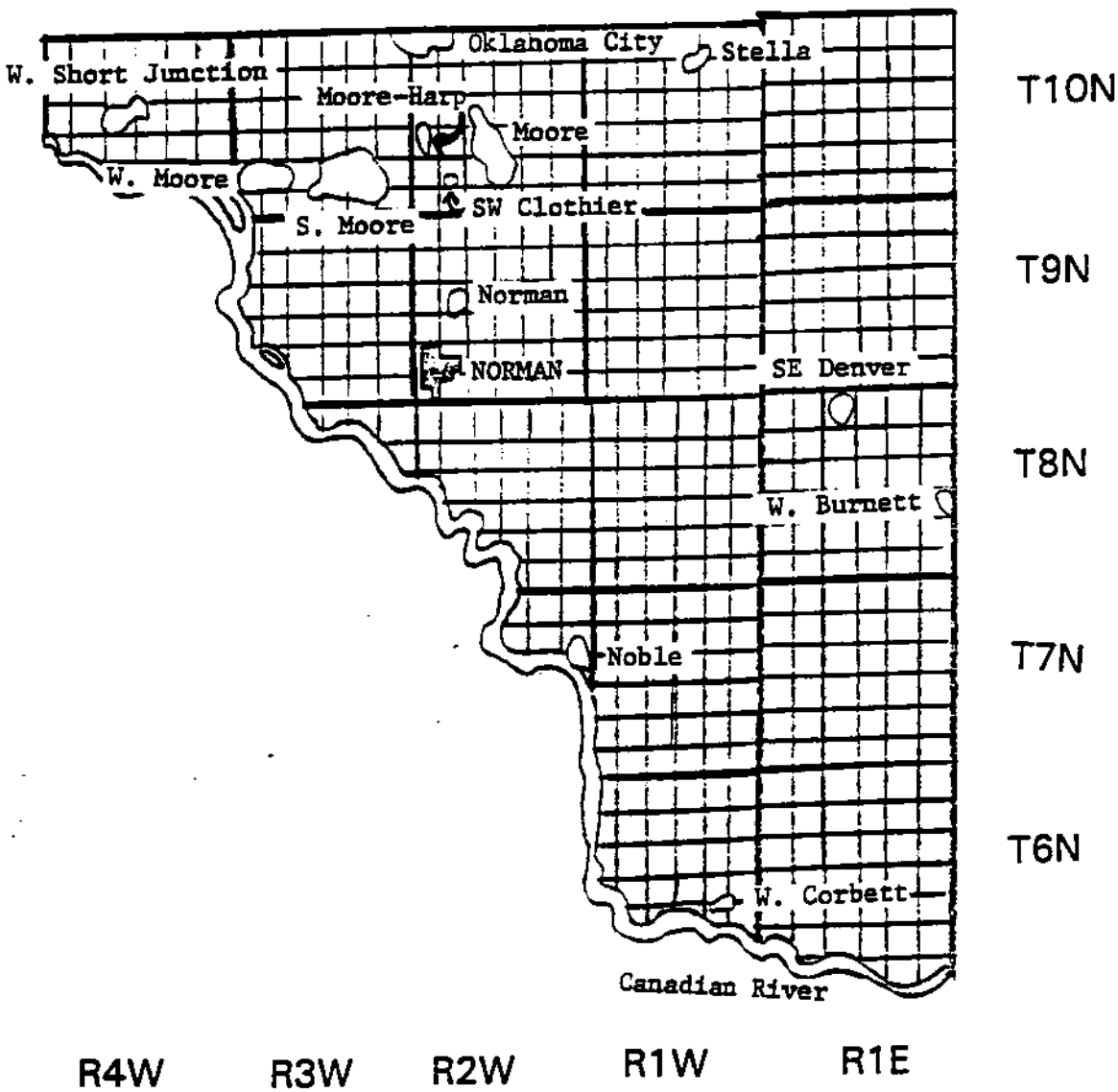
Nearby, the firm of Morgan and Flynn uncovered the Davenport field in September 1924. Their discovery well, No. 1 Smith, initially flowed 467 barrels a day from a sand between 3,460 and 3,467 feet deep. Expansion of the field progressed quickly, until it covered 3,360 acres. In 1930, geologists estimated that 5,000 barrels per acre might be drawn from the field during its productive life. Given the newness of the science of petroleum geology, the prediction proved uncanningly accurate. By 1951, Davenport had yield 14,245,092 barrels, for a 4,240 barrel per acre average. When combined with several related fields, the Davenport area ultimately produced 18.8 million barrels in the twenty-

Oil and Gas Fields, Canadian County, 1954



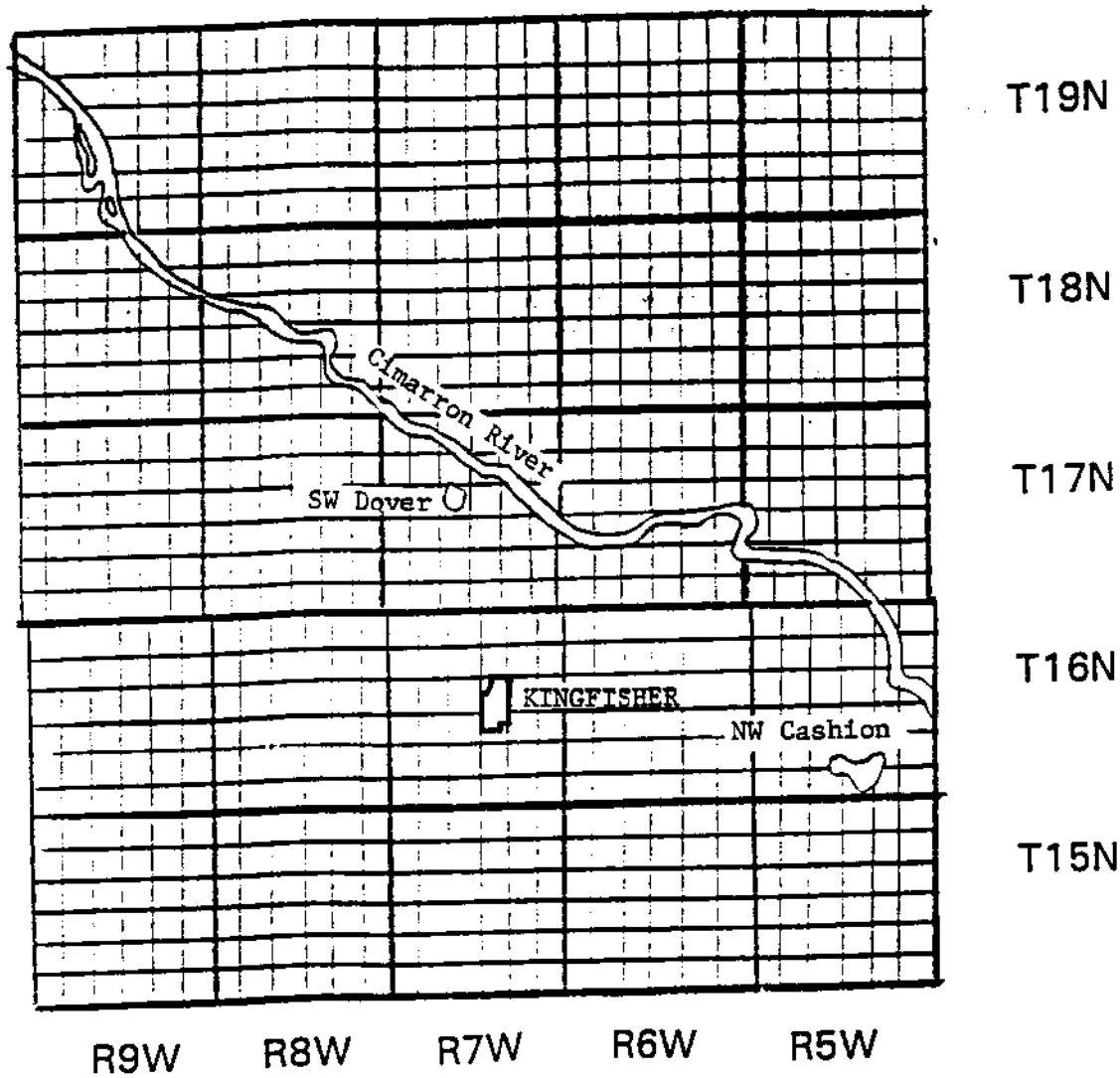
Source: "Oklahoma Oil and Gas Fields, 1946," Map (Tulsa: Mid-Continental Oil and Gas Association, [1946]).

Oil and Gas Fields, Cleveland County, 1954



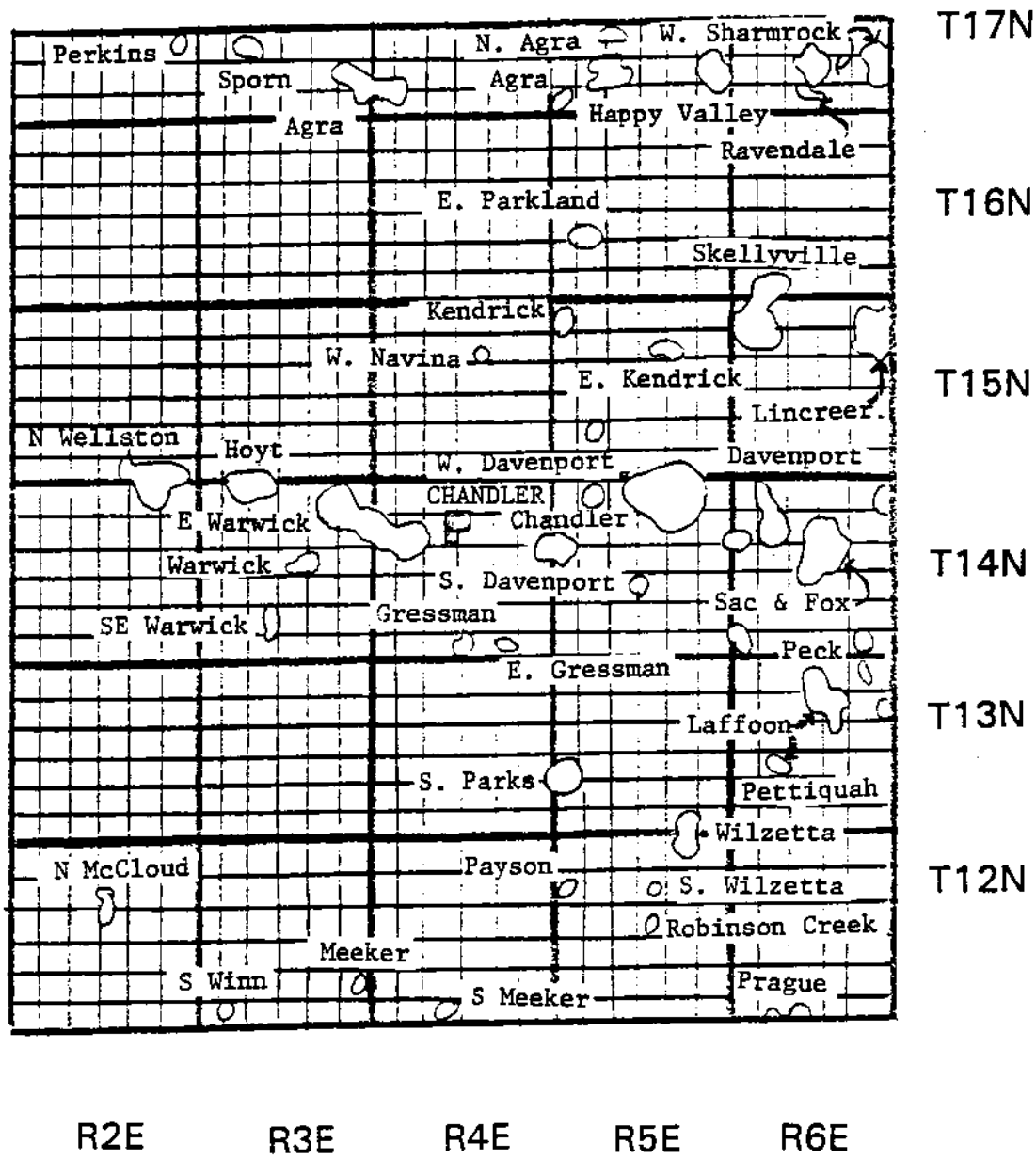
Source: "Oklahoma Oil and Gas Fields, 1946," Map (Tulsa: Mid-Continental Oil and Gas Association, [1946]).

Oil and Gas Fields, Kingfisher County, 1954



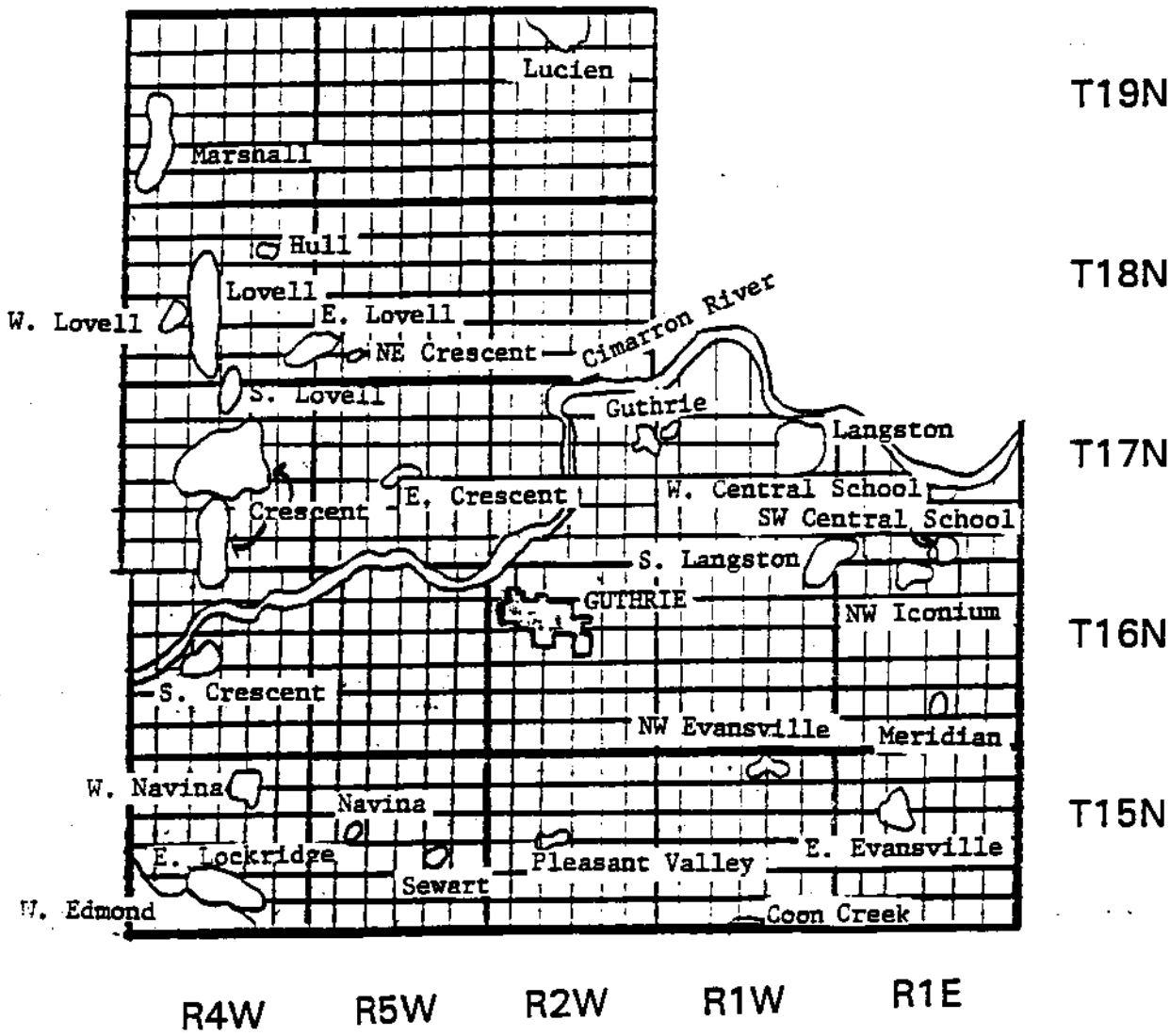
Source: "Oklahoma Oil and Gas Fields, 1946," Map (Tulsa: Mid-Continental Oil and Gas Association, [1946]).

Oil and Gas Fields, Lincoln County, 1954



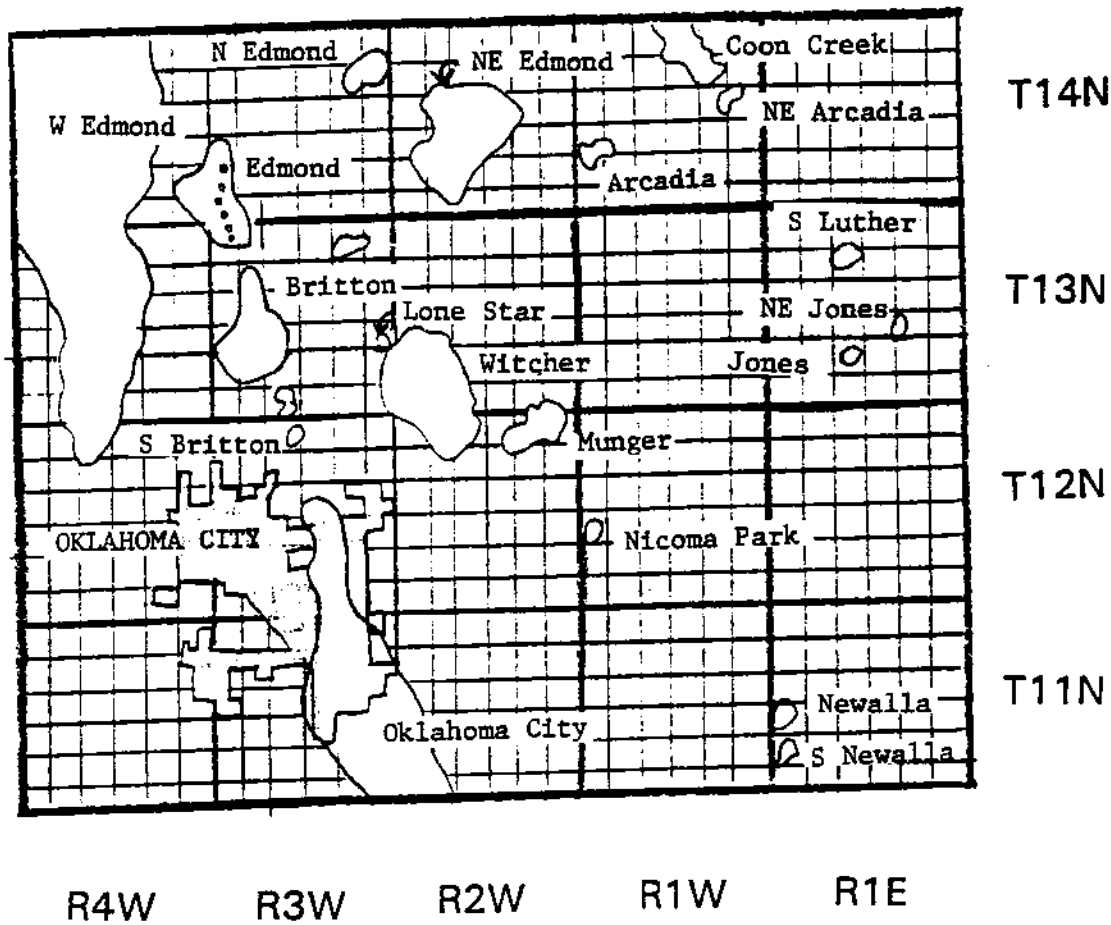
Source: "Oklahoma Oil and Gas Fields, 1946," Map (Tulsa: Mid-Continental Oil and Gas Association, [1946]).

Oil and Gas Fields, Logan County, 1954



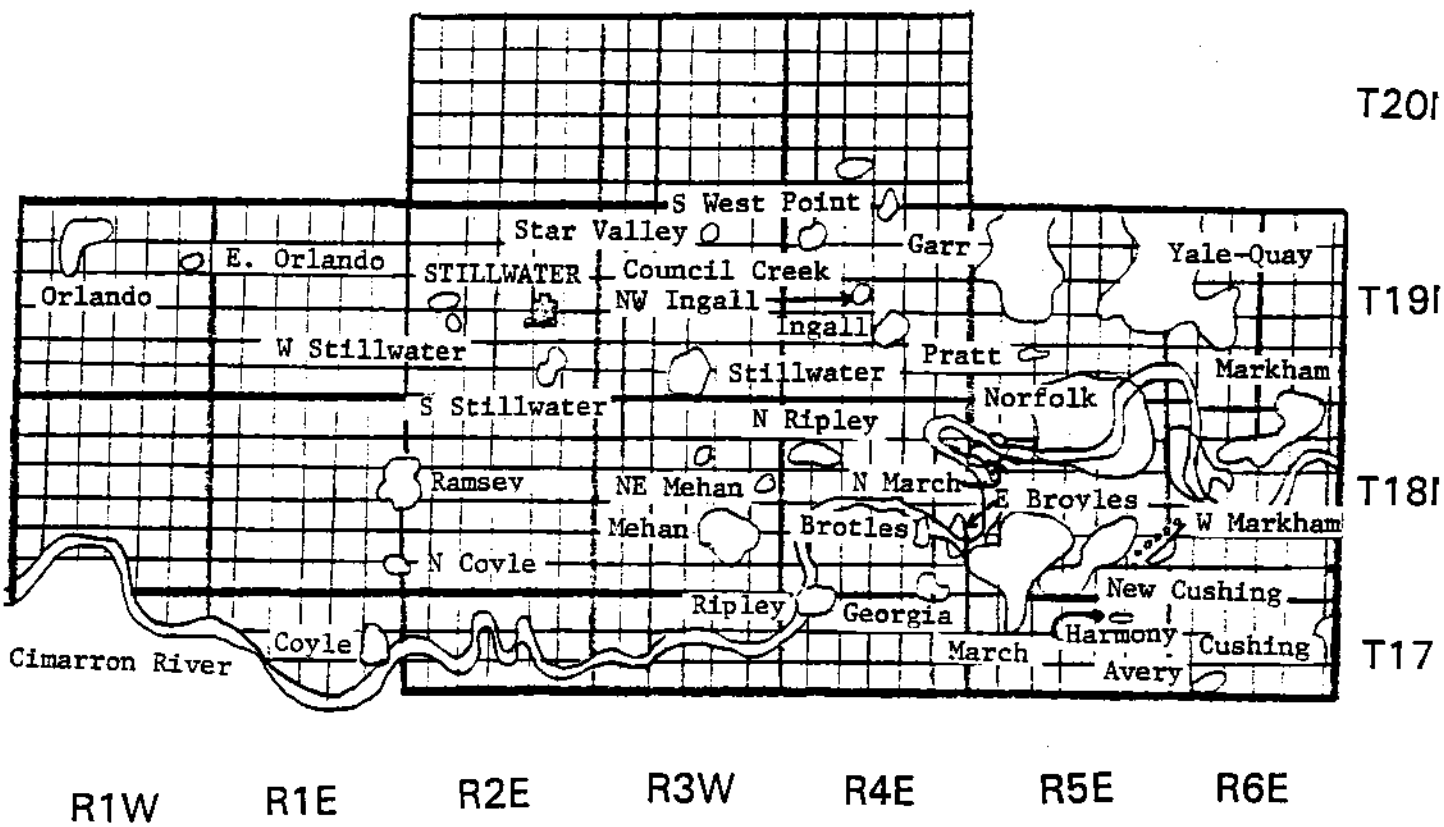
Source: "Oklahoma Oil and Gas Fields, 1946," Map (Tulsa: Mid-Continental Oil and Gas Association, [1946]).

Oil and Gas Fields, Oklahoma County, 1954



Source: "Oklahoma Oil and Gas Fields, 1946," Map (Tulsa: Mid-Continental Oil and Gas Association, [1946]).

Oil and Gas Fields, Payne County, 1954



Source: "Oklahoma Oil and Gas Fields, 1946," Map (Tulsa: Mid-Continental Oil and Gas Association, [1946]).

seven years following its discovery.[25]

Yet another important Lincoln County field came into production in 1924. On 25 February, Green and Hines completed a gas well which marked the discovery of the Chandler field. The Magnolia Petroleum Company soon entered the field too and began drilling for oil. Its No. 1 Decker well reached the Wilcox sand in July 1929 with an initial flow of 1,400 barrels per day. Subsequently, Chandler quickly became an important oil field. By 1951, it and two associated fields contributed nearly 14 million barrels to Oklahoma's petroleum output.[26]

The Skellyville pool pales in comparison to the other Lincoln County fields opened in 1924. The Independent Oil and Gas Company completed its discovery well, No. 1 Earp, on 13 October. At first a small and erratic field of 320 acres, Skellyville eventually grew to 880 acres and produced over 2 million barrels of crude by 1951.[27]

Exploration and drilling in the county remained brisk the following year. In January 1925, the Wilcox Oil and Gas Company brought in its No. 1 Sac and Fox well on a ten-year lease from that Indian tribe. The small production from this and two other wells prompted the company to curtail development until a longer-term agreement could be secured. This finally occurred in 1936, and a successful fourth well that year stimulated expansion. Within two years, seven companies operated in the field, which produced 4.4 million barrels through 1951. Also, in August 1925, the Skelly Oil Company opened a new area of production on the Rhoda Ford farm east of the town of Kendrick. Development of the Kendrick field progressed slowly. It and several related fields ultimately yielded just under 91,000 barrels through 1951.[28]

Logan County also became a contributor to the state's petroleum industry during the 1920s. In May 1926, the Texas-Pacific Coal and Oil Company successfully completed near the town of Lovell a test well which produced both oil and gas. In June of the following year, a nearby well

sunk by the Roxana Petroleum Company revealed a rich oil field. Around these discoveries evolved the Lovell field which continued to expand into the 1940s. By 1951, it and its related units produced over 3.2 million barrels.[29]

This discovery also enabled the familiar boom-bust cycle of Oklahoma oil towns to be replayed. Formerly known as Perth, Lovell's population at statehood totaled about 200. It remained a small agricultural community until the Roxana well came in about three miles to its northwest. After this, a small boom occurred, with a horde of lease getters, oil field workers, supply salesmen, and the usual followers filling the tiny community to its seams. However, a fire on 3 January 1928 virtually destroyed the town and little rebuilding took place. Lovell lost its post office in 1957 and it quickly became a ghost town. The site of this testimony to the boom and bust of oil development is currently listed on the Oklahoma Landmarks Inventory.[30]

Further north, the Marshall field became the first 6,000 foot depth pool in Oklahoma. Shell Petroleum completed its discovery well, Shell No. 1 McCully, on 8 May 1927. Additional drilling ultimately expanded the field to 900 acres. Shell owned slightly more than 75 percent of this area and operated the entire field as a single unit under agreement with other operators. This practice, sometimes called a community block or unitization, became increasingly popular beginning in the 1920s. In a highly competitive business often plagued by overproduction, companies came to realize that it was more efficient, and therefore more profitable, to coooperate rather than compete in the exploitation of a field. The success of this strategy is reflected in the fact that the Marshall field yielded over 12 million barrels of petroleum by 1951.[31]

In Payne County, the emergence of numerous small fields and the extension of existing ones characterized the Twenties. This was a harbinger of the industry's future development. The fields uncovered

during the decade included: Garr (1920); March (1922); New Cushing (1922); Deep Rock (1925); Mehan (1925); Markham (1928); Norfolk West (1929); and, Orlando (1929). Exploration and testing in Canadian, Cleveland, and Kingfisher Counties, however, failed to reveal any new fields, although a lack of trying certainly was not to blame. At least twelve exploratory holes were drilled in Canadian and Kingfisher Counties during the decade, and attempts to locate petroleum in Cleveland County dated back to at least 1917.[32]

Oklahoma City

The most significant petroleum related event of the Twenties in Management Region #6, and the state as a whole, came in Oklahoma County with the discovery of the Oklahoma City field. This was the first giant oil field developed entirely within the study area, and its impact resembled that of Cushing sixteen years earlier. Furthermore, the presence of such a mammoth field atop a well established metropolitan area added a unique dimension to its evolution.[33]

As already related, the search for oil and gas in Oklahoma County and Oklahoma City predated statehood. Although these early explorations proved unsuccessful, hope never waned. Intensified investigations during the late 1910s and early 1920s produced a number of geological maps covering the area. In 1925, several test wells drilled at various points just outside the city indicated the presence of oil and gas. Based on these findings, and on the advice of their own geologist, Dr. G.E. Anderson, the Indian Territory Illuminating Oil Company leased 6,000 acres of land in the Tosper Park area south of the city. There it sunk an exploratory well in partnership with the Foster Petroleum Company.[34]

The ITIO-Foster Petroleum Company's Oklahoma City No. 1 was spudded in on 12 June 1928. As drilling progressed into the fall, several large pockets of gas were bypassed in hopes of penetrating a deeper oil-bearing sand. Late in November, pressure from one of these

pockets pushed the drilling equipment back toward the surface, lodging it and creating what is called a bridge at the 2,500 foot level. The crew weighted the bridge with large amounts of water and then attempted to fish the tools out of the hole. They finally succeeded in loosening the trapped equipment on the afternoon of 4 December, and shortly after three o'clock, the built up gas pressure threw both the water and tools nearly 100 feet above the derrick. The long awaited gusher followed, as water and the white fumes of gas gave way to crude. In its first 24 hours, the well flowed an impressive 4,909 barrels. Oklahoma City would never quite be the same. Indeed, the importance of this well on the city's future warranted its inclusion on the National Register of Historic Places in 1977.[35]

While the Oklahoma City No. 1 caused a great deal of excitement and speculation, due in large measure to instanteous radio and newspaper coverage of its spectacular eruption, development of the field progressed slowly at first. Complex geology was to blame, as a series of elaborate uplifts and folds lay beneath the field's surface. Once a young petroleum geologist named Dean McGee unraveled the underground puzzle, a drilling frenzy began. By the end of 1931, nearly 600 wells, averaging 8,107 barrels of oil per day each, were operating in the field.[36]

Many initially believed, or perhaps hoped, that expansion would progress toward the southeast, away from the city limits. Actually, the exact opposite occurred. Spurred in part by the early completion of a pipeline linking the discovery well with a railroad loading rack, the Oklahoma City field grew to the north and northwest. By 1932, it contained 990 wells, and its annual production peaked the following year. Nevertheless, drilling continued unabated, reaching the city's northern limits in 1935. By 1940, derricks surrounded the downtown, enveloped the State Capitol, and stretched southward from there down Lincoln Boulevard. Through 1951, this, the largest oil field in the

study area, produced a staggering 670.5 million barrels of petroleum.[37]

This impressive record, however, came with its share of problems and challenges. Some centered on the typical dynamics of an oil boom. Others stemmed from the twin plagues of overproduction and waste. Nearly all in some fashion related to the fact that this giant oil field sat upon an established city whose residential areas, business districts, and state capitol complex all had to accomodate petroleum production in their midst.

For instance, completion of Oklahoma City No. 1 immediately touched off a rush to the area. Thousands flocked to the new field from surrounding communities and erected shanty towns near the discovery well. Bodine City suddenly appeared to its south, and further down the road Sutton was platted. To the east, Emerson City was founded. All of these would-be oil capitols, however, quickly disappeared.[38]

Understandably, Oklahoma City became the center of boomtime activities. Promoters, lease hounds, workers, brokers, scouts, speculators, and an array of hangers-on crowded the city's hotels and restaurants. Attempting to foster order out of potential chaos, the Chamber of Commerce early in 1929 hosted a dinner to plan for the city's growth during the coming five years. One wildly optimistic attendee predicted the city's population would soon reach 400,000; actually it rose from 120,458 in 1925 to 201,400 in 1936. The Skirvin Hotel took advantage of the affair to announce plans for a 150 room addition. Soon after the gala, radio station WKY announced plans to become a full-fledged affiliate of the National Broadcasting Corporation, underscoring the city's growing importance. Despite being in the throes of the Great Depression, civic leaders and oil men also launched a $15 million building campaign in 1930-1931. Its results included the First National Bank and Trust Company Building and the Ramsey Tower, both thirty-three stories tall, as well as the expansion of the Skirvin to thirty-two stories. In short, the oil boom helped give Oklahoma City a modern

skyline.[39]

The lawlessness which accompanied many Oklahoma oil booms was largely absent in Oklahoma City, due no doubt to its established police force, and criminal justice system. The most spectacular petroleum related crime in the city occurred 21 July 1933 when George "Machine Gun" Kelly and two cohorts kidnapped Charles F. Urschel from his palatial home at 327 Northwest Eighteenth Street. Urschel had recently married Tom Slick's widow and served as trustee of the pioneer oilman's sizeable estate. The abductors held him at a Texas farm belonging to Kelly's in-laws until the $100,000 ransom was paid. After his release, Urschel led police to the farm by recalling the time that a commercial airline passed overhead each day. This feat of memory enabled the authorities to apprehend Kelly and his gang. While the episode ended happily, the incident set many Oklahoma City oil men on edge and they demanded increased protection from the police.[40]

In the long run, the legal ramifications of operating in a metropolitan area proved more troublesome than any boom-inspired lawlessness. As the oil field swept northward into the city limits, officials and operators found themselves at odds over where, and how many, wells could be added. The jungle of derricks, slush pits, storage tanks, and pipe racks amidst houses, schools, and churches finally prompted the city to act using its zoning authority. Beginning in May 1927, U-7 zones were established where drilling would be allowed but restricted to one well per block. Residents in the neighborhood shared royalties from the well. The first U-7 zone, created 10 May, was north of Southwest 22nd Street, on the east side of town. In December, a second was designated north of Grand Boulevard, with North High Avenue on its western edge. In 1930, two additional drilling zones were specified: the first between Southeast 15th and 29th Streets, between North Byers Avenue and the Santa Fe Railroad; and, the other north of Grand Boulevard, between Santa Fe Avenue and the railroad right-of-way.

While zoning theoretically promised to check uncontrolled drilling and development in residential areas, the lack of strict enforcement often rendered it ineffective.[41]

Actually, rampant development became as much a bane to producers as city officials and residents. While the seemingly bottomless reservoir provided plenty of oil to pump to the surface, overproduction and waste drove down the price of crude and shortened the field's productive life. Proration, or limiting the amount of oil drawn, was one solution to this dilemma. However, producers disagreed over its advisability.

Shortly after the discovery well came in, a group of oil men met in the Franklin Building on Second Street downtown to discuss future operations. They agreed to limit wells to one per forty-acre tract and to cooperate with any city regulations on drilling. From this meeting emerged the Oklahoma City Producers Association, which hired a field umpire to monitor production in an attempt to keep it better aligned with demand. Others, mostly large operators such as Tom Slick and Henry Sinclair, advocated a laissez-faire policy of unrestricted drilling and production. They held fast to the so-called "rule of capture" which contended that any one well had the right to extract as much oil as the pool, not the market, could bear.[42]

Waste was an issue related to the problem of overproduction. In addition to oil, the Oklahoma City field contained a tremendous reserve of gas which often spewed to the surface at extremely high pressures. While some served useful purposes by naturally lifting crude to the surface, and supplying a growing number of natural gasoline plants, most was simply allowed to escape into the atmosphere. This proved not only wasteful, but dangerous. Well fires were common in oil fields, but in Oklahoma City their potential to destroy life and property posed a serious threat. On several occasions, wells within the city caught fire, but the resulting damage was minimal. At other times, tremendous

gas pressure caused wells to erupt uncontrollably, splattering the surrounding landscape with crude. The most spectacular of these blow-outs came to be called the Wild Mary Sudik. From 26 March to 4 April 1930, this well gushed out of control spraying wide areas of the city with oil as Americans followed the saga in their daily newspapers and network radio news programs. Another gas-caused blow-out covered the North Canadian River with a slick that caught fire.[43]

With development encroaching on residences and businesses, operators divided over the question of overproduction, and blow-outs a constant threat to public safety, clearly something had to be done to bring order to the field. When all else failed, the state ultimately stepped into this breach.

After early attempts at voluntary proration failed, the Oklahoma Corporation Commission issued order No. 4804 on 11 September 1929. It called for a 30-day shutdown of the Oklahoma City field, during which operators were to allocate their tank car and pipeline outlets. This hopefully would curtail cutthroat competition and enable a more orderly, and thus profitable, distribution of the field's output. This initial experiment with enforced proration, however, was only partially successful since production remained extremely high after its lifting. Still, the Corporation Commission, through its legal authority to regulate pipelines, continued to try to regulate production by setting quotas on the amount of petroleum that could be shipped out of the field.[44]

Nevertheless, by the early 1930s, overproduction both in the Oklahoma City field and nationwide glutted the oil market and sent prices spiralling as low as fifteen cents per barrel. This situation caused great concern since the petroleum industry was the mainstay of the state's economy and an important source of tax revenue. Producers failed to help the crisis by continuing to argue over imposed regulation and proration.

Finally, Governor William A. "Alfalfa Bill" Murray decided to take matters into his own hands. On 4 March 1931, he declared martial law within fifty feet of each oil well in the state and ordered the seizure of twenty-nine fields. He vowed to keep the wells and fields closed until the price of oil rose to one dollar per barrel. Many independent producers applauded the colorful governor's actions, while the larger companies, better able to withstand the depressed prices, protested. As the shut down dragged on into the summer, refineries and other consumers found suppliers in other states. With the courts beginning to consider the legality of Murray's tactics, the governor reluctantly lifted the ban on 10 October. The seizure was a partial success, however, for the price of crude rose to as much as seventy cents a barrel during the closure.[45]

After this episode, some operators continued to flaunt the Corporation Commission's mandated proration orders, even though the U.S. Supreme Court in 1932 upheld its right to do so. The wave of violations prompted Murray once again to seize the state's oil fields in June 1932 and create an independent proration board. An impasse followed until lawmakers gathered at the Capitol in January 1933, and the troops withdrew. By then, virtually all agreed that some type of regulation was necessary. With new and stricter regulation on the horizon, however, some operators in the Oklahoma City field sought to exploit as much oil as possible before any law was enacted. Enraged by this show of defiance, Murray on 4 March 1933 ordered troops for the third time to close the Oklahoma City field while legislators hammered out the state's first comprehensive petroleum code.[46]

Passage of this momentous legislation finally came on 10 April. In effect, it made the Corporation Commission the state's major regulator of the oil industry. The Commission for the first time received the legal authority to enforce its rulings. The code also defined waste and outlawed production in excess of specified proration

allotments. At the same time, the governor was stripped of his power to interfere with the petroleum industry. The new law placed Oklahoma in the forefront of encouraging the conservation of oil and gas, a reputation it built upon by leading other states in the formation of the Interstate Oil Compact Commission in 1935.[47]

Legal turmoil in the field was not completely over, although the antagonists changed. In 1936, Governor E.W. Marland placed the area surrounding the Capitol Building under martial law in a dispute over whom would regulate drilling on adjacent state-owned lands, the state or the city. The state awarded leases, but Oklahoma City went to court to block the action on the grounds that its zoning authority enabled it to regulate petroleum development within the city limits. With the case still pending, Marland defiantly marked the first well site on the capitol grounds in a 3 April public ceremony. The courts eventually upheld the state's position but criticized Marland's tactic of evoking martial law. Still, derricks soon sprang up around the capitol complex, giving it an appearance unique in the nation.[48]

The 1930s

By virtue of its tremendous production record, the various controversies surrounding it, and its role in fostering regulation and conservation, the Oklahoma City field denominated the petroleum industry in Management Region #6 during the 1930s. Yet, important discoveries occurred elsewhere during the decade. Indeed, a list of fields compiled by the National Oil Scouts and Landsmen's Association (see Table 1) indicates that thirty new fields opened in the study area during this period. Many proved small producers, but several gained lasting importance.

Just as in Cushing, the Oklahoma City discovery touched off extensive exploration in the surrounding area. Besides expanding the size of that field, this search in Oklahoma County resulted in one new producing region. The Mid-Kansas Oil and Gas Company on 30 September

1930 uncovered the Edmond field, four miles west of that city. Inexplicably, the firm shut-in its discovery well, Agnes-Messer No. 1, for four years before developing the field in earnest. By 1935, eighteen wells produced from the Edmond field, which contributed over 24 million barrels to the state's petroleum production over the next sixteen years. Lesser Oklahoma County fields brought into production during the decade included Britton (1935), Britton South (1935), and Jones (1939).[49]

South of Oklahoma City, Cleveland County became a petroleum producer for the first time with the emergence of the Moore field. The Sinclair Prairie Oil Company's Franklin No. 1 penetrated a gas-bearing horizon on 7 June 1935. Following a by-now common practice, the well was deepened to tap a rich oil reservoir. A great deal of oil continued to flow, however, and rather than let it be wasted, much of it was piped to the Oklahoma City field for processing into natural gasoline and lifting oil from its wells. Some was even returned to the Moore field for its operations. By 1936, a community block of eleven companies led by Sinclair Prairie operated the 1,320 acre unit. By 1951, the Moore field and its related pools had produced nearly 18 million barrels of petroleum.[50]

During the 1930s, six new fields came into production in Logan County, and several existing ones expanded. The most important of the discoveries came at Crescent. The Evans Oil Company brought in its Katscher No. 1 on 15 October 1930 with an initial daily flow of 650 barrels. But production soon declined and, with the overall economic depression, interest in the discovery waned for several years. When the Carter Oil Company successfully completed its No. 1 Miller well on 26 July 1933, the growth of the Crescent field began in earnest. By 1951, it had produced over 23 million barrels. Other fields opened in the county during this period included: Lucien (1933), a large portion of which lay in Noble County; Hull (1934); Langston (1934); Seward (1936);

and, Meridian (1938).[51]

In Payne County, five new fields emerged. The smaller ones were Stillwater (1935), Pratt (1936), and Avery (1939), which extended into Lincoln County. The two most significant finds both came into production during 1938.

The Mid-Continent Petroleum Company began sinking a well about five miles southwest of Stillwater in November 1937. The Ramsey No. 1 reached an oil bearing sand on 2 January 1938 and lent its name to the new field. Within two years, thirty-eight wells operated in the Ramsey field, a 640 acre community block dominated by Mid-Continent. Other firms active in the field included the Carter Oil Company, Transwestern Oil Company, and Sinclair Prairie. By 1951, Ramsey and its affiliated pools had produced over 15 million barrels of oil.[52]

Coyle was the other Payne County field developed in 1938. Credit for the discovery belongs to the Texas Company, whose Longon No. 1 came in on 30 March. After being shut down for pipeline construction, commercial production began in late November. By July 1939, thirteen wells were extracting over 6,000 barrels daily. Firms active in the field, besides the Texas Company, included the Magnolia Petroleum Company, Stanolind Oil and Gas Company, and Amerada Petroleum Corporation. In its first thirteen years, Coyle contributed over 10 million barrels to the state's petroleum production.[53]

Exploration in Lincoln County uncovered six new fields: Lafoon (1932); Gessman (1934); Wilzetta (1934); Hoyt (1935); Sporn (1936); and, Wellston North (1936). None of these rivaled their major predecessor, Crescent, although all but Gessman produced at least 1 million barrels through 1951. Canadian and Kingfisher Counties, for their part, remained the object of some wildcatting, but no productive fields were discovered during the 1930s.[54]

Ultimately, the thirties proved to be a time of transition and adjustment for Oklahoma's petroleum industry. The Great Depression

dampened the general economic climate, operators adjusted to a new regulatory environment, and development focused on smaller, rather than giant, oil fields. These conditions made it difficult for the state to maintain its perennial increases in production, and in 1938 a decline began. Still, oil remained the leading industry into the 1940s and well beyond, thanks in large measure to the influences of World War II mobilization and the post-war boom.

The 1940s and 1950s

The most notable trend of the 1940s was the continued discovery of numerous small fields instead of a few large ones. Within the decade, no fewer than 100 new discoveries or extensions of established fields occurred in the study area. Improved seismographic exploration techniques and secondary recovery methods made much of this possible. Many older fields received new life by injecting them with water until the resulting underground flood loosened oil trapped in the sands which could then be pumped to the surface. Sometimes, natural gas or compressed air served the same purpose. In still other cases, such as Oklahoma City, wells were pulled back to producing levels previously bypassed in favor of a richer, deeper strata.[55]

One giant oil field was discovered during the 1940s, West Edmond, and thus became the major petroleum related development of the decade. Exploration with his own "doodlebug" device, a kind of divining rod for oil, convinced Ace Gutkowsky that a large oil field lay west of Edmond. Experienced geologists and oil men who had studied the area remained skeptical, however, so Gutkowsky had difficulty in persuading anyone to back him. He finally convinced a group of San Antonio and Chicago speculators to finance his proposed 7,350 foot well. The No. 1 Wagner was spudded in on 2 Janary 1934 and came in on 5 April with an initial flow of 50 to 70 barrels and 5 million cubic feet of gas. Vindicated, Gutkowsky relished in having proved his more learned colleagues wrong.[56]

By the end of 1944, over 256 wells worked the 14,000 acre field

which stretched across portions of Oklahoma, Logan, Canadian, and Kingfisher Counties. At the time, this represented the world's largest concentration of rotary rigs. The discovery created both a $500,000 monthly payroll for the area and a temporary housing shortage. Pipelines carried the field's crude to the Champlin Refing Company plant in Enid, the Denver Producing and Refining facility just east of the field, and the Peppers Refining Company's natural gasoline works within the field. Oklahoma Natural Gas and Cities Service Company also marketed residue natural gas to domestic and commercial customers.[57]

West Edmond was instrumental in reversing the statewide decline in oil production begun during the late 1930s. On the strength of its production, Oklahoma's annual output in 1944 increased for the first time since 1937. One year later, Gutkowsky's discovery helped make the state the nation's third largest producer. In the eight years following its discovery, West Edmond yielded over 95 million barrels of oil.[58]

Compared to this, developments elsewhere in the study area were small--but plentiful. The extraordinary demand for fuel during and after the Second World War made development of smaller fields economically feasible. A geographic distribution of petroleum activity during the 1940s illustrates its relative impact on the study area. A total of 27 new fields or field expansions occurred in Lincoln County, 25 in Payne, 17 in Oklahoma, 16 in Logan, and 10 in Cleveland. Notably, both Canadian and Kingfisher became petroleum producing counties for the first time during the 1940s. In Canadian, Piedmont North became its first commercial field in 1946, and in Kingfisher, Cashion Northwest (1945); Hasley (1946); and, Lankard (1947) were all opened.

The trend toward developing numerous small fields and expanding existing ones through secondary recovery techniques continued into the early-1950s. During 1950 and 1951, fifty-four such openings and expansions occurred in the study area. Twenty took place in Payne County, 19 in Lincoln, 6 each in Cleveland and Logan, and 3 in Oklahoma.

Once again, Canadian and Kingfisher remained on the periphery of petroleum development. This proliferation of modest fields and new attention to older ones reflected the nature of the state's petroleum industry in the immediate post-war era. While large companies such as Phillips Petroleum evolved into multinationals, many small, independent concerns found Oklahoma a profitable base of operations.

Conclusion

By 1951, the petroleum industry in Management Region #6 differed significantly from it origin. Where as it initially centered on the giant oil field of Cushing, it now rested on numerous smaller fields scattered across all seven counties. This decentralization in the region's petroleum history makes its past interesting and potentially valuable because it includes the typical as well as the spectacular.

Obviously, the petroleum industry shaped the region's historical development in several ways. In some communities, the discovery of oil touched off booms which resulted in temporary population explosions, housing shortages, increased crime, and an expansion of both their built environment and infrastructure. Some, like Cushing, survived the boom period and continued to derive much of their existence from the nearby oil fields. Others, like Lovell and Quay, virtually disappeared when struck with misfortune. In Oklahoma City, oil added a new dimension to its economy and transformed its physical appearance. In addition to traditional residences and businesses, derricks, tank farms, slush pits, pipelines, and other equipment dotted the landscape despite the mixed success of city officials to check the industrial invasion. The wealth generated by petroleum also made possible new skyscrapers in the downtown and palatial homes in various residential sections.

Oil also added to the region's economy during the 1912 to 1951 period. In addition to the obvious monetary benefits of an oil boom, leases provided a sorely needed source of income for farmers on whose lands companies wished to drill. During this period, at least 130,250

acres in the study area (3.7 percent of its total area) were put under oil leases, (See Table 2). Also dollars spent on the development, production, and processing of petroleum found their way into local economies in the form of increased retail sales, tax revenue, and payrolls. The exact economic impact is, of course, impossible to quantify, but one indication does exist. Using the United States Geological Survey's historic average cost of a barrel of oil in Oklahoma, as determined in 1951, the crude produced in the region during this period had a value at the well of over $1,625,000,000.[59]

It would, however, be wrong to overemphasize the significance of the region on the state's petroleum industry in general. Through 1951, the seven counties produced 1,098,323,423 (see Table 2) barrels compared to a state total of 43,163,617,000. This represents just 2.5 percent of the state's production. Moreover, a full 62 percent of the region's output came from a single field, Oklahoma City.[60]

Still, the petroleum industry deserves consideration as an important component of the region's history. This narrative hopefully provides a framework for appreciating this aspect of its past, and a context for understanding the remaining petroleum-related resources associated with this past.

TABLE 1.

OIL AND GAS FIELDS IN REGION #6
(Name, Discovery Date, Acreage & Production)

Field	County	Discovery Date	Proved Acreage	Total Up To 1951
Agra	Lincoln	Unknown	Abandoned	489,579
Agra Northwest	Lincoln	Unknown	Abandoned	1,020
Agra West	Lincoln	8/27	240	378,510
Arcadia East	Oklahoma	4/49	70	437,503
Arcadia Northeast	Oklahoma	1944	20	2,253,122
Avery	Payne-Lincoln	10/39	240	30,214
Belmont West	Lincoln	10/50	120	71,400
Bethany	Oklahoma	1945	120	574,765
Britton	Oklahoma	7/35	1,080	3,203,421
Britton Northeast	Oklahoma	10/50	40	1,136
Britton South	Oklahoma	10/38	120	360,039
Broyles	Payne	1918	800	427,604
Broyles East	Payne	1940	Abandoned	44,070
Butcher	Payne	1950	9	60,826
Carney Northeast	Lincoln	11/50	80	1,014
Cashion Northwest	Kingfisher	9/45	80	478,843
Chandler	Lincoln	1924	2,080	13,984,357
Chandler East	Lincoln	4/49	20	11,130
Chandler South	Lincoln	12/51	15	1,765
Clothier Southwest	Cleveland	5/50	120	232,014
Coffee Creek District	Oklahoma	5/45	570	1,600,081
Coon Creek	Logan-Oklahoma	2/46	1,480	7,333,537
Corbett West	Cleveland	3/45	80	141,541
Corbett South	Cleveland	8/50	40	0
Cottingham South	Payne	8/48	160	0
Council Creek	Payne	1945	1	754
Council Creek Southwest	Payne	8/47	200	161,414
Coyle	Payne	1938	960	10,176,735
Coyle North	Payne	5/42	80	63,275
Coyle South	Logan	4/47	40	1,804

Field	County	Discovery Date	Proved Acreage	Total Up To 1951
Coyle Southeast	Logan	8/51	18	108,513
Crescent	Logan	1933	4,320	23,173,240
Crescent East	Logan	1/44	120	160,491
Crescent South	Logan	7/42	160	136,399
Cushing Lake	Payne	3/51	6	30,816
Cushing New	Payne	1946	0	29,008
Davenport	Lincoln	1924	3,360	14,245,092
Davenport North	Lincoln	1941	120	70,673
Davenport South	Lincoln	6/26	1,000	3,200,509
Davenport Southeast	Lincoln	10/48	280	172,390
Davenport West	Lincoln	1940	1,200	1,127,963
Denver Southeast	Cleveland	8/48	400	650,669
Dover Southwest	Kingfisher	12/48	80	38,192
Edmond	Oklahoma	8/30	1,680	24,224,377
Edmond East (Non-Unit)	Oklahoma	1945	45	907,161
Edmond East (North Unit)	Oklahoma	1941	25	1,916,537
Edmond East (South Unit)	Oklahoma	1941	44	1,166,685
Edmond North	Oklahoma	6/44	40	45,678
Edmond Northeast	Oklahoma	2/42	960	0
Edmond West	Canadian--Kingfisher --Logan--Oklahoma	5/43	32,080	95,494,126
Evans	Lincoln	9/41	0	0
Evansville East	Logan	5/48	100	434,952
Evansville Northwest	Logan	8/45	200	560,082
Garr	Payne--Pawnee	1920	440	3,740,347
Gessman	Lincoln	1934	240	704,886
Glencoe	Payne	12/51	Abandoned	0
Goodnite Northeast	Payne	10/47	40	37,253
Guthrie	Logan	1941	600	3,468,640
Guthrie Townsite	Logan	1942	80	383,512
Hanson	Oklahoma	1948	0	0
Happy Hill	Lincoln	1/50	200	185,941
Happy Valley	Lincoln	1/49	580	1,892,060
Happy Valley South	Lincoln	11/51	2	600
Harra West	Oklahoma	1948	0	0
Hasley	Kingfisher	1946	0	0
Helsell North	Cleveland	12/51	7	240
Heitt	Lincoln	1948	0	14,674
High Prairie Northeast	Payne	1949	5	121,094
Hoyt	Lincoln	1935 & 1949	480	1,935,563

Field	County	Discovery Date	Proved Acreage	Total Up To 1951
Hull	Logan	1934	160	495,834
Iconium Northwest	Logan	10/47	320	2,879,901
Ingalls	Payne	1914	920	6,970,782
Ingalls East	Payne	7/32	280	556,190
Ingalls Northeast	Payne	3/21	400	1,793,556
Ingalls Northwest	Payne	3/44	80	93,362
Ingalls Southeast	Payne	1951	1	155
Ingalls Southwest	Payne	10/48	40	4,795
Jones	Oklahoma	10/39	3,300	3,049,797
Kendrick	Lincoln	1940	80	79,527
Kendrick East	Lincoln	6/27	120	11,458
Kendrick Southeast	Lincoln	1951	0	0
Lafoon	Lincoln	1932	1,360	3,570,639
Lafoon Northwest	Lincoln	9/50	80	3,718
Langston	Logan	1934	620	2,591,685
Langston South	Logan	1/35	7	108,070
Langston West	Logan	6/50	40	8,010
Lankard	Kingfisher	1947	1	1,825
Lawrie West	Logan	9/51	5	14,843
Lexington Northeast	Cleveland	6/49	80	29,991
Lincreek	Creek--Lincoln	0	640	290,305
Lincreek South	Creek--Lincoln	5/36	40	80,613
Little Rock Southwest	Logan	1941	1	89,150
Long Branch	Payne	1926	0	64,519
Lost Creek	Payne	11/51	4	1,774
Lone Star	Oklahoma	9/45	40	11,380
Lovell	Logan	1928	1,080	38,900
Lovell North	Logan	1949	7	75,056
Lovell South	Logan	1934	760	1,504,789
Loell Southwest	Logan	10/44	200	1,643,700
Lovell West	Logan	1936	Abandoned	0
Lucien	Logan--Noble	1933	4,080	37,724,161
McLoud North	Lincoln	4/43	160	165,524
Mammoth	Lincoln	6/50	200	60,058
Mammoth Northeast	Lincoln	8/51	30	25,703
March	Payne	1922	2,190	432,996
March North	Payne	1926	1,760	1,511,666
Markham	Payne	8/28	440	82,933
Markham South	Payne	11/50	40	7,520
Markham West	Payne	2/43	160	162,567

Field	County	Discovery Date	Proved Acreage	Total Up To 1951
Marshall	Logan	1927	1,120	12,656,000
Marshall North	Logan	7/50	80	31,696
Marshall Northeast	Logan	1951	1	5,502
Mathews	Lincoln	10/42	80	63,651
Meeker Southwest	Lincoln	6/48	40	7,654
Mehan	Payne	1925	800	2,365,989
Mehan Northeast	Payne	1941	200	1,198,250
Mehan Northwest	Payne	10/46	400	237,747
Mehan South	Payne	6/48	60	22,927
Meridian East	Logan	7/38	200	187,621
Midlothian Northwest	Lincoln	8/48	0	33,095
Moore	Cleveland	7/35	1,080	10,476,251
Moore East	Cleveland	1947	40	0
Moore South	Cleveland	7/44	1,280	3,109,486
Moore Southeast	Cleveland	12/47	80	66,316
Moore West	Cleveland	11/43	1,440	4,314,830
Moore--Harp	Cleveland	8/45	40	12,262
Mount Hope North	Payne	1951	1	1,734
Mount Hope Northwest	Payne	1/49	360	479,136
Munger	Oklahoma	5/47	1,000	900,356
Munger South	Oklahoma	2/50	0	475
Munger Southeast	Oklahoma	12/48	0	0
Murphy	Lincoln	10/40	40	19,039
Navina	Logan	1941	Abandoned	0
Navina Northeast	Logan	6/48	40	92,043
Navina West	Logan	2/42	280	419,507
Nicoma Park	Oklahoma	1929	80	382,853
Noble	Cleveland	1938	Abandoned	0
Norfolk	Payne	1916	1,880	328,810
Norfolk Southeast	Payne	9/50	80	1,624
Norfolk West	Payne	1929	2,140	821,996
Norman	Cleveland	4/30	40	14,553
Norman Northwest	Cleveland	7/50	40	29,812
Oilton Northwest	Payne	10/51	2	0
Oklahoma City	Cleveland--Oklahoma	1928	14,230	670,524,240
Orlando	Payne	7/29	240	1,316,919
Orlando East	Payne	1941	120	321,166
Paradise	Payne	11/51	4	0
Paradise Southeast	Payne	5/50	60	44,574
Parkland East	Lincoln	1/46	160	99,847

Field	County	Discovery Date	Proved Acreage	Total Up To 1951
Pauline	Oklahoma	1947	1	1,751
Payson	Lincoln	1940	80	39,467
Peavine	Oklahoma	1950	50	523,622
Peck	Lincoln	4/24 & 6/47	160	899,942
Peck South	Lincoln	1947	1	1,269
Peck West	Lincoln	5/50	160	592,887
Perkins	Lincoln	1940	120	459,221
Perkins South	Lincoln	7/47	40	67,138
Pettiquah	Lincoln--Okfuskee	2/44	520	148,361
Piedmont North	Canadian	1946	1	8,227
Pleasant Valley	Logan	11/43	120	24,254
Pleasant Valley Southwest	Logan	12/51	1	0
Prague	Lincoln--Okfuskee	5/40	640	1,899,358
Prague East	Lincoln	5/50	40	1,104
Prague Northwest	Lincoln	12/50	120	53,867
Prairie Belle East	Oklahoma	8/47	160	150,849
Prairie View	Payne	5/49	20	44,512
Pratt	Payne	7/36	80	79,162
Ramsey	Payne	1/38	600	14,992,416
Ramsey Northeast	Payne	5/49	50	60,947
Ramsey Southeast	Payne	11/48	120	145,161
Ripley	Payne	1923	720	4,980
Ripley North	Payne	1923	320	2,368,773
Ripley Southeast	Payne	9/48	160	0
Robinson Creek	Lincoln	8/46	40	210,263
Rossville Southwest	Lincoln	10/51	1	1,775
Roulette Creek	Cleveland	10/50	160	443,667
Sac & Fox	Lincoln	7/24	2,000	4,389,366
Schlegel North	Payne	11/51	5	2,952
Schlegel Northwest	Payne	1951	4	1,636
Schlegel Southeast	Payne	4/50	60	5,002
Seward	Logan	1926	80	169,775
Short Junction West	Cleveland	8/48	40	66,104
Skellyville District	Lincoln	1925	880	2,151,526
Soonerville East	Lincoln	2/50	40	4,582
Soonerville North	Payne	12/51	0	0
Sparks East	Lincoln	6/50	700	1,585,125
Sparks Northeast	Lincoln	1/51	1	1,365
Sparks South	Lincoln	2/45 & 4/48	120	367,288
Sparks Southeast	Lincoln	10/50	160	7,664

Field	County	Discovery Date	Proved Acreage	Total Up To 1951
Sporn	Lincoln	1936	280	1,052,391
Sporn East	Lincoln	2/42	240	47,117
Sporn	Payne	12/47	80	182,939
Starr Valley	Payne	10/50	80	16,648
Stella	Cleveland	7/43	40	103,939
Stella East	Cleveland	7/50	40	33,805
Stillwater	Payne	1935	160	560,565
Stillwater West	Payne	1940	200	576,735
Stroud	Creek--Lincoln	1923	7,840	18,516,003
Sunflower	Lincoln	5/50	80	10,021
Tryon Northwest	Lincoln	10/49	360	726,515
Union Valley	Lincoln	12/50	40	54,355
Urbanski	Cleveland	Unknown	1	300
Warwick East	Lincoln	12/44	160	39,563
Warwick Southeast	Lincoln	10/44	240	188,756
Wellston North	Lincoln	4/36	640	1,533,770
Wellston West	Lincoln	11/51	0	0
West Point	Payne	3/51	1	6,056
West Point North	Payne	11/51	3	1,513
West Point South	Payne	6/45	40	36,988
Wilzetta	Lincoln	1/34	840	2,832,166
Wilzetta South	Lincoln	8/36	240	807,795
Winn South	Lincoln	1945	40	16,476
Witcher	Oklahoma	9/47	37	7,223,823
Yale East	Payne	11/51	0	0
Yale Southeast	Payne	1951	1	1,136
Yale Southwest	Payne	4/49	0	186,340
Yale West	Payne	2/44	280	362,169
Yale-Quay	Payne--Pawnee	19145	260	129,560,256

Source: National Oil Scouts and Landmen's Association, Oil and Gas Field Development in the United States and Canada, 1950-1952 (Austin: National Oil Scouts and Landmen's Association, 1951-1953).

TABLE 2.

OIL PRODUCTION AND LEASE ACREAGE IN REGION #6
(County Summaries)

County	Production to 1951	Proved Acreage
Canadian County	383,512	0
Cleveland County	19,725,780	5,048
Kingfisher County	517,035	160
Lincoln County	81,809,054	29,670
Logan County	88,628,048	14,480
Oklahoma County	822,136,465	57,105
Payne County	85,123,529	23,787
STUDY AREA TOTALS	1,098,323,423	130,250

Source: National Oil Scouts and Landmen's Association, Oil and Gas Field Development in the United States and Canada, 1950-1952 (Austin: National Oil Scouts and Landmen's Association, 1951-1953).

ENDNOTES

1. Kenny A. Franks, The Oklahoma Petroleum Industry (Norman: University of Oklahoma Press, 1980), xiii.

2. In addition to Franks, Oklahoma Petroleum Industry, see the following for overviews of the state's petroleum history: C.B. Glasscock, Then Came Oil: The Story of the Last Frontier (Indianapolis: Bobbs-Merrill Co., 1938); Carl Coke Rister, Oil! Titan of the Southwest (Norman: University of Oklahoma Press, 1949); Charles E. Bowles, "Oklahoma Petroleum--An Industrial Survey," in Oil and Gas in Oklahoma, Bulletin 40, Volume 1 (Norman: Oklahoma Geological Survey, 1928), 79-99; and, Kenny A. Franks, "Oklahoma Oil" in John W. Morris, ed. Drill Bits, Picks, and Shovels: A History of Mineral Resources in Oklahoma (Oklahoma City: Oklahoma Historical Society, 1982), 11-48.

3. National Oil Scouts and Landmen's Association, Oil and Gas Field Development in the United States and Canada, 1950, Volume 21 (Austin: National Oil Scouts and Landmen's Association, 1951), 471-505; National Oil Scouts and Landmen's Association, Oil and Gas Field Development in the United States and Canada, 1952 Volume 23 (Austin: National Oil Scouts and Landmen's Association, 1953), 548-593, plus insert pages 1-36.

4. United States Geological Survey, Mineral Resources of the United States, 1902 (Washington, D.C.: Government Printing Office, 1903), 566; Mineral Resources of the United States, 1904 (Washington, D.C.: Government Printing Office, 1905), 706; A. Travis, "Oklahoma County," in Oil and Gas in Oklahoma, Bulletin 40, Volume 2 (Norman: Oklahoma Geological Survey, 1930), 434; and, Ray Miles, "King of the Wildcatters: Tom Slick and the Cushing Oil Field," Chronicles of Oklahoma 65 (Summer 1987): 159.

5. As one of the state's most spectacular discoveries, Cushing has received a great deal of historical attention. See especially Heather M. Lloyd, "Oklahoma's Cushing Field," M.A. thesis, Oklahoma State University, 1976; C.H. Riggs et al., History and Potentialities of the Cushing Oilfield, Creek County, Oklahoma, Bureau of Mines Reports of Investigation 5415 (Washington, D.C.: Government Printing Office, 1958); George O. Carney, ed. Cushing Oil Field: Historic Preservation Survey (Stillwater: Oklahoma State University, Department of Geography, 1981); Franks, Oklahoma Petroleum Industry, 68-78; Glasscock, Then Came Oil, 217-225; Rister, Oil!, 119-125; and, Morris, Drill Bits, Picks, and Shovels, 28-31.

6. Lloyd, "Cushing Oil Field," 51-52.

7. Franks, Oklahoma Petroleum Industry, 70; and, Rister, Oil!, 121.

8. Frank Buttram, The Cushing Oil and Gas Field, Bulletin 18 (Norman: Oklahoma Geological Survey, 1914), 63-64; Lloyd, "Cushing Oil Field," 22-25; and, Carney, Historic Preservation Survey, 50.

9. Carney, Historic Preservation Survey, 63.

10. Ibid., 26; and, Lloyd, "Cushing Oil Field," 25.

11. Franks, Oklahoma Petroleum Industry, 92-93; Rister, Oil!, 120-121; and, Carney, Historic Preservation Survey, 52.

12. Rister, Oil!, 122; and, Lloyd, "Cushing Oil Field," 80-84.

13. Lloyd, "Cushing Oil Field," 74-78.

14. Ibid., 56-57.

15. Ibid., 90-100.

16. Ibid., 100-104, 110-111; Riggs, History and Potentialities of the Cushing Oil Field, 9; and, Carney, Historic Preservation Survey, 8-9, 24-27.

17. Gerald Forbes, "Southwestern Oil Boom Towns," Chronicles of Oklahoma 17 (December 1939): 393-400.

18. Petroleum and Natural Gas in Oklahoma. Part II: A Discussion of the Oil and Gas Fields, and Undeveloped Areas of the State, By Counties, Bulletin 19 (Norman: Oklahoma Geological Survey, 1917), 417; and, Bess Mills-Bullard, "Digest of Oklahoma Oil and Gas Fields" in Oil and Gas in Oklahoma, Bulletin 40, Volume 1 (Norman: Oklahoma Geological Survey, 1928), 231-232. The historic production of this field, and all others in this narrative come from the National Oil Scouts and Landmen's Association reports for 1950 and 1952.

19. Petroleum and Natual Gas in Oklahoma. Part II, 420-421; Mills-Bullard, "Digest of Oklahoma Oil and Gas Fields," 174-175; Sidney Powers, "Petroleum Geology in Oklahoma," in Oil and Gas in Oklahoma, Bulletin 40, Volume 1 (Norman: Oklahoma Geological Survey, 1928), 6; and, Mineral Resources of the United States, 1916 (Washington, D.C.: Government Printing Office, 1917), 624.

20. Petroleum and Natual Gas in Oklahoma. Part II, 418-419; Mills-Bullard, "Digest of Oklahoma Oil and Gas Fields," 272; Mineral Resources of the United States, 1916, 786; and, Rister, Oil!, 139.

21. Carney, Historic Preservation Survey, 13-15, 31-38; and, C.W. Shannon and L.E. Trout, Petroleum and Natual Gas in Oklahoma. Part I: General Information Concerning Oil and Gas, Bulletin 19 (Norman: Oklahoma Geological Survey, 1915), 54-57.

22. John W. Morris, Ghost Towns of Oklahoma (Norman: University of Oklahoma Press, 1977), 155-156; Carney, Historic Preservation Survey, 13.

23. On the dearth of production in these three counties see the appropriate discussions in Oil and Gas in Oklahoma, Bulletin 40, Volume 2 (Norman: Oklahoma Geological Survey, 1930), 192, 196-197.

24. Oil and Gas in Oklahoma, Bulletin 40, Volume 3 (Norman: Oklahoma Geological Survey, 1930), 603-605; and, Mills-Bullard, "Digest of Oklahoma Oil and Gas Fields," 250.

25. Oil and Gas in Oklahoma, Volume 3: 605-607; and, Mills-Bullard, "Digest of Oklahoma Oil and Gas Fields," 141-142.

26. Oil and Gas in Oklahoma, Volume 3: 610; and, Mills-Bullard, "Digest of Oklahoma Oil and Gas Fields," 129.

27. Oil and Gas in Oklahoma, Volume 3: 608-610.

28. Dal Dalrymple, "Sac and Fox Field, After Years of Inactivity, Is Busy District," Oil and Gas Journal 36 (April 7, 1938): 87-88; Mills-Bullard, "Digest of Oklahoma Oil and Gas Fields," 179.

29. Oil and Gas in Oklahoma, Volume 2: 231; Mills-Bullard, "Digest of Oklahoma Oil and Gas Fields," 138-139.

30. Morris, Ghost Towns of Oklahoma, 124-125.

31. John Power, "Marshall Pool Owes Long Flowing Life to Proper Use of Pressure," National Petroleum News 21 (October 31, 1929): 250-252.

32. Mills-Bullard, "Digest of Oklahoma Oil and Gas Fields," 191, 199-200. See also Table 1 for the discovery date of various fields throughout the study area. This list is compiled from the 1950 and 1952 yearbooks of the National Oil Scouts and Landsmen's Association. On the limited activity in Canadian, Kingfisher, and Cleveland Counties, see Oil and Gas Development in Oklahoma, Volume 2: 192, 196-197.

33. For overviews of the discovery of oil in Oklahoma City and the boom that resulted see Glasscock, Then Came Oil, 288-300; Rister, Oil!, 248-269; Franks, Oklahoma Petroleum Industry, 127-150; and Morris, Drill Bits, Picks, and Shovels, 37-44.

34. J.L. Dyer, "Oklahoma City Well Assures New Pool," Oil and Gas Journal 27 (December 13, 1928): 33, 151; A. Travis, "Oklahoma County," 434-435; and, Morris, Drill Bits, Picks, and Shovels, 38-39.

35. A. Travis, "Oklahoma County," 435; and, Franks, Oklahoma Petroleum Industry, 129-130.

36. Morris, Drill Bits, Picks, and Shovels, 40-41; Mineral Resources of the United States, 1930 (Washington, D.C.: Government Printing Office, 1932), 808.

37. Rister, Oil!, 253; Morris, Drill Bits, Picks, and Shovels, 42; "Oklahoma City Field Completes Four Years of Hectic Career," Oil Weekly 67 (December 5, 1932): 11, 45; "Analysis of Oklahoma City's Ten-Year Recovery of Value," Oil Weekly 92 (December 26, 1938): 17-19; Dal Dalymple, "Oklahoma City Field Enjoying Another Periodic Flurry," Oil and Gas Journal 38 (April 11, 1940): 14-15, 139; and, Minerals Yearbook, 1937 (Washington, D.C.: Government Printing Office, 1938), 1017.

38. Rister, Oil!, 254.

39. Ibid., 254, 402; and, Franks, Oklahoma Petroleum Industry, 130.

40. Franks, Oklahoma Petroleum Industry, 96.

41. Ibid., 132-133; and, Rister, Oil!, 255-256.

42. Franks, Oklahoma Petroleum Industry, 132; and, Rister, Oil!, 257-258.

43. Franks, Oklahoma Petroleum Industry, 135-138; Rister, Oil!, 259-260; Morris, Drill Bits, Picks, and Shovels, 41-42; and, Minerals Yearbook, 1932-1933 (Washington, D.C.: Government Printing Office, 1934), 527.

44. Rister, Oil!, 257-258.

45. Ibid., 164; Franks, Oklahoma Petroleum Industry, 149-150, 162-166; and, Morris, Drill Bits, Picks, and Shovels, 42-43.

46. Morris, Drill Bits, Picks, and Shovels, 43; Franks, Oklahoma Petroleum Industry, 167-168; Rister, Oil!, 265.

47. Franks, Oklahoma Petroleum Industry, 168, 172-182.

48. Morris, Drill bits, Picks, and Shovels, 43-44.

49. Floyd Swindell, "Edmond Pool Important," Oil Weekly 78 (August 5, 1935): 46-50.

50. L.G.E. Bignell, "Largest Oil Well in Oklahoma Follows Deepening of Gasser," Oil and Gas Journal 35 (June 11, 1936): 21-22; and, Frank B. Taylor, "Moore Field is 'Problem Child' of Oklahoma," Oil Weekly 86 (August 23, 1937): 21-30; Minerals Yearbook, 1936 (Washington, D.C.: Government Printing Office, 1937), 739.

51. Dal Dalymple, "Crescent, Opened in 1930, Has Biggest Oklahoma Producer of 1936 to Date," Oil and Gas Journal 35 (July 2, 1936): 21.

52. Rister, Oil!, 335; E.F. Shea, "Developments in Oklahoma During 1938," Bulletin of the American Association of Petroleum Geologists 23 (June 1939): 830; Ben Altman, "Ramsey Proving Value of Unit Development of Small Pool," Oil Weekly 94 (July 31, 1939): 41-43; and, V.L. Frost, "Ramsey Oil Pool, Payne County, Oklahoma," Bulletin of the American Association of Petroleum Geologists 24 (November 1940): 1995-2005.

53. "Orderly Development of Coyle Pool in Payne County Reveals Important Oil Reserve," Oil Weekly 94 (July 31, 1939): 203-204; and, Harry F. Simons, "Secondary Exploitation Used at Coyle Field of Oklahoma," Oil and Gas Journal 40 (July 17, 1941): 34-35.

54. Shea, "Developments in Oklahoma During 1938," 833-834.

55. Franks, Oklahoma Petroleum Industry, 246; and, Rister, Oil!, 335.

56. The story of West Edmond is told in Franks, Oklahoma Petroleum Industry, 189-191; Rister, Oil!, 341-342; and, Morris, Drill Bits, Picks, and Shovels, 44-45.

57. Franks, Oklahoma Petroleum Industry, 190; and Rister, Oil!, 341-342.

58. Minerals Yearbook, 1944 (Washington, D.C.: Government Printing Office, 1945), 1095.

59. This figure is derived from a historic crude petroleum production in the present state of Oklahoma, from 1859 to 1951 of 43,163,617,000 barrels. See Minerals Yearbook, 1951 (Washington, D.C.: Government Printing Office, 1954), 947.

60. Ibid.

PROPERTY TYPE ANALYSIS

Property types group together individual properties which share similar physical or associative characteristics. Defining and analyzing property types provide the means by which large numbers of related of properties may be compared for evaluation and nomination to the National Register of Historic Places. The preceding historical narrative, moreover, guides this process by identifying the significant themes and events which give these properties meaning. It also provides an initial indication of the property types likely to be found in the study area.

The following property type analysis draws on the historical narrative for energy in Management Region #6. It also relies heavily upon the excellent propety type analyses prepared by George Carney for the energy theme in other regions.

DRILLING RIGS

Description

Two types of drilling rigs operated in the study area. From about 1900 to the mid-1920s, cable rigs were common. Afterwards, rotary rigs became the preferred technology.

Cable rigs (see Diagrams 1 and 2) basically sunk holes using a reciprocating, hammer-like action. A walking beam -- in conjunction with a power source, series of wheels, and cable draped over the crown block atop the derrick -- lifted a string of drilling tools and then dropped it. A heavy steel or iron bit, from four to eleven feet long was attached to the string. Every foot or so, the bit was removed for sharpening while debris from the resulting hole was pumped out. The power sources for cable rigs included men and horses, although steam engines were mostly used. Cable drilling, obviously, proved a slow and laborious method of sinking a well, but it worked well at shallow depths and in soft formations.

Deeper drilling required rotary rigs which became increasingly popular in the 1920s. In this rig, the drilling tools were attached to a series of rigid pipes rather than a flexible cable. Because of the heavier weights borne, rotary derricks were often constructed of steel and larger than their cable counterparts. An engine turned the rotary table at the base of the hole, onto which a swivel, forty-foot hexagonal bar, drilling pipe, and bit were all attached (see Diagram 3). The hollow drilling pipes enabled the constant infusion of fluids to cool the bit, the residue of which was pumped out using the space created around the pipe by the wider bit. Thus, slush pits for the resulting mud were often part of a rotary drilling site.

Significance

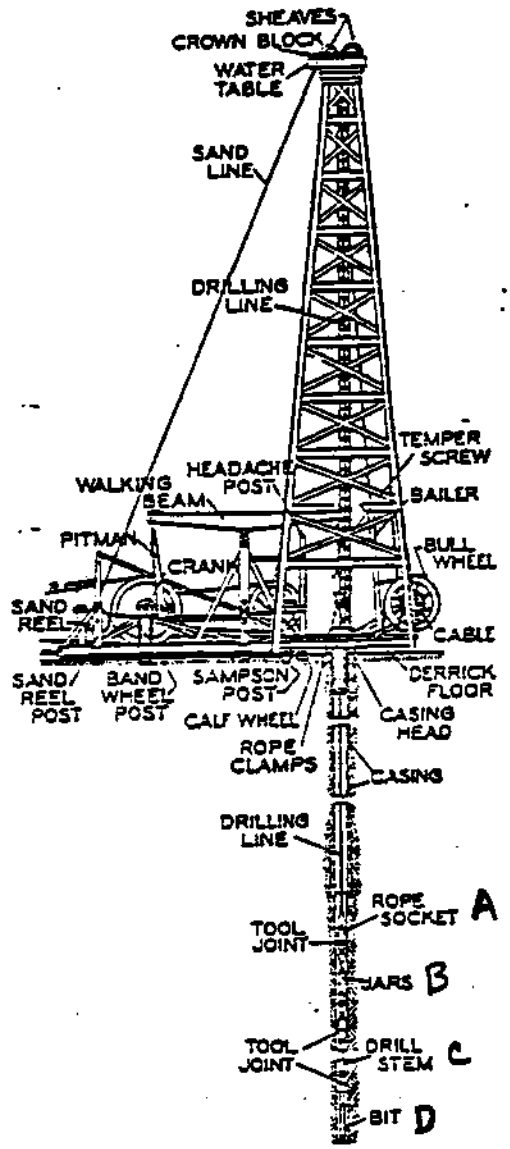
Drilling rigs represent the initial phases of petroleum production in the region. Once the possibility of oil and gas in the area had been established, rigs sought to find it. If the hole came up dry, the equipment was dismantled and hauled to another promising location. If successful, at least some of the equipment remained to ensure the hole stayed open and production continued unabated.

Eligibility

To be eligible for inclusion on the National Register, rigs should

DIAGRAM 1

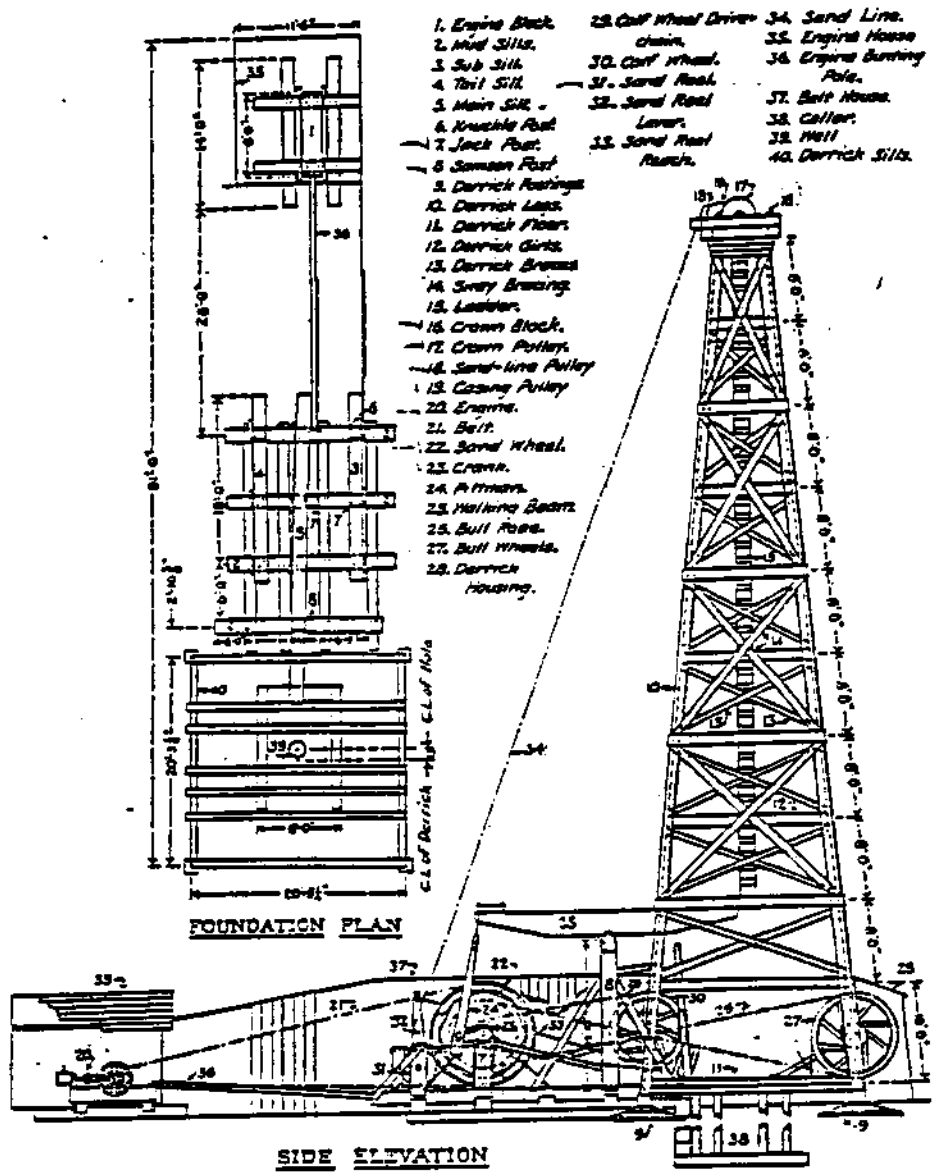
STANDARD CABLE DRILLING RIG



Source: George O. Carney, "Historical Context for Energy Development: Management Region #3," 1987.

DIAGRAM 2

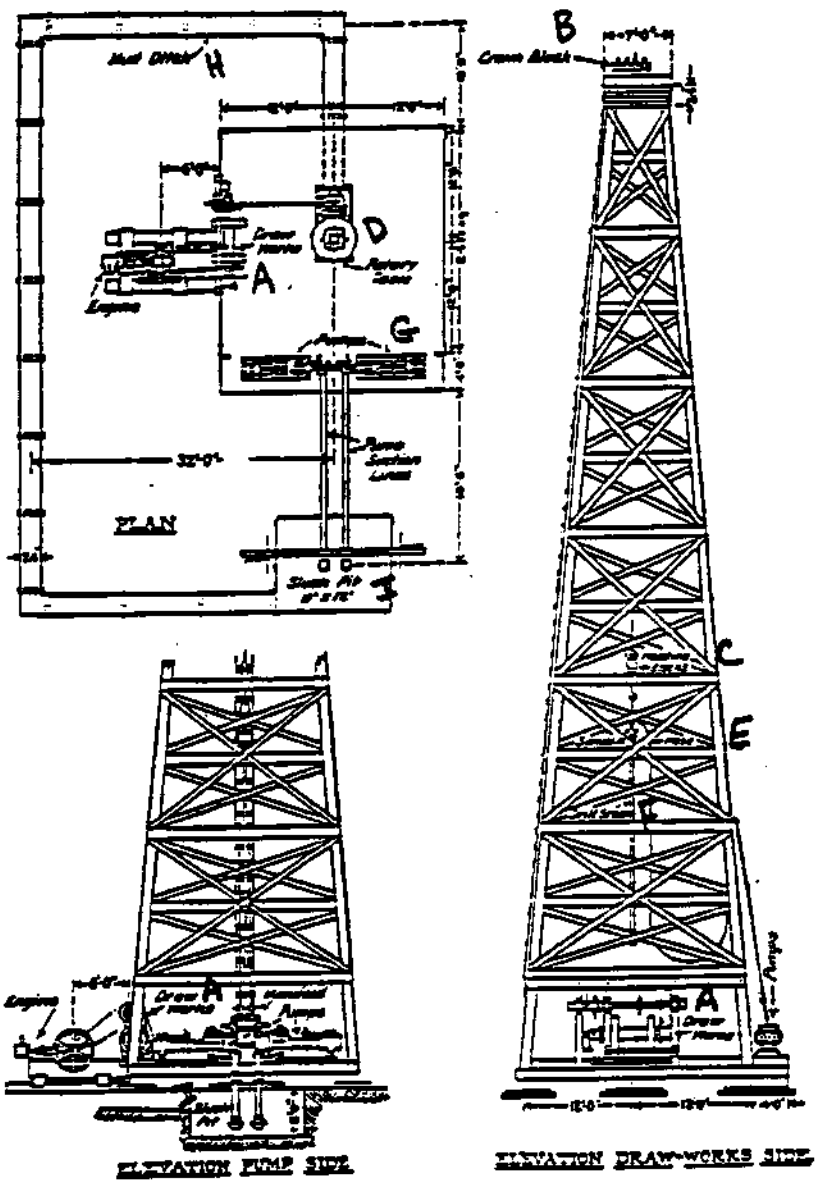
PLAN AND ELEVATION OF ELEVATION OF AN 82 FT. STANDARD CABLE RIG



Source: George O. Carney, "Historical Context for Energy Development: Management Region #3," 1987.

DIAGRAM 3

PLAN AND ELEVATIONS OF A ROTARY RIG



Source: George O. Carney, "Historical Context for Energy Development: Management Region #3," 1987.

maintain their integrity of design, setting, and location. Enough of their components should be extant to convey their original appearance and method of operation. For cable rigs, various wheels, the wooden walking beam, and cable and drilling tools might be present. For rotary rigs, extant resources might include an abandoned rotary table, pipe racks, and a slush pit. Regardless of the kind of rig found, all should be at a well site put into production by 1951.

DERRICKS

Description

Because of their massive scale, and the distinct possibility of being all that remains of a historic rig or well site, derricks deserve consideration as a separate property type. As explained above, derricks supported both cables and pipe used to drill oil and gas wells. They were four-sided pyramidal structures whose four upright legs were supported and tied together with a series of horizontal girts and inclined braces. The battering, or upward tapering, of the derrick varied in accordance to the height needed to sink the well to its desired depth. A wooden or concrete substructure at its base supported the derrick and provided work space.

Derricks were typically classified according to their construction material. Timber derricks utilized a combination of 2 X 10 inch and 2 X 12 inch boards in the legs, with 2 inch planks of various lengths forming the girts and braces (see Diagram 4). These derricks typically included engine houses, also of timber, and a wooden substructure. Most commonly used on cable rigs, timber derricks ranged from 74 to 136 feet high.

Structural steel derricks (see Diagram 5) used a low-carbon steel in their construction, the various components being riveted or bolted together. Steel derricks required a concrete substructure, and because of their ability to support heavy equipment were usually found on rotary rigs. Their power house typically was constructed of corrugated sheet iron. Rarer were tubular steel derricks, using pipe forms for all its parts, and turnbuckle derricks, built of a combination of wood and steel.

Significance

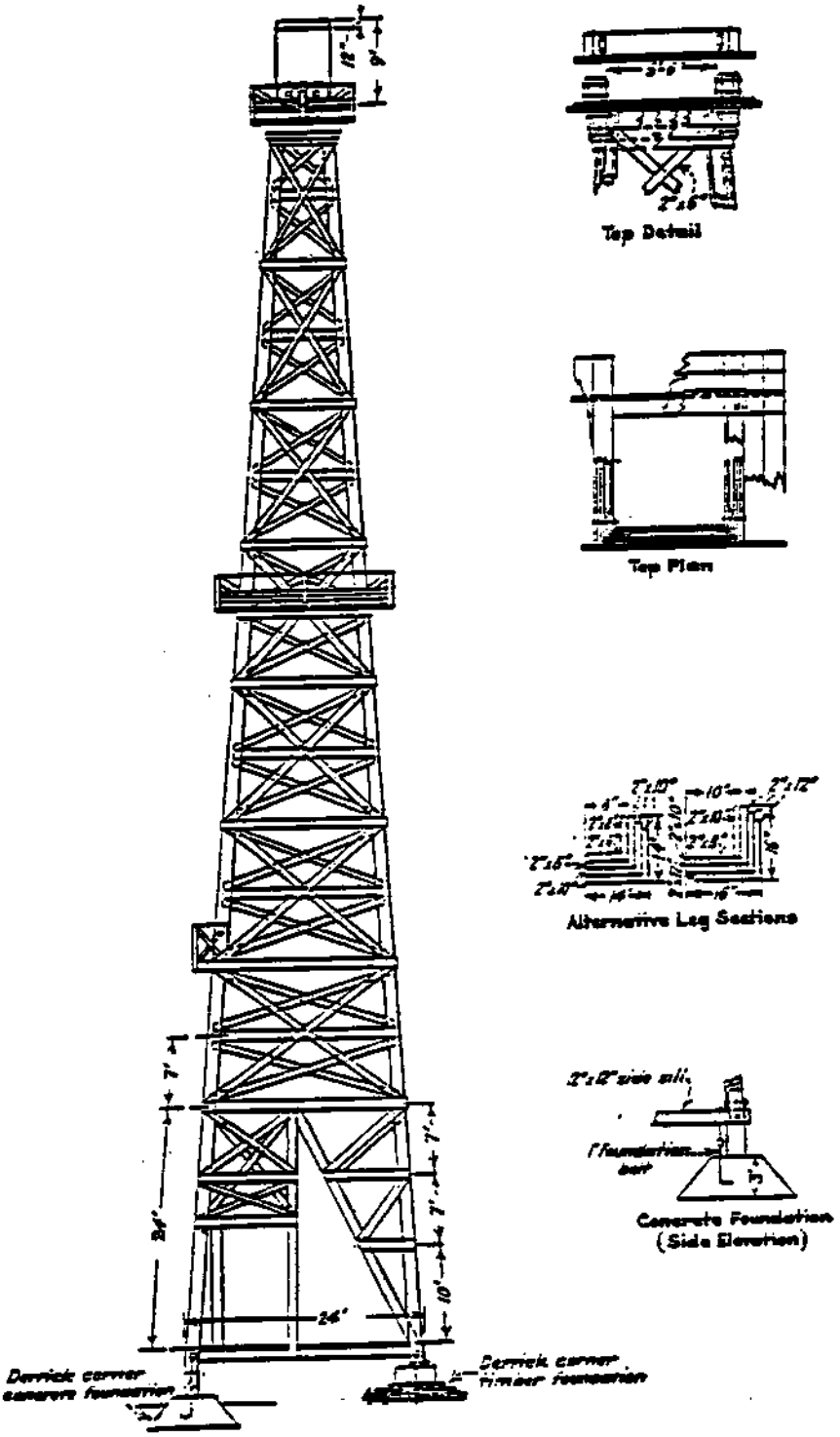
Derricks are an important property type because they represents a highly visible and fundamental feature of drilling technology. Few understand the complexity of sinking an oil or gas well, but nearly all associate petroleum development with the appearance of derricks towering over the surrounding landscape. Given the ease with which they were dismantled and relocated, extant derricks are also significant by virtue of their scarcity.

Eligibility

To be eligible for the National Register, derricks should retain their integrity of design, materials, and settings. Setting is a primary concern since derricks were often moved. Thus, a historic derrick on a historic drilling site warrants serious consideration for listing. Obviously, such derricks should also remain sufficiently intact that their structural elements are readily identifiable. Wooden derricks, associated with the earliest petroleum development in the region especially deserve careful evaluation.

DIAGRAM 4

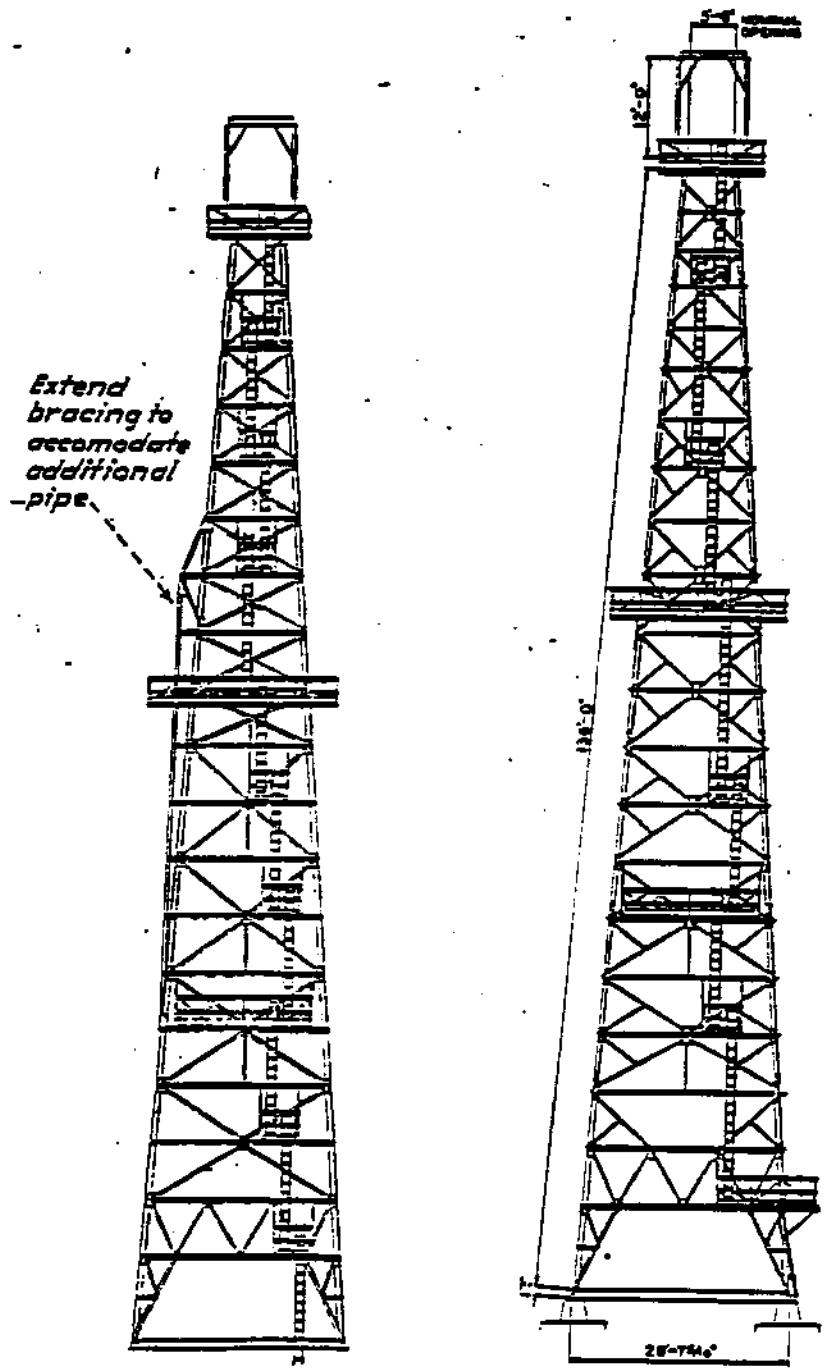
SIDE ELEVATION AND STRUCTURAL DETAILS OF A 122' X 24' TIMBER DERRICK



Source: George O. Carney, "Historical Context for Energy Development: Management Region #3," 1987.

DIAGRAM 5

ELEVATIONS OF STRUCTURAL STEEL DERRICKS



Source: George O. Carney, "Historical Context for Energy Development: Management Region #3," 1987.

WELL SITES

Description

Not all historic wells will have extant rigs or derricks to mark their location. Yet, their site may be historically important as the discovery well for a major field, a particularly productive well, or a part of a geographically large field. In most cases, identifying such well sites will require careful study of geological maps and publications. Others might be readily identifiable thanks to the equipment that transported oil and gas to the surface once the drilling equipment was removed. These might include various rod-operated plunger pumps, commonly referred to as "bobbing horseheads." Other types of pumps, engines, and overflow pits may be present as well. In still other instances, a plugged piece of casing protruding above the ground may be all that remains.

Significance

Well sites contain obvious significance because they mark where historic petroleum production actually occurred. But, since numerous wells operated in the study area between 1912-1951, some criteria for determining their relative importance is in order.

Two factors seem paramount. First, discovery wells for the various fields are important because they opened new areas to commercial development. Subsequent drilling and expansion of a field followed only after the successful completion of this first step. Second, concentrations of identifiable well sites deserve attention as potential petroleum-related districts. Their spatial relationship reveals much about the extent of the operations, and perhaps even the operators' concern for conservation.

Eligibility

For inclusion on the National Register, well sites should retain especially their integrity of location, and, for potential districts, their setting. In the case of location, this is almost a foregone conclusion since a well site by its very nature can not be removed. Integrity of setting may be important for an individual well site if the surrounding area has subsequently been greatly altered. This is especially important for a number of well sites comprising a district. Only if the physical setting of the historic period of production remains intact, can important spatial and technological relationships between the resources be fully appreciated.

STORAGE FACILITIES

Description

Once oil had been brought to the surface, it required storage before being transported elsewhere or processed. Earthen reservoirs adjacent to wells provided a temporary solution early in the period, but seepage and evaporation losses, together with contamination by (and of) water and soil, rendered these unacceptable. Therefore, a variety of storage facilities could be found as the crude made its way from the well to processing.

Flow tanks at the well site usually held three to seven days of production while awaiting a pipeline run. At preliminary processing points and fully-developed processing facilities, large stock tanks and

treatment tanks allowed the removal of impurities from the oil, including water. Oil ready to be shipped to refineries and customers was held in even larger storage or shipping tanks. In places like Cushing, concentrations of such storage receptacles, known as tank farms, were constructed. The size of all those ranged from 100 barrel flow tanks to 134,000 barrel storage tanks.

Early in the period, wood-stave tanks might be used. With a typical capacity of 500 to 800 barrels, these storage facilities were constructed by placing wooden staves side-by-side around a circular wooden bottom. Adjustable metal hoops or bands encircled the staves and kept them in place. Small- to medium-capacity tanks usually were made of galvanized sheet metal, with plates being rivetted together to form semi-circular sections which were then bolted together. The largest storage tanks consisted of steel rings rivetted together, one above another, to the desired height, and welded to a steel floor and roof (see Diagram 6).

Significance

Storage facilities represent an important facet of the production process. Almost always, and especially in fields like Oklahoma City where overproduction was chronic, oil needed to be stored as it traveled from well to consumer. Thus, several small tanks might be found adjacent to a well, or hundreds might comprise a tank farm near a major refinery or transportation outlet. Whatever their size or function, these storage facilities played a significant role in bringing petroleum to market.

Eligibility

For inclusion on the National Register, storage facilities should retain their integrity of design, materials, and setting. Tanks should remain upright and maintain their cylindrical shape. Their construction material should be original, and most likely will be steel. Wooden-stave tanks, due to their association with the region's early petroleum history, deserve special attention. Eligible storage facilities should also be found at known historic producing and processing sites. It is possible that a concentration of tank foundations associated with a tank farm will warrant consideration as well.

CENTRAL POWER HOUSES

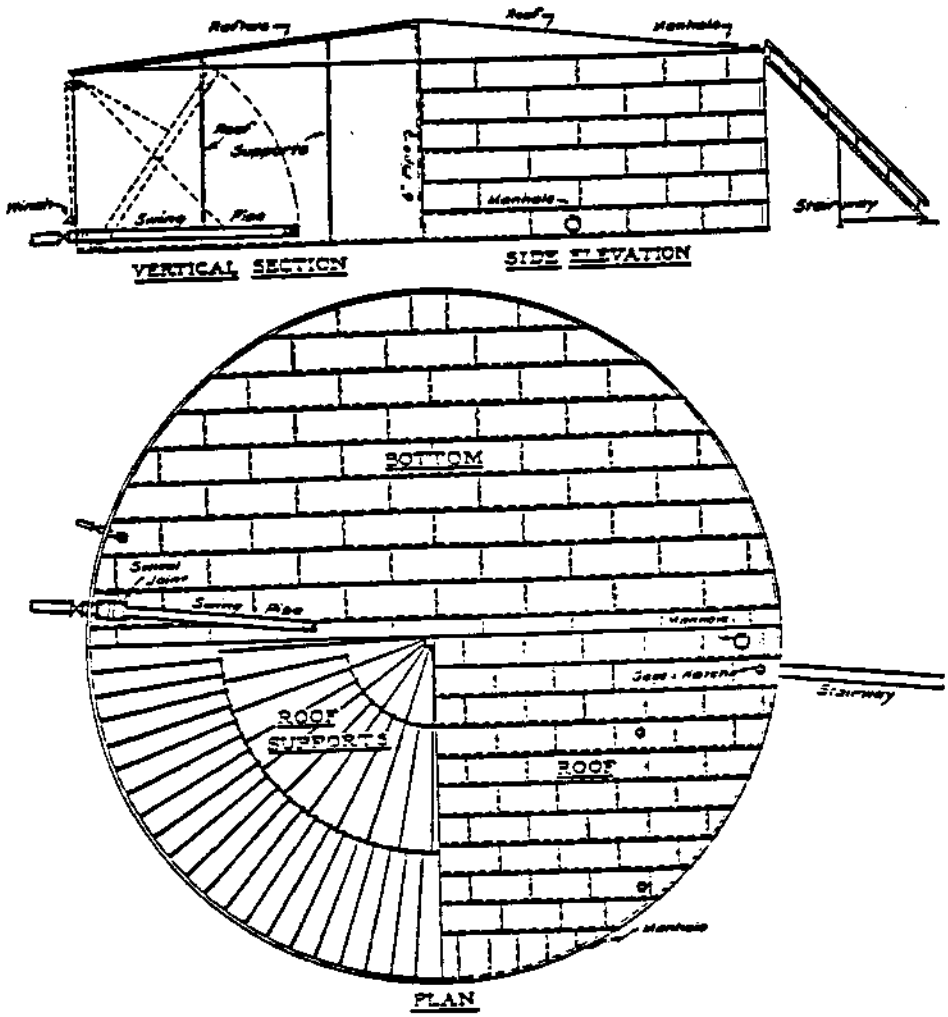
Description

Some fields utilized central power houses to pump oil from up to 25 wells simultaneously. They consisted of a housed engine driving a large diameter horizontal band wheel onto which shackled rods had been attached. These rods, in turn, were connected to the wells' pumping units. Metal posts topped with wooden guide blocks supported these shackle rods. When operating, the reciprocating action of the band wheels and shackle rods allowed simultaneous pumping.

The central power house was a one-story structure typically constructed of metal siding and roofing material. The mainly rectangular shape included a circular section approximately 40 to 50 feet in diameter which housed the band wheel. Openings along the rectangular portion enabled the shackle rods to exit toward the wells. All in all, this spider-like pumping method proved awkward unless the wells were spaced closely together. Thus, this technology was seldom

DIAGRAM 6

PLAN AND ELEVATION OF 55,000 BARREL RIVETED STEEL TANK



Source: George O. Carney, "Historical Context for Energy Development: Management Region #3," 1987.

employed after 1930.

Significance

Central power houses represent an attempt to power the pumping operations on several wells with a single device. As such, they manifest early efforts at unitization. They were, of course, part of the overall process of oil extraction. They also derive significance as an antiquated technology.

Eligibility

For inclusion on the National Register, central power houses should retain their integrity of design, materials, and setting. Their tell-tale combination of rectangular and circular construction should b apparent, and any remaining wall cladding and roof material will likely be corrugated metal. The band wheel and shackle rods will probably be non-extant, the victims of salvaging. Historic central power houses should also be located in known areas of production, probably predating 1930.

PRODUCTION CAMPS

Description

Companies having a series of wells within a field often constructed production camps to service their operations. The complex of buildings in such a facility usually included: a machine shop, for the repair and fabrication of drilling equipment; forge shop, for sharpening bits and other tools; pipe shop, for threading and cutting pipe lengths; carpentry shop, for general woodworking; office building, for managing activity; and, laboratory, for analyzing soils and any oil and natural gases encountered. Some also had workers housing.

These buildings were usually one-story, rectangular or square constructions with wooden frames. Corrugated metal served as the favored wall cladding and as the covering on the gabled roof. Most stood on poured concrete foundations.

Significance

Production camps are an important property type due to their association with oil field operations. Designed largely to be self-reliant, they represent a corporate response to the need to keep production as time- and cost-efficient as possible by locating vital services with the field itself. They also served an important function by sometimes housing workers in oil fields far from incorporated communities.

Eligibility

To be eligible for National Register consideration, production camps should retain their integrity of design, materials, and locations. They should comprise a group of buildings and be found in a known historic oil field. If extant, the buildings' wood-frame construction and metal cladding should be evident. It is possible, of course, that only foundations will remain, so the spatial relationship of these deserves special attention. Since production camps will contain multiple resources, they will be nominated as districts.

COMPANY HOUSES

Description

Firms often provided up to 20 houses for their workers when an active oil field lay distant from any established community. Often, there dwellings were part of a production camp. They typically utilized one of two vernacular architectural styles, both relatively easy and inexpensive to build. Shotgun houses tended to be one room wide and up to four rooms deep. Each room was usually twelve-feet square. The houses had gabled roofs, side windows, front and rear entrances, and clapboard or board-and-batten siding. Lacking kitchen and bathroom facilities, which were part of the larger production camp, all rooms were used for sleeping.

Pyramidal was the second common style. This king of company housing consisted of four equally sized rooms, topped by a hipped pyramidal roof. Like their shotgun counterparts, they usually had clapboard or board-and-batten siding.

Significance

Company houses are yet another property type associated with oil field operations. Providing houses within the field facilitated 24-hour operation in isolated areas. Indeed, in the course of a day, three different 8-hour shifts might use the dwelling. Given the intense pace of activity, company housing was most commonly provided during the early stages of a field's development.

Eligibility

For inclusion on the National Register, company housing should maintain its integrity of design, materials and setting. They should be found in or adjacent to a historic production camp within a known oil field. They should also exhibit either the shotgun or pyramidal style, although other simple, vernacular styles are also possible. Wood will be the dominant construction material. Since these houses were easily moved to new producing areas, a careful examination for any foundations or ruins should be included in the documentation of production camps.

PIPELINES AND PIPELINE STATIONS

Description

Pipelines provided the most efficient means of transporting crude out of the field to various consumers. Consequently, a network of such lines crisscrossed the study area. Some collected the production of wells and brought it to a central location for limited processing, before being shipped elsewhere for final refinement. Others carried oil directly to refineries and natural gasoline plants both within and outside the region. The diameter of such pipelines ranged from two to twelve inches, depending on the capacity it carried.

To maintain the flow over long distances, pipeline stations became necessary at twelve to sixty mile intervals. Here engine-driven pumps maintained the pressure to keep oil traveling at between one and five miles per hour. In addition to a building housing the pumping machinery, the station complex also typically included several single-story brick or wooden building housing gages and other types of equipment. A water tower and storage area for extra pipe might also be present.

Significance

Pipelines and pipeline stations are important for their association with transporting the region's petroleum products to storage and processing facilities. They represent the mostly widely used means by which oil and gas were brought to where it could be consumed. Given its ability to deliver directly to a desired point at a relatively low cost, pipelines became the major means of transporting petroleum and petroleum products.

Eligibility

To be eligible for National Register consideration, pipelines and pipeline stations should retain their integrity of design, materials, and setting. Fully extant pipelines probably do not exist, but the presence of segments in known producing areas, or along known rights-of-way, deserve attention. Stations likewise should be located in such areas and there should remain evidence of one-story brick or wooden buildings. Pumps, machinery, a water tower, and storage area may also be found. When located together, pipelines and pipeline stations warrant consideration as districts.

LOADING RACKS

Description

While most petroleum produced in the region was transported by pipeline, railroad tank cars were also used. Loading racks facilitated the process of filling these cars.

Basically, a loading rack consisted of a main pipeline running parallel to one side of the railroad track. It was elevated so that it rested a few feet above the tank car's turret. Vertical connections, with appropriate valve controls, were spaced along the main pipeline at intervals equivalent to the length of tank cars, usually thirty-two-and-a-half feet. Loose sleeves and elbows on these connections allowed the oil to be directed precisely into the car. By this means, an entire train of tank cars could be loaded simultaneously. The rack also included an elevated wooden walkway that supported the filling lines and allowed access to them. A small wooden shed along the walkway housed workers. When the storage tanks for the oil rested at a higher elevation than the rack, such as on an adjacent hill, gravity created the necessary flow. Otherwise, an oil-line pump was installed to bring the crude to waiting cars.

Significance

Loading racks are another property type associated with the transportation of oil to market. It represents a technological solution to the loading of oil onto numerous tank cars in a time- and cost-efficient manner. They are also especially significant as the one resource most directly associated with the transportation of oil by rail.

Eligibility

To be considered for the National Register, loading racks should maintain their integrity of design, materials, and setting. The vertical standpipes and loading arms should remain, as should evidence of the walkway and workers shed. The main pipeline, however, will probably have been removed and used elsewhere after the rack closed. In

short, enough of the rack should remain to illustrate the technology it employed. Of course, it also should be located along a historic railroad right-of-way in or near an oil field.

REFINERIES AND PROCESSING PLANTS

Description

The actual transformation of crude oil or natural gas into useable products -- including refined oils, solvents, fuels, and petrochemicals -- occurred at refineries and processing plants. The refining process was very technical, but basically involved separating oil or natural gas as it left the well into its major components. These were then blended or converted by intricate chemical interactions into salable products. In many respects, it resembled a distillation process.

Refineries and processing plants, including natural gasoline plants, typically contained a number of resources. Buildings housed engine rooms, generators, a tool and workshop, boilers, and an office. Structures for the distillation, cracking, and treating of petroleum and its by-products could also be found. Most visible were the large cooling and blending towers. These facilities also contained storage tanks, water towers, and pipeline terminals. The buildings within such a complex tended to rectangular or square with wooden frames and metallic cladding. Their gabled roofs had vents, and in engine and boiler houses a breather/muffler device hung on an exterior wall.

Significance

Refineries and processing plants are property types associated with the transformation of crude oil and natural gas into marketable products. Many such plants emerged within the study area, especially around Cushing. Some sold the refined products locally, while others transported them to distant markets via pipelines.

Eligibility

To be eligible for the National Register, refineries and processing plants should retain their integrity of design, materials, and location. This property type may be found in both rural and urban areas, but all should consist of a concentration of buildings and structures in sufficient quantity to illustrate the technology employed. This typically will include several single story rectangular or square buildings, distilling tanks, storage facilities, blending and cooling towers, a water tower, and perhaps pipeline terminals. Given the number of resources likely involved, refineries and processing plants should be nominated as districts.

COMPANY/CORPORATE BUILDINGS

Description

As the petroleum industry matured, an increasing number of firms constructed corporate offices near the oil fields in which they operated. From here, the day-to-day and long-range management of production occurred. The style of these office buildings varied, mainly in accordance to the time at which they were constructed and where they were located.

Early in the period, some located in the upper stories of the two-

or three-story commercial block buildings so prominent up to 1920. Constructed of brick and having multiple bays along the first-floor facade, these buildings had flat roofs and incorporated such architectural details as parapets, brickwork friezes, dentils, and corbels. Such office buildings were usually found in smaller communities such as Cushing.

In larger settings, Commercial and Sullivanesque skyscrapers might be found. Between 1900 and 1915, five- to sixteen-story Commercial style buildings dominated. They were constructed of brick, had flat roofs, and often exhibited Chicago style windows having a broad, fixed central pane of glass and narrow sidelights with opening sashes. Ornamentation was usually minimal. After 1915, Sullivanesque inspired skyscrapers, with flat roofs and projecting cornices, became more common. Windows formed bands around the window, offset by decorated piers. Terra cotta ornamentation throughout was also widely incorporated into the building design.

Significance

Company and corporate buildings are property types associated with the organization of the petroleum industry. They housed corporate offices, lease buyers, land men, attorneys, clerks, and typists, all of whom played a role in the management of production. The development of the petroleum industry would have been impossible without these managerial functions.

Eligibility

To be considered for the National Register, a company or corporate building should retain its integrity of design, material, and setting. It must have been a corporate or regional headquarters for a petroleum firm active in the study area through 1951. In some cases, only the upper floors of such buildings may be petroleum related. Whatever the architectural style employed, its defining features and characteristics should be extant. This includes sufficient evidence of its original building material and window treatments.

WORKERS HOUSES

Description

Where communities lay near the producing oil fields, and especially after the automobile eased commuting, oil field workers sometimes lived within towns like Cushing, Yale, Edmond, and Oklahoma City. Those with families particularly preferred to live in towns because schools ad other services were more readily available there. Since wages were modest and employment often sporadic, workers houses tended to be the simple, vernacular shotgun style. Sometimes, these homes were moved into town from an abandoned production camp.

Workers houses usually were one or two rooms wide and up to four rooms deep. They also had gabled roofs, side windows, front and rear entrances, and clapboard or board-and-batten siding. Often, several of these dwellings could be found together in sections of oil-related communities.

Significance

Workers houses reflect the basic need for shelter among those who labored in the oil and gas fields. Their simple, yet functional, style

suited their relatively modest means and uncertain employment in the boom and bust petroleum industry. Their presence in towns are also testimony to the increasing mobility of the work force made possible by affordable automobiles after 1920.

Eligibility

To be considered for the National Register, workers houses should retain their integrity of design, materials, and setting. They should be found in communities known to certain concentrations of oil field workers, and may also be found grouped together in working class neighborhoods. They should maintain their simple shotgun style, and the original building materials should be evident. If found in groups, workers houses should be nominated as districts.

PETROLEUM EXECUTIVE HOMES

Description

In contrast to workers homes, those of petroleum executives often exhibited highly-stylized architecture. The actual styles employed varied, but reflect those popular during the 1912-1951 period. Especially favored were the Revival Styles -- Georgian, Spanish, and Colonial.

These were typically large, massive homes of at least two stories. Building materials varied in accordance to the style used, but stone and brick were most popular. Decorative features also matched the style used, and professional architects and landscape architects usually designed these homes and their grounds. In places like Oklahoma City, concentrations of these palatial homes could be found.

Significance

The highly-stylized homes of petroleum executives represent the wealth generated by the petroleum industry. Their occupants tended to be the entrepreneurs who founded the industry or the executives who kept it vital. The grand size and formal style of these homes, and in many cases the grounds which surrounded them, were meant to be a statement of the success of their occupants.

Eligibility

For inclusion on the National Register, executive homes should retain their integrity of design, setting, and materials. The original style of the home should be apparent, and any alternations should be minimal. Occupancy by a person or family associated with the petroleum industry should also be firmly established. In the case of estates, special consideration should be given to the grounds in order to determine whether they too incorporate a formal design.

BUSINESS DISTRICTS

Description

In some communities, the prominence of oil and gas production in the local economy spurred a general business expansion. During both booms and periods of prolonged production, new retail stores, financial institutions, and other businesses emerged to serve the growing needs of the community. To the degree that these business districts owed their

existence primarily on the rippling economic effects of the oil industry, they may be considered petroleum related. In smaller communities, these business districts consisted of one- to three-story commercial block buildings, with several bays along the first floor main facade. They had flat roofs, minimal decorative detail, and were built mostly of brick. In larger communities, these districts might include Commercial or Sullivanesque skyscrapers of six to thirty-four stories. These larger buildings, while still constructed of brick, were more stylized than their smaller counterparts, often incorporating projecting cornices, bands of windows, and terra cotta ornamentation throughout.

Significance

Business districts which sprang up to life based on the infusion of petroleum-related dollars into the local economy represent another manifestation of the wealth generated by the oil industry. They are particularly interesting because they illustrate the pervasive nature of this influence. While some buildings within these districts may have housed oil-related concerns, they also included a wide variety of the retail and professional community.

Eligibility

To be considered for the National Register, oil-related business districts should retain their integrity of design, material, and setting. The tie between their emergence and the local economic impact of the petroleum industry should be clear and verifiable. The original architectural style employed in the district should remain, with its defining characteristics and elements intact. Since this property type involves a number of resources, it should be nominated as a district.

RAILROAD PROPERTIES

Description

The discovery and development of oil fields often attracted railroads to the areas of production. Cushing, for example, enjoyed five rail outlets alone by the end of 1912. Transporting crude oil to distant markets provided a lucrative business to some roads, so many companies did not hesitate to extend their tracks into the fields and nearby communities, which soon became shipping points.

Accessing an oil field or refinery required all that is involved in constructing a railroad. Rights-of-way had to be surveyed and graded. Tracks needed to be laid, bridges erected, water towers for the steam engines built, and stations and yards constructed. Like business districts, petroleum-related transportation facilities reflect the diversity of the industry's impact on the region.

Significance

With the exceptions of pipelines, railroads were the most common means of transporting crude oil to processing facilities and other markets. The extension of lines into previously unserviced areas also represents the pervasive economic influence of the petroleum region.

Eligibility

To be considered for the National Register, petroleum-related railroad properties should retain their integrity of design and setting. Rights-of-way should be clearly visible on the landscape; extant water

towers and bridges should maintain their original steel construction and engineering features; and, yards and stations should exhibit their original brick or wooden construction. It is especially important that a clear and verifiable link be made between these railroad properties and the petroleum industry. In other words, it should be evident that servicing this industry was the primary reason for their existence.

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Serves as the historic context document for the energy theme in Management Region #5.

_____. "Historic Context for Energy Development: Management Region #3, 1897-1930." Submitted to State Historic Preservation Office, Oklahoma Historical Society, Oklahoma City, 1987.

Provides excellent guide for petroleum-related property types. Also, some information on Cushing field.

THESES AND DISSERTATIONS

Bowles, Ora Lee. "Cushing, An Oklahoma Oil Town." M.A. thesis, University of Oklahoma, 1949.

A useful, narrative overview of Cushing, both during and after the boom.

Lloyd, Heather M. "Oklahoma's Cushing Field." M.A. thesis, Oklahoma State University, 1976.

A valuable and excellent general history of the Cushing oil boom.