SUBSURFACE STRATIGRAPHIC ANALYSIS OF THE PRUE SANDSTONE INTERVAL IN SOUTH-CENTRAL OKLAHOMA

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OKLAHOMA

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CHAPTER 1

INTRODUCTION

This research involves a subsurface analysis of the Pennsylvanian age Prue Sandstone. The Prue is the youngest siliciclastic interval of the "Cherokee Group" of the Desmoinesian Stage. The Prue Sandstone was first described in 1921 by White and Green who worked in the Prue Field, Osage County, Oklahoma (Jordon, 1957). The Prue's productive capabilities have made it a target for oil and gas exploration for most of the 20th century.

The Prue Sandstone is still being targeted today. In fact, within this study area, wells drilled to the Prue "channel sands" are being successfully completed. The aim of this thesis is to integrate subsurface mapping with core analysis in order to better understand depositional environments, aerial extent, and paleotopography of these Prue "channels" for exploration purposes. While doing this, sequence stratigraphic principles were applied to the data in order to test whether this methodology could help better define facies and stratigraphic relationships of the Prue Interval. It should be noted that no high-resolution sequence stratigraphic interpretation was done in this study due to lack of complete core data through the entire section.

Location

The study area for this project is in the southeastern portion of the Anadarko Basin. It encompasses 10 townships and more than 1000 wells. The townships straddle

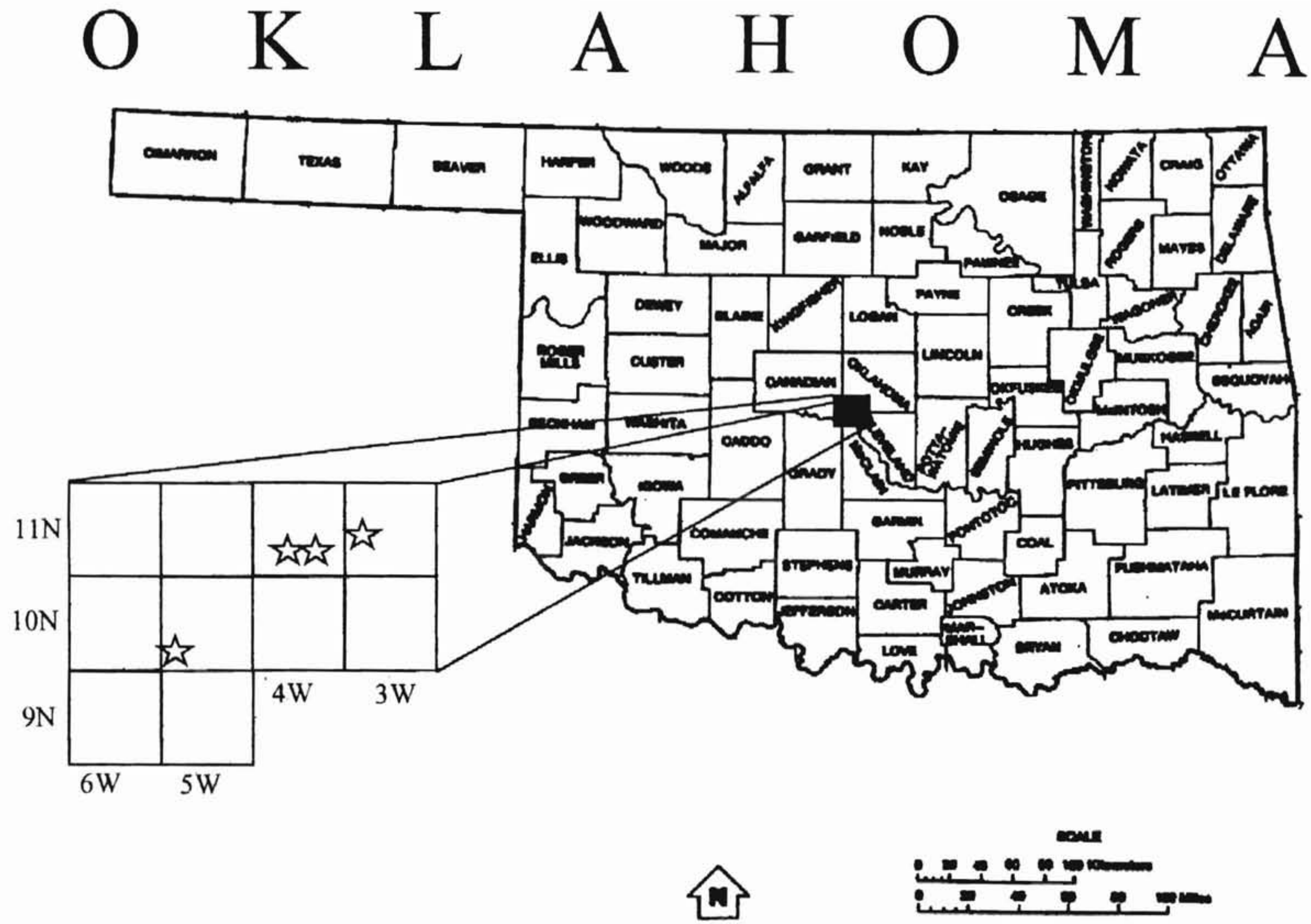

Figure 1: Map showing location of study area and core locations.

portions of Oklahoma, Canadian, and Cleveland Counties. The ten townships included are: Township 9 North, Ranges 5 and 6 West, Township 10 North, Ranges 3,4,5, and 6 West, Township 11 North, Ranges 3,4,5, and 6 West (Figure 1). The study area was chosen due to the abundance of data and because of continued exploration in this region. In addition the "Cherokee Units", and in particular the Prue Sand, have not been extensively studied in the study area with the addition of core descriptions.

Purpose and Scope of Study

The purpose of this study was to substantiate prior investigations of the Prue Sandstone's depositional environments and to extend previous mapping of this interval. The specific objectives are as follows:

1. To map Prue Sandstone distribution within the Prue Genetic Interval.
2. Determine the lithofacies, and depositional environments associated with the Prue interval.
3. To document channel incisions of the Prue Sandstone into the underlying genetic unit.
3. To show sequence stratigraphic concepts can provide a useful interpretation for Prue deposition.
5. Determine the geometry and distribution of the Prue reservoirs.
6. To investigate various Prue wire line log responses and compare them with core data.
7. To indicate how sedimentary facies traps hydrocarbons within the Prue Channel System, and show associated production

Methods of Investigation

The following methodology was used in this study to commingle, and interpret the data. An extensive literature search was conducted not only for this area, but also on associated topics such as Incised Valley Fill (IVF) models. Numerous companies have explored in the study area; thus contacts were made in order to locate core analysis, waterflood data, and unitization reports.

Next, subsurface well data was compiled from scout tickets, wire-line logs, and production reports. Data were obtained from over 975 logs and compiled into a spreadsheet. The spreadsheet consisted of header information including name, location, and field. Also included were total depth, datum elevation, formation top picks, isolith data, and sandstone thickness values. Subsea depths were automatically calculated by the spreadsheet, as were the isolith thickness values. Finally, a rough depositional environments pick and a comment column were entered into the spreadsheet.

While obtaining data from the logs, a series of preliminary east/west and north/south stratigraphic cross-sections were made to ensure internally consistent correlation. The formation top data was taken from the gamma ray curve, but other logs such as combination neutron-density were used to cross check the picks. The spreadsheet then calculated an interval isopach value from the base of the Oswego Limestone to the top of the Verdigris Limestone (Figure 2). This value was then subdivided into a sandstone and shale zone isolith value. The classification for sandstone was based on a 50% "clean" line that was placed between the shale base line and a "clean" limestone

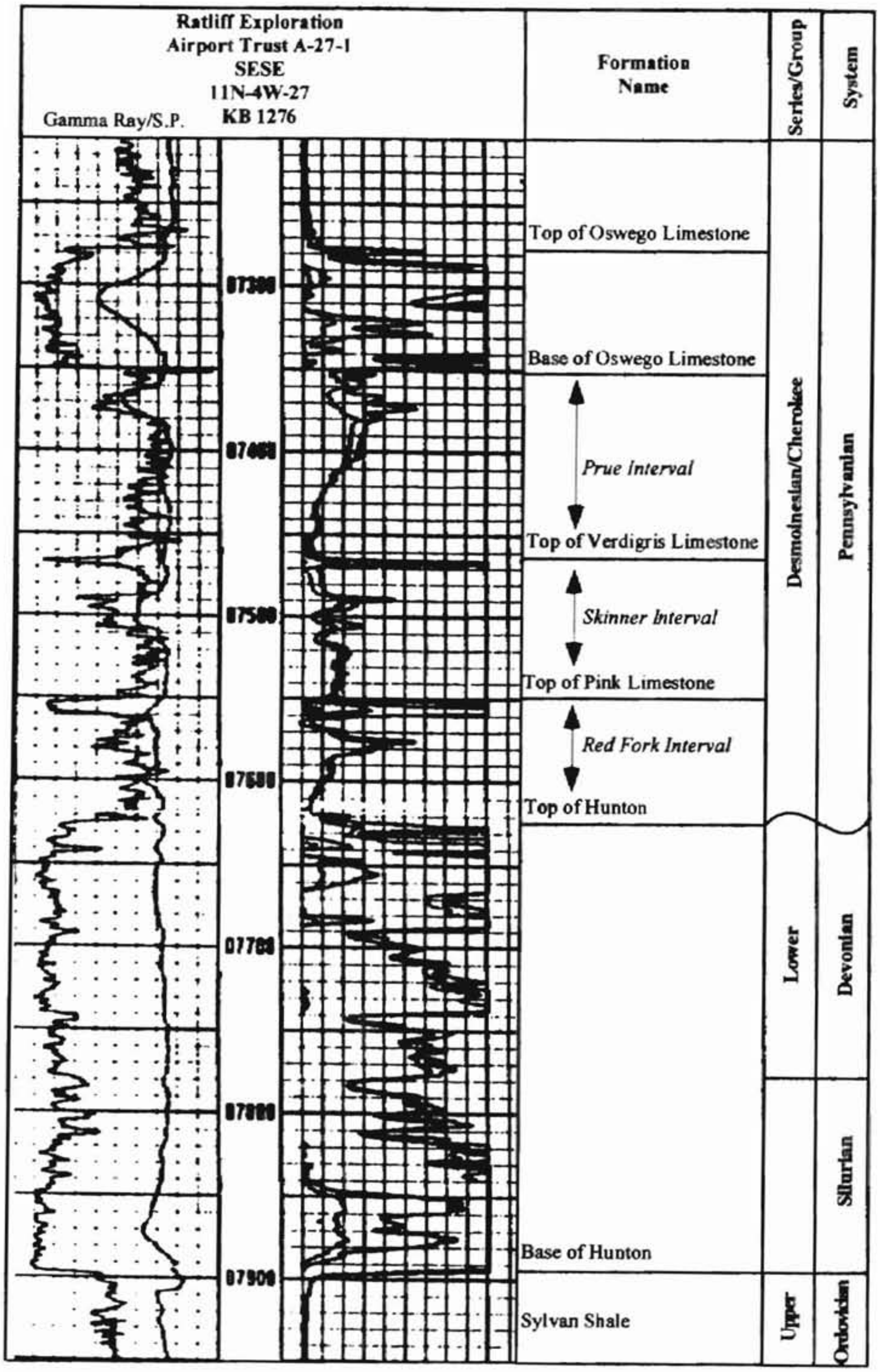

Figure 2: Type electric log of study area.

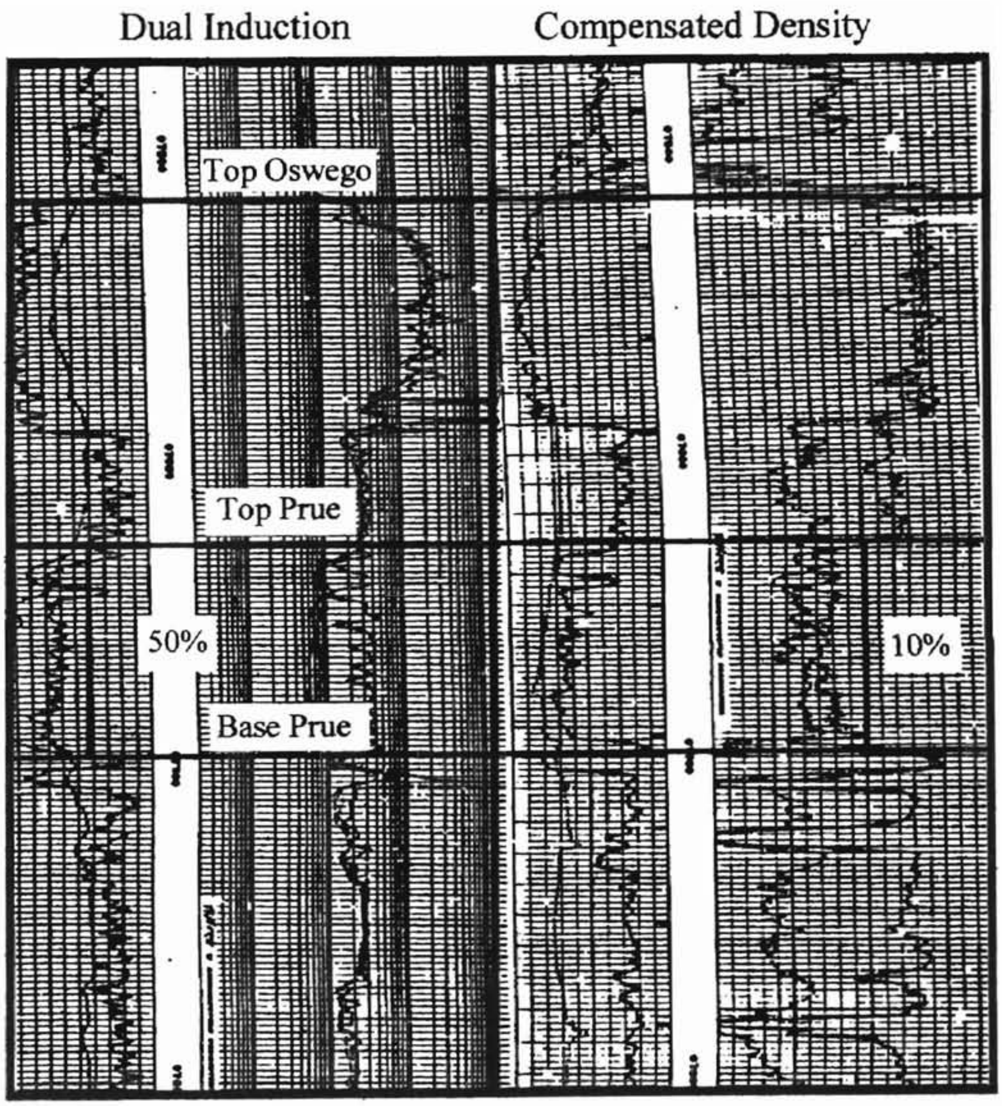

Figure 3: Thomason 1 (11N-4W-32), Log shows 40 feet of clean (50%+ gamma -10%+ porosity) sand.

value on the gamma ray log. In the comment column a net/gross sandstone value was added. The net sandstone was classified as sand having porosity values over 8%. Sample logs showing methodology can be seen in Figures 2 and 3.

Once the well log analysis phase was complete eight stratigraphic cross sections were constructed. Seven of the cross section show portions of the Prue Channel, displaying both its thickness and degree of incision. The other cross section is a regional stratigraphic cross section indicating thickening of the Prue Interval and deepening into the Anadarko Basin.

Structural contour maps were constructed on the Oswego Limestone and the Verdigris Limestone units. Net and gross Prue isolith maps and an interval isopach map were made in order to show reservoir thickness, aerial extent of the sandstone, and structural features affecting geometry.

Four cores were analyzed within the area of investigation. The cores were logged for sedimentary structures, textures, and mineralogic constituents. Particular attention was paid to core analysis in order to substantiate theories about depositional environments. Core information details will be discussed in later chapters.

Finally, the data was analyzed to see if it met the criteria for an incised-valley fill. Van Wagoners list of fundamental characteristics include: (1) the valley is a negative or erosional paleographic feature, (2) the base of the valley truncates underlying strata, (3) the base and the walls of the incised-valley fill system represent a sequence boundary that may correlate to a hiatal surface in interfluvial areas, (4) the base of the valley fill exhibits a basinward shift in facies, and (5) depositional markers within the fill will onlap onto the valley walls.

Previous Investigations

Numerous investigations of the Pennsylvanian Desmoinesian rocks have been conducted throughout Oklahoma. Only the studies that investigated the upper Cherokee Sandstones, or that involved the study area are cited. Oakes (1953) divided the informal "Cherokee Group" into the Krebs and Cabaniss Groups. The uppermost sandstone of the Cabaniss Group is informally known as the Prue Sandstone. Previous to Oakes the Prue sandstone was first referenced in 1921 by White and Green from its occurrence in the Prue field, in Osage County (Jordan 1957).

McGee and Clawson (1932) were the first to report on the subsurface geology of the Oklahoma City Field. They investigated numerous formations and reported on the regional structural features of the area. Jacobsen (1949) described the structural features on the east flank of the Anadarko Basin in Cleveland and McClain Counties. His work discussed the general stratigraphy and structural features of the area but focused on the McClain county fault zone. Burkett (1957) reported on the subsurface geology of western McClain County. Ahmeduddin (1968) carried out a study on the geology of the Wheatland area, of McClain, Canadian, Grady, Cleveland, and Oklahoma Counties. He carried out detailed stratigraphic correlation of the Desmoinesian rocks, researched geologic history, and determined the influence of the Pre-Desmoinesian erosional surface on "Cherokee" deposition. Contained within Ahmeduddin's research are structural maps that show probable locations for Pennsylvanian paleostream channels. Berg (1969) conducted a large regional study of the "Cherokee Group" on the west flank of the Nemaha Ridge, whereas Cole (1969) did a report on the eastern flank. Dahlgreen (1968) and Gatewood (1970) furnished studies on the history and development of the Oklahoma City Field. Albano (1973) did a subsurface stratigraphic analysis of the "Cherokee Group" in northeastern Cleveland County, which is just to the east of this investigation. His objectives were to determine the degree at which the pre-Pennsylvanian unconformity influenced "Cherokee" deposition, interpret siliciclastic depositional environments, and to investigate the significance of both structural, and stratigraphic trapping. Albano mapped the Prue Sandstone in Townships 8 through 10 North and Ranges 1 East through 2 West.

In 1996 Richard Andrews and the Oklahoma Geological Survey prepared a special publication on the Prue entitled "Fluvial-Dominated Delataic Oil Reservoirs in Oklahoma: The Skinner and Prue Plays. This special publication contains an overview of the Prue's distribution, stratigraphy, and depositional models appropriate to the unit. It also contains maps and case studies relating to producing Prue fields. This paper is an excellent starting point for statewide information relating to the Prue Sandstone.

Ropp (1991) conducted research on the Prue in northeastern Lincoln County. Her objectives included establishing depositional framework of the Prue, delineating stratigraphy and core lithology, and determining petrographic and diagenetic characteristics of the Prue reservoirs. Andrews (1998) researched the Prue in portions of Payne and Lincoln Counties. He focused on depositional environments, paleotopography, and mapping areal distributions of the Prue and Verdigris.

Other studies of the "Cherokee Group" in different regions include Shipley (1977) in Payne County, Candler (1977) in Noble County, Verish (1979), Puckette (1990) in western Oklahoma and Akmal (1953). The majority of these studies focus on the interpretation of depositional environments using subsurface mapping.

CHAPTER 2

STRATIGRAPHY

Introduction

The three rock units that were studied in this thesis are the Oswego Limestone, Prue Sandstone, and the Verdigris Limestone. These three informal parastratigraphic units are part of the Pennsylvanian System, Desmoinesian Stage. The Pennsylvanian is a period of the Paleozoic era spanning the time between 325 and 286 million years ago.

The Oswego Limestone is part of the Marmaton Group, whereas the older Prue and Verdigris are included in the Cabaniss Group. The Cabaniss and underlying Krebs are informally known as the "Cherokee Group". The two carbonate units, Oswego and Verdigris, were used to define boundaries of the Prue Genetic Interval. Using the carbonates as interval-bounding markers is a common practice within the cyclic deposits of the "Cherokee Group" in the Anadarko Basin. Other examples of this include the Skinner Sandstone Intervals which are bound by the Verdigris and the underlying Pink Limestone, and the Red Fork Sandstone Interval which is bound by the Pink and Inola Lime. Figure 4 illustrates the stratigraphic nomenclature of the "Cherokee Group".

Cabaniss Group

Verdigris Limestone

The lowermost extensive carbonate rock marker in the Cabaniss Group is the Verdigris Limestone. Smith named the Formation in 1914 from an outcrop along the Verdigris River, near Claremore, Oklahoma (Jordan, 1957). The Verdigris is cored by

<table>
<tr><th>SYSTEM</th><th>STAGE</th><th colspan="2">GROUP</th><th>FORMATION</th><th>SURFACE NAMES</th><th>SUBSURFACE NAMES</th></tr>
<tr><td rowspan="5">PENNSYLVANIAN</td><td rowspan="5">DESMOINESIAN</td><td colspan="2">MARMATON</td><td>FT. SCOTT</td><td>FT. SCOTT LIMESTONE</td><td>OSWEGO LIME</td></tr>
<tr><td rowspan="4">"CHEROKEE"</td><td rowspan="4">CABANISS</td><td rowspan="4">SENORA</td><td>LAGONDA SANDSTONE</td><td>PRUE SAND</td></tr>
<tr><td>VERDIGRIS LIMESTONE</td><td>VERDIGRIS LIMESTONE</td></tr>
<tr><td>OOWALA SAND</td><td>SKINNER SAND -Upper,Middle, Lower</td></tr>
<tr><td>PINK LIMESTONE</td><td>PINK LIMESTONE</td></tr>
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Figure 4: Stratigraphic nomenclature of the "Cherokee" Group, Anadarko basin, Oklahoma.

the Booth 9D-2 well, which was described in this study. The Verdigris is a mottled gray, microcrystalline limestone with dispersed crinoids and fossil debris. The log characteristic for the Verdigris is a "clean" gamma response with high resistivity (Figure 2). This made the identification of the formation relatively easy. The Verdigris however can be difficult to identify when directly underlain by Skinner sandstone bodies.

Prue Sandstone

The Prue Sandstone Interval involves the stratigraphic interval between the Oswego and the Verdigris Limestones. It was first referenced in 1921 by White and Green from its occurrence in the Prue field, in Osage County (Jordan, 1957). Sandstones within the Prue are primarily fluvial, though they become more marine southward (Andrews, 1996). The sandstone is present on the Cherokee platform and in the eastern part Anadarko Basin. The amount of sand within the Prue Interval varies from 0-100%. Isopach thickness of the Prue Interval can exceed over 100 feet. The sand itself has a fine to very fine grain size with abundant interbedded muscovite mica and clay. The micas are easily seen with a hand lens and appear mostly on shale bedding planes. Numerous types of sedimentary structures are also present but these will be discussed in detail in Chapter IV.

Marmaton Group

Oswego Limestone

The Oswego Limestone, as seen in the core of the Booth 9D-2 well, is a mottled gray microcrystalline limestone that varies in thickness substantially throughout the study area. The formation was first named in 1894 by Hayworth and Kirk from an outcrop near Oswego, Kansas (Jordan, 1957). These strata were later renamed "Fort Scott Limestone" (Hanke, 1967). The Oswego Limestone is the informal subsurface equivalent of the Fort Scott Limestone. The Oswego Limestone changes facies from backreef, to reef, to forereef from north to south across the study area. The main reef is approximately one to two miles wide and is part of a much larger feature that continues northeast towards Tulsa. Thickness of the reef within the study area can be as much as 80 feet, with 15-20 feet of this interval containing porosity. However, only minor scattered production can be found on the Oklahoma City high. Behind the reef to the north the limestone thins into a backreef facies, and seaward becomes mainly shale with a thin limestone marker bed. The Oswego's gamma ray log characteristics make it identifiable throughout the study area. Problems in the southern portions of the region occur in picking the top of the Oswego due to a breakup of the lime into an upper and lower unit, and subsequent southward loss of the entire upper unit.

CHAPTER 3

DEPOSTIONAL FRAMEWORK

Tectonic Setting

The area of investigation lies in central Oklahoma and includes parts of Canadian, Oklahoma, and Cleveland Counties. It is on the eastern edge of the Anadarko Basin at the southern tip of the Nemaha Ridge (Figure 5). This area has been called a zone of transition involving four major tectonic elements. These elements comprise the (1) Central Oklahoma Platform (2) The McClain County Fault Zone (3) the Oklahoma City Uplift (Nemaha Ridge) and the (4) the Anadarko basin. Gatewood (1970) describes the Oklahoma City structure as a faulted anticlinal fold. The Oklahoma City Field is located at the southern end of the Nemaha Ridge. The history of the structure includes at least five stages of structural adjustments, with intervening periods of complete or partial submergence and fairly continuous deposition (Gatewood 1970). This structure is illustrated in Figures 6 and 7.

The Anadarko Basin itself is a deep basin containing up to 40,000 feet of sediment at its axis. The basin is bounded on the south by the Wichita and Amarillo uplifts, on the east by the Nemaha Uplift, and on the west by the Cimmaron Arch. The northern shelf of the Basin extends across parts of western Kansas.

The Pennsylvanian Period was an active time in basin history. It was during the early Pennsylvanian that the Wichita-Amarillo block was uplifted along a series of WNW- trending reverse faults. The Anadarko Basin began active subsidence during the late Morrowan. The subsidence continued until the end of the Virgilian Age. The basin

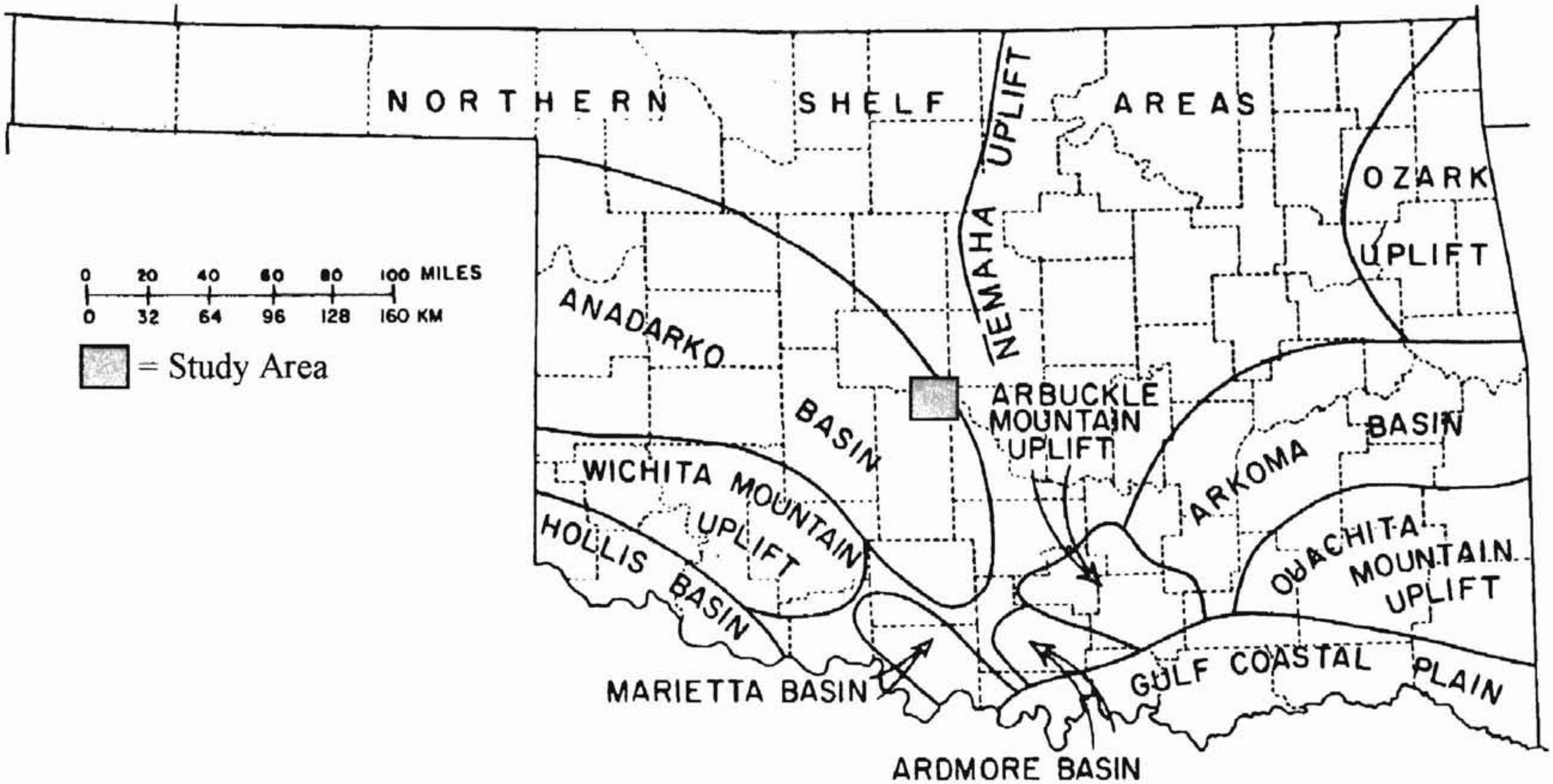


Figure 5: Major geologic provinces of Oklahoma (from Johnson, 1971).

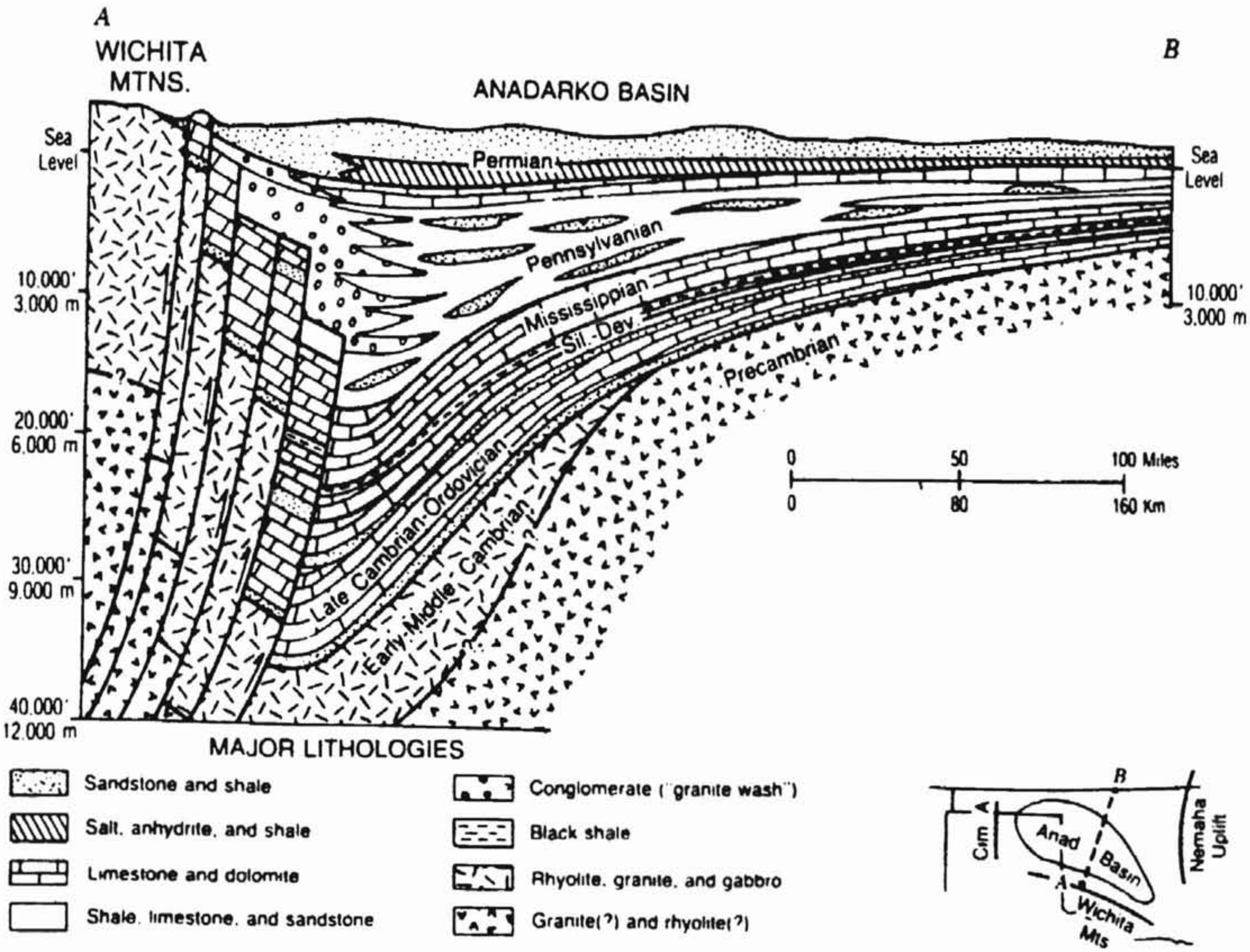


Figure 6: Generalized north-south structural cross section through the Anadarko basin of western Oklahoma (modified from W. J. Coffman. Reprinted in Petroleum Geology of the Mid-Continent, Tulsa Geological Society, Special Publication 3, p. 143).

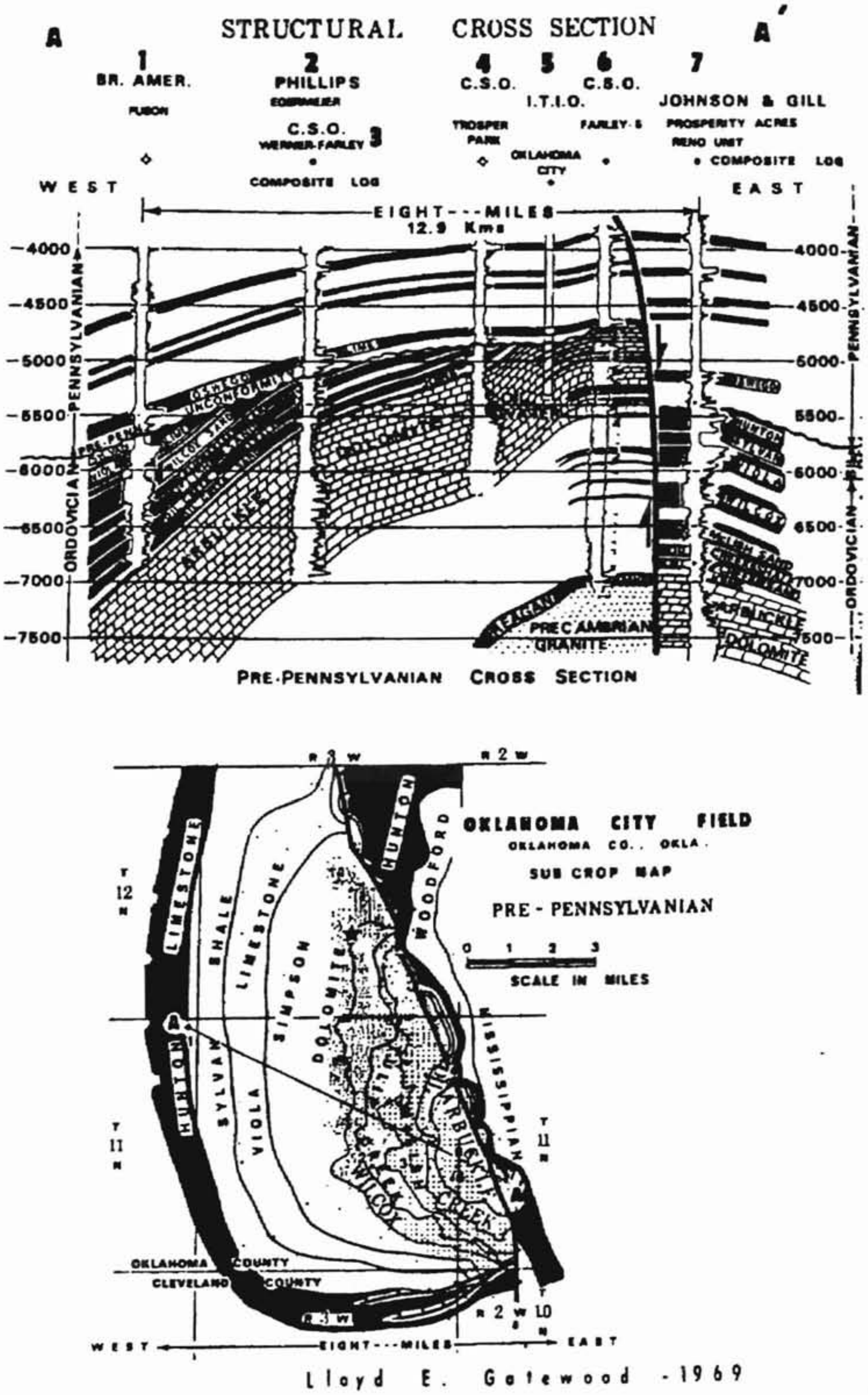


Figure 7: Top: Structural cross section showing Oklahoma City Field structure. Bottom: Pre-Pennsylvanian subcrop map illustrating erosion and truncation onto the Nemaha Ridge (Gatewood 1969).

was estimated to receive as much as 18,000 feet of sediment during the Pennsylvanian (Johnson, 1989). The strata deposited were a mixture of marine and non-marine sediment, composed of conglomerates, limestones, shales, and sandstones. The total interval of sediment thickens progressing southward into the deepest part of the basin. The thickening is illustrated in cross section A-A' (Plate VII). The Desmoinesian rocks of the Pennsylvanian consist of cyclic marine limestones and shales with some interbedded sands. The "Cherokee Group" however, has sands that have been interpreted as channel fill, distributary sands, and bar sands. These units were deposited during transgressive/regressive sea level change cycles, which occurred throughout the Desmoinesian.

Source Area

The Prue sandstones of the eastern Anadarko Basin, as seen in core, are fine to very fine grained, subrounded quartz arenites with abundant muscovite as an accessory mineral. They originated from fluvial advances coming across the Cherokee Platform, southwest over the Nemaha Ridge and into the Anadarko Basin (Figure 8). The fine-grained, subrounded nature of the sediment is indicative of long transport or recycled sedimentary rock. The provenance is most likely the Canadian Shield or Wisconsin Arch. Weathering has removed most of the original constituents, and now only quartz sand, muscovite, and clays remain.

Andrews (1996) constructed a regional isopach map of the interval from the top of the Verdigris to the top of the Pink Limestone across most of Oklahoma. He

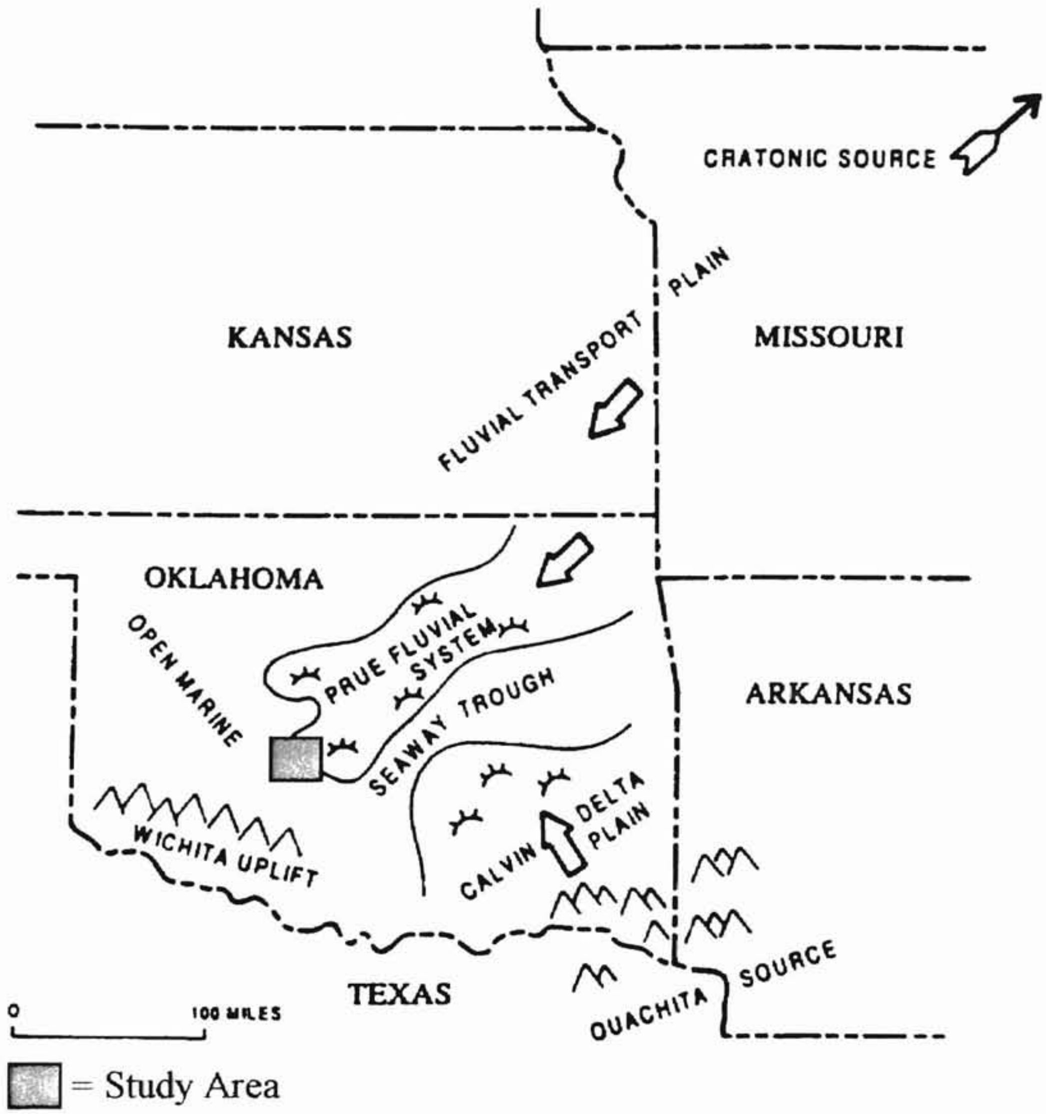


Figure 8: Paleogeography of the central Midcontinent region during deposition of the Prue sandstone (Modified from Krumme, 1981).

concluded that the Prue's areal distribution was a result of the attitude of the Cherokee Platform and the Nemaha fault zone. Since the Nemaha was a more substantial positive feature to the north at this time, the Prue sediment was likely redirected toward the south, around the east side of the Nemaha Ridge. This theory is used to explain the west trending channel complexes that are found in the study area.

CHAPTER 4

SUBSURFACE ANALYSIS

Subsurface Mapping

Fourteen plates were constructed in order to accurately show the subsurface geology of the study area. These include 6 maps and 8 cross sections. The maps contain information obtained from 975 electric logs and scout tickets. In areas where Prue channels, or Prue production, were found, each available well log was analyzed for both sand content and log character. In areas that did not meet these criteria, an effort was made to include a well log from each quarter section for proper well control and, mapping coverage. Each one of the maps is described in greater detail in the next section.

Geologic Map Interpretation

Structural Contour Map Top of Oswego Limestone

Structural contour maps were prepared in order to interpret the structural attitudes of the Prue Sandstone. The first structural contour map was constructed on the top of the Oswego Limestone. The map (Plate I) indicates that the strike of the Oswego is northwest-southeast. The dip of the Oswego is to the southwest at an average gradient of 145 feet per mile (2.5 degrees), as measured across the study area. The gradient does vary in spots from 100 feet per mile to 250 feet per mile in the study area. On the Oklahoma City High steeper dips are recognized. As discussed previously, difficulties occur in picking the proper top of the Oswego Limestone due to the presence of a major reef front trending east west through the northern part of the study area. This problem does not influence regional structural mapping. No specific structural anomalies are apparent on the Top Oswego structure map other than on the Oklahoma City High.

Structural Contour Map Top of Verdigris Limestone

The top of the Verdigris Limestone was the datum for a second structural contour map. The map (Plate II) shows the strike of the Verdigris as also being northwest-southeast. Dip is to the southwest at an average of 190 feet per mile (3.2 degrees), as measured over the study area. Both the structural contour plates (I and II) indicate an area of reduction in dip rate trending northwest-southeast from T11NR6W into T10NR5W and the southern edge of T10NR4W. Immediately southwest of this dip resumes to average. This feature, showing dip increase, probably reflects a minor hinge-line of the Anadarko Basin during Prue deposition. In several areas the Verdigris Limestone has been eroded by Prue incision. In these areas an estimate of the original top Verdigris Limestone was used. No specific structural anomalies are apparent on the Top of Verdigris Structure Map except the Oklahoma City High.

Isopach Map Base Oswego/Top Verdigris

Plate III comprises an isopach map of the total Prue Interval. This is the interval from the base of the Oswego Limestone to the top of the Verdigris Limestone. The interval shows dramatic change from the north of the study area going to the south. Isopach values were contoured on 25-foot intervals. Interval thickness values vary from less than 50 feet in the northeast to more than 200 feet in the southwest. This pattern is what one would expect, since the study area is positioned along the hingeline of the Anadarko Basin. The rate of thickening of the isopached interval increases in the far southwest corner of the study area. This is a further indication of the hingeline effect discussed above. If the upper surface of an isopach-mapped interval is flattened and set horizontal, the lower surface represents a "cast" of the surface upon which the rocks of the mapped interval were deposited (Stirling, 1998). In this way, the interval isopach approximates the paleotopography of the top Prue surface. In T11NR3W surrounding the Oklahoma City high a markedly thin area exists. This possibly indicates a paleo-high with non-deposition of sand and shale. It appears that the Prue channel went around this area to the south. The sharp westward turn of the channel in the northwest corner on T11NR3W can be attributed to a paleo-high north of the channel.

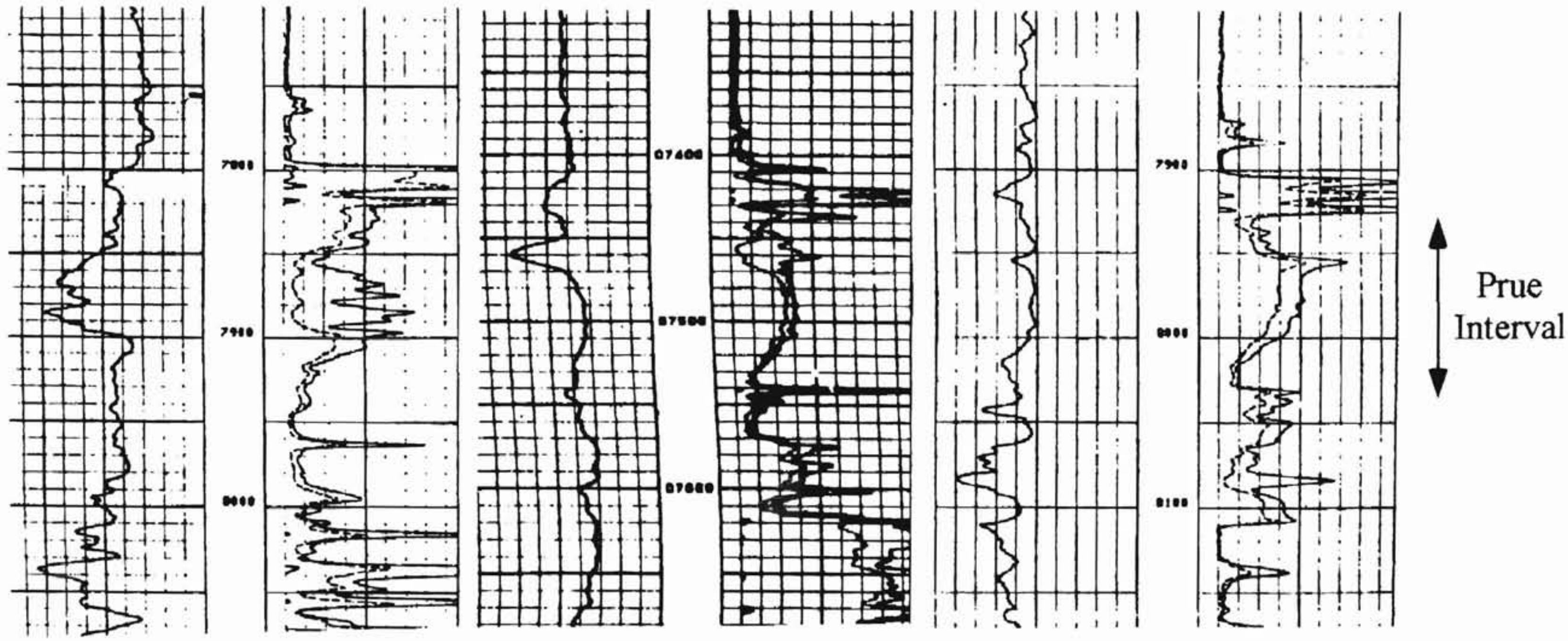
Another trend shown on this map is that of the Prue channel. The interval isopach values seem to increase with an increase in sand thickness, and decrease where no sand is present in the interval. This effect could be attributed to compaction of shales within the isopach interval outside of the channel boundaries. The most dramatic reflection of this is seen directly over the channel as it trends from T11NR3W southwest into T10NR5W. The secondary channel in T10NR6W trending northwest can also be seen. Since the Prue channel incised into previously deposited sands and shales, it is difficult to discern whether a paleovalley existed into which the Prue channel fed.

Isolith Map of Gross Prue Sandstone

Plate VI is a gross isolith map of the Prue Sandstone. The sand value for the gross isolith map was calculated by placing a 50% line between the shale baseline and the clean limestone/sandstone value on the gamma ray log. This was effective for the majority of the study area. On the other hand, many wells within the immediate Oklahoma City Field were drilled beginning in the 1930's. Most of the values used in the east half of T11NR3W were supplied by Mr. Logsden from his many years of research into the Prue Sandstone in this area.

The gross isolith map indicates several different types of sandstone bodies differentiated by well log character. The map is dominated by the lenticular southwest trending Prue Sandstone channel fill. The smaller pods of thin sand development in T11NR5W and T11N6W possibly represent minor delta-front sands deposited prior to the incised-valley fill during a probable highstand delta event, which has been mapped in T10NR3W, T10NR4W. This highstand delta was sourced from the east and appears to have prograded from the southeast corner of T11NR3W, where it has been eroded by the subsequent incised valley. The maximum thickness of these delta sands is thirty feet, and they seldom appear very clean. Attempted completions of these sands indicate a poor permeability, water bearing sand.

The incised-valley sandstone mapped in the study area has originated from the east, as previously discussed. In the southwest corner of T11NR3W the incised valley contains up to 88 feet of clean sandstone, and is nearly two miles wide. The sandstone trends northwest, making a sharp southwest turn in the northwest corner of T11NR3W. The Prue interval isopach shows a thin in the same area, which may be responsible for channel direction. The channel takes on a remarkably linear trend in a due southwest direction for 25 miles; it exits the study area in the southwest corner of T9NR6W. Sandstone thickness varies from 0-88 feet within the incised-valley complex. A



Type 1
"Incised-Valley Fill"
log response.

Type 2
"Delta Lobe"
log response.

Type 3
"No Prue Development"
log response.

Figure 9: Log signatures of the Prue Interval.

that the incised-valley cuts through the Verdigris as far south as Section 29 T10NR5W, but westward of this point does not incise to closer than 10 feet from the top of the Verdigris. The map indicates channel boundaries with both solid and wavy lines. The solid lines indicate the gross clean sand channel boundaries while the wavy lines show the extent of channel incision. Where the two overlay, only the gross sand outline is shown.

<u>Prue Production Map</u>

The production from the Prue Interval is almost entirely from the sandstones developed within the incised-valley fill. Only minor amounts of production were found in the delta facies sandstones. Plate XV shows the boundaries of the incised-valley as mapped on plate IV. This plate was constructed to outline the regional extent of Prue Sandstone production. The map shows circles around well spots that indicate production within the Prue interval. This information was obtained from Dwight's production data, scout tickets, and various operators of waterflood units.

This map also shows the unitized field boundaries of waterfloods within the Prue Sandstone in the Wheatland Field, T11NR4W. Two of the units operated by Marathon Petroleum are called the Wheatland Unit and the Will Rogers Unit. In T11NR3W, the Southwest Oklahoma City Field Unit is also a currently active waterflood. In the southeast corner of T11NR3W a Cities Service waterflood was initiated in the 1970's under the original Oklahoma City Field. Due to the unavailability of scout tickets and production data it is difficult to determine which wells produced from the Prue Sandstone within the OKC Field boundaries. Production probably originated from the Prue as early as the 1930's in this area. Further information regarding specific production for the waterfloods can be found in the petroleum geology section.

In the southwest corner of the map only scattered production was found from the Prue as it was mainly commingled with other zones.

Description of Cores

Four cores of the Prue Sandstone within the study area were described and sampled (Figure 10). Petrologic log data for each of the cores is located in Appendix B. The cores were examined for lithology, grain size, sedimentary structures, and detrital constituents. Electric logs were used in conjunction with the cores in order to link specific log signatures to depositional facies and environments. Photographs of each core were taken and can be found in the appendix. It should be noted that several other cores for this area are available for examination. The cores that where selected however, were chosen on the basis of location, interval cut, and gamma ray log signatures. A comprehensive listing for all of Oklahoma cores is available from the Oklahoma Geological Survey in their "Petroleum Core Catalog". Below is a brief summary of the petrographic log data. More detailed data can be obtained in the Appendix.

Petrocorp Inc. Booth 9D-2, Section 9, T.11N R.3E

The cored interval is from 6644-6750 feet (Figure 11). The Booth core cuts from the base of the Oswego through the Prue and Verdigris, into the top of the Skinner shale. The Oswego is a mottled gray microcrystalline limestone, with small amounts of fossil debris. At the top of the Prue Sandstone is 2 feet of calcareous mudstone. Below this is the top of the Prue Sandstone. The Prue Sandstone is light gray, fine-very fine micaceous

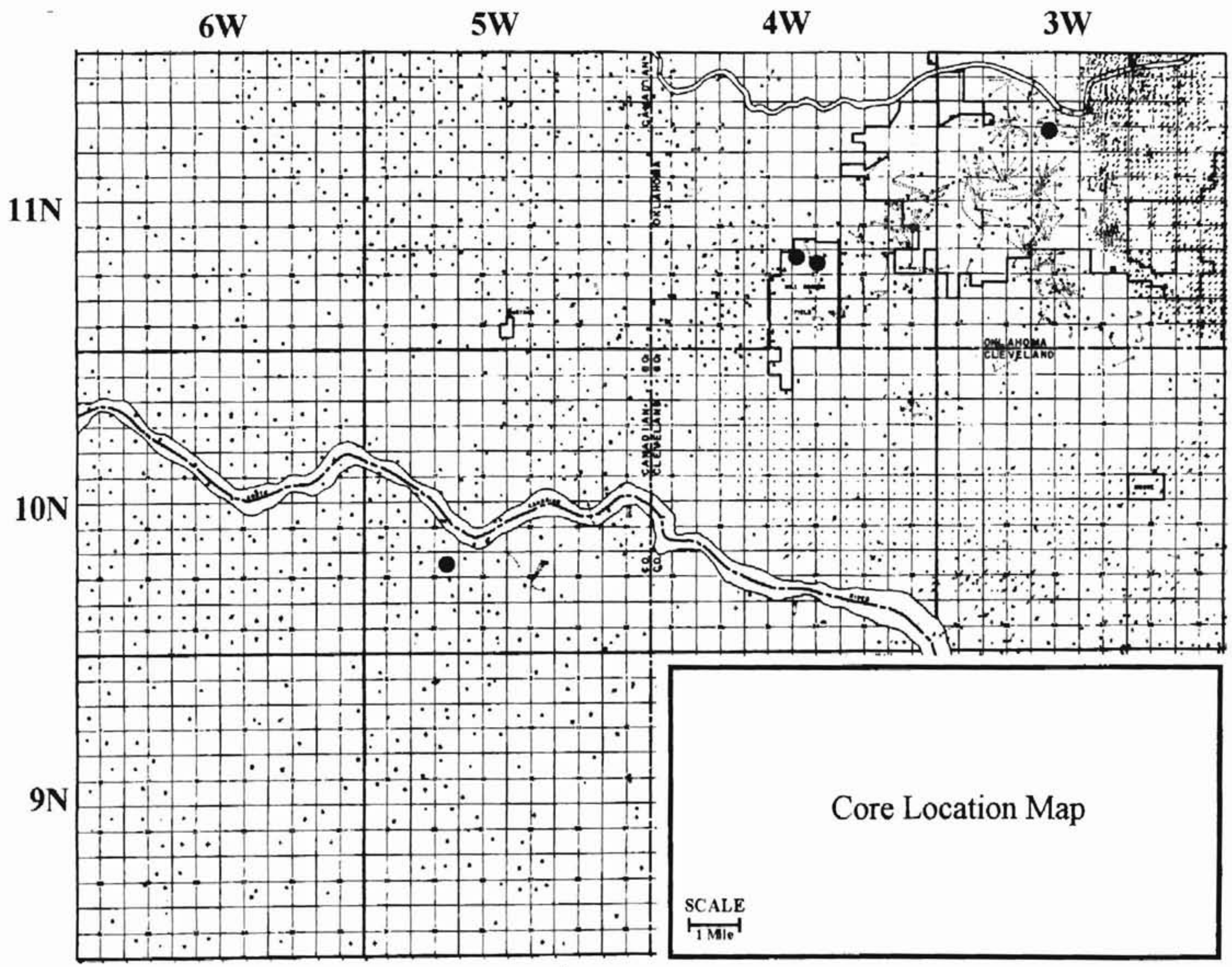

6W
5W
4W
3W
11N
10N
9N
OKLAHOMA
CLEVELAND
Core Location Map
SCALE
1 Mile

Figure 10

sand, with varying degrees of sorting. The sandstone itself is well sorted, but throughout the core the abundance of shale partings and clays give the overall sorting a moderate to poor rating. *Keep in mind the overall sorting, including the shale beds make up the sorting curve shown on the petrologic log for this study.* Throughout the Prue section sedimentary structures are minimal. Varying amounts of thin discontinuous shale partings dominate the section. The core analysis shows porosity values for the Prue between 6 and 17 %. The base of the Prue Interval shows an erosional contact with the Verdigris Limestone. Immediately above the erosional contact at 6738 feet a large amount of mud rip ups, channel base, or incised-valley wall material, is contained within the core. This shale content reduces the gamma ray curve even though the Prue Sand is actually quite clean. The Verdigris is a mottled gray limestone with dispersed crinoid fragments. At the base of the Verdigris is a small bed of terrestrial coal, underneath which is the Skinner shale. The shale is probably marginal marine shale. It is indistinctly laminated and contains some fossil hash.

Ratliff Exploration Co. Airport Trust D-27-1, Section 27, T.11N R.4W

The Airport Trust D-27-1 was cored from 7416-7469 feet, in the Prue Sandstone (Figure 17). The sandstone is a light gray to brown, moderately-sorted to well-sorted, tightly silica cemented sandstone. Grain size ranges between fine to very fine for the sand grains. The bottom half of the core seems to be slightly finer grained than the top. Muscovite mica is found throughout the core and is very noticeable on parting surfaces. Shale partings are also found throughout the core in varying abundance ranging from less than 20% to more than 50%. Between 7421-7422 and 7429-7431 shale beds completely

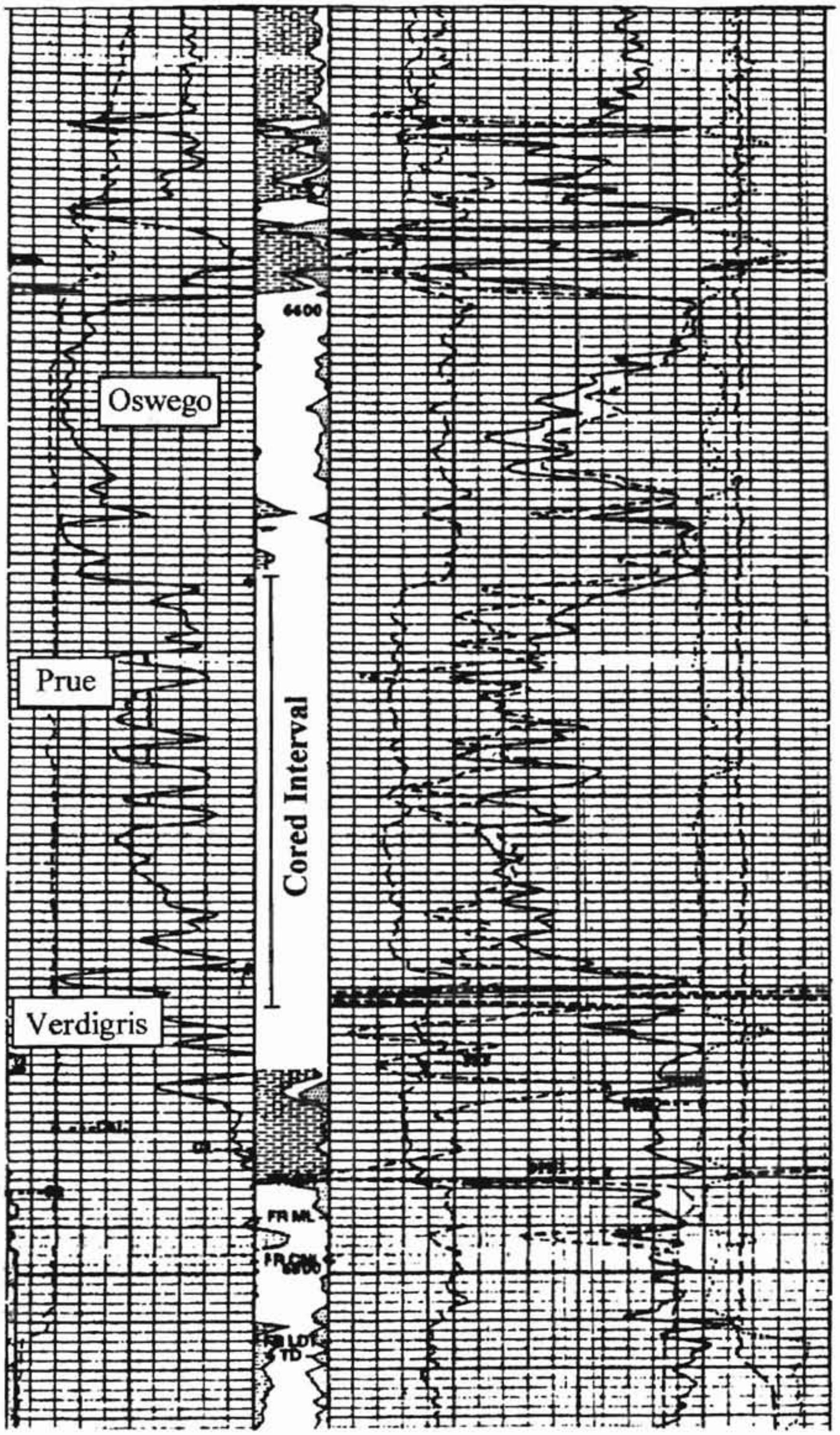


Figure 11:Neutron-Density log of the Petrocorp Booth 9D-2,Section 9, T11N R3W.

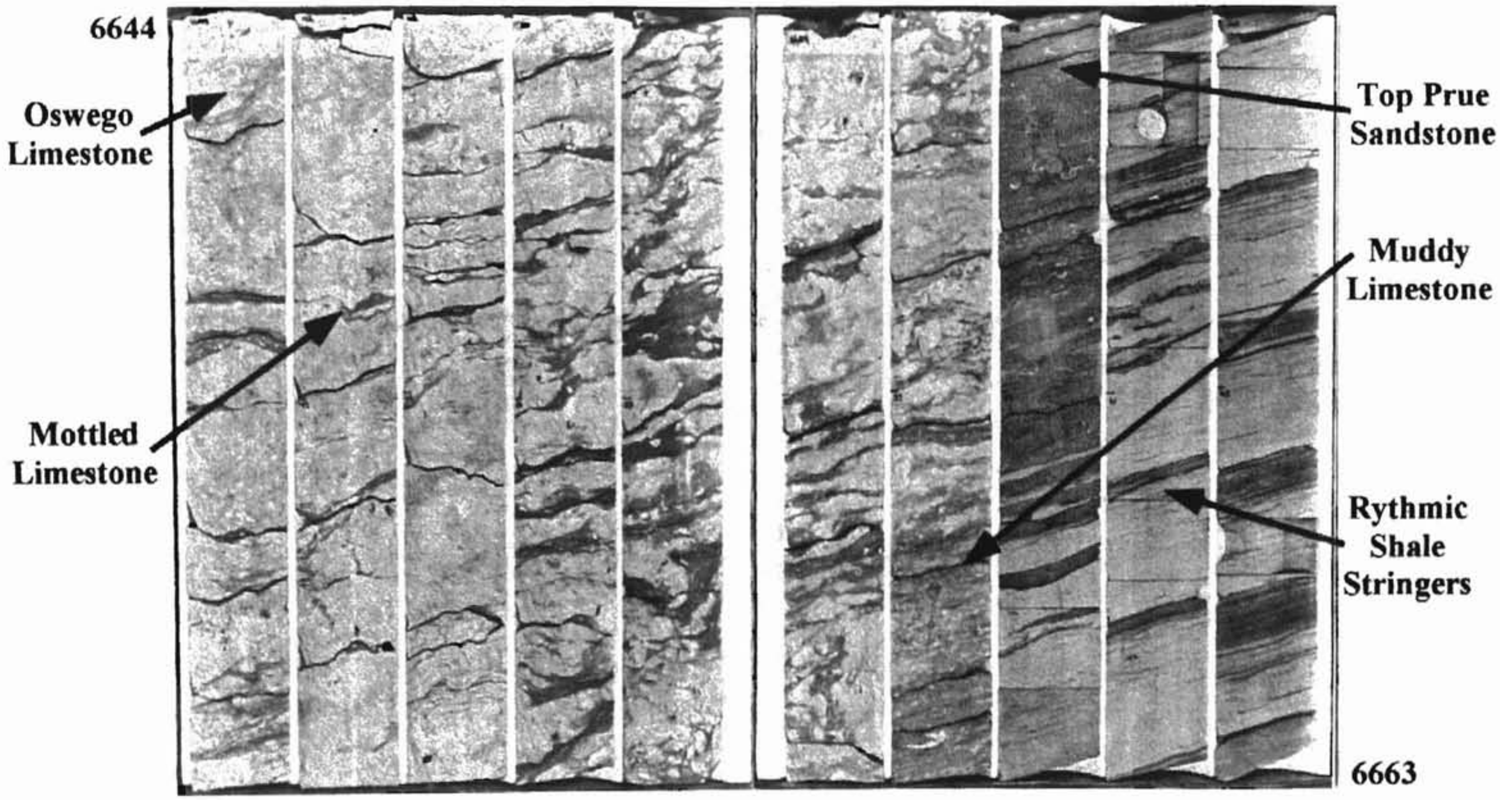


Figure 12: Photograph of Core, Petrocorp Booth 9D-2, Section 9, T11N, R3W, Interval from 6644-6663.

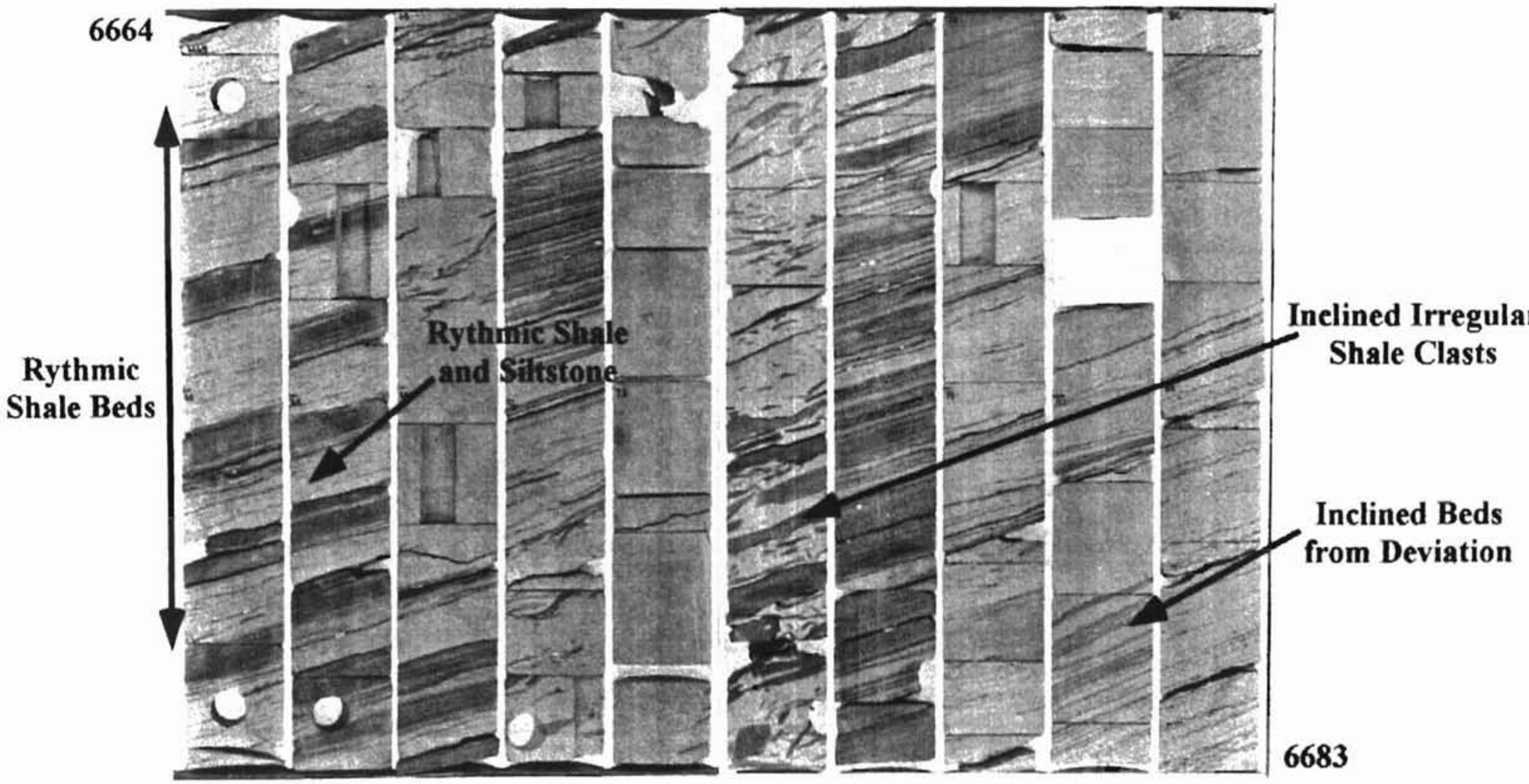


Figure 13: Photograph of Core, Petrocorp Booth 9D-2, Section 9, T11N, R3W, Interval from 6664-6683.

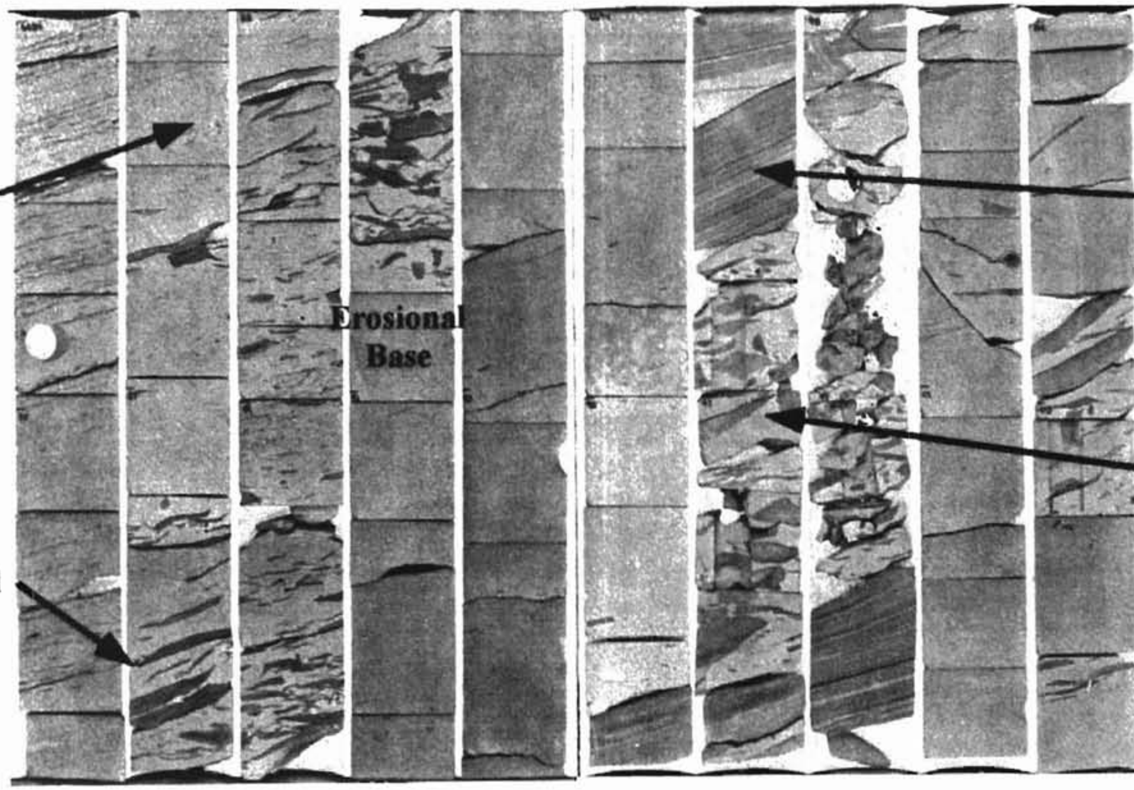


Figure 14: Photograph of Core, Petrocorp Booth 9D-2, Section 9, T11N, R3W, Interval from 6684-6703.

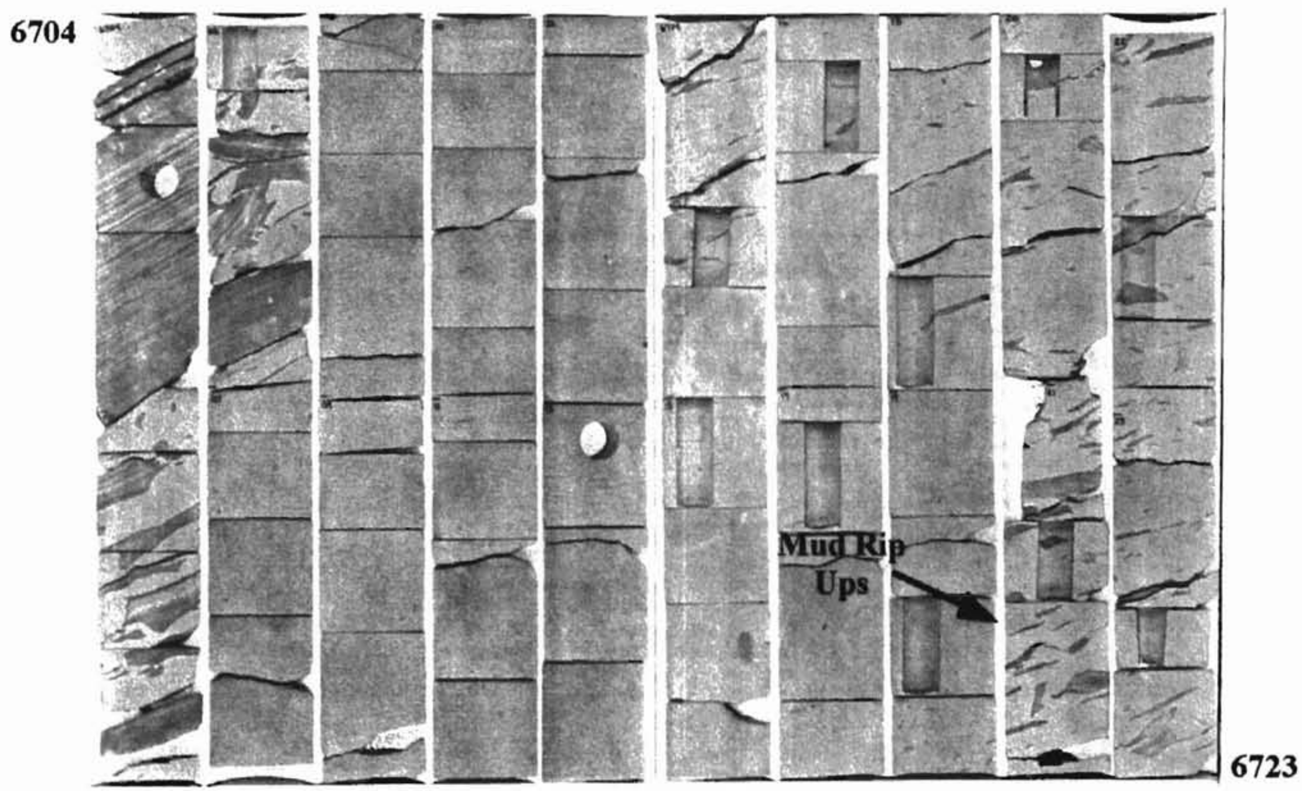


Figure 15: Photograph of Core, Petrocorp Booth 9D-2, Section 9, T11N, R3W, Interval from 6704-6723.

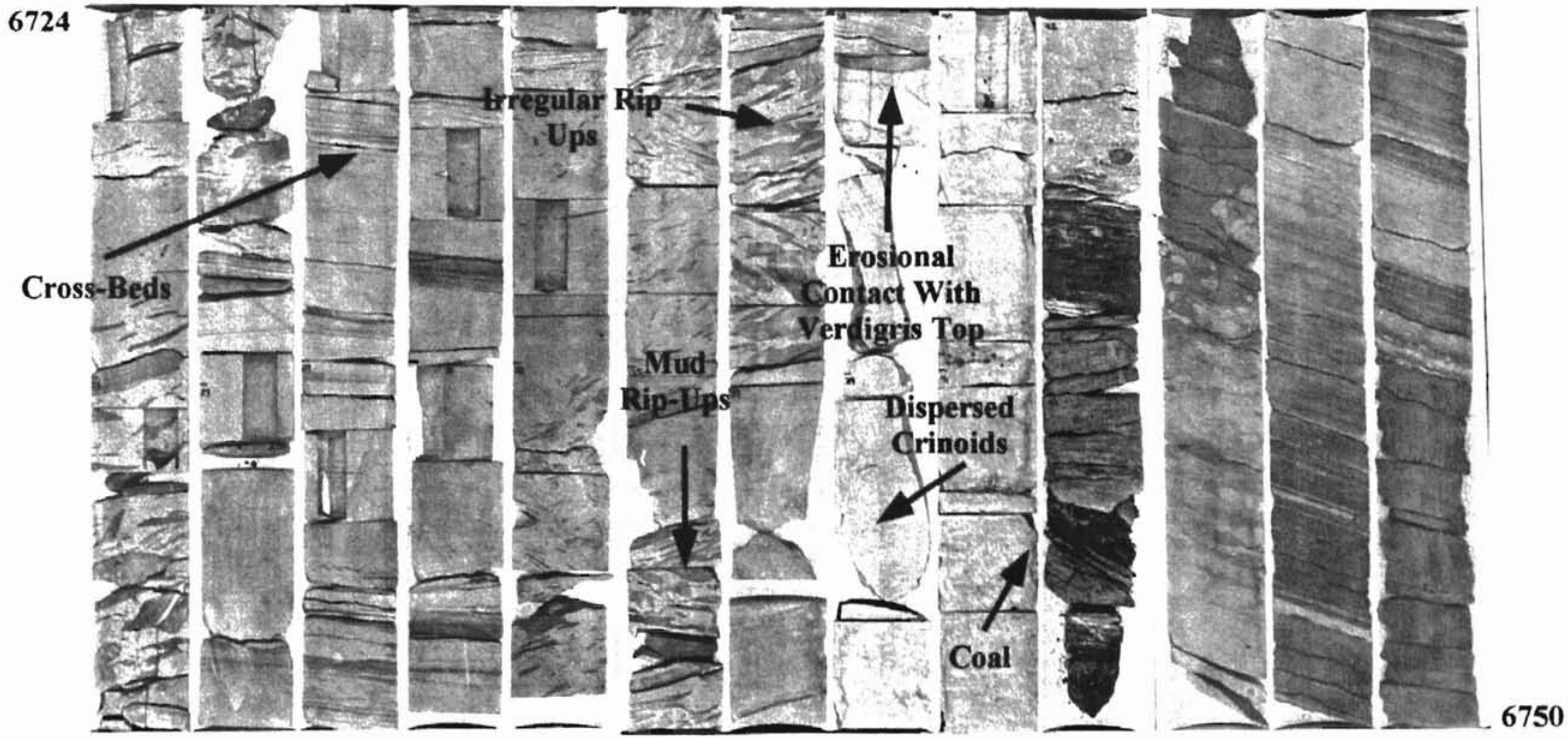


Figure 16: Photograph of Core, Petrocorp Booth 9D-2, Section 9, T11N, R3W, Interval from 6724-6750.

break up the sand. The sedimentary structures of the sandstone unit include low angle cross-bedding and thin shale laminations. Porosity measurements are 5-10%, partially resulting from the high pore-filling cement content.

Ratliff Exploration Co. Airport Trust B-33-1, Section 27, T.11N R.4W

The B-33-1 core is the smallest of the cored intervals. The cored interval in the Prue Sandstone is 22 feet in thickness from 7464-7486 feet, in the Prue Sandstone. The gamma ray logs (Figure 20) shows a gamma ray increase intermixed with shale breaks. Porosity data for this core show porosities in the 8-12% range. The Prue itself is gray, fine-grained, moderately sorted, micaceous sand. At the top of the cored interval there are some siderite clasts which are common within the Prue. The rest of the interval contains some degree of wavy-horizontal shale drapes. These drapes are obvious barriers to permeability, which degrade the sand from being good reservoir rock. Some of the shale banding is so finely and rhythmically laminated it could be interpreted as tidal. Some small-scale trough cross bedding is evident in some of the sands. In addition, near the base of the core from 7482-7482.5 is a bed of black shale.

Czar Resources Co. Osborne 1-29, Section 29, T.10N R. 5W

The final core to be examined was the Osborne well. This well is located further south and west into the basin. It contains the "cleanest" of the sands for the four cores. The cored interval is from 8615-8667 feet (Figure 22). The interval cuts the Prue, but does not penetrate the Verdigris Limestone. It had been thought that perhaps this core, being further into the basin would show a slightly marginal marine influence. This unfortunately was not clear even after study. The top of the core begins with an

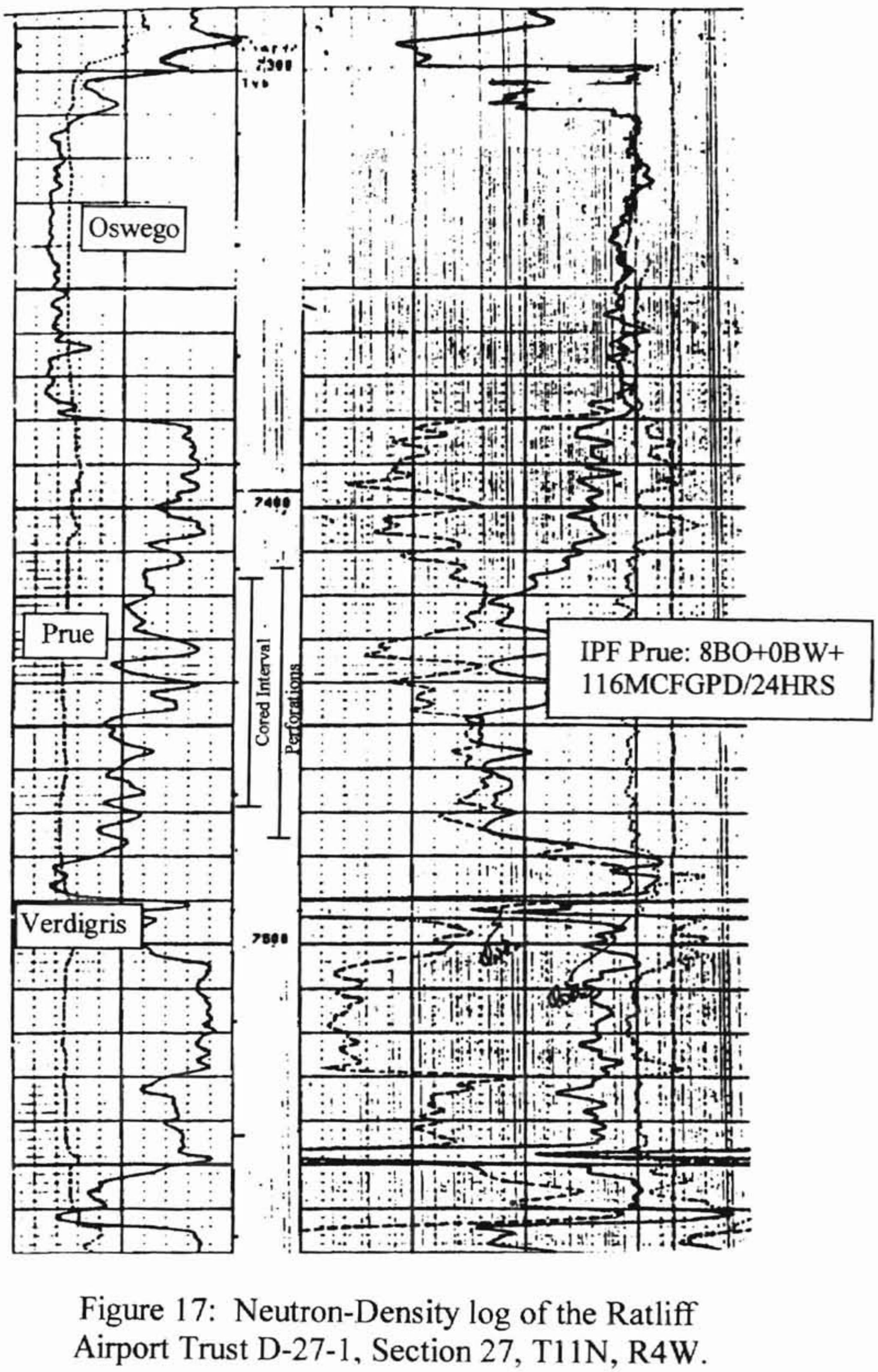


Figure 17: Neutron-Density log of the Ratliff Airport Trust D-27-1, Section 27, T11N, R4W.

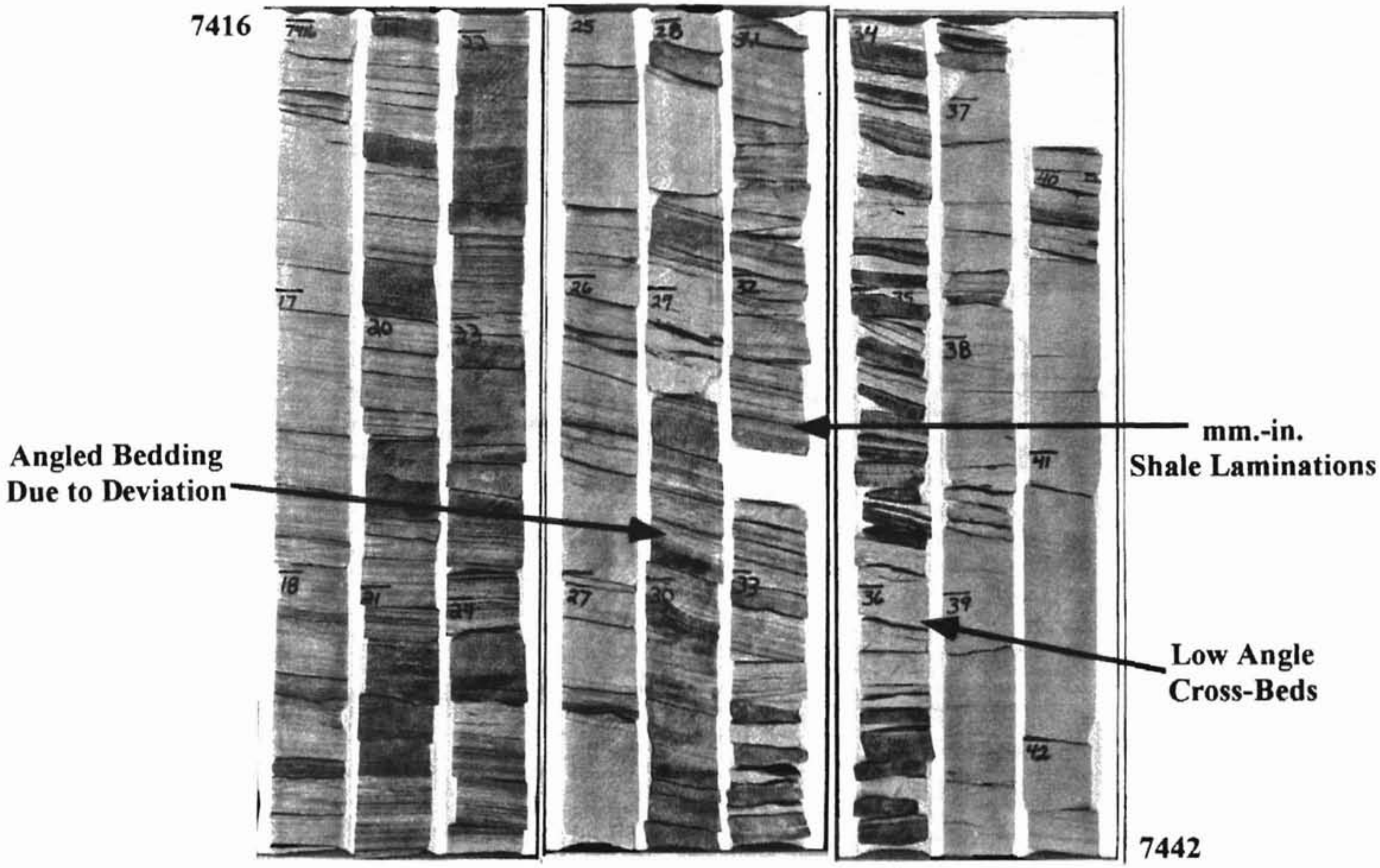
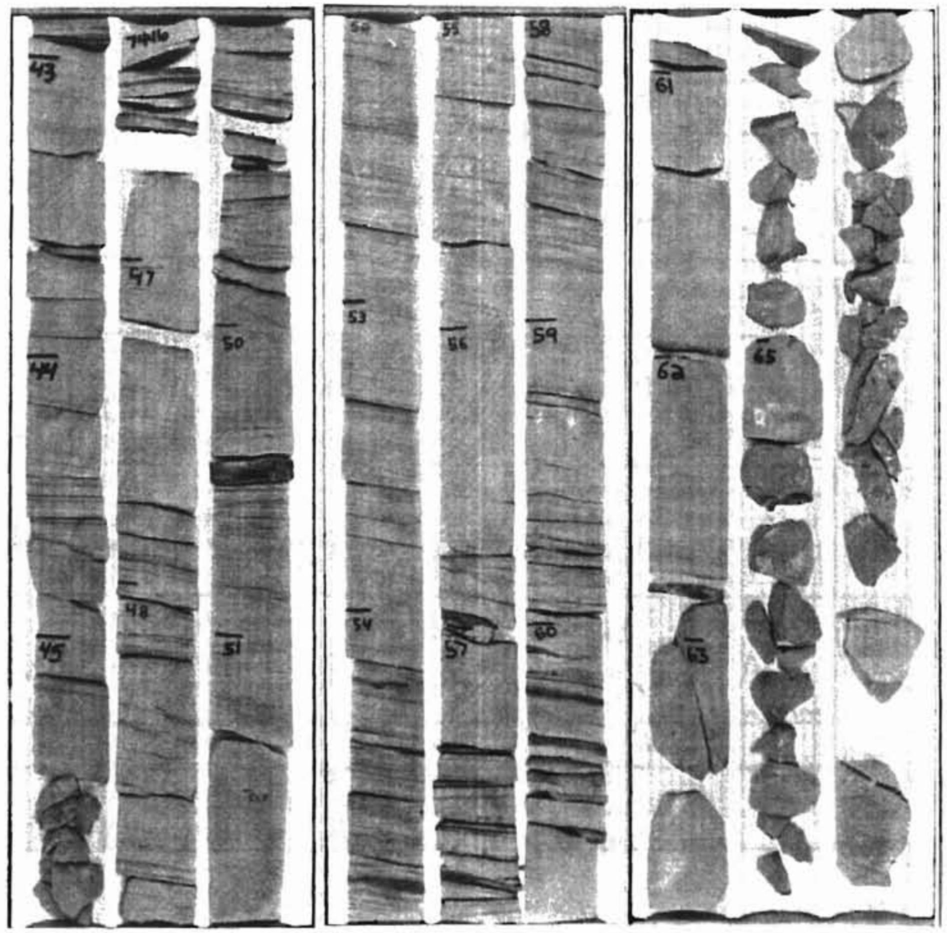


Figure 18: Photograph of Core, Ratliff Airport Trust D-27-1, Section 27, T11N, R4W, Interval from 7416-7442.

7443



7469

Figure 19: Photograph of Core, Ratliff Airport Trust D-27-1, Section 27, T11N, R4W, Interval from 7443-7469.

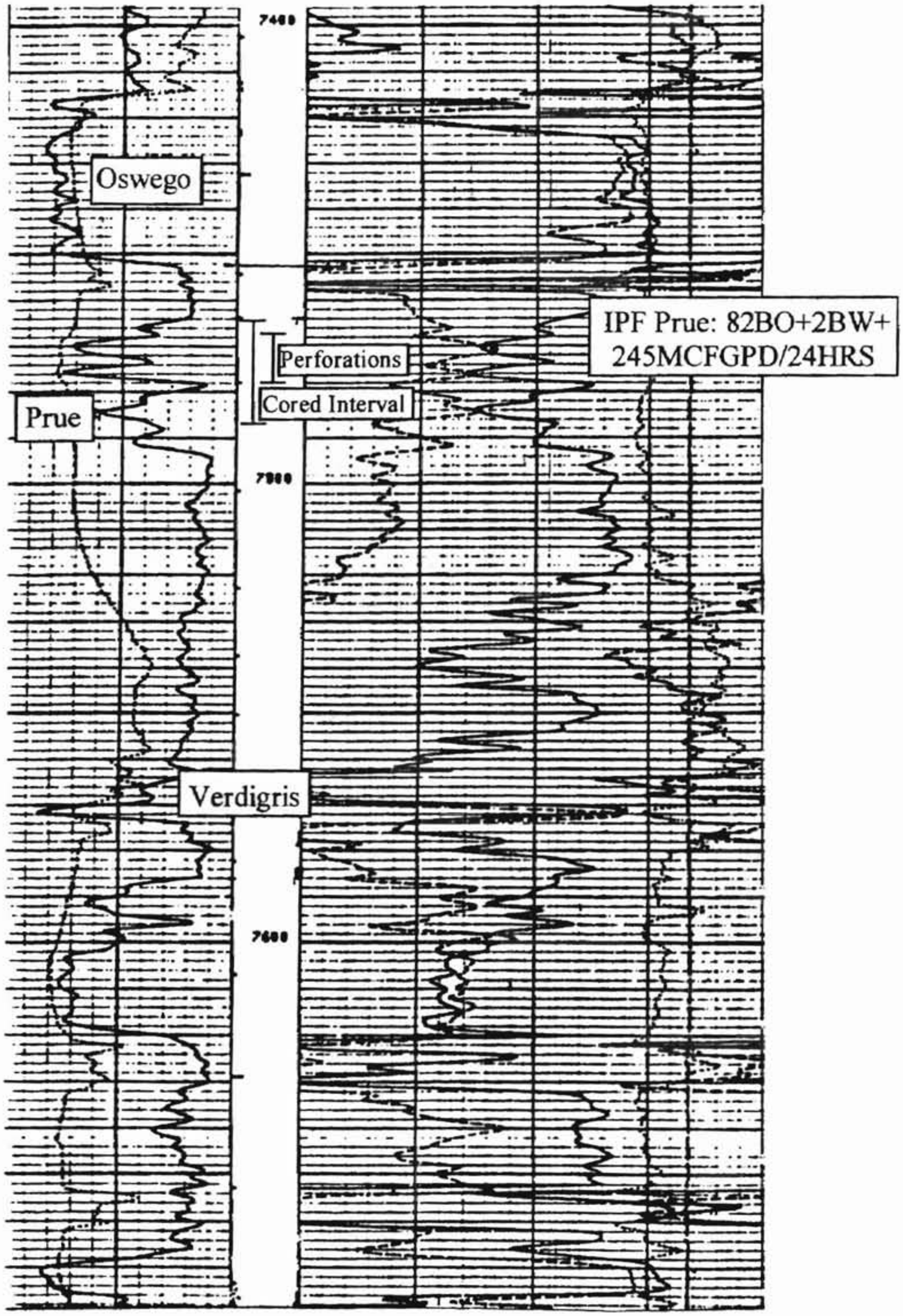


Figure 20: Neutron-Density log of the Ratliff Airport Trust B-33-1, Section 27, T11N, R4W.

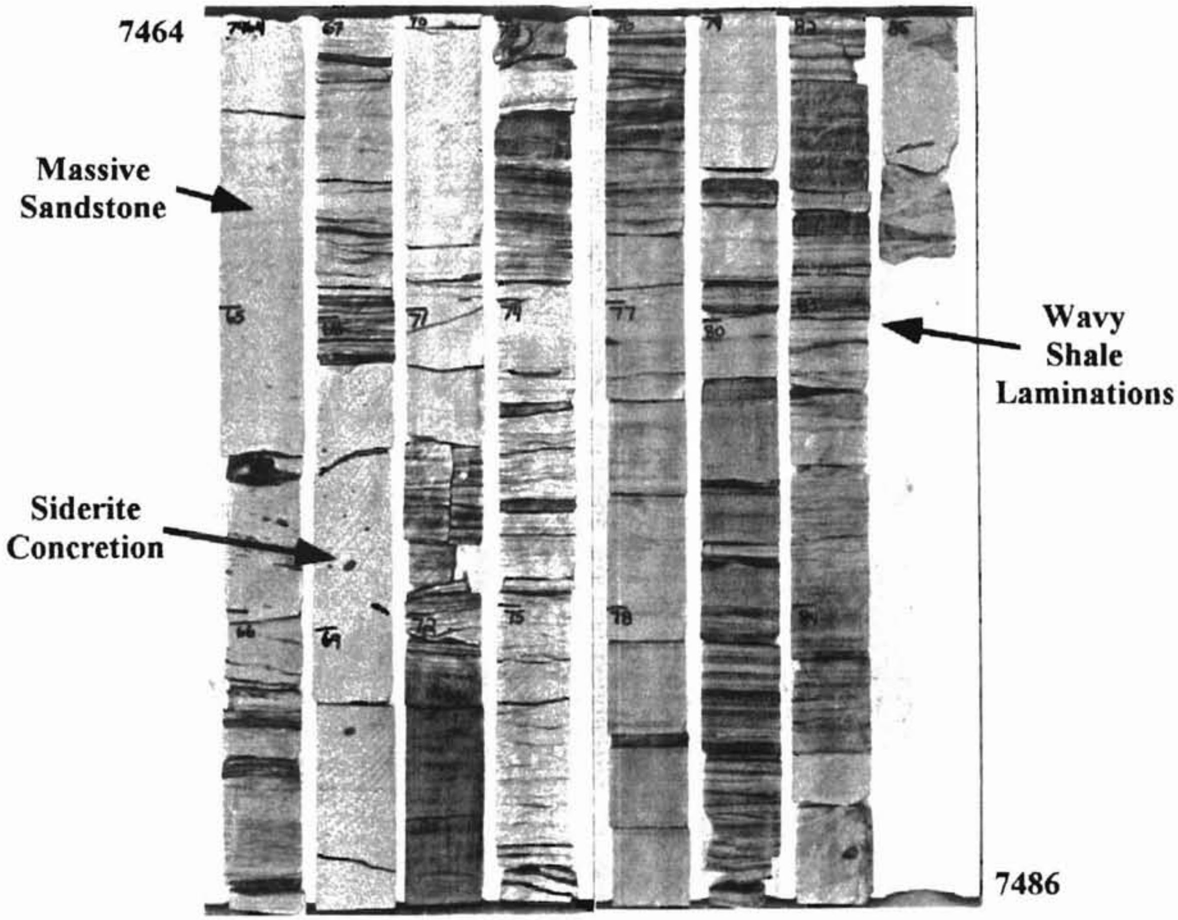


Figure 21: Photograph of Core, Ratliff Airport Trust B-33-1, Section 27, T11N, R4W,Interval from 7464-7486.

interlaminated siltstone and shale layer with siderite concretions at the base. Below this the sandstone begins with much the same character as the other cores. Some of the sands again show small-scale cross beds, and some tabular-planar bedding. The sands are interbedded by varying amounts of shale beds and stringers that lessen overall sand quality. Porosity for the Czar Osborne range from 7-10%, however the logs show higher porosities up to 18% below the core.

Cross Section Interpretations

For the purpose of this study eight Cross Sections were constructed. The locations of each of these are shown in Figure 25. The first (cross section A-A') is a regional section extending from the northeast edge of the study area to the southwest corner. The other seven cross sections are perpendicular to portions of the Prue Sandstone channels. The datum for all of the sections is the top of the Oswego Limestone. Solid lines indicate conformable contacts, whereas dashed lines indicate unconformable contacts.

The Prue Sandstone varies significantly in log character and in thickness between many of these sections. This is because the cross sections (2-8) extend from one side of the Prue channel, where sand is minimal or absent, through the channels center, and on to the other side. This was done in order to show channel geometry and the depth of incision. All cross section have a vertical scale of 2.5 inches equals 100 feet, and a horizontal scale of 1 inch equals 300 feet. The exception is cross section A-A' which has no horizontal scale.

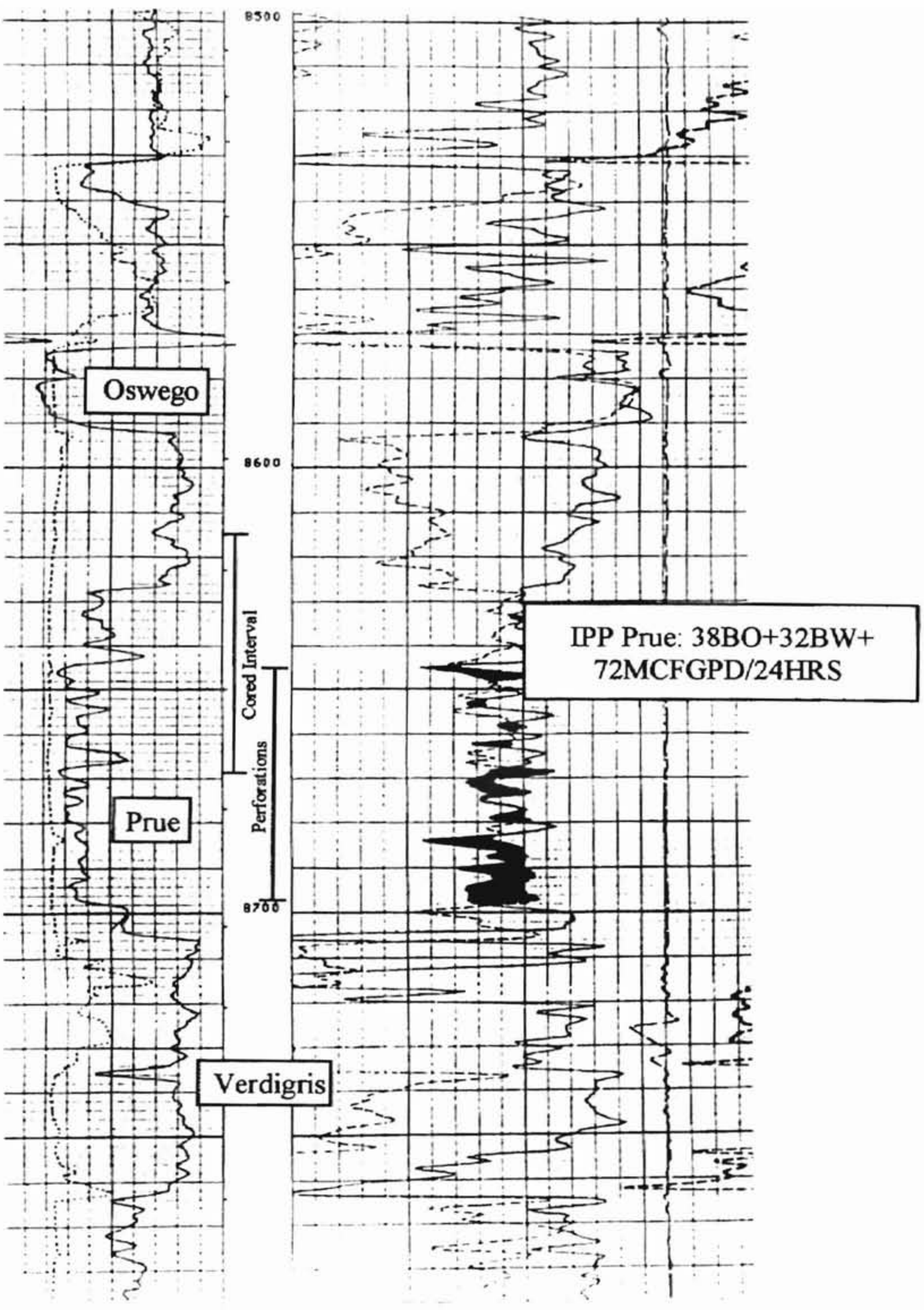


Figure 22: Neutron-Density log of the Czar Osborne 1-29,
Section 9, T10N, R5W.

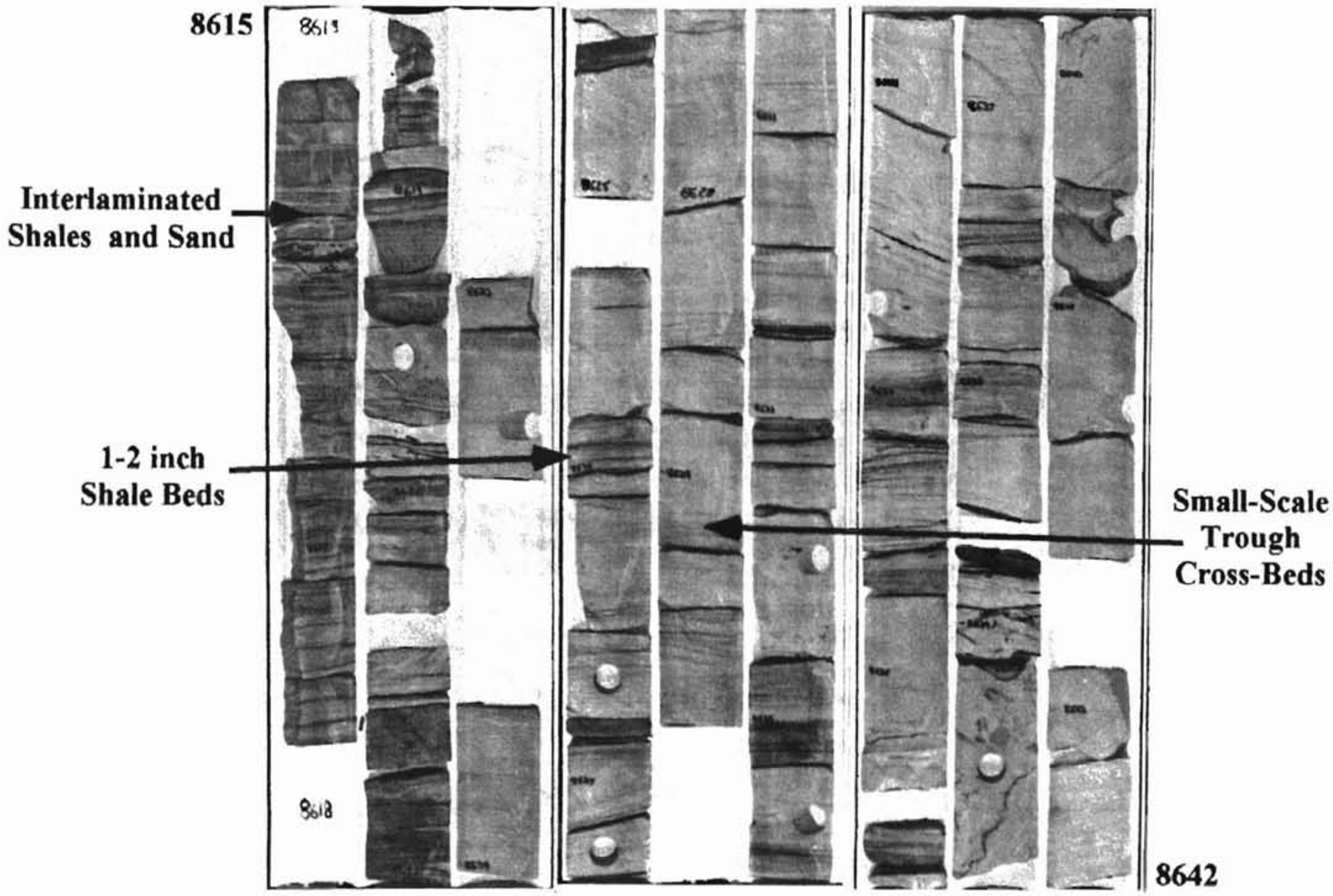


Figure 23: Photograph of Core, Czar Osborne 1-29, Section 29, T10N, R5W, Interval from 8615 to 8642 feet.

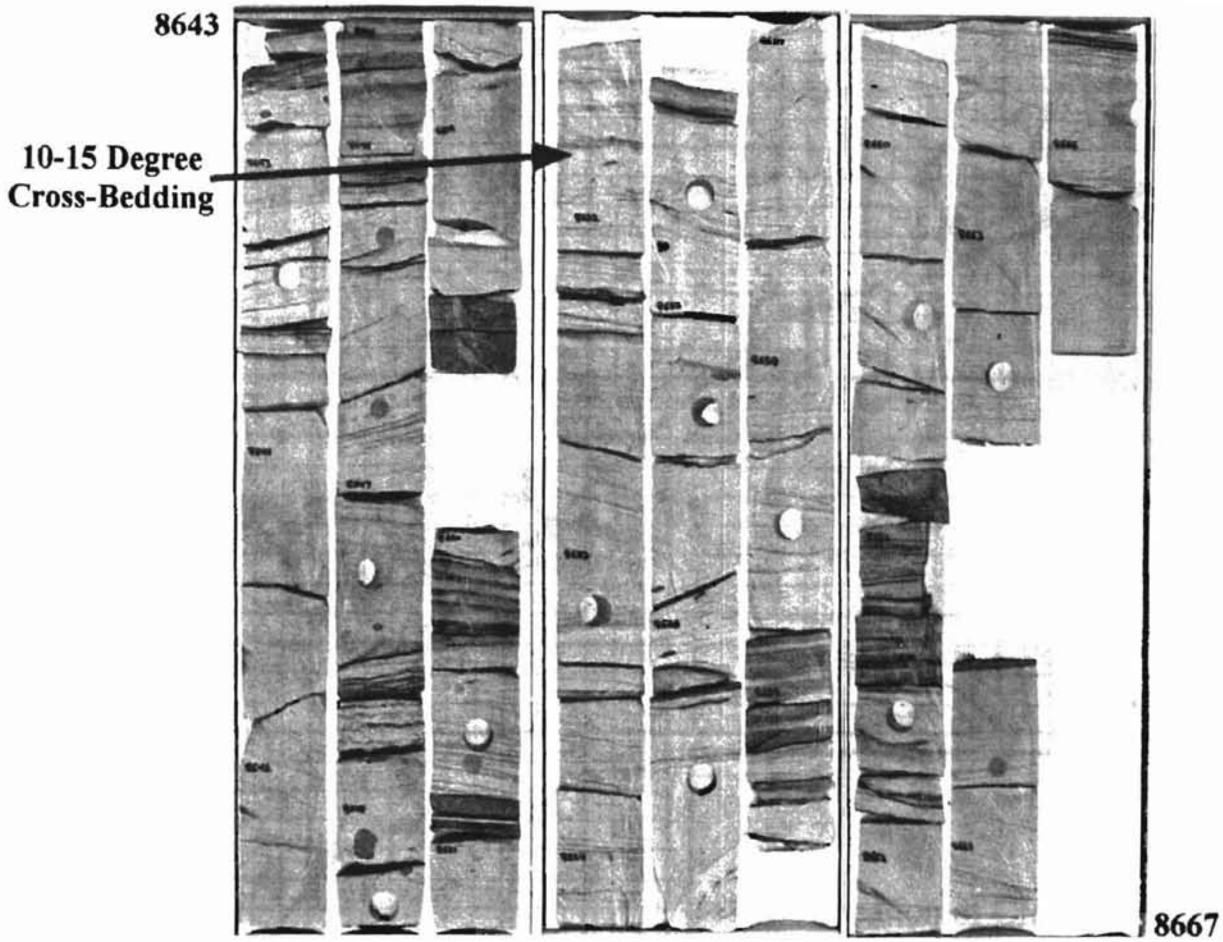


Figure 24: Photograph of Core, Czar Osborne 1-29, Section 29, T10N, R5W, Interval from 8643 to 8667 feet.

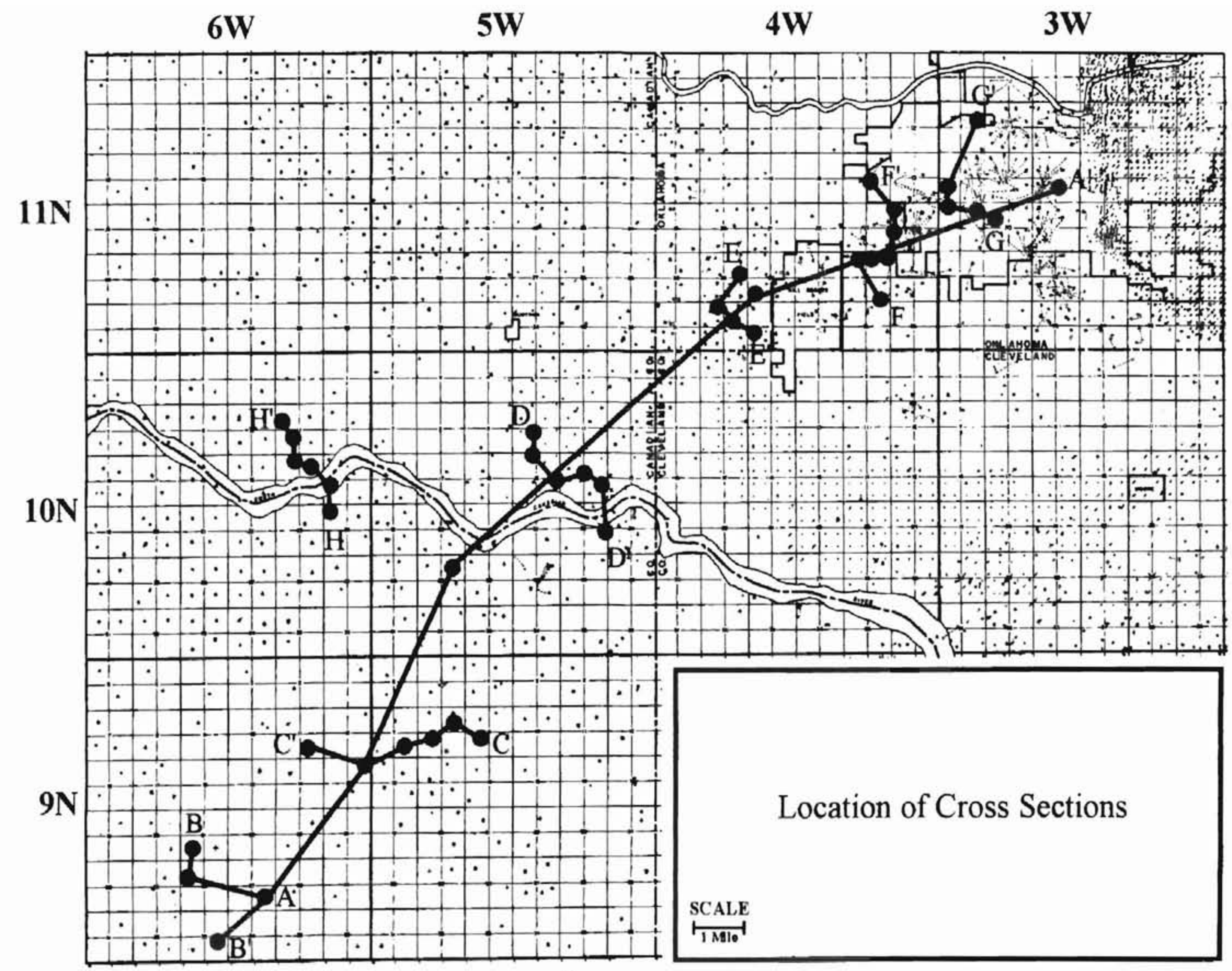

6W
5W
4W
3W
11N
10N
9N
A
A'
B
B'
C
C'
D
D'
E
E'
F
F'
G
G'
H
H'
OKLAHOMA
CLEVELAND
CANADIAN
Location of Cross Sections
SCALE
1 Mile

Figure 25

Cross Section A-A':

Cross section A-A' (Plate VII) is a regional cross section extending from the western edge of the Oklahoma City high to the far southwest corner of the study area. This stratigraphic cross section is hung on the Oswego Limestone as the datum, and shows expansion of the stratigraphic section above and below the Oswego southwestward into the Anadarko Basin. The base of the Pennsylvanian unconformity has been shown. The onlap of the lowest Pennsylvanian strata onto the Oklahoma City high can be readily seen on the section. In addition, the erosion of the underlying pre-Pennsylvanian strata onto the Oklahoma City high is also illustrated. This is well shown in Gatewood's Pre-Pennsylvanian subcrop map and pre-Pennsylvanian cross section seen in figure XX and XX. Wells were selected that show Prue channel deposition while assisting in tying the other cross section.

Cross Section B-B':

Cross section B-B' (Plate VIII) indicates variance in the Prue Sandstone's channel incision between four wells at southwest end of the major channel. It should be noted that the deepest channel incision of the Prue Sandstone is seen in the Red Rock Exploration, Orr 1-27 well. The Prue Sandstone channel characteristics include a sharp basal erosional contact into the Prue Shale. The sand has a sharp clean base with a fining (shaling) upward character as seen on the gamma ray log. This is indicative of channel deposition. The porosity within the Prue Sand on this cross section ranges from 8-12%

Cross Section C-C':

Cross section C-C' (Plate IX) is perpendicular to the channel slightly north of cross section B-B'. The Skaggs Ranch 1, Skaggs Ranch 2, and Leon 2 wells show the characteristic e-log response for the Prue interval, which has not been deeply incised. Good channel development can be seen in the other three wells in the section. Maximum Prue Sand development is seen within the Langston 1-13, which has 50 feet of gross sand, 38 feet of net, with an average of 10% porosity. The McCarthy 2-8 and Skaggs 1-7 were both completed as gas wells in the Prue Sandstone.

Cross Section D-D':

Cross section D-D' (Plate X) is also perpendicular to the Prue channel in the central portion of T10NR5W. This cross section is through the Mustang Oil field and all wells are productive in the underlying Hunton Formation. Erosion of the Verdigris Limestone is seen in the Robberson 15-2 and 14-6 wells. This is important because the Verdigris Limestone is a regional cycle-bounding marker present throughout the study area. The non-channel wells on this cross section indicate poorly developed Prue sands occurring near the top of the Prue interval. These were most likely deposited as part a delta system, which is shown on the gross Prue Sand maps. It is believed that this delta was deposited prior to the valley incision. Maximum sand is in the Robberson 15-2, where 60 feet of net and gross sand was deposited. Porosities in this well are between 12 and 14%. This log shows stacked channel sands separated by 15 feet of shale.

only two minor sands. Maximum sand thickness of 27 feet net and gross with 10-12% porosity is seen in the Garr 2-14.

CHAPTER 5

DEPOSITIONAL MODELS

Incised-Valley Fill Background

The recognition and study of incised-valley's has a history dating more than 50 years, although no clear explanation has been presented for the formation of the valley and its subsequent filling. In 1990 Van Wagoner et al, defined incised-valley fills as entrenched fluvial system that have extended their valleys landward by headwater migration of erosion into previously unchannelized terrain and basinward by downcutting into recently deposited marine sediments below, in response to a relative fall in sea level. In 1994, Zaitlin et al, defined the term "incised valley" as a "fluvially-eroded, elongate topographic low that is typically larger than a single channel form, and is characterized by an abrupt seaward shift of depositional facies across a regionally mappable sequence boundary at its base. According to Zaitlin et al, the fill typically begins to accumulate in the eroded valley during the next base level rise and may contain deposits of the following highstand and subsequent sea level cycles. The next logical question becomes, what requirements must be present in order to be classified an "incised-valley"?

In addition to the many definitions, rough lists of requirements for incised-valley fill designations have also been published. Dalrymple (1997) constructed a list of requirements including (1) truncation of regional markers. (2) disconformity surface at base of a valley associated with a surface of regional extent. (3) landward shift of facies across the base of a valley. (4) onlap of walls of incision by valley filling rocks, and finally, (5) the overall valley is larger than a single channel. (Tillman, and Archer, 1999). Van Wagoner also constructed a similar list of fundamental characteristics. These characteristics for incised-valley fill complexes include: (1) the valley is a negative or erosional paleogeographic feature, (2) the base of the valley truncates underlying strata, (3) The base and the walls of the incised-valley fill system represent a sequence boundary that may correlate to a hiatal surface in interfluvial areas, and (4) the base of the valley fill exhibits a basinward shift in facies, (5) depositional markers within the fill will onlap onto the valley walls.

There are two major physiographic types of incised-valley fill systems that are recognized as being caused due to a lowering of sea level. They are the piedmont incised-valley system, and the coastal plain incised-valley system (Zaitlin et al. 1994) (Figure 26). Piedmont incised-valley systems are elongated fluvial systems that have their headwaters in a mountain hinterland (Zaitlin et al, 1994). At some point these systems cross a "fall line", which is a point in the valley where a significant gradient change occurs. They are commonly longer lived and contain coarser-grained, immature fluvial sediments then do coastal plain systems (Zaitlin et al, 1994). The coastal plain systems are confined to the low-gradient coastal plains and do not cross a fall line. These systems contain finer-grained, more mature sediments eroded and recycled from coastal plain sediments (Zaitlin et al, 1994). The fill of both types of incised valleys can further be described as being either compound or simple (Zaitlin et al, 1994)(Figure 27). A compound fill results from multiple cycles of incision and deposition resulting from many changes in sea level and multiple reoccupations of the same channel system. The other, a simple fill, involves only one episode of incision and deposition (Zaitlin et al, 1994).

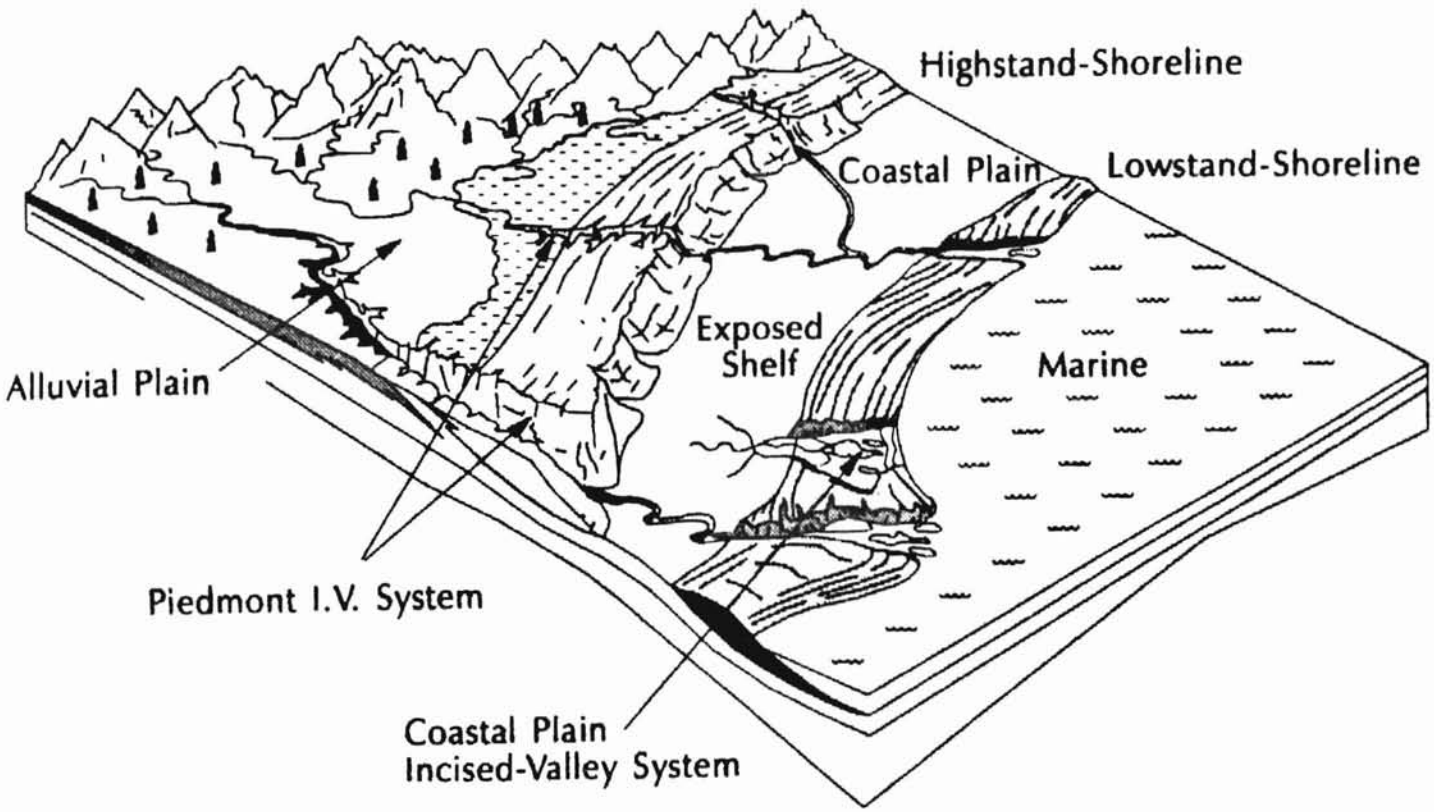


Figure 26: Schmatic view of a coastal zone showing the distinction between piedmont and coastal plain incised-valley systems (Zaitlin, and others, 1994, p. 51).

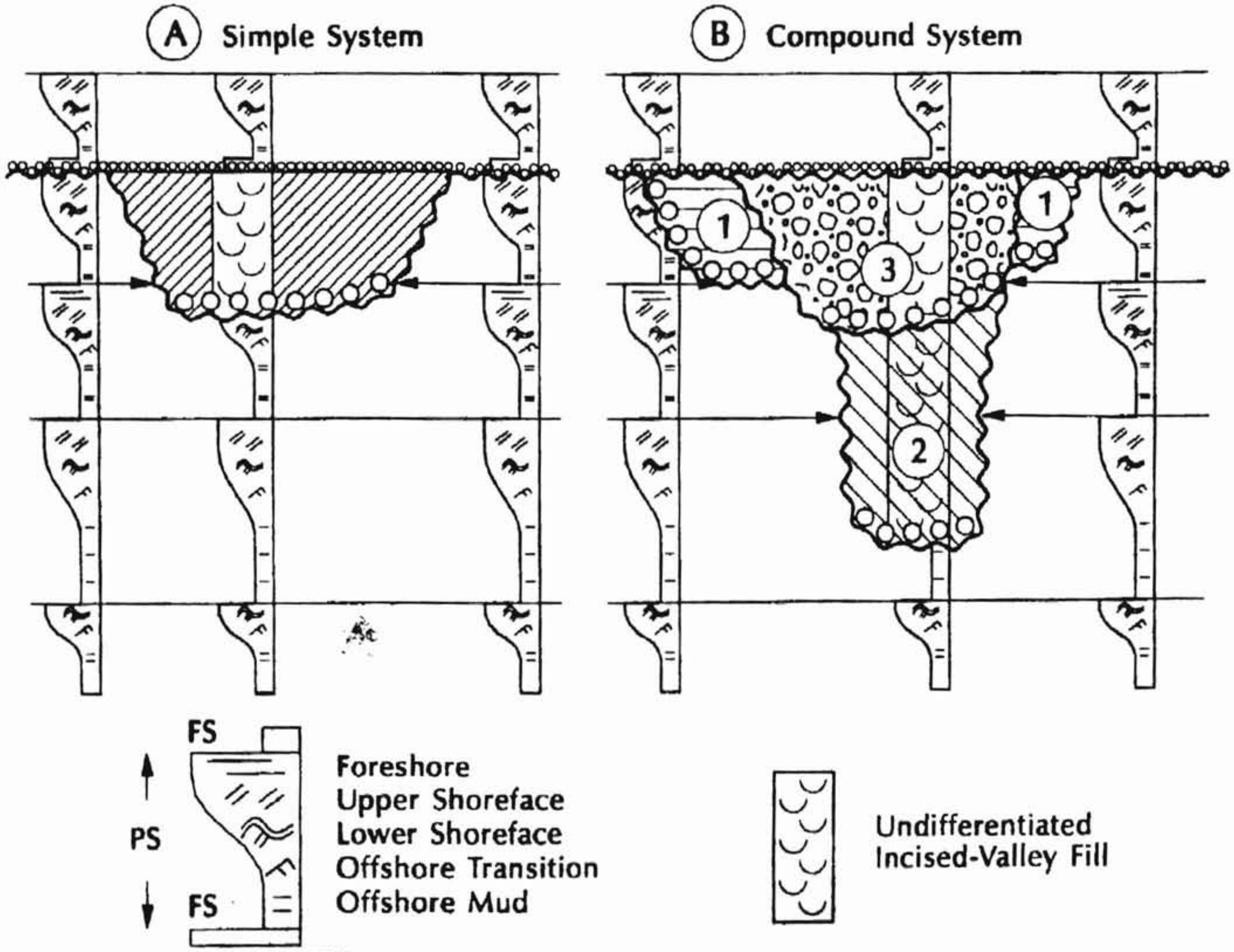


Figure 27: A) Simple incised-valley fill B) Compound incised-valley fill (1,2, and 3 represent different incised-valley fills) (Zaitlin, and others, 1994, p. 52).

When the sea reaches its lowest level and begins rising, deposition begins in the flooded estuary. The fact that this may occur gradually causes different processes to predominate different parts of the fluvial system. For this reason Zaitlin et al, divided the incised valley system was divided further into three longitudinal segments.

Segment 1 is known as the outer incised-valley. This is the seaward component of the system and is characterized by backstepping of fluvial and estuarine deposits overlain by transgressive marine sands and shelf muds (Zaitlin et al, 1994). During the lowstand phase, sediment from the valley is by-passed to the mouth of the valley where it is deposited as either a lowstand delta or as prograding shoreline (Zaitlin et al, 1994). This segment is the first covered by the sea and therefore contains a transgressive succession of facies overlain by marine sands and shales (Zaitlin et al, 1994)

Segment 2 is known as the middle incised-valley. This is located in the middle reach of the transgressive incised-valley complex and is characterized by a drowned valley estuarine fill that develops during maximum transgression (Zaitlin et al, 1994). It overlies a lowstand to trangressive succession of fluvial to estuarine deposits like those in segment 1 (Zaitlin, and others, 1994).

Segment 3 is the innermost incised-valley. It lies between the transgressive marine/estuarine limit and the landward end of incision (Zaitlin et al, 1994). This segment has a wide variation in length ranging from 10-100's of Kilometers long (Zaitlin et al, 1994). The fill of this segment is fluvial and may exhibit a variety of channel morphologies, some of which are braided, anastomosing, straight and, meandering (Zaitlin et al, 1994).

Zaitlin summarizes this well by saying, "the fill of an incised valley may be extremely complex, no single facies succession (upward-coarsening, blocky, etc.) occurs along the entire length of the system.

Channel Sandstones

As stated earlier the depositional environment of the Prue Sandstone has commonly been called a "Channel Sandstone". In this section, the term channel sandstone will be defined, and we will look at characteristics and tools that make channel sands more identifiable in the subsurface. This effort will be made in an order to better understand and reinforce the facies interpretation of the Prue Sandstone.

A channel sandstone is defined as a "a sandstone deposited in a stream bed or other channel eroded into the underlying beds" (Bates and Jackson, 1984). When dealing with a channel sand in the subsurface a geologist must use many methods to check his interpretation. Electric logs are an essential tool for determining geometry, aerial extent and, obviously wireline well log curve shapes (Figure 28). Such logs are also used to construct maps and make cross sections.

The construction of a structural map made on a marker bed above or below the sandstone is a useful tool for recognizing paleodrainage patterns within the unit. This does require a disconformity surface at the base, which has enough topography to show difference in total isopach thickness. In addition, the construction of an isopach map of the strata between a marker bed above the channel fill and the base of the channel provides an approximation of paleotopography (Busch and Link, 1985). In order to

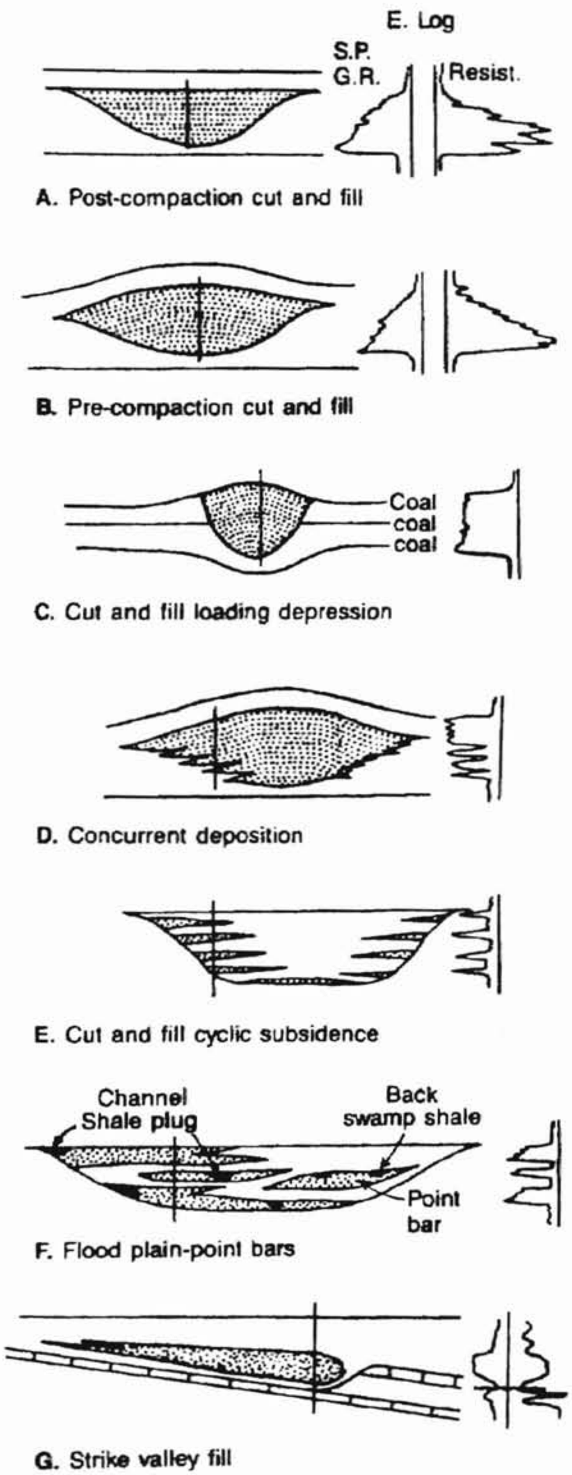


Figure 28: Schematic cross sections of seven types of channel fill (Modified after Busch, 1985).

recognize channel sands in the subsurface, we must understand their geometry. Channel sands possess a significant feature which is important when trying to recognize them. This is their downward thickening relative to one or more time marker beds (Busch and Link, 1985). Stratigraphic cross sections should be made perpendicular to the lenticular sand body to show geometry. Hanging these cross sections on the same time marker will show relative changes in sediment thicknesses.

Prue Sandstone

Zaitlin, Dalrymple, and Boyd (1994) define an incised valley system as a "fluvially-eroded topographic low that is typically larger than a single channel form, and is characterized by an abrupt shift of depositional facies across a regionally mappable sequence boundary at its base. The fill typically begins to accumulate during the next base-level rise, and may contain deposits of the following highstand and subsequent sea-level cycles." Portions of the Prue Sandstone within the study area meet the classification requirements for an incised-valley fill system. As stated earlier within the study area the Prue truncates a regional marker, this being the Verdigris Limestone. The valley is also a negative, erosional paleogeographic feature. This can be clearly seen from the numerous cross sections that were constructed across the channel. The Booth 9D-2 core also shows the erosional characteristics within the Prue Interval, because it contains numerous rip-up mud clasts, which represent older rock. The Prue complex within the study area is also larger than a single channel, which is seen on both the net and gross Prue Sandstone plates. Finally the base of the valley is a surface of regional extent and does not just occur as a local phenomenon.

The Prue system in the study area shows the characteristics of a coastal plain simple fill system. The sediment present is fine grained and mature, and was deposited on a low-moderate gradient with the absence of a definitive "fall line". The presence of stacked sand bodies indicates multiple incisions, but no evidence of sea level changes can be seen so it must be assumed that this is a simple fill system.

CHAPTER 6

PETROLEUM GEOLOGY

Oil production was first found in the Prue Sandstone within the study area during the early development of the Oklahoma City Field. This occurred within the incised-valley complex in the portions of T11NR3W, principally in sections 25,26,35,36. McGee and Clawson (1932) discussed the Prue Sand in this area in their paper Geology and Development of the Oklahoma City Field. This productive area was subsequently unitized and waterflooded by Cities Service in the early 1970's. Although several Prue Sands were tested regionally, no further significant production was found until 1982 with the discovery of the Wheatland Field under the Will Roger Airport in T11NR4W.

After the Wheatland discovery, development attempted to tie the Prue incised-valley fill back to the Oklahoma City Field and production was eventually put on line along a 9-mile northeast trend within the complex. Three waterfloods are currently operating within this area. Sections 28,29,31,32, and 33 of T11NR4W have been unitized by Marathon Petroleum as the Wheatland Unit (Plate XV). Prior to unitization in 1989 the unit had cumulative production of 2,274,000 barrels of oil and 11 BCF of gas. Post-unitization, the field has produced another 953,000 barrels of oil and 1.1 BCF of additional gas.

In 1993 Marathon unitized parts of section 13,14,22,23,24,25,26, and 27 T11NR4W as the Will Rogers Unit. Prior to unitization in 1993 this unit had cumulative production of 2,896,000 barrels of oil and 18.7 BCF of gas. Post-unitization the field has produced an additional 1,432,000 barrels and 1.3 BCF of gas. The Southwest Oklahoma

City Field was discovered in 1988 and later unitized in 1997. The unit covers portions of sections 8,9,16,17,18 of 11NR3W and has produced 2,776,000 barrels of oil, and 17.4 BCF of gas out of the Prue Sandstone.

Between Wheatland and the southwest portion of T10NR5W minor oil production from the Prue has been found. During the late 1980's and early 1990's development of a Mississippian gas field in T10NR6W, T10NR5W, and T9NR5W encountered Prue Sandstones. Occasionally these were completed and commingled with the Mississippian production. Southwest of Section 29, T10NR5W all production from the Prue is gas, with a small amount of oil. Northeast of this area the Prue production is primarily oil with associated gas. Prue production in the gas producing areas cannot be accurately determined due to its commingling with multiple zones.

The Prue Sandstones trapping mechanism is a combination of both regional structure and stratigraphy. Southwest of the Oklahoma City Field the Prue incised-valley sands are not water bearing. However, on the east downthrown side of the Oklahoma City fault the Prue incised-valley sand is found wet and non-productive. There are many stratigraphic traps within the incised-valley due to the lenticular nature of individual sand members, but each trap is hydrocarbon bearing. Sand/shale ratios vary drastically within the incised complex. The study found that the porosity increased within the Prue incised-valley fills from a low of 8% in the southwest corner of the study area to a high of 16% near the Oklahoma City Field. Several minor traps with poor production are found within the delta associated sands outside of the incised-valley.

CHAPTER 7

SUMMARY AND CONCLUSIONS

The Prue Sandstone shows two distinctly different lithofacies within the study area. The combined use of well logs, and more importantly the use of cores greatly assisted in this determination. The study indicates that the basal part of the Prue Interval was deposited around the Oklahoma City area in a highstand delta front sequence (Figure 29). Subsequent sea level drop allowed for development of a major incised-valley channel to form from the northeast corner of the study area extending to the southwest. The subsequent valley formation eroded the underlying highstand delta sequence from the interval along the channel trend. Erosion was deep enough in places to truncate the Verdigris Limestone, which acts as a marine transgressive cycle-bounding marker in the area. A later rise in sea level backfilled the incised-valley with sands and shales. The sands accumulated up to 80 feet thick, and have porosities as high as 18%. The porosities of the Prue increase in an updip direction possibly indicating a higher energy environment, with less shaley sand. The isopach map from the Base Oswego-Top Verdigris gives insight into the paleotopography that was present when the Prue channel was backfilled. In addition this map shows a "drape effect" over the sandstone. This was interpreted as being caused by differential compaction between the sandstone and shales within the interval. Another map that was useful in defining the incised channel's areal extent was the Base Incision-Top Verdigris map. This map was used to show channel cut, even when the channel was filled with mud.

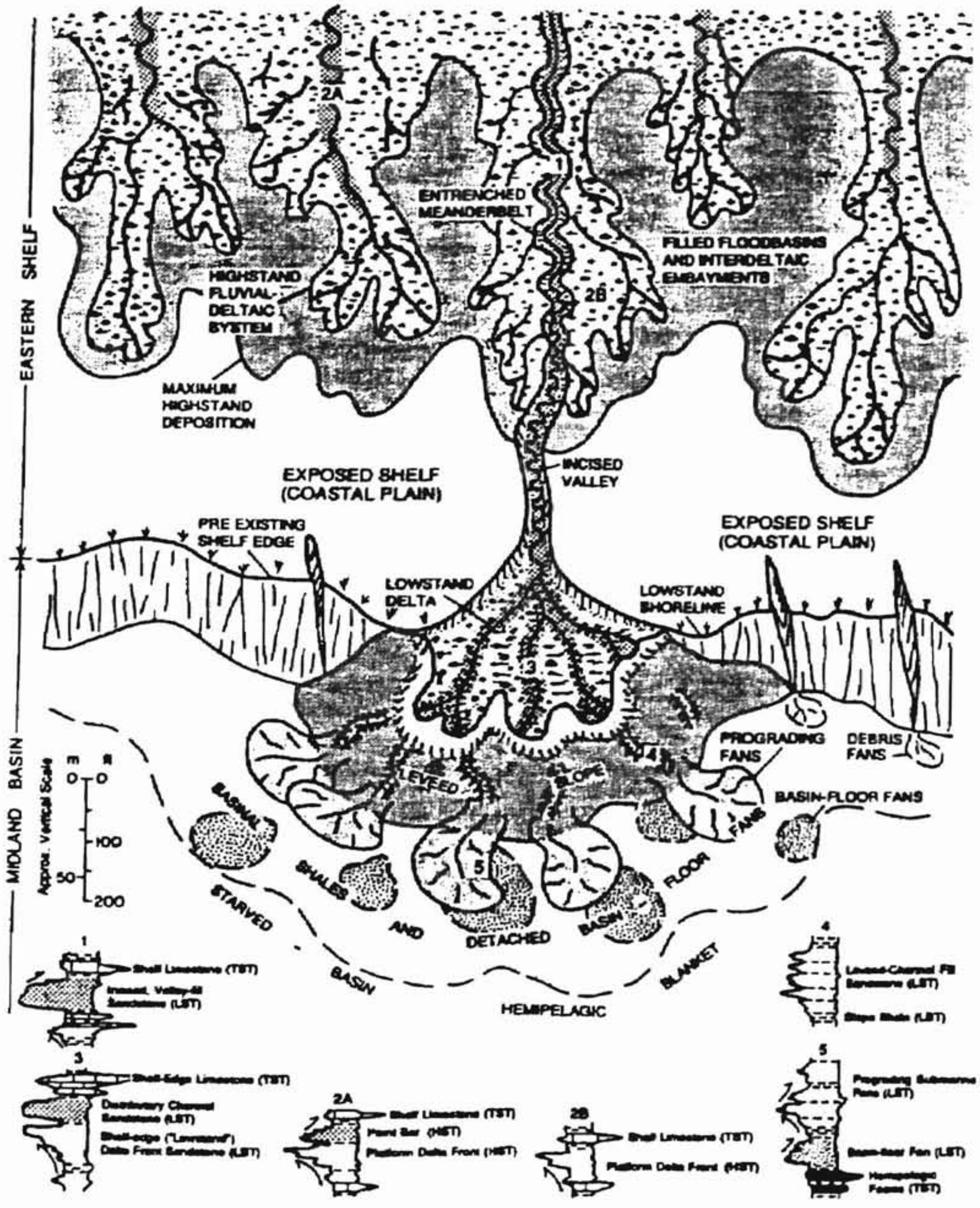


Figure 29: Depositional systems tracts-highstand system tract (HST), lowstand system tract (LST), transgressive system tract (TST), at maximum progradation of terrigenous clastic systems. Representative logs illustrate facies within tracts (Brown, and others, 1990, p. 47).

The Prue's incised valley-fill complex is productive of oil and gas in many fields within the study area, thus making it a target for continued exploration. The incised valley fill model documented here could be successfully applied to many of the sandstone intervals within the Pennsylvanian System (Figure 30).

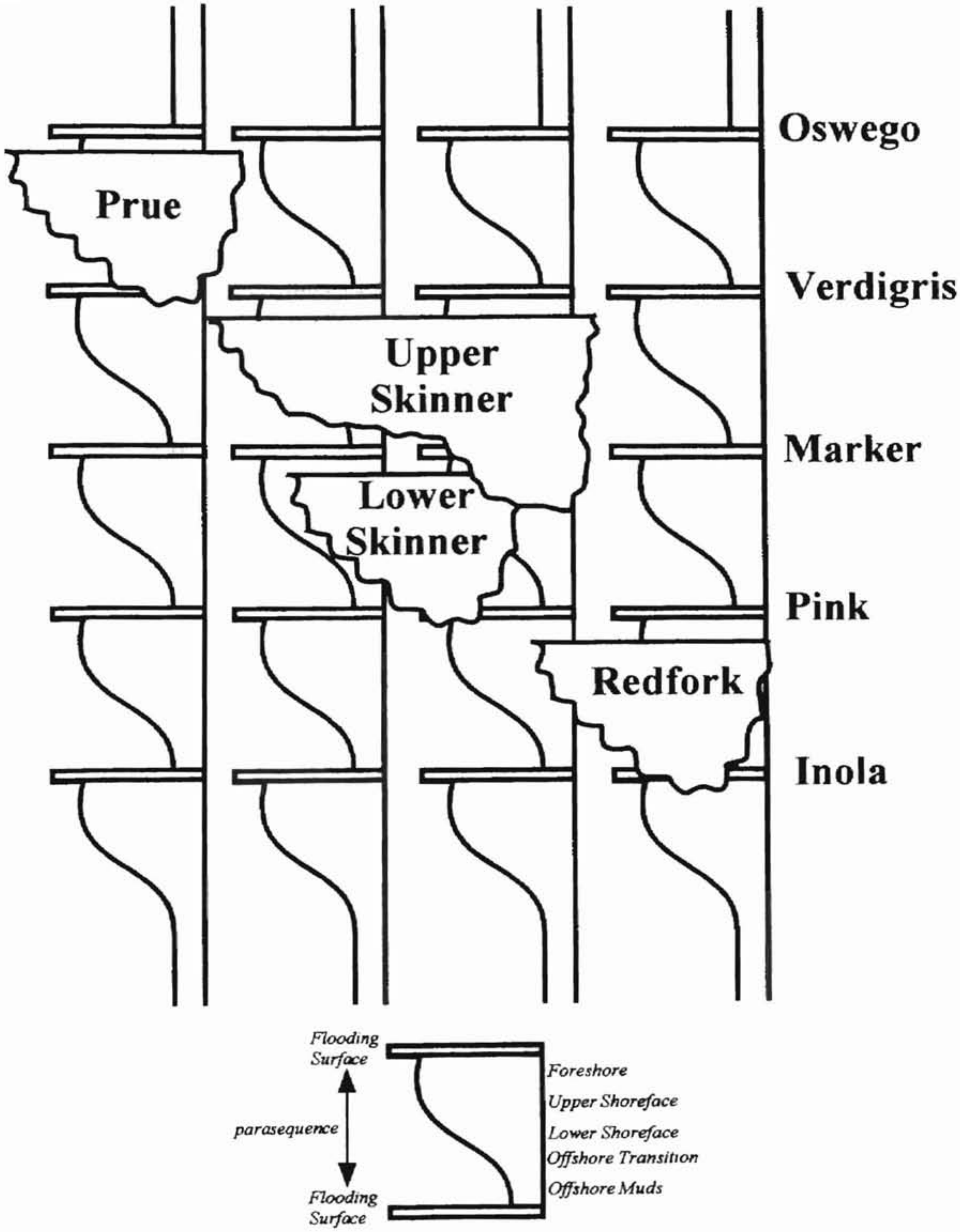


Figure 30: Schematic diagram illustrating incised valley systems using Oklahoma stratigraphic nomenclature (modified after Zaitlin, and others, 1994, p.50).

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APPENDIXES

APPENDIX A

WELL LOG DATA

ACRONYMS

API: American Petroleum Institute Number

TD: Total Depth

KB: Kelly Bushing (Datum')

TO: Top Oswego

TOS: Top Oswego (subsea)

BO: Base Oswego

BOS: Base Oswego (subsea)

TV: Top Verdigris

TVS: Top Verdigris (subsea)

ISO: Interval Isopach (Base Oswego-Top Verdigris)

TP: Top Prue

TPS: Top Prue (subsea)

BP: Base of Prue (only applicable where channel is shown)

CHI: Channel Isopach (Base Channel-Top Verdigris)

SSI: Sandstone Isolith Value

SHI: Shale Isolith Value

GS: Gross Prue Sandstone Value

NT: Net Prue Sandstone Value

DPEN: Depositional Environment Interpretations from Well Log Character

COM: Comments (net/gross sand values-production)

ER: Eroded Unit

9N5W

API	Header Information	Legal Description	TD	KB	TO	TOS	BO	BOS	TV	TVS	ISO	TP	TPS	BP	CHI	SSI	SHI	GS	NT	DPEN	COM
3505121533	Hamby 1-1	Sec. 1 SENWSE	9430	1337	8485	-7148	8498	-7161	8615	-7278	117	8505	-7168			2	115	2	0	Bar	
3505120357	Hames 1-1	Sec. 1 CSW	9025	1309	8516	-7207	8527	-7218	8648	-7339	121	8540	-7231			4	117	4	0	Bar	
3505120728	Bessie L Hamby 33-1	Sec. 1 N/2 S/2 NW SE	9518	1331	8493	-7162	8502	-7171	8620	-7289	118	8510	-7179			8	112	6	0	Bar	
3505120303	Plumlee Unit 1	Sec. 2 SWSWNESW	9080	1302	8579	-7277	8588	-7286	8710	-7408	122	8599	-7297			2	120	2	0	Bar	
3505120206	Engelke 1	Sec. 3 CSWNE	10568	1269	8586	-7317	8596	-7327	8723	-7454	127	8610	-7341			0	127	0	0		
3505121711	Raney 4-1	Sec. 4 NWSE	9840	1340	8790	-7450	8808	-7468	8912	-7572	104	8815	-7475			2	102	2	0	Bar	
3505121889	Smith 4-4	Sec. 4 S/2NWNE	9895	1348	8788	-7440	8799	-7451	8910	-7562	111	8811	-7463			2	109	2	0	Bar	
3505121763	Samuels 4-2	Sec. 4 SENWNW	9710	1344	8825	-7481	8839	-7495	8952	-7608	113	8850	-7506			4	109	4	0	Bar	
3505120278	Buntley Unit 1	Sec. 4 N/2N/2N/2SE	9550	1316	8760	-7444	8771	-7455	8890	-7574	119	8788	-7472			0	119	0	0		
3505121838	Meek 1-5	Sec. 5 SWNENE	9850	1346	8843	-7497	8857	-7511	8987	-7641	130	8868	-7522	8940	47	29	101	29	24	Channel	
3505122617	Anna 1-5	Sec. 5 SWNESW	9885	1291	8919	-7628	8930	-7639	9046	-7755	116	8953	-7662	8980	66	19	97	19	15	Channel	
3505121558	Park 1	Sec. 6 W/2SENW	10152	1323	9018	-7695	9036	-7713	9156	-7833	120	9055	-7732	9122	34	27	93	27	25	Channel	
3505122580	Don's Ranch 1	Sec. 6 SWNESW	10175	1346	9095	-7749	9109	-7763	9220	-7874	111	9122	-7776	9190	30	15	96	15	0	Edge Ch.	Dirty
	Skaggs 1-7	Sec. 7 SE NW SE W	10150	1319	9079	-7760	9088	-7769	9215	-7896	127	9115	-7796	9170	45	30	97	30	10	Dirty Ch.	Dirty
3505121586	Marlow 1-7	Sec. 7 NWSWNE	12450	1346	9092	-7746	9108	-7762	9220	-7874	112	9118	-7772	9148	72	8	104	8	0	Channel	
3505122635	McCarthey 2-8	Sec. 8 W/2NESW	9990	1299	8991	-7692	9001	-7702	9130	-7831	129	9020	-7721	9077	53	33	98	33	16	Channel	Lots of Shale
3505122579	McCarthey 1-8	Sec. 8 CN/2NW	10000	1304	8970	-7666	8981	-7677	9105	-7801	124	9005	-7701	9065	40	33	88	32	26	Channel	
3505122549	Skaggs 1	Sec. 8 NWSENE	9900	1284	8911	-7627	8927	-7643	9035	-7751	108	8931	-7647			2	106	2	0	Bar	
3505122666	Hill 1	Sec. 8 W/2SWSE	10000	1292	8993	-7701	9009	-7717	9115	-7823	106	9020	-7728			0	106	0	0		
3505122087	A.C.S. Janssen 1-9	Sec. 9 CNESE	9863	1364	8929	-7565	8945	-7581	9057	-7693	112	8954	-7590			2	110	2	0	Bar	
3505121848	Skaggs Ranch 1	Sec. 9 W/2E/2NW	9880	1358	8921	-7565	8926	-7570	9039	-7683	113	8940	-7584			0	113	0	0		
3505121855	Skaggs Ranch 2	Sec. 9 W/2NESW	9882	1380	8980	-7600	8994	-7614	9102	-7722	108	9002	-7622			0	108	0	0		
3505121835	Hill 9-1	Sec. 9 CNWNE	9725	1318	8849	-7531	8858	-7540	8968	-7648	108	8868	-7548			0	108	0	0		
3505121782	Hill 10-1	Sec. 10 CNW	9565	1350	8730	-7380	8738	-7388	8853	-7503	115	8750	-7400			0	115	0	0		
3505120312	Terry 10-1	Sec. 10 CNE	9211	1305	8710	-7405	8722	-7417	8845	-7540	123	8738	-7433			0	123	0	0		
3505122707	Shelton 1-11	Sec. 11 SWNENE	9427	1313	8594	-7281	8602	-7289	8710	-7397	108	8612	-7299			0	108	0	0		
3505120233	Lovesll 1	Sec. 11 CSENW	9131	1284	8640	-7356	8650	-7366	8771	-7487	121	8662	-7378			0	121	0	0		
3505120279	Stubbleman 1	Sec. 12 CW/2NESW	9090	1333	8608	-7275	8618	-7285	8735	-7402	117	8630	-7297			0	117	0	0		
3505120081	Surbeck 1	Sec. 13 CNWNWSE	10805	1348	8649	-7301	8656	-7308	8794	-7446	138	8671	-7323			5	133	5	0	Bar	
3505120268	Withrow 1	Sec. 14 S/2N/2NWSE	9240	1363	8773	-7410	8780	-7417	8918	-7555	138	8809	-7446			0	138	0	0		
3505121314	Withrow 2	Sec. 14 SENWNENE	10632	1320	8669	-7349	8679	-7359	8805	-7485	126	8701	-7381			0	126	0	0		
3505121829	Drabek 1	Sec. 15 N/2S/2NW	9825	1332	8896	-7564	8905	-7573	9030	-7698	125	8930	-7598			0	125	0	0		
3505120742	Skaggs Ranch 1	Sec. 16 CNW	10660	1410	9091	-7681	9100	-7690	9228	-7818	128	9112	-7702			0	128	0	0		
3505122754	Skaggs Ranch 1-16	Sec. 16 NWSWSW	10302	1367	9082	-7715	9092	-7725	9230	-7863	138	9130	-7763			0	138	0	0		
3505122708	Morris 1-17	Sec. 17 SENWSE	10334	1358	9089	-7733	9099	-7743	9229	-7873	130	9130	-7774			0	130	0	0		
3505122699	Thomson 2-17	Sec. 17 SWNESW	10300	1295	9085	-7790	9095	-7800	9228	-7933	133	9130	-7835			0	133	0	0		
3505122671	Thomson 1-17	Sec. 17 S/2S/2NW	10350	1296	9082	-7786	9089	-7793	9216	-7920	127	9120	-7824			0	127	0	0		
3505122686	Hill Realty 1-17	Sec. 17 W/2NW/NE	10186	1335	9045	-7710	9055	-7720	9175	-7840	120	9065	-7730			0	120	0	0		
3505122623	Meyer 1	Sec. 18 NESWNE	10500	1342	9177	-7835	9185	-7843	9312	-7970	127	9212	-7870			0	127	0	0		
3505122775	Lakin 4-18	Sec. 18 NWNESW	10740	1384	9240	-7856	9250	-7866	9391	-8007	141	9282	-7898			0	141	0	0		
3505122711	Potter 3-18	Sec. 18 W/2NENW	10450	1358	9185	-7827	9195	-7837	9329	-7971	134	9205	-7847			13	121	13	0	Edge Ch.	Just Outside
3505122678	Wilkerson 1-19	Sec. 19 NESWNE	10500	1344	9235	-7891	9241	-7897	9387	-8043	146	9282	-7938			0	146	0	0		
3505122762	McMurtry 1-20	Sec. 20 NWNENE	10370	1334	9078	-7744	9085	-7751	9228	-7894	143	9128	-7794			0	143	0	0		
	McMurtry 2-20	Sec. 20 ?	10320	1321	9167	-7846	9170	-7849	9314	-7993	144	9215	-7894			0	144	0	0		
	Georgia 1-21	Sec. 21 ?	10550	1354	9095	-7741	9103	-7749	9240	-7886	137	9135	-7781			0	137	0	0		
3505122704	Bazhaw E 1	Sec. 21 CE/2NW	10255	1406	9120	-7714	9130	-7724	9273	-7867	143	9172	-7766			0	143	0	0		
3505122739	Marie 1-21	Sec. 21 SENWSE	10350	1393	9099	-7706	9108	-7715	9269	-7876	161	9155	-7762			0	161	0	0		
3505122728	McCarthey 1-22	Sec. 22 NWSESW	10093	1397	9025	-7628	9030	-7633	9206	-7809	176	9110	-7713			0	176	0	0		Shows Thicken.
3505121997	Salle 2-22	Sec. 22 SWNWNE	10022	1353	8962	-7609	8968	-7615	9103	-7750	135	8988	-7635			0	135	0	0		
3505120628	Sprague 1	Sec. 24 E/2E/2NWNE	9200	1411	8692	-7281	8692	-7281	8871	-7460	179	8770	-7359			0	179	0	0		
3505120317	Buehler Trust 1	Sec. 24 NENESWNE	9235	1390	8690	-7300	8690	-7300	8869	-7479	179	8768	-7378			0	178	0	0		
3505122738	Lois 1-27	Sec. 27 NWSENW	10650	1364	9020	-7656	9029	-7665	9208	-7844	179	9107	-7743			0	179	0	0		Abnormal Prue
3505122776	Lois 2-27	Sec. 27 SWNESW	10170	1351	9015	-7664	9015	-7664	9208	-7857	193	9110	-7759			0	193	0	0		Abnormal Prue
3505122781	Lois 3-27	Sec. 27 SWNENE	10140	1365	8948	-7583	8948	-7583	9136	-7771	188	9040	-7675			0	188	0	0		Abnormal Prue
3505122632	Ota 2-27	Sec. 27 SWNWSW	10113	1309	8945	-7636	8945	-7636	9136	-7829	193	9040	-7731			0	193	0	0		Abnormal Prue

9N5W

API	Header Information	Legal Description	TD	KB	TO	TOS	BO	BOS	TV	TVS	ISO	TP	TPS	BP	CHI	SSI	SHI	GS	NT	DPEN	COM
3505122622	Mason 1	Sec. 28 SENWNW	10300	1377	9130	-7753	9130	-7753	9308	-7931	178	9200	-7823			0	178				
3505122569	Traxler 1-28	Sec. 28 NWNESE	10130	1324	9035	-7711	9035	-7711	9228	-7904	193	9120	-7796			0	193	0	0		
3505120937	Rachel 1	Sec. 29 CNW	11123	1380	9280	-7900	9286	-7906	9460	-8080	174	9360	-7980			0	174	0	0		
3505122464	Coats/Bell	Sec. 29 E/2W/2NE	10401	1365	9188	-7823	9200	-7835	9368	-8003	168	9270	-7905			0	168	0	0		
3505120353	Latham 1-31	Sec. 31 CSW	11350	1339	9432	-8093	9432	-8093	9635	-8296	203	9522	-8183			0	203	0	0		
3505121312	Troop (Hill) 1	Sec. 34 CSE	12200	1274	8960	-7686	8960	-7686	9162	-7888	202	9055	-7781			0	202	0	0		
	Cobra 35-1	Sec. 35 ?	9500	1275	8880	-7605	8880	-7605	9066	-7791	186	8965	-7690			0	186	0	0		
3505121478	McConnell 1	Sec. 35 NENESWSW	9550	1264	8895	-7631	8895	-7631	9088	-7824	193	8995	-7731			0	193	0	0		
3505122765	Bashara 1-36	Sec. 36 NWSENW	9500	1275	8880	-7605	8880	-7605	9066	-7791	186	8965	-7690			0	186	0	0		

9N6W

API	Header Information	Legal Description	TD	KB	TO	TOS	BO	BOS	TV	ISO	TP	TPS	BP	CHI	SSI	SHI	GS	NT	DPEN	COM
3505121671	Hill 1-1	Sec. 1 W/2E/2NE	10275	1326	9057	-7731	9077	-7751	9199	122	9094	-7768	9190	9	18	104	18	11	Channel	
3505122730	Osbome 1	Sec. 2 CNESW	11020	1293	9272	-7979	9291	-7998	9418	127	9309	-8016	9390	28	13	114	13	3	Edge?	Dirty
3505121834	Cambell 1-3	Sec. 3 NESENW	10898	1335	9350	-8015	9357	-8022	9496	139	9400	-8065			0	139	0	0		
3505122193	Shook 1-4	Sec. 4 SWNWSE	11310	1337	9482	-8145	9494	-8157	9628	134	9537	-8200			0	134	0	0		
3505122117	McCroskey 1	Sec. 5 W/2E/2NW	11459	1350	9565	-8215	9569	-8219	9712	143	9580	-8230			4	139	4	0	Bar	
3505122221	Grimes 1-5	Sec. 5 CNWSE	10375	1352	9563	-8211	9570	-8218	9728	158	9590	-8238			0	158	0	0		
3505121858	Memmimger 1-6	Sec. 6 SENWSE	11660	1326	9687	-8361	9693	-8367	9855	162	9732	-8406			0	162	0	0		
3505121977	Fem 1-6	Sec. 6 W/2E/2NW	11437	1297	9646	-8349	9653	-8356	9818	165	9690	-8393			0	165	0	0		
3505121747	McMurtry 1-7	Sec. 7 CNW	10450	1315	9792	-8477	9800	-8485	9955	155	9830	-8515			4	151	4	0	Bar	
3505121594	Grimes 1-7	Sec. 7 W/2SE	10505	1339	9818	-8479	9825	-8486	9970	145	9850	-8511			0	145	0	0		
3505121504	Henderson 8-1	Sec. 8 CSW	10500	1374	9780	-8406	9787	-8413	9930	143	9810	-8436			4	139	4	0	Bar	
3505122143	Vandament A Mary 1-9A	Sec. 9 NWSENW	11612	1365	9600	-8235	9608	-8243	9748	140	9645	-8280			0	140	0	0		
3505120863	Vandament 1	Sec. 10 NENESWNE	11267	1343	9420	-8077	9428	-8085	9565	137	9455	-8112			0	137	0	0		
3505121679	Leon 1-11	Sec. 11 N/2S/2NW	10700	1307	9315	-8008	9321	-8014	9450	129	9342	-8035			4	125	4	0	Bar	
3505122720	Leon 2	Sec. 11 N/2SWSE	11100	1329	9290	-7961	9299	-7970	9409	110	9310	-7981			0	110	0	0		
3505121644	Osbome 1-12	Sec. 12 SWNENE	10400	1365	9181	-7816	9193	-7828	9313	120	9210	-7845	9285	28	20	100	20	10	Edge Ch.	
3505122716	Chisolm Trail	Sec. 13 SWNWSE	10575	1376	9325	-7949	9334	-7958	9479	145	9368	-7992	9435	44	43	102	43	29	Channel!	
3505122674	Langston 1-13	Sec. 13 CNENE	10606	1398	9271	-7873	9279	-7881	9416	137	9302	-7904	9385	31	50	87	50	38	Channel!	
3505122769	Van Dyck 1-14	Sec. 14 NWSENW	11048	1336	9370	-8034	9380	-8044	9510	130	9405	-8069			4	126	4	0	Bar	
3505122681	Cambell 1	Sec. 15 E/2W/2NE	11375	1367	9496	-8129	9504	-8137	9632	128	9525	-8158			0	128	0	0		
3505121426	Stanley 17-1	Sec. 17 CNW	10525	1376	9817	-8441	9824	-8448	9990	166		1376			0	166	0	0		
3505121791	Stanley 2	Sec. 17 S/2NESW	10503	1356	9810	-8454	9818	-8462	9979	161	9850	-8494			0	161	0	0		
3505122173	Stanley 17-3	Sec. 17 W/2E/2SE	10500	1335	9746	-8411	9754	-8419	9900	146	9788	-8453			0	146	0	0		
3505121249	Long 18-1	Sec. 18 CNE/4	13215	1322	9830	-8508	9836	-8514	9977	141	9850	-8528			0	141	0	0		
3505121852	Stanley 1-20	Sec. 20 CE/2NW	10650	1322	9804	-8482	9811	-8489	9972	161	9840	-8518			0	161	0	0		
3505122136	Umbach 1-21	Sec. 21 NESWSW	11500	1304	9742	-8438	9748	-8444	9924	176	9805	-8501			16	160	16	8		
3505121030	Umbach 1-21	Sec. 21 CNW	11830	1322	9731	-8409	9737	-8415	9900	163	9791	-8469			0	163	0	0		
3505121081	Garrett 1-23	Sec. 23 S/2S/2N/2SW	12222	1347	9536	-8189	9540	-8193	9705	165	9580	-8233	9630	75	15	150	15	10	Edge Ch?	
3505122760	Georgia Lee 1-23	Sec. 23 N/2S/2NE	11152	1357	9396	-8039	9403	-8046	9558	155	9440	-8083	9520	38	23	132	20	20	Channel	
3505122746	Banta 1-24	Sec. 24 S/2NWNW	11087	1360	9386	-8026	9390	-8030	9542	152	9438	-8076	9478	64	31	121	31	8	Channel	
	J.B. Hambleton 1	Sec. 26 CNESW	10440	1330	9592	-8262	9592	-8262	9770	178	9645	-8315			0	178	0	0		
3505121276	Orr 1-27	Sec. 27 S/2S/2N/2SE	11610	1325	9631	-8306	9638	-8313	9830	192	9687	-8362	9768	62	37	155	37	24	Channel	
3505122697	Garret 1	Sec. 27 NESWSE	11625	1322	9621	-8299	9627	-8305	9815	188	9675	-8353	9730	85	19	169	19	4	Channel	
3505122088	Corley 1-28	Sec. 28 NESWNW	10570	1297	9791	-8494	9797	-8500	9981	184	9845	-8548	9922	59	24	160	24	18	Channel	Good Erosion
3505121564	Curtis 1-29	Sec. 29 NENESW	10700	1300	9870	-8570	9880	-8580	10083	203	9947	-8647	10003	80	18	185	18	8	Channel	
3505121073	Culbertson 1	Sec. 31 CNE	12095	1221	10002	-8781	10010	-8789	10203	193	10085	-8864			18	175	18	14	Channel	
3505121319	Roeder 1-32	Sec. 32 CSE	11000	1276	9991	-8715	10001	-8725	10194	193	10065	-8789	10092	102	18	175	18	8	Channel	
3505122522	Clark 1	Sec. 33 CE/2SE	10570	1237	9798	-8561	9807	-8570	9980	173	9860	-8623			0	173	0	0		
3505121497	McKinney 1-33	Sec. 33 NWSESW	10660	1239	9869	-8630	9875	-8636	10051	176	9915	-8676			0	176	0	0		

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	Tamara Lee 1-1	Sec. 1 NESE	7782	1318	6664	-5346	6692	-5374	6775	-5457	83	6700			0	83	0	0		
	Jones 1	Sec. 1 SENESW	8781	1291	6720	-5429	6762	-5471	6858	-5567	96	6772			0	96	0	0		
	Johnston-Repagle 1	Sec. 2 SESE	8415	1301	6750	-5449	6778	-5477	6864	-5563	86	6788			0	86	0	0		
	Pele' 3B-4	Sec. 3 NE	7842	1387													4	?	Bar	No TVD Log
	Ashby 1	Sec. 4 SWSW	8701	1279	7028	-5749	7052	-5773	7160	-5881	108	7065			10	98	10	?	Bar	
	King's Park 1A	Sec. 5 SESW	8278	1295	7636	-6341	7678	-6383	7778	-6483	100	7694			0	100	0	0		
3502721231	King's Park 1	Sec. 5 SENWNE (BHL)	9174	1300	6990	-5690	7030	-5730	7130	-5830	100	7050			18	82	18	12	Bar	
	Goldman 1-6	Sec. 6 ESWSW	8942	1256	7078	-5822	7210	-5954	7300	-6044	90	7222			14	76	14	?	Bar	
	Greenbriar 1	Sec. 7 SWNWSE	7820	1247	7237	-5990	7259	-6012	7350	-6103	91	7274			18	73	18	?	Bar	
	Barton 1	Sec. 7 W/2NW	7515	1254	7220	-5966	7243	-5989	7336	-6082	93	7254			17	76	17	?	Bar	
	Kinkade 1	Sec. 7 NWNE	7445	1255	7170	-5915	7190	-5935	7287	-6032	97	7205			15	82	15	?	Bar	
	Sloat 1	Sec. 8 SENWNE	7972	1248	7060	-5812	7081	-5833	7180	-5932	99	7100			20	79	20	?	Bar	
	Barton 1	Sec. 9 NESWNW	8053	1261	7060	-5799	7078	-5817	7170	-5909	92	7193			15	77	15	?	Bar	
	Odom 1	Sec. 9 CSWSE	7595	1256	7091	-5835	7112	-5856	7205	-5949	93	7138			7	86	7	?	Bar	
	Nail 1	Sec. 12 SWSW	7700	1259	6882	-5623	6900	-5641	6990	-5731	90	6907			8	82	8	?	Bar	
	Kuchynka 1	Sec. 12 SE	8165	1245	6859	-5614	6890	-5645	6969	-5724	79	6895			5	74	5	?	Bar	
	F. Jones 1	Sec. 12 NESENE	7150	1282	6670	-5388	6688	-5406	6765	-5483	77	6695			8	69	8	?	Bar	
	Shroyer 1	Sec. 13 CNENW	7551	1225	6940	-5715	6958	-5733	7068	-5843	110	6968			10	100	10	?	Bar	
	Steinmeyer 1	Sec. 13 CNWSW	7770	1225	7065	-5840	7084	-5859	7200	-5975	116	7090			8	108	8	?	Bar	
	Steinmeyer 1	Sec. 13 NWNE	7545	1222	6942	-5720	6960	-5738	7066	-5844	106	6968			8	98	8	?	Bar	
	Miller 3	Sec. 13 CNWNW	7550	1255	6968	-5713	6985	-5730	7087	-5832	102	6993			9	83	9	?	Bar	
	Wingo 1	Sec. 13 SWSW	7920	1254	7165	-5911	7182	-5928	7298	-6044	116	7190			8	108	8	?	Bar	
	Floyd Turner 1	Sec. 14 CNENE	7547	1271	7010	-5739	7027	-5756	7120	-5849	93	7035			7	86	7	?	Bar	
	Welker 1	Sec. 14 CSESE	7900	1247	7166	-5919	7183	-5936	7298	-6051	115	7192			4	111	4	?	Bar	
	Nail 2-A	Sec. 14 CNENW	7525	1269	7017	-5748	7035	-5766	7136	-5867	101	7045			6	95	6	?	Bar	
	Moore Townsite Unit 2	Sec. 14 SWSWSWNE	7965	1269	7260	-5991	7280	-6011	7401	-6132	121	7291			4	117	4	?	Bar	
	C.F. Meadors 1	Sec. 15 CSWSW	7950	1241	7260	-6019	7280	-6039	7393	-6152	113	7290			16	97	16	?	Bar	
	B.G. Hume 1	Sec. 15 NESE	7750	1240	7142	-5902	7160	-5920	7268	-6028	108	7170			5	103	5	?	Bar	
	Meadors Estate 5	Sec. 15 CSENW	7705	1256	7139	-5883	7160	-5904	7260	-6004	100	7170			0	100	0	0		
	G.H. James 1	Sec. 15 CSWNE	7693	1252	7115	-5863	7131	-5879	7238	-5986	107	7140			0	107	0	0		
	W.P. Lindsay 1	Sec. 16 CNESE	7790	1247	7211	-5964	7231	-5984	7341	-6094	110	7241			12	98	12	?	Bar	
	Mc. Lennon B-1	Sec. 16 CSESW	7950	1233	7289	-6056	7308	-6075	7412	-6179	104	7325			6	98	6	?	Bar	
	Godwin 1	Sec. 16 NWNE	7635	1247	7132	-5885	7152	-5905	7257	-6010	105	7166			12	93	12	?	Bar	
	Rapp-Osborne 1	Sec. 16 SENW	7740	1240	7171	-5931	7192	-5952	7294	-6054	102	7208			7	95	7	?	Bar	
	Osborne A-1	Sec. 17 SWNW	7875	1222	7263	-6041	7285	-6063	7387	-6165	102	7310			5	97	5	?	Bar	
	Dieckman 1	Sec. 17 CSWNE	7780	1226	7210	-5984	7230	-6004	7328	-6102	98	7247			4	94	4	?	Bar	
	Mabry 1	Sec. 17 CNWSW	7801	1210	7270	-6060	7290	-6080	7389	-6179	99	7305			0	99	0	0		
	Mc. Lennon 1	Sec. 17 CSWSE	7870	1221	7280	-6059	7300	-6079	7402	-6181	102	7310			0	102	0	0		
3502720169	Grove 1	Sec. 18 CNWSE	9476	1232	7330	-6098	7350	-6118	7453	-6221	103	7362			8	95	8	?	Bar	
	Kelly 1	Sec. 18 CSENE	7800	1201	7258	-6057	7278	-6077	7380	-6179	102	7300			8	94	8	?	Bar	
	E.A. Leslie 3	Sec. 18 CNWSW	7930	1227	7371	-6144	7390	-6163	7490	-6263	100	7407			10	90	10	?	Bar	
	Rose Sudik 1	Sec. 18 CSWNW	7945	1232	7360	-6128	7380	-6148	7483	-6251	103	7398			10	93	10	?	Bar	
	Caesar 4	Sec. 19 CSESW	8190	1204	7488	-6284	7501	-6297	7610	-6406	109	7510			20	89	20	?	Bar	
	Kysela 3	Sec. 19 SWNE	8000	1228	7398	-6170	7411	-6183	7517	-6289	106	7425			12	94	12	?	Bar	
	Theimer 2	Sec. 20 SWSESW	8105	1208	7421	-6213	7440	-6232	7547	-6339	107	7450			8	99	8	?	Bar	
	Ferry 1	Sec. 20 CNWNW	7894	1193	7310	-6117	7327	-6134	7428	-6235	101	7340			8	93	8	?	Bar	
	O.A. Nash	Sec. 21 CSWNW	9252	1206	7318	-6112	7338	-6132	7440	-6234	102	7350			8	96	8	?	Bar	
	Harrison-Miller 2	Sec. 21 CSENE	8750	1233	7308	-6075	7328	-6095	7440	-6207	112	7340			13	99	13	?	Bar	
	Hoover 3	Sec. 21 CSESE	8100	1225	7383	-6158	7400	-6175	7510	-6285	110	7412			8	102	8	?	Bar	
3502720109	Mosteller 1	Sec. 21 NWNWSW	7975	1208	7341	-6133	7360	-6152	7465	-6257	105	7370			0	105	0	0		
	C.P. Dressen 1-A	Sec. 22 CNWNE	8870	1234	7212	-5978	7232	-5998	7340	-6106	108	7241			0	108	0	0		
	W.B. Burnett 1	Sec. 22 CSWSE	8100	1225	7340	-6115	7358	-6133	7468	-6243	110	7367			0	110	0	0		

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	Janko 1	Sec. 22 CNWSW	8010	1226	7310	-6084	7330	-6104	7440	-6214	110	7343			7	103	7	?	Bar	
3502720738	Berco 1-23	Sec. 23 SENWNWSW	8050	1216	7290	-6074	7310	-6094	7418	-6202	108	7317			0	108	0	0		
	Curtis Berry 1	Sec. 23 CNWNW	7865	1237	7198	-5961	7218	-5981	7328	-6091	110	7228			0	110	0	0		
	Kinblade 1	Sec. 23 NESE	8130	1233	7291	-6058	7308	-6075	7424	-6191	116	7320			8	108	8	?	Bar	
	Coline 1	Sec. 23 CSENE	8089	1228	7245	-6017	7260	-6032	7373	-6145	113	7270			0	113	0	?		
	Liberty Nat. Bk. Tr. 1	Sec. 24 CSWNW	7750	1220	7240	-6020	7255	-6035	7372	-6152	117	7265			2	115	2	?	Bar	
3502720667	January 1	Sec. 24 CNWSE	8250	1225	7271	-6046	7290	-6065	7401	-6176	111	7296			0	111	0	0		
3502720674	Jury 1	Sec. 25 E/2NENE	8340	1206	7310	-6104	7331	-6125	7445	-6239	114	7335			0	114	0	0		
	Turner 2	Sec. 26 SESENW	7945	1213	7338	-6125	7358	-6145	7470	-6257	112	7365			0	112	0	0		
3502720201	S. Moore Unit 10-1	Sec. 26 CSWNESE	7900	1211	7307	-6096	7323	-6112	7431	-6220	108	7332			0	108	0	0		
	Steffans Unit 1	Sec. 26 NE1/4	8200	1241	7471	-6230	7495	-6254	7617	-6376	122	7501			0	122	0	0		
	Westermier 1	Sec. 26 NESWSW	9630	1200	7332	-6132	7348	-6148	7480	-6280	132	7355			0	132	0	0		
	Turner A-1	Sec. 27 NESWSW	8200	1204	7428	-6224	7440	-6236	7551	-6347	111	7446			0	111	0	0		
	Mollman 2-A	Sec. 27 NENESE	8874	1209	7340	-6131	7357	-6148	7470	-6261	113	7367			0	113	0	0		
3502720755	Fritts 1	Sec. 27 S/2SWNWNE	7960	1221	7400	-6179	7418	-6197	7532	-6311	114	7423			4	110	4	?	Bar	
3502720699	Davenport 1	Sec. 28 CNESWSE	9100	1225	7460	-6235	7474	-6249	7581	-6356	107	7480			0	107	0	0		
3502720529	Fulkerson 1	Sec. 28 CSW	9062	1233	7500	-6267	7515	-6282	7621	-6388	106	7522			8	98	8	?	Bar	
3502735455	W.F. Tubbs 6	Sec. 29 CNWSE	9565	1215	7452	-6237	7468	-6253	7570	-6355	102	7473			0	102	0	0		
3502720141	Turk 1-29	Sec. 29 S/2NWNENE	9635	1202	7408	-6206	7424	-6222	7528	-6326	104	7430			8	96	8	?	Bar	
3502720511	Divis 1	Sec. 30 SENENW	8750	1190	7488	-6298	7501	-6311	7613	-6423	112	7510			6	106	6	?	Bar	
3502720297	Peggy 1	Sec. 30 SWNENESW	9735	1169	7470	-6301	7494	-6325	7590	-6421	96	7495			2	94	2	?	Bar	
3502735466	Stotts 4	Sec. 30 CNESE	9486	1173	7435	-6262	7450	-6277	7556	-6383	106	7460			0	106	0	0		
3502720420	Ward 31-A	Sec. 31 NWSESW	8220	1160	7572	-6412	7584	-6424	7682	-6522	98	7588			6	92	6	?	Bar	
3502720559	Ward 31-B	Sec. 31 CNESESE	8290	1160	7560	-6400	7564	-6404	7670	-6510	106	7582			2	104	2	?	Bar	
	Hardin 1	Sec. 31 CSWNE	8203	1162	7540	-6378	7551	-6389	7668	-6506	117	7561			6	111	6	?	Bar	
3502720602	Dorothy 1	Sec. 32 SWNE	9700	1174	7503	-6329	7513	-6339	7618	-6444	105	7520			0	105	0	0		
3502720549	B-F 1	Sec. 32 S/2SENW	9700	1163	7508	-6345	7520	-6357	7618	-6455	98	7530			8	90	8	?	Bar	
3502720474	Tanaka 1	Sec. 32 SESE	9750	1162	7532	-6370	7542	-6380	7640	-6478	98	7550			0	98	0	0		
3502720262	Fretwell 1	Sec. 33 CSESW	9416	1220	7578	-6358	7588	-6368	7692	-6472	104	7600			0	104	0	0		
3502720527	Tubbs 1	Sec. 33 CSWNW	9013	1225	7539	-6314	7549	-6324	7654	-6429	105	7555			0	105	0	0		
3502720320	Casidy 1	Sec. 33 CSENE	9240	1217	7519	-6302	7531	-6314	7635	-6418	104	7538			0	104	0	0		
3502720480	Turner 1	Sec. 34 CNESWNW	9078	1220	7502	-6282	7518	-6298	7621	-6401	103	7540			2	101	2	?	Bar	
3502720707	Richardson 1	Sec. 34 CS/2SENE	8405	1185	7438	-6253	7451	-6266	7555	-6370	104	7471			0	104	0	0		
3502720747	Payne 2	Sec. 34 N/2NESESW	8195	1210	7523	-6313	7535	-6325	7638	-6428	103	7357			0	103	0	0		
3502720729	Indian Hills 2	Sec. 34 CNESWSE	8156	1207	7511	-6304	7530	-6323	7634	-6427	104	7550			2	102	2	?	Bar	
3502720720	Morrow 1	Sec. 35 N/2SESWSE	8180	1170	7462	-6292	7480	-6310	7595	-6425	115	7500			0	115	0	0		
3502720647	Terry 1	Sec. 35 N/2SESENW	8823	1192	7413	-6221	7430	-6238	7540	-6348	110	7438			0	110	0	0		
3502720561	Idell 1	Sec. 35 CNWSW	8150	1182	7437	-6255	7450	-6268	7560	-6378	110	7475			2	108	2	?	Bar	
3502721021	SO. Moore 1	Sec. 35 SESWNE	8350	1193	7410	-6217	7421	-6228	7538	-6345	117	7432			0	117	0	0		
3502720763	Bigelow 1	Sec. 36 SENWSENE	8074	1216	7366	-6150	7380	-6164	7508	-6292	128	7418			0	128	0	0		
3502720436	January 1-36	Sec. 36 CSWSW	9650	1173	7495	-6322	7518	-6345	7638	-6465	120	7538			0	120	0	0		
	J.H. Smith 4	Sec. 36 SESESE	8100	1216	7390	-6174	7415	-6199	7540	-6324	125	7422			2	123	2	?	Bar	

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3502720542	Goldman 1-1	Sec. 1 CSESE	8195	1287	7227	-5940	7268	-5981	7350	-6063	82	7274			12	70	12	12	Bar	
	Shepard 1	Sec. 1 CSWSW	7665	1266	7290	-6024	7325	-6059	7414	-6148	89	7340			15	74	15	12	Bar	
3502720829	Airport Trust 2-1	Sec. 2 E/2NESE	8523	1275	7304	-6029	7348	-6073	7438	-6163	90	7364			5	85	5	5	Bar	
3502720497	Will Rogers 3-1	Sec. 3 CNWSW	8620	1254	7465	-6211	7508	-6254	7592	-6338	84	7514			0	84	0	0		
3502720774	Roztocil 4	Sec. 4 CN/2SWNE	9500	1275	7494	-6219	7540	-6265	7616	-6341	76	ND			0	76	0	0		
3502720607	Moravia B-1	Sec. 4 NESWNENW	8300	1232	7500	-6268	7556	-6324	7651	-6419	95	7564			5	90	5	5	Bar	
	Joe Roztocil-B	Sec. 4 CSESE	8330	1251	7518	-6267	7560	-6309	7660	-6409	100	7580			10	90	10	4	Bar	
	Mary Sudik 1	Sec. 4 CSESW	8022	1245	7542	-6297	7590	-6345	7672	-6427	82	7608			0	82	0	0		
	Novatny 2	Sec. 5 SWSE	8175	1257	7610	-6353	7660	-6403	7745	-6488	85	7660			10	75	10	8	Bar	
	Cartwright 2	Sec. 5 NESW	8150	1275	7650	-6375	7700	-6425	7805	-6530	105	7705			8	97	8	4	Bar	
3502720694	Holland 2	Sec. 5 E/2SWNENW	8388	1279	7620	-6341	7678	-6399	7791	-6512	113	7704			2	111	2	0	Bar	
3202720608	Morava A-1	Sec. 5 N/2S/2NWNE	8270	1273	7567	-6294	7622	-6349	7728	-6455	106	7626			0	106	0	0		
3502720684	Penick 1	Sec. 6 CNESW	8814	1368	7867	-6499	7916	-6548	8053	-6685	137	7924	7982	71	22	115	22	14	Channel	
3502720758	Gills 6-1	Sec. 6 CSENENW	8610	1332	7738	-6406	7820	-6488	7959	-6627	139	7846	7897	62	45	94	45	45	Channel	
	Pennick C-6-1	Sec. 6 CNWSW	8866	1359	7890	-6531	7940	-6581	8078	-6719	138	7960	8006	72	24	114	24	24	Channel	
3502720702	Muzny 6-1	Sec. 6 W/2E/2NENE	8500	1302	7692	-6390	7746	-6444	7888	-6586	142	7758	7812	76	52	90	52	52	Channel	
3502720698	Pennick A-6-1	Sec. 6 CNWNW	8866	1368	7878	-6510	7934	-6566	8075	-6707	141	7966	8025	50	45	96	45	45	Channel	
3502720805	Darst 7-1	Sec. 7 SWSW	9397	1327	8012	-6685	8044	-6717	8130	-6803	86	8058			4	84	4	4	Edge Ch	
3502720768	Caldwell 1	Sec. 7 NENW	8815	1311	7882	-6571	7927	-6616	8030	-6719	103	7952			0	103	0	0		
3502720663	Straka 1	Sec. 7 CNESE	8706	1281	7842	-6561	7878	-6597	7976	-6695	98	7884	7908	68	7	91	7	0	Channel	
	J.A. Vandeford	Sec. 8 CSWNE	8275	1232	7692	-6460	7735	-6503	7842	-6610	107	7745			15	92	15	14	Bar	
	K. Roztocil	Sec. 8 CSESE	8560	1250	7705	-6455	7755	-6505	7860	-6610	105	7777			10	95	10	8	Bar	
	George LaMotte 3	Sec. 8 SWSWSW	8714	1280	7848	-6568	7881	-6601	7992	-6712	111	7914			6	105	6	0	Bar	
	Drabek 2	Sec. 8 NENW	8350	1254	7672	-6418	7734	-6480	7811	-6557	77	7740			0	77	0	0		
	Williamson 4	Sec. 9 NESE	8036	1236	7560	-6324	7610	-6374	7718	-6482	108	7630			12	96	12	11	Bar	
	Vandeford 2	Sec. 9 NWSW	8150	1216	7620	-6404	7670	-6454	7777	-6561	107	7694			2	105	2	2	Bar	
	Roztocil 1-A	Sec. 9 CSWNE	8075	1242	7550	-6308	7605	-6363	7709	-6467	104	7625			4	100	4	4	Bar	
	Zubline 1	Sec. 9 CNENW	8110	1226	7540	-6314	7595	-6369	7701	-6475	106	7620			10	96	10	7	Bar	
3502720800	Airport Trust 10-1	Sec. 10 NWNWSESE	8638	1148	7463	-6315	7498	-6350	7598	-6450	100	7504			0	100	0	0		
	Kelly 2	Sec. 10 SESE	8131	1246	7475	-6229	7528	-6282	7638	-6392	110	7542			16	94	16	6	Bar	
	Straka B-1	Sec. 10 CSWSW	7953	1215	7468	-6253	7518	-6303	7626	-6411	108	7545			10	98	10	8	Bar	
	Wilson 2	Sec. 10 SESW	8101	1213	7500	-6287	7548	-6335	7657	-6444	109	7569			20	89	20	0	Bar	
	Williamson 1	Sec. 11 CSWSW	8000	1247	7455	-6208	7500	-6253	7610	-6363	110	7525			14	96	14	10	Bar	
3502720512	Will Rogers 11-1	Sec. 11 CNWNW	8556	1268	7405	-6137	7440	-6172	7540	-6272	100	7451			10	90	10	8	Bar	
	Earlywine 1	Sec. 12 SWSW	8122	1254	7400	-6146	7431	-6177	7531	-6277	100	7445			14	86	14	12	Bar	
3502720901	Wheatland Unit 3-3	Sec. 12 NENENW	7770	1265	7368	-6103	7400	-6135	7486	-6221	86	7410			8	80	8	8	Bar	
	Trust 1	Sec. 12 NWSWSE	7650	1260	7275	-6015	7326	-6066	7413	-6153	87	7337			10	77	10	8	Bar	
	Siler 1	Sec. 13 CSENW	7892	1231	7400	-6169	7428	-6197	7522	-6291	94	7436			12	82	12	6	Bar	
	Straka 1	Sec. 13 CSESW	8110	1232	7530	-6298	7550	-6318	7658	-6426	108	7566			10	98	10	0	Bar	
	Joe Straka 2	Sec. 13 CSWSW	8038	1236	7468	-6232	7490	-6254	7588	-6352	98	7510			0	98	0	0		
	Tom Gates 2	Sec. 13 NWSE	8040	1235	7413	-6178	7438	-6203	7540	-6305	102	7456			10	92	10	8	Bar	
	Straka A-1	Sec. 14 CSESE	8090	1229	7485	-6256	7508	-6279	7607	-6378	99	7517			12	87	12	8	Bar	
	A. Majerus	Sec. 14 CSENW	8052	1239	7498	-6259	7518	-6279	7625	-6386	107	7540			10	97	10	0	Bar	
	Straka A-3	Sec. 14 NENE	7901	1245	7445	-6200	7470	-6225	7566	-6321	96	7490			10	86	10	8	Bar	
	J.C. Maruska 4	Sec. 15 CNESW	8095	1231	7600	-6369	7620	-6389	7730	-6499	110	7635	7672	58	18	92	18	12	Channel?	
	Ada Drake 1	Sec. 15 CSWSE	8010	1225	7592	-6367	7616	-6391	7724	-6499	108	7630	7655	69	16	92	16	12	Channel?	
3502735578	Williamson Heirs 1	Sec. 15 CSWNW	8050	1208	7590	-6382	7620	-6412	7728	-6520	108	7630	7680	48	20	88	20	20	Channel?	
	Love 1	Sec. 15 CSWNE	8104	1238	7578	-6340	7600	-6362	7708	-6470	108	7618	7640	88	18	90	18	4	Channel?	
	W.L. Cox 1	Sec. 16 SWNW	8375	1261	7755	-6494	7788	-6527	7888	-6627	100	7800			0	100	0	0		
	J.L. Maruska A-1	Sec. 16 CSWSE	8298	1206	7671	-6465	7695	-6489	7802	-6596	107	7710			16	91	16	12	Channel?	
	Johnston 1-A	Sec. 16 CSWNE	8275	1231	7680	-6449	7707	-6476	7815	-6584	108	7722			10	98	10	2	Bar	
	E.O. Rowland 2	Sec. 17 CNESE	8387	1255	7790	-6535	7815	-6560	7918	-6663	103	7830			8	95	8	0	Bar	

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API	Header Information	Legal Description	TD	KB	TO	TOS	BO	BOS	TV	TVS	ISO	TP	BP	CHI	SSI	SHI	GS	NT	DPEN	COM
	Antone Maruska 1	Sec. 16 CSWSW	8358	1252	7756	-6504	7780	-6528	7888	-6636	108	7792	7820	68	20	88	20	10	Channel?	
	Reed 1	Sec. 17 CNENW	8361	1289	7841	-6552	7870	-6581	7979	-6690	109	7890			18	91	18	8	Bar	
	Rempe Estate 1	Sec. 17 NENE	8280	1250	7756	-6506	7783	-6533	7891	-6641	108	7800			8	100	8	2	Bar	
3502720875	Gavin 18-1	Sec. 18 E/2NENE	8800	1295	7892	-6597	7920	-6625	8029	-6734	109	7945			12	97	12	10	Bar	
3508721170	Greer Allen 1-19	Sec. 19 SWSWSW	9528	1199	8069	-6870	8086	-6887	8200	-7001	114	8100			0	114	0	0		
3508720303	Urschel 1	Sec. 19 NWSENW	8750	1190	7982	-6792	8008	-6818	8119	-6929	111	8020			0	111	0	0		
	Sprague Heirs 1	Sec. 21 CNWNW	8335	1223	7762	-6539	7780	-6557	7893	-6670	113	7800			10	103	10	0	Bar	
	Rowland 1	Sec. 21 CNWNE	8300	1213	7703	-6490	7726	-6513	7831	-6618	105	7741			10	95	10	6	Bar	
	Rowland 2-A	Sec. 21 CSESE	8340	1175	7708	-6533	7730	-6555	7830	-6655	100	7740			15	85	15	0	Bar	
	Nelly A Frye 1	Sec. 22 CSWNE	8475	1195	7597	-6402	7615	-6420	7725	-6530	110	7632			18	92	18	14	Bar	KB?
	Castlebury 3	Sec. 22 CNWSW	8280	1181	7662	-6481	7682	-6501	7788	-6607	106	7700			16	90	16	14	Bar	
	Nora Castlebury 1	Sec. 22 CSENW	8250	1202	7638	-6436	7655	-6453	7766	-6564	111	7665	7705	61	30	81	30	25	Channel?	
	Pearl Bowman A-1	Sec. 22 CSESE	8225	1172	7612	-6440	7630	-6458	7731	-6559	101	7640			6	95	6	4	Bar	
	Russel Butler 4	Sec. 23 CSENW	8150	1217	7555	-6338	7578	-6361	7680	-6463	102	7600			0	102	0	0		
	Mildred Dietrich 3	Sec. 23 CNWNE	8140	1209	7512	-6303	7530	-6321	7635	-6426	105	7545			5	100	5	0	Bar	
	Arnold Unit 1	Sec. 23 CNWSW	8200	1181	7575	-6394	7595	-6414	7700	-6519	105	7618			4	101	4	0	Bar	
	R. Traub 2	Sec. 23 CSESE	8150	1170	7535	-6365	7550	-6380	7655	-6485	105	7565			5	100	5	0	Bar	
	E. Smith 2	Sec. 24 CNENE	8014	1227	7428	-6201	7448	-6221	7550	-6323	102	7460			10	92	10	0	Bar	
	Frank J Kysela 2	Sec. 24 CNESE	8110	1216	7485	-6269	7501	-6285	7610	-6394	109	7515			15	96	15	5	Bar	
	L.E. Liston 2	Sec. 24 NWSW	8130	1199	7510	-6311	7528	-6329	7630	-6431	102	7538			10	92	10	0	Bar	
	Cecil Straka 4	Sec. 24 CSENW	8090	1218	7480	-6262	7497	-6279	7601	-6383	104	7505			10	94	10	5	Bar	
	Pearl Shroyer 2	Sec. 25 CSWNW	8300	1163	7560	-6397	7576	-6413	7680	-6517	104	7585			13	91	13	10	Bar	
	Harmon 1	Sec. 25 NESWSE	8425	1158	7503	-6345	7516	-6358	7618	-6460	102	7521			15	87	15	8	Bar	
	Norris 1	Sec. 27 CNENE	8272	1169	7636	-6467	7655	-6486	7757	-6588	102	7665			14	88	14	8	Bar	
	Franklin 1	Sec. 28 NENE	8320	1172	7716	-6544	7730	-6558	7835	-6663	105	7745			10	95	10	8	Bar	
3508720834	Griffith 1	Sec. 28 CSWSW	8910	1182	7914	-6732	7930	-6748	8040	-6858	110	7940			6	104	6	0	Bar	
3508720277	Sadie Watts 1	Sec. 30 W/2NESWNW	8830	1198	8110	-6912	8130	-6932	8242	-7044	112	8146			0	112	0	0		
3508720279	Jessie 1	Sec. 30 SWNWSW	8980	1209	8171	-6962	8188	-6979	8295	-7086	107	8205			0	107	0	0		
3508720270	Malone Estate 1	Sec. 31 CNWNE	8975	1294	8220	-6926	8230	-6936	8346	-7052	116	8249	8290	56	20	96	20	?	Channel?	
3508720931	Sleeper 1	Sec. 32 CW/2NENE	9070	1266	8060	-6794	8074	-6808	8180	-6914	106	8096			8	98	8	8	Bar	
	J.D. Ketner 1	Sec. 35 NWSESE	8336	1202	7718	-6516	7728	-6526	7836	-6634	108	7739			8	100	8	0	Bar	
3508720400	Griffith 36-A	Sec. 36 SENWSESW	8330	1160	7675	-6515	7687	-6527	7785	-6625	98	7694			4	94	4	2	Bar	
3508721582	B&W State 1-36	Sec. 36 SENESE	9000	1157	7550	-6393	7562	-6405	7660	-6503	98	7570			6	92	6	4	Bar	Modem Log

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API	Header Information	Legal Description	TD	KB	TO	TOS	BO	BOS	TV	TVS	ISO	TP	BP	CHI	SSI	SHI	GS	NT	DPEN	COM
3501720231	St. Joseph 1	Sec. 1 SWNWSW	8676	1324	7980	-6656	8038	-6714	8142	-6818	104	8045			0	104	0	0		
3501722809	Salatka 1	Sec. 1 NENESW	9000	1319	7910	-6591	7969	-6650	8078	-6759	109	7975			0	109	0	0		
	Becker 1	Sec. 1 CSWNW	8615	1365	7975	-6610	8040	-6675	8140	-6775	100	8050			0	100	0	0		
3501722609	Jericho Heirs 2-1	Sec. 1 CSENE	8900	1398	7930	-6532	7990	-6592	8122	-6724	132	8005			2	130	2	0	Bar	
3501722466	Rothenberger 1-1	Sec. 1 CNENE	8850	1408	7940	-6532	8000	-6592	8102	-6694	102	8010			0	102	0	0		
3501722775	Whitaker A-1	Sec. 1 NESESE	8768	1322	7880	-6558	7936	-6614	8072	-6750	136	7948	8006	64	25	111	25	25	Channel	
3501720190	Willis 1	Sec. 1 NESWSE	8700	1352	8060	-6708	8120	-6768	8225	-6873	105	8130			0	105	0	0		
3501720176	Briscoe 1	Sec. 1 CSWNE	8659	1350	8028	-6678	8100	-6750	8790	-7440	690	8110			0	90	0	0		
	Breshears 2	Sec. 2 SWNENW	8700	1372	8055	-6683	8122	-6750	8212	-6840	90	8130			0	90	0	0		
3501720183	Breshears 1	Sec. 2 NESW	8744	1365	8085	-6720	8150	-6785	8248	-6883	98	8160			0	98	0	0		
3501720249	Breshears 2	Sec. 2 E/2SWSWSW	8825	1326	8090	-6764	8150	-6824	8259	-6933	109	8170			0	109	0	0		
3501720197	Breshear 1	Sec. 2 CSWNW	9536	1344	8065	-6721	8130	-6786	8225	-6881	95	8145			6	89	6	0	Bar	
3501720207	Stevens R 1	Sec. 3 CNENE	8799	1392	8118	-6726	8192	-6800	8280	-6888	88	8205			0	88	0	0		
3501720224	Smith 1-3	Sec. 3 SWNE	8810	1348	8095	-6747	8163	-6815	8263	-6915	100	8180			0	100	0	0		
3501720208	Robberson 3-1	Sec. 3 NENENW	8866	1385	8090	-6705	8155	-6770	8250	-6865	95	8170			0	95	0	0		
3501720252	Robberson 3-2	Sec. 3 CSWSE	8850	1322	8115	-6793	8175	-6853	8290	-6968	115	8185			0	115	0	0		
3501720217	R.W. Roberson 1-3	Sec. 3 NENESE	8803	1373	8150	-6777	8200	-6827	8300	-6927	100	8210			0	100	0	0		
3501722401	Masopust 1	Sec. 4 CSWSWNE	8982	1337	8182	-6845	8248	-6911	8365	-7028	117	8268			10	107	10	0	Bar	
3501720260	Harlin 4-1	Sec.4 NENESE	8905	1318	8160	-6842	8230	-6912	8335	-7017	105	8236			4	101	4	4	Bar	
	Theimer 1	Sec. 6 CSWNW	10208	1289	8355	-7066	8440	-7151	8550	-7261	110	8455			0	110	0	0		
3501722561	Darrow Ivan 1-7	Sec. 7 NWSWSW	9443	1249	8496	-7247	8560	-7311	8663	-7414	103	8582			2	101	2	0	Bar	
3501721018	Darrow Ivan 1-7	Sec. 7 W/2W/2E/2SW	9425	1272	8465	-7193	8530	-7258	8632	-7360	102	8540			0	102	0	0		
3501720426	Robberson 9-1	Sec. 9 NENENE	8869	1277	8170	-6893	8240	-6963	8350	-7073	110	8250			6	104	6	6	Minor Ch.?	
3501722549	Meeks 1	Sec. 9 NESWSESW	8920	1253	8280	-7027	8330	-7077	8420	-7167	90	8340			0	90	0	0		
3501722611	Robberson 9-1	Sec. 9 S/2SESENE	8985	1282	8200	-6918	8256	-6974	8369	-7087	113	8272	8300	69	16	97	16	16	Edge Ch.?	
3501722533	Mitchell 1	Sec. 9 NENESE	9321	1282	8216	-6934	8270	-6988	8368	-7086	98	8288			0	98	0	0		
3501720228	Robberson 10-1	Sec. 10 NENENE	8850	1320	8120	-6800	8180	-6860	8288	-6968	108	8195			0	108	0	0		
3501720427	Robberson 10-7	Sec. 10 NESWNE	8814	1298	8135	-6837	8200	-6902	8305	-7007	105	8210			0	105	0	0		
3501720272	Robberson 10-2	Sec. 10 NENESE	8815	1296	8120	-6824	8180	-6884	8290	-6994	110	8195			4	106	0	0	Bar	
3501720247	Robberson Ranch 10-3	Sec. 10 NENENW	8904	1334	8170	-6836	8230	-6896	8346	-7012	116	8250			0	116	0	0		
3501720284	Robberson 10-4	Sec. 10 NENESW	8920	1305	8190	-6885	8260	-6955	8365	-7060	105	8272			6	99	6	6	Bar	
3501720240	Jenkins 2	Sec. 11 CSWNE	8825	1335	8120	-6785	8180	-6845	8300	-6965	120	8190			6	114	6	6	Bar	
3501720229	Robberson 1-11	Sec. 11 NENW	8808	1332	8100	-6768	8165	-6833	8260	-6928	95				0	95	0	0		
3501720365	Robberson 5-11	Sec. 11 SWSWSE	8830	1269	8100	-6831	8150	-6881	8290	-7021	140	8169	8210	80	22	118	22	22	Channel	
3501720285	Robberson 2-11	Sec. 11 CW/2NESW	8870	1326	8160	-6834	8215	-6889	8340	-7014	125	8230			4	121	4	0	Bar	
3501720300	Robberson 4-11	Sec. 11 W/2E/2SWSW	8915	1317	8168	-6851	8220	-6903	8345	-7028	125	8230	8260	85	12	113	12	12	Channel	
3501722804	West 1-12	Sec. 12 SWNESW	9400	1334	8080	-6746	8121	-6787	8240	-6906	119	8140	8170	70	13	103	13	13	Channel	
3501720201	Suzzane West 1-12	Sec. 12 SWNESWSW	8819	1322	8105	-6783	8160	-6838	8275	-6953	115	8170	8220	55	18	97	18	10	Channel	
3501722805	Van Tuyle 12-1	Sec. 12 CSWNE	8965	1341	7988	-6647	8043	-6702	8162	-6821	119	8057	8100	62	30	89	30	30	Channel	
3501722562	Lola 1	Sec. 12 NENENE	8758	1295	7885	-6590	7928	-6633	8053	-6758	125	7960	7988	65	16	109	16	16	Channel	
	Juliette 1	Sec. 12 1650'FSL, 990'FWL	9480	1288	8546	-7258	8618	-7330	8738	-7450	120	8625	8675	63	8	112	8	2		
3501722858	Last Frontier A-12-1	Sec. 12 NWSE		1367	8040	-6673	8087	-6720	8200	-6833	113	8100	8150	50	2	111	2	0	Channel	
3501720360	Suzzane West 13-1	Sec. 13 SWSWNW	8800	1249	8060	-6811	8110	-6861	8220	-6971	110	8125	8160	60	10	100	10	10	Channel	
3501720372	Suzzane West 13-2	Sec. 13 W/2NWSW	8790	1190													12	8	Channel	No TVD Log
3501721383	Susie West 13-1	Sec. 13 S/2S/2NESW	8435	1193	8020	-6827	8068	-6875	8175	-6982	107	8080	8110	65	6	101	6	4	Channel?	
3501722514	Last Frontier 2	Sec. 13 CNWNWNE	9170	1279	8041	-6762	8085	-6806	ER	ER	ER	8095	8118		16		16	16	Channel	
3501720407	Robberson 14-5	Sec. 14 NESWNW	8905	1311	8185	-6874	8240	-6929	ER	ER	ER				45		45	45	Channel	
3501720336	Robberson 14-2	Sec. 14 CNESE	8631	1194	8050	-6856	8095	-6901	8205	-7011	110	8110	8140	65	0	110	0	0		
3501720370	Robberson 14-4	Sec. 14 NENESW	8842	1185	8050	-6865	8100	-6915	8230	-7045	130	8110	8225	5	30	100	30	30	Channel	
3501720395	Robberson 14-6	Sec. 14 SWSWNE	-	1193	8045	-6852	8090	-6897	ER	ER	ER	8100	8204		33		33	33	Channel	
3501720298	Robberson 15-3	Sec. 15 NENENW	9010	1298	8230	-6932	8280	-6982	8398	-7100	118	8295	8325	73	4	114	4	4	Channel?	
3501720452	Robberson 15-4	Sec. 15 CNENESW	8850	1200	8185	-6985	8240	-7040	8372	-7172	132	8255	8340	32	15	117	15	15	Channel	
3501720391	Robberson Ranch 15-2	Sec. 15 CNENESE	8940	1205	8130	-6925	8175	-6970	8330	-7125	155	8185	8320	10	62	93	62	62	Channel	
3501720291	Robberson 15-1	Sec. 15 NENENE	8900	1278	8155	-6879	8210	-6934	8322	-7046	112	8225	8250	72	10	102	10	10	Bar	
3501722676	Robberson 15-5	Sec. 15 SENWNE	9369	1267	8202	-6935	8260	-6993	8378	-7111	118	8280	8305	73	2	116	2	0	Channel	

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API	Header Information	Legal Description	TD	KB	TO	TOS	BO	BOS	TV	TVS	ISO	TP	BP	CHI	SSI	SHI	GS	NT	OPEN	COM
3501722638	Nowlin 1-16	Sec. 16 CSESE	9200	1215	8263	-7048	8290	-7075	8424	-7209	134	8300	8390	34	16	118	16	16	Channel	
3501722510	J Darrow 1	Sec. 16 CSENW	9174	1258	8310	-7052	8355	-7097	8456	-7198	101	8360			0	101	0	0		
3501720385	Raymond Payne 1	Sec. 16 NENESW	9638	1251	8332	-7081	8390	-7139	8500	-7249	110	8400			0	110	0	0		
3501722552	Payne 1	Sec. 16 SESW	9230	1212	8307	-7095	8370	-7158	8496	-7284	126	8378	8460	36	5	121	5	0	Channel	
3501722597	Wallis 1	Sec. 16 NENWNWNE	9020	1264	8275	-7011	8320	-7056	8418	-7154	98	8330			2	96	2	0	Bar	
3505121621	McNeff 3-17	Sec. 17 SWSW	9280	1210	8445	-7235	8480	-7270	8580	-7370	100	8488	8540	40	5	95	5	5		
3501722891	Payne 1-17	Sec. 17 N/2SWSE	9147	1222	8455	-7233	8468	-7246	8604	-7382	136	8500	8570	34	0	136	0	0	Channel	
3501722883	Deupree 17-1	Sec. 17 SWNE	9130	1292	8416	-7124	8462	-7170	8568	-7276	106	8472	8510	58	6	100	6	0	Channel	
3505121620	Wicklund 1-18	Sec. 18 W/2SESW	9446	1220	8530	-7310	8569	-7349	8688	-7468	119	8580	8650	38	0	119	0	0		
3505121565	Hardesty 1-18	Sec. 18 E/2SWSE	9452	1218	8490	-7272	8528	-7310	8650	-7432	122	8540	8590	60	8	114	8	3	Channel	
	Braum 1-18	Sec. 18 SWSWSW	9460	1220	8585	-7365	8623	-7403	8746	-7526	123	8635	8730	16	72	47	47	42	Channel	
3505122524	Darrow 1-18	Sec. 18 NWNESW	9539	1217													2	0	Dirty	No TVD Log
3501722908	Lydia 1-18	Sec. 18 SENWNE	9395	1290	8500	-7210	8555	-7265	8663	-7373	108	8570			6	102	6	0	Bar	
3505121494	McNeff 1	Sec. 19 SENE	9545	1215	8539	-7324	8569	-7354	8703	-7488	134	8580	8690	13	10	124	10	10	Channel	
3505121622	McNeff 19-4A	Sec. 19 S/2NESW	9556	1223	8612	-7389	8642	-7419	8775	-7552	133	8655	8740	35	2	131	2	2	Channel	
3505121682	Hartin 2-19	Sec. 19 SENWSE	9559	1221	8582	-7361	8610	-7389	8740	-7519	130	8620	8695	45	0	130	0	0		
3505121632	McNeff 5-19	Sec 19 NESWNW	9545	1224	8610	-7386	8640	-7416	8757	-7533	117	8680	8740	17	19	98	19	12	Channel	
3505121521	Hartin 1	Sec. 19 SWSE	9617	1224	8618	-7394	8643	-7419	8782	-7558	139	8655	8740	42	5	134	5	5	Channel	
3505121563	McNeff 1-20	Sec. 20 SWNE	9326	1206	8414	-7208	8442	-7236	8578	-7372	136	8454	8565	13	13	123	13	10	Channel	
3505121601	Base 20-1	Sec. 20 NESWSE	-	1214	8480	-7266	8503	-7289	8655	-7441	152	8513	8645	10	15	137	15	6	Channel	
3505121568	McNeff 2-20	Sec. 20 W/2SENW	9400	1212	8463	-7251	8496	-7284	8623	-7411	127	8502	8580	43	24	103	24	8	Channel	
3505121576	Streber 1-20	Sec. 20 SESWSW	9638	1259	8604	-7345	8630	-7371	8771	-7512	141	8636	8735	36	14	127	14	14	Channel	
3501721265	Payne 1-21	Sec. 21 CS/2NE	8800	1200	8290	-7090	8345	-7145	8490	-7290	145	8355	8460	30	30	115	30	22	Channel	
3501723024	Payne 1-21B	Sec. 21 S/2NWNW	9153	1212	8331	-7119	8388	-7176	ER	ER	ER	8400			48		48	48	Channel	
3505121785	Goad 1-21	Sec. 21 NWSESW	9275	1288	8459	-7171	8520	-7232	8672	-7384	152	8540	8640	32	56	96	56	56	Channel	
3505121901	River 1-21	Sec. 21 N/2SWSE	9282	1299	8462	-7163	8519	-7220	8668	-7369	149	8539	8638	30	56	93	56	56	Channel	
3505120698	Hill B-1	Sec. 22 1170FSL 1120FWL	9200	1261	8298	-7037	8360	-7099	8470	-7209	110	8370			4	106	4	0	Bar	
3505120435	Darrow 1-18	Sec. 23 NENESE	8918	1195	8140	-6945	8190	-6995	8312	-7117	122	8200			0	122	0	0		
3505120460	Schroeder 1-23	Sec. 23 E/2E/2NE	8850	1194	8092	-6898	8145	-6951	8260	-7066	115	8155			10	105	10	0	Bar	
3505120908	Hill C-1	Sec. 23 CSWSW	9000	1218	8230	-7012	8290	-7072	8408	-7190	118	8300	8316	92	6	112	6	2	Bar	
3505120418	Lola Anderson A-2	Sec. 24 W/2SESE	8850	1195	8035	-6840	8090	-6895	8210	-7015	120	8105			4	116	4	4	Bar	
3505120361	Waldon 1	Sec. 24 CSW	9155	1202	8108	-6906	8165	-6963	8284	-7082	113	8177			6	107	6	2	Bar	
3505120428	Woods Corp 1	Sec. 24 S/2S/2NWNW	8894	1195	8065	-6870	8120	-6925	8235	-7040	115	8130			4	111	4	0	Bar	
3505120428	Woods 2-24	Sec. 24 SWNWNE	8818	1188	8015	-6827	8060	-6872	8180	-6992	120	8075			0	120	0	0		
3505121114	Washburn 1-25	Sec. 25 CNENENW	8933	1202	8122	-6920	8178	-6976	8297	-7095	119	8190	8220	77	2	117	2	2	Bar	
3505120442	McClendon 2	Sec. 25 CSENE	8910	1202	8111	-6909	8175	-6973	8280	-7078	105	8185			0	105	0	0		
3505120383	Hoover 1	Sec. 26 CNENE	9235	1215	8178	-6963	8240	-7025	8352	-7137	112	8255			0	112	0	0		
	Traxler 1	Sec. 26 W/2E/2SWSW	11303	1225	8288	-7063	8365	-7140	8470	-7245	105	8315			0	105	0	0		
3505120311	Miller 1	Sec. 27 N/2S/2NESW	9687	1275	8418	-7143	8495	-7220	8618	-7343	123	8505			0	123	0	0		
3505121755	BC Hoover Heirs 1-28	Sec. 28 CNWNW	9643	1298	8516	-7218	8575	-7277	8710	-7412	135	8588			45	90	45	45	Channel	
3505122228	Traxler 1-28	Sec. 28 CSW	9504	1309	8625	-7316	8700	-7391	8810	-7501	110	8712			6	104	6	0	Bar	
3505120949	Traxler Unit 1	Sec. 28 SWSWNENE	9000	1276	8459	-7183	8525	-7249	8638	-7362	113	8543			0	113	0	0		
3505122158	Pittenridge 1-28	Sec. 28 CSWSE	9400	1303	8605	-7302	8626	-7323	8740	-7437	114	8648			0	114	0	0		
3505120761	Osborne 1	Sec. 29 CNE	9600	1229	8505	-7276	8565	-7336	8710	-7481	145	8575	8680	30	50	95	50	50	Channel	
3505121297	Czar Osborne 1-29	Sec. 29 CNESWNE	9050	1235	8570	-7335	8582	-7347	8735	-7500	153	8605	8705	30	61	92	61	61	Channel	
3505122336	Osborne 3	Sec. 29 W/2SESE	9472	1267	8666	-7399	8690	-7423	8804	-7537	114	8705	8730	74	20	94	20	20	Channel	
3505121717	Osborn 2	Sec. 29 SENWNW	9586	1301	8683	-7382	8708	-7407	8854	-7553	146	8716	8808	46	20	126	20	16	Channel	
3505122398	Osborn 4	Sec. 29 NWNESE	9508	1266	8620	-7354	8645	-7379	8750	-7484	105	8655			0	95	0	0		
3505121822	Hartin 2-30	Sec. 30 E/2NWSE	9657	1269	8760	-7491	8783	-7514	8930	-7661	147	8798	8898	32	10	137	10	?		
3505121552	Hartin 1-30	Sec. 30 NWNE	9730	1255	8673	-7418	8702	-7447	8844	-7589	142	8709	8805	39	4	138	4	0	Mud	
3505121543	Miser 1-31	Sec. 31 CNE	9860	1289	8750	-7461	8805	-7516	8950	-7661	145	8815	8886	62	4	140	4	0		
3505122243	Pearl Ann 1	Sec. 32 SENENE	9582	1295	8668	-7373	8728	-7433	8850	-7555	122	8748	8780	70	26	96	26	26	Channel	
3505121650	Bomgardner 1-32	Sec. 32 NWSW	9880	1272	8794	-7522	8816	-7544	8942	-7670	126	8830	8865	77	6	120	6	0	Bar	
3505121629	Ronk 1-32	Sec. 32 S/2NWNW	9830	1260	8740	-7480	8760	-7500	8888	-7628	128	8767	8854	34	29	101	29	19	Channel	
3505121841	Dwight 1	Sec. 33 E/2W/2SW	9800	1358	8774	-7416	8788	-7430	8898	-7540	110	8805			0	110	0	0		

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API	Header Information	Legal Description	TD	KB	TO	TOS	BO	BOS	TV	TVS	ISO	TP	BP	CHI	SSI	SHI	GS	NT	OPEN	COM
3505122013	Kelly 33-1	Sec. 33 SWNESE	9533	1330	8696	-7366	8714	-7384	8824	-7494	110	8720			0	108	0	0		
3505122086	Warriner 1-33	Sec. 33 S/2NWNE	9550	1269	8610	-7341	8630	-7361	8749	-7480	119	8640			6	113	6	0	Bar	
3505120323	L.R. Hutchinson 1	Sec. 33 SWSWNENE	9100	1305	8570	-7265	8620	-7315	8745	-7440	125	8650			6	119	6	6	Bar	
3505120874	Shaw 1	Sec. 33 N/2NWSESE	9150	1329	8640	-7311	8705	-7376	8810	-7481	105	8710			0	105	0	0		
3505122122	Leonna 1-33	Sec. 33 S/2NENW	9550	1328	8665	-7337	8723	-7395	8842	-7514	119	8738	8770	72	4	115	4	4	Channel	
3505122689	Giblet 1-34	Sec. 34 W/2E/2SW	9410	1269	8553	-7284	8570	-7301	8675	-7406	105	8576			0	105	0	0		
3505120291	Huffine 1	Sec. 34 CNWSE	9000	1267	8450	-7183	8520	-7253	8640	-7373	120	8540			0	120	0	0		
3505120322	Carr 1	Sec. 35 SWSWNESW	8916	1263	8410	-7147	8480	-7217	8590	-7327	110	8495			5	105	5	5	Bar	
3505122317	McFarland 1-36	Sec. 36 SWNESW	9185	1311	8400	-7089	8412	-7101	8521	-7210	109	8420			4	105	4	0	Bar	
3505120779	Winters Estate 1	Sec. 36 NESWSW	8900	1297	8355	-7058	8420	-7123	8555	-7258	135	8430			0	135	0	0		
3505122279	Wright 1-36	Sec. 36 SWSWSW	9250	1305	8445	-7140	8455	-7150	8568	-7263	113	8465			6	107	6	1	Bar	

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API	Header Information	Legal Description	TD	KB	TO	TOS	BO	BOS	TV	TVS	ISO	TP	BP	CHI	SSI	SHI	GS	NT	OPEN	COM
3501722821	Davis 1-1	Sec. 1 NENESWSW	9450	1278	8465	-7187	8542	-7264	8642	-7364	100	8568			0	100	0	0		
3501722326	Button 1	Sec. 2 CW/2	9650	1312	8551	-7239	8652	-7340	8752	-7440	100	8675			0	100	0	0		
3501722393	Walther 1	Sec. 3 CSWNENE	9800	1284	8549	-7265	8650	-7366	8750	-7466	100	8670			0	100	0	0		
3501722955	Erbar 1	Sec. 3 E/2W/2SE	9620	1260	8608	-7348	8696	-7436	8796	-7536	100	8716			0	100	0	0		
3501722557	Greer 1-4	Sec. 4 CSE	9815	1255	8680	-7425	8775	-7520	8882	-7627	107	8793			0	107	0	0		
3501723249	Ramsey Trust 1-4	Sec. 4 SENWSW	10050	1256	8718	-7462	8823	-7567	8930	-7674	107	8840			6	101	6	6	Bar	
3501723122	Cervany 2-6	Sec. 6 NESWSE	10580	1274	8950	-7676	9060	-7786	9178	-7904	118	9071			3	115	3	3	Bar	
3501723077	Mc Mahan 1-6	Sec. 6 NESWSW	10840	1247	8985	-7738	9100	-7853	9210	-7963	110	9105			0	110	0	0		
3501722983	Cervany 1-6	Sec. 6 SENW	10520	1276	8950	-7674	9068	-7792	9170	-7894	102	9085			4	98	4	0	Bar	
3505122062	Braum 3-7	Sec. 7 SE	10850	1252	9050	-7798	9148	-7896	9260	-8008	112	9174	9230	30	20	92	20	10	Channel	
3505122052	Braum 2-7	Sec. 7 SW	10650	1242	9070	-7828	9168	-7926	9281	-8039	113	9196	9250	31	18	95	18	13	Channel	
3501723100	Braum 1-7	Sec. 7 N/2S/2NE	10550	1247	8990	-7743	9088	-7841	9218	-7971	130	9131	9188	30	30	100	30	20	Channel	
3505121817	McMahan 1-7	Sec. 7 S/2N/2NW	10680	1247	9010	-7763	9120	-7873	9250	-8003	130	9165			53	78	53	30	Channel	
3501723251	Braum 1-8	Sec. 8 NWSENE	10375	1257	8881	-7624	8965	-7708	9094	-7837	129	8975			20	109	20	14	Channel	
3505122344	Braum 3-8	Sec. 8 SWNESW	10500	1240	8988	-7748	9065	-7825	9202	-7962	137				12	125	12	9	Channel	
3501722887	Greer 1-8	Sec. 8 CSE	10400	1238	8940	-7702	9018	-7780	9158	-7920	140	9026	9103	55	15	125	15	10	Channel	
3501722788	Greer 1-9	Sec. 9 CSE	9980	1236	8797	-7561	8870	-7634	9008	-7772	138	8880			5	132	5	5	Bar	
3501722494	Hall 1-10	Sec. 10 CNE	9562	1247	8657	-7410	8740	-7493	8844	-7597	104	8758			0	104	0	0		
3501723032	Hall 2-10	Sec. 10 SWNESE	9788	1234	8721	-7487	8790	-7556	8917	-7683	127	8810			8	119	8	0	Dirty	
3501723189	Braum 1-10	Sec. 10 CSW	9900	1244	8750	-7506	8820	-7576	8950	-7706	130	8830			10	120	10	6		
3501723199	Rogers 1-10A	Sec. 10 N/2S/2NW	9860	1253	8711	-7458	8790	-7537	8911	-7658	121	8795			26	95	26	12	Channel	
3501720212	Hunt 1-11	Sec. 11 E/2E/2W/2NE	9700	1295	8605	-7310	8675	-7380	8792	-7497	117	8698			0	117	0	0		
3501722864	Garr 1-11	Sec. 11 NESW	9585	1224	8628	-7404	8690	-7466	8830	-7606	140	8710	8748	82	22	118	22	10	Channel	
3501722789	Garr 11-2 E	Sec. 11 CSE	9580	1222	8601	-7379	8670	-7448	8794	-7572	124	8681			12	112	12	12	Channel	
3501723009	Weidemann 1-11	Sec. 11 E/2SWNW	9596	1247	8641	-7394	8715	-7468	8830	-7583	115	8730			4	111	4	0		
3501722674	Reimers 1-12	Sec. 12 SESE	9439	1223	8473	-7250	8538	-7315	8651	-7428	113	8549	8624	27	14	99	14	14	Channel	
3501722522	Juliette 1	Sec. 12 CSENWNW	9480	1288	8545	-7257	8618	-7330	8737	-7449	119	8620	8675	62	4	115	4	2	Ch. Edge?	
3501722715	Bassett 1-12	Sec. 12 NESWSW	9532	1223	8561	-7338	8628	-7405	8750	-7527	122	8640			12	110	12	12		
3501722635	Dunahoo 12-1	Sec. 12 CSWNE	9405	1267	8501	-7234	8570	-7303	8681	-7414	111	8590			4	107	4	4		
3501722677	Bassett 1-13	Sec. 13 CSWNE	9536	1218	8558	-7340	8612	-7394	8738	-7520	126	8622			22	104	22	12	Channel	
3501722606	Bassett 2	Sec. 13 CNWNW	9558	1222	8601	-7379	8661	-7439	8789	-7567	128	8665	8720	69	33	95	33	33	Channel	
3501722668	Hardesty 2	Sec. 13 NWSW	9703	1224	8647	-7423	8700	-7476	8824	-7600	124	8700			25	99	25	25	Channel	
3505121676	Braum 1-13	Sec. 13 W/2SESE	9535	1225	8601	-7376	8645	-7420	8750	-7525	105	8650	8718	32	30	75	30	26	Channel	
3501722648	Garr 1-14	Sec. 14 CNE	9651	1232	8636	-7404	8695	-7463	8821	-7589	126	8699	8760	61	27	99	27	27	Channel	
3501723035	Garr 2-14	Sec. 14 CNENW	9800	1230	8685	-7455	8751	-7521	8873	-7643	122	8752	8820	53	23	99	23	23	Channel	
3501722644	Tumey 1-15	Sec. 15 CNE	9808	1229	8762	-7533	8830	-7601	8951	-7722	121	8838	8880	71	24	97	24	24	Channel	
3501723006	Tumey 2-15	Sec. 15 CNW	10142	1229	8808	-7579	8873	-7644	9007	-7778	134	8882	8940	67	36	98	36	36	Channel	
3505121870	Tumey 3-15	Sec. 15 CSE	10100	1241	8830	-7589	8895	-7654	9010	-7769	115	8911	8940	70	15	100	15	15	Channel	
3505121871	Tumey 4-15	Sec. 15 S/2S/2SW	10200	1241	8883	-7642	8945	-7704	9063	-7822	118	8960	9010	53	18	100	18	10	Channel	
3501722907	Bond 1-16	Sec. 16 CN/2	10220	1239	8915	-7676	8988	-7749	9108	-7867	118	9012	9070	36	18	100	18	18	Channel	
3501722979	Greer 1-17	Sec. 17 W/2E/2NE	10450	1232	8990	-7758	9068	-7836	9206	-7974	138	9104	9165	41	14	124	14	6		
3505122001	Braum 1-17	Sec. 17 E/2W/2SE	10565	1245	9080	-7835	9153	-7908	9290	-8045	137	9187	9248	42	11	126	11	4		
3505122481	Braum 2-17	Sec. 17 SESENW	10500	1238	9073	-7835	9152	-7914	9281	-8043	129	9178	9248	33	12	117	12	9		
3505121826	Elaine 1-18	Sec. 18 W/2E/2SW	12765	1254	9191	-7937	9290	-8036	9400	-8146	110	9300	9325	75	2	108	2	0		
3505121573	Vern 1	Sec. 18 NESWNE	10750	1251	9100	-7849	9190	-7939	9308	-8057	118	9205	9245	63	11	107	11	11		
3505121827	Murray 1-18	Sec. 18 NESENW	10700	1250	9105	-7855	9195	-7945	9315	-8065	120	9215	9245	70	12	108	12	8		
3505121826	Rebecca 1-18	Sec. 18 CSE	10680	1249	9175	-7926	9260	-8011	9380	-8131	120	9271	9305	75	4	116	4	0		
3505122042	Stermer 3	Sec. 19 S/2S/2NW	11380	1310	9321	-8011	9387	-8077	9510	-8200	123	9415			0	123	0	0		
	Stermer 1	Sec. 19 CSWSESE	10250	1288	9319	-8031	9380	-8092	9488	-8200	108	9390			0	108	0	0		
3505121753	Paxton 1-20	Sec. 20 CSE	10725	1324	9241	-7917	9292	-7968	9403	-8079	111	9310			2	109	2	0		
3505121823	Tracy 1-20	Sec. 20 SWNESW	10770	1284	9255	-7971	9309	-8025	9430	-8146	121	9339			4	117	4	2		
3505120148	Turner 1	Sec. 20 CSW	9900	1287	9263	-7976	9340	-8053	9440	-8153	100	9352			0	100	0	0		
3505121837	William 1-20	Sec. 20 CNE	10800	1295	9171	-7876	9231	-7936	9355	-8060	124	9255			14	110	14	8		
3505120443	Turner Unit 1	Sec. 20 CNW	9810	1288	9218	-7930	9295	-8007	9410	-8122	115	9302			0	115	0	0		
3505121836	Drew 1-20	Sec. 20 CSENW	10850	1309	9221	-7912	9294	-7985	9413	-8104	119	9311			4	115	4	4		

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API	Header Information	Legal Description	TD	KB	TO	TOS	BO	BOS	TV	TVS	ISO	TP	BP	CHI	SSI	SHI	GS	NT	DPEN	COM
3505121982	Long 1-21	Sec. 21 S/2NWSE	10550	1313	9135	-7822	9190	-7877	9303	-7990	113	9212			6	107	6	0	Channel Ed.	
3505121985	Bond 1-21	Sec. 21 CNW	10525	1297	9098	-7801	9155	-7858	9265	-7968	110	9172			2	108	2	0		
3505122087	Georgia 2-21	Sec. 21 CNE	10397	1279	9028	-7749	9095	-7816	9210	-7931	115	9111			5	110	5	4		
3505122089	Stout 2-22	Sec. 22 SENWSE	10380	1280	8981	-7701	9026	-7746	9140	-7860	114	9050			5	109	5	5		
3505121592	O'Hara 1	Sec. 22 S/2NWSE	10180	1251	8970	-7719	9015	-7764	9129	-7878	114	9035			2	112	2	2		
3505121983	Hardest 1-22	Sec. 22 S/2N/2SW	10350	1280	9031	-7751	9075	-7795	9193	-7913	118	9102			0	118	0	0		
3505121780	Stout 1-22	Sec. 22 SENWNW	10425	1257	8951	-7694	9006	-7749	9132	-7875	126	9031			12	114	12	10		
3505121548	Thelma 1-23	Sec. 23 SWNE	9869	1231	8793	-7562	8840	-7609	8951	-7720	111	8855			0	11	0	0		
3505122509	Braum 1	Sec. 23 S/2N/2SE	9861	1231	8848	-7617	8888	-7657	8992	-7761	104	8901			6	98	6	6		
3505121994	McNeff 6-24	Sec. 24 CNESE	9590	1223	8675	-7452	8706	-7483	8832	-7609	126	8720			20	106	20	12	Channel	
3505122446	Skaggs 1	Sec. 24 S/2NESW	9670	1229	8760	-7531	8795	-7566	8897	-7668	102	8807			4	98	4	4		
3505121536	Hardesty 1-24	Sec. 24 SENWNW	9790	1232	8708	-7476	8755	-7523	8866	-7634	111	8765			0	111	0	0		
3505122372	Braum 1	Sec. 24 CNESE	9863	1223	8660	-7437	8700	-7477	8795	-7572	95	8710			4	91	4	0		
3505121577	Jackson 1	Sec. 25 SWNESW	10086	1290	8901	-7611	8831	-7641	9082	-7792	151	8932			6	145	6	6		
3505122479	McCarthy 1	Sec. 25 SWNENW	9869	1264	8849	-7585	8880	-7616	9010	-7746	130	8900			11	119	11	11		
3505122553	Streber 1	Sec. 26 NWSENE	1262	9940	8910	1030	8945	995	9072	868	127	8963			4	127	4	4		
3505121986	Bazhaw 1	Sec. 26 CS/2NW	10350	1301	9030	-7729	9067	-7766	9200	-7899	133	9075			5	128	5	5		
3505121728	Frank Bennett 1-26	Sec. 26 S/2N/2SW	10400	1308	9078	-7770	9165	-7857	9258	-7950	93	9135			0	93	0	0		
3505121987	Joy Hardesty 1-27	Sec. 27 NWSENW	10350	1255	9078	-7823	9111	-7856	9225	-7970	114	9133			0	114	0	0		
3505122083	Frank Bennett 2-26	Sec. 26 SENWSE	10400	1267	8960	-7693	8993	-7726	9130	-7863	137	9015			4	134	4	4		
3505122085	Bennett 2-27	Sec. 27 N/2S/2NE	10500	1304	9075	-7771	9116	-7812	9238	-7934	122	9134			4	118	4	4		
3505121689	Bennett 1-27	Sec. 27 CSW	10425	1269	9121	-7852	9160	-7891	9300	-8031	140	9189			4	136	4	4		
3505122068	Vaughn 1-27	Sec. 27 SENWSE	10400	1312	9110	-7798	9145	-7833	9280	-7968	135	9162			0	135	0	0		
3505121722	Mary Anne 1-28	Sec. 28 CNW	10645	1314	9220	-7906	9265	-7951	9378	-8064	113	9282			0	113	0	0		
3505121571	McNeff 1-28	Sec. 28 CSW	10750	1329	9265	-7936	9308	-7979	9441	-8112	133	9335			0	133	0	0		
3505122348	McNeff 2-28	Sec. 28 CSE	10700	1319	9215	-7896	9250	-7931	9385	-8066	135	9280			0	135	0	0		
3505122375	Turner 1-28	Sec. 28 CNE	10699	1307	9168	-7861	9208	-7901	9318	-8011	110	9230			0	110	0	0		
3505122099	Bennet 1-29	Sec. 29 CSWSW	11433	1322	9405	-8083	9445	-8123	9582	-8260	137	9455			0	137	0	0		
3505121727	Hardesty 2	Sec. 29 S/2N/2SE	10709	1321	9332	-8011	9375	-8054	9475	-8154	100	9378			10	90	10	8		
	Hardest A-1	Sec. 29 CNESW	9823	1324	9355	-8031	9399	-8075	9515	-8191	116	9420			0	116	0	0		
3505122044	Renegar 3-30	Sec. 30 SWNESW	11400	1324	9465	-8141	9508	-8184	9645	-8321	122	9520			15	107	15	0		
3505122017	Renegar 2-30	Sec. 30 CNW	11401	1326	9421	-8095	9465	-8139	9581	-8255	116	9490			5	111	5	1		
3505121953	Sandra 1-31	Sec. 31 W/2E/2NW	11286		9515	-9515	9555	-9555	9703	-9703	148	9565			0	148	0	0		
3505121185	Hardesty 1-32	Sec. 32 CNE		1328	9387	-8089	9438	-8110	9598	-8270	160	9450			4	156	4	0		
3505120646	Renegar A 1-32	Sec. 32 CNW	10080	1344	9460	-8116	9500	-8156	9650	-8306	150	9520			5	145	5	0		Poor Log
3505122180	Florence 1-32	Sec. 32 CSW	11226	1326	9497	-8171	9533	-8207	9655	-8329	122	9545			2	120	2	0		
3505121710	MayBelle 1-33	Sec. 33 CNW	10982	1324	9327	-8003	9368	-8044	9519	-8195	151	9400			0	151	0	0		
3505122514	Morris-Harry 1-33	Sec. 33 N/2S/2SW	10708	1326	9412	-8086	9442	-8116	9610	-8284	168	9460			6	162	6	6		
3505121599	Lawson 1-33	Sec. 33 CNE	10680	1320	9271	-7951	9302	-7982	9461	-8141	159	9330			8	151	8	2		
3505122665	McGee 1-33	Sec. 33 CN/2SE	10975	1314	9299	-7985	9325	-8011	9450	-8136	125	9345			4	121	4	4		
3505121630	Cambell 1-34	Sec. 34 CSW	10893	1322	9286	-7964	9311	-7989	9451	-8129	140	9330			4	136	4	0		
3505121726	Fred 1-34	Sec. 34 CNW	10800	1301	9203	-7902	9231	-7930	9389	-8088	158	9254			0	158	0	0		
3505122662	Cambell 3-34	Sec. 34 S/2N/2SE	10700	1327	9225	-7898	9250	-7923	9370	-8043	120	9275			0	120	0	0		
3505122661	Cambell 2-34	Sec. 34 N/2S/2NE	10550	1301	9190	-7889	9217	-7916	9365	-8064	148	9245			0	148	0	0		
3505121769	Stone 1-35	Sec. 35 S/2N/2SW	10550	1310	9160	-7850	9180	-7870	9310	-8000	130	9208			0	130	0	0		

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3510921407	El 1	Sec. 1 S/2SENE	7242	1211	6310	-5099	6385	-5174	6447	-5236	62	6400			0	62	0	0		
	Harrigan 1	Sec. 1 NWNWSE	6570	1222	5972	-4750	6015	-4793	6075	-4853	60	6020			0	60	0	0		
	McConnel 1	Sec. 1 SWNWSW	6425	1222	5975	-4753	6028	-4806	6075	-4853	47	6030			0	47	0	0		
	Pesthouse 2	Sec. 1 NWSWNW	6102	1186	5910	-4724	5970	-4784	6018	-4832	48	5975			0	48	0	0		
	Alexander 1	Sec. 1 SENESW	6582	1191	6012	-4821	6078	-4887	6121	-4930	43	6080			0	43	0	0		
	Janivy 1	Sec. 2 SESENW	6524	1175	6030	-4855	6068	-4893	6140	-4965	72	6070			0	72	0	0		
	Theimer 1	Sec. 2 SENESE	6610	1215	6000	-4785	6055	-4840	6099	-4884	44	6060			0	44	0	0		
	Wright 1	Sec. 2 NENENW	6495	1185	6014	-4829	6076	-4891	6120	-4935	44	6081			0	44	0	0		
	Southwestern 1	Sec. 3 NWSWNW	6420	1194	6250	-5056	6310	-5116	6365	-5171	55	6315			0	55	0	0		
	Block 18(lot 19)	Sec. 3 SWSWSE	6475	1188	6160	-4972	6221	-5033	6271	-5083	50	6225			0	50	0	0		
3510921588	Airpark 4C-2	Sec. 5 NWNWSW(BHL)	7141	1202							38				0	38	0	0		No TVD Log
3510921494	Metro 1	Sec. 5 NENENW	6875	1204	6440	-5236	6503	-5299	6566	-5362	63	6515			0	63	0	0		
3510921517	Canadian 1-4	Sec. 5 SWSWSW(Sec4 BHL)	6765	1200	6350	-5150	6400	-5200	6471	-5271	71	6410			0	71	0	0		
	USF&G 5C-3	Sec. 5 SWSWSW(BHL)	7720	1205	6480	-5275	6542	-5337	6610	-5405	68	6551			0	68	0	0		
3510921539	USF&G 7A-4	Sec. 7 NWSENE(BHL)	7870	1225							68				0	68	0	0		No TVD Log
3510921533	USF&G 7B-4	Sec. 7 NWSENW	7304	1225	6662	-5437	6730	-5505	6800	-5575	70	6738			0	70	0	0		
3510921544	Higgins 1-8	Sec. 8 SENESE(BHL)	7280	1197										4			44	44	Channel	No TVD Log
3510921530	Parkview 1-8	Sec. 8 E/2NENW(BHL)	7190	1205							76			1			75	75	Channel	No TVD Log
3510921608	USF&G 8C-3	Sec. 8 NESWSW(BHL)	7880	1204	6526	-5322	6592	-5388	6672	-5468	80	6604	6671	1	32	48	32	32	Channel	
3510921546	Green 1-8	Sec. 8 SENWNE(BHL)	6800	1197							76			6			29	29	Channel	No TVD Log
3510921607	USF&G 8C-2	Sec. 8 SENWSW(BHL)	7660	1204	6524	-5320	6592	-5388	6672	-5468	80	6600	6672	0	62	18	62	62	Channel	
3510921545	Douglas 1-8	Sec. 8 SWSENE(BHL)	6823	1197	6408	-5211	6480	-5283	6542	-5345	62	6490	6541	1	46	16	46	46	Channel	
3510921543	USF&G 8C-1	Sec. 8 SWSWNE(BHL)	7358	1204	6488	-5284	6560	-5356	6640	-5436	80	6565	6638	2	46	34	46	46	Channel	
3510921610	USF&G 8B-3	Sec. 8 SESWNW(BHL)	7396	1204							73			12			40	30	Channel	No TVD Log
3510921530	Ocha 1-8	Sec. 8 SENENW(BHL)	7190	1204							66			36			8	0	Channel Edge	No TVD Log
3510921621	USF&G 8O-2	Sec. 8 SWNWSE(BHL)	7060	1198							75			3			35	30	Channel	No TVD Log
3510921606	USF&G 8C-4	Sec. NWSESW(BHL)	7650	1204	6486	-5282	6556	-5352	6686	-5482	130	6574	6685	1	53	77	53	53	Channel	
3510921657	USF&G 8D-4	Sec. 8 SESWNE(BHL)	7310	1199							78			1			46	40	Channel	No TVD Log
3510921658	USF&G 8D-3	Sec. 8 NESWSE(BHL)	7437	1207	6458	-5251	6520	-5313	6600	-5393	80	6526	6598	2	42	38	42	42	Channel	
3510921579	USF&G 9A-2	Sec. 9 SWNWNE(BHL)	6679	1200	6280	-5080	6348	-5148	6416	-5216	68	6362	6415	1	48	20	48	48	Channel	
3510921476	Nelson 1-8	Sec. 9 NENENE(BHL)	6784	1194	6378	-5184	6440	-5246	6520	-5326	80	6452	6520	0	56	24	56	56	Channel	
3510921967	Booth 9D-4	Sec. 9 NWSESE(BHL)	7328	1212													80		Channel	Bad Log
	Booth 9D-1	Sec. 9 S/2NESE(BHL)	7320	1200	6258	-5058	6310	-5110	6382	-5182	72	6315	6380	2	14	58	14	14	Channel	
3510921455	Booth 1-9	Sec. 9 N/2NESW(BHL)	6682	1197							92			10			26	26	Channel	No TVD Log
3510921900	Booth 9D-2	Sec. 9 SENWSE(BHL)	6850	1204							80			0			27	27	Channel	No TVD Log
3510921628	Sycamore 1-9	Sec. 9 NWSENW(BHL)	6760	1193	6320	-5127	6400	-5207	6452	-5259	52	6404	6452	0	36	16	36	36	Channel	
3510921372	BJ 1-9	Sec. 9 NWSWNE(BHL)	6616	1205	6300	-5095	6372	-5167	6430	-5225	58	6382	6430	0	28	30	28	28	Channel	
3510921593	USF&G 9A-1	Sec. 9 SWNENE(BHL)	6971	1129	6250	-5121	6320	-5191	6354	-5225	34	6332	6354	0	14	20	14	14	Channel	
3510921506	Pearl 1-9	Sec. 9 NWNWNW(BHL)	6722	1199	6350	-5151	6420	-5221	6492	-5293	72	6427	6492	0	42	30	42	42	Channel	
3510921578	Victoria 1-9	Sec. 9 SWNWSW(BHL)	6998	1195							85			0			40	40	Channel	No TVD Log
3510921520	USF&G 9C-3	Sec. 9 NWSWSW(BHL)	7250	1197							98			0			54	54	Channel	No TVD Log
	Eckroat 1	Sec. 10 NWSENW	6484	1196	6196	-5000	6278	-5082	6310	-5114	32	6280			4	28	4	0	Bar?	
	Theimer 1	Sec. 11 NWNENE	6225	1254	6050	-4796	6092	-4838	6148	-4894	56	6105			0	56	0	0		
	Haindl 1	Sec. 11 SENWSW	6652	1270	6120	-4850	6180	-4910	6220	-4950	40	6182			0	40	0	0		
	A. Precure 1	Sec. 11 SESESE	6523	1240	6001	-4761	6045	-4805	6084	-4844	39	6055			0	39	0	0		
	Coppinger 1	Sec. 11 SWSWNW	6431	1240	6092	-4852	6145	-4905	6192	-4952	47	6150			0	47	0	0		KB est.
	Theimer A-11	Sec. 11 CNENENE	6643	1219	6260	-5041	6328	-5109	6398	-5179	70	6333	6362	36	10	60	10	0	Bar?	
	Trosper Park A-39	Sec. 12 662FNL 542FEL	6332	1246	5980	-4734	6030	-4784	6067	-4821	37	6038			0	37	0	0		
	C Brokaw 3	Sec. 13 NWSWNE	6400	1363	5948	-4585	6015	-4652	6055	-4692	40	6020			0	40	0	0		
	Jennings A-4	Sec. 13 SENWNESE	6550	1262	5892	-4630	5950	-4688	5992	-4730	42	5955			0	42	0	0		
	Lafferty 1	Sec. 14 NWSENENW	6620	1245	6060	-4815	6101	-4856	6155	-4910	54	6110			0	54	0	0		
	BLK 43 Shields	Sec. 15 SWSWNW	6445	1216	6285	-5069	6315	-5099	6388	-5172	73	6220			0	73	0	0		

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	Shields 4	Sec. 15 SENWSW	6400	1217	6262	-5045	6305	-5088	6345	-5128	40				0	40	0	0		
	USF&G 16C-2	Sec. 16 SW/4	6850	1267	6490	-5223	6560	-5293	6618	-5351	58	6572	6592	26	10	48	10	10	Channel	
3510921510	USF&G 17A-3	Sec. 16 E/2SWSW(Sec17BHL)	8035	1268							80			2			44	44	Channel	No TVD Log
3510921553	USF&G 17D-1	Sec. 16 NENESE (Sec17BHL)	7308	1267	6530	-5263	6596	-5329	6660	-5393	64	6602	6634	26	34	30	34	26	Channel	
3510921625	USF&G 21B-3	Sec. 16 SENWNW(Sec21BHL)	7962	1266							55						0	0		No TVD Log
3510921688	USF&G 16C-3	Sec. 16 NWSWSW(BHL)	7170	1267	6542	-5275	6586	-5319	6622	-5355	38	6590			0	36	0	0		
3510921569	USF&G 16B-2	Sec. 16 SENWNW(BHL)	7553	1267	6472	-5205	6528	-5261	6608	-5341	80	6540	6607	1	10	70	10	0	Mud Channel	
3510921666	USF&G 16D-2	Sec. 16 SWNWSE(BHL)	7068	1267	6405	-5138	6468	-5201	6510	-5243	42	6472			0	42	0	0		
3510921673	USF&G 16B-1	Sec. 16 SWNENW(BHL)	7430	1267	6432	-5165	6492	-5225	6544	-5277	52	6500	6543	1	18	34	18	18	Channel	
3510921680	USF&G 16B-4	Sec. 16 SENWSW(BHL)	7041	1266							75			10			12	6	Mud Channel	No TVD Log
3510921594	USF&G 20A-1	Sec. 16 SWNENE(Sec20BHL)	7910	1267	6650	-5383	6698	-5431	6782	-5515	84	6700	6782	0	4	80	4	0	Mud Channel	
3510921642	USF&G 16B-3	Sec. 16 NWSWNW(BHL)	7177	1267	6496	-5229	6554	-5287	6628	-5361	74	6564	6627	1	24	50	24	10	Mud Channel	
3510921611	USF&G 17A-1	Sec. 17 SWNENE(BHL)	7880	1260	6514	-5254	6574	-5314	6642	-5382	68	6595	6574	68	26	42	26	16	Mud Channel	
3510921636	Rancho 17A-4	Sec. 17 NESENE(BHL)	7497	1260							82			0			24	20	Channel	No TVD Log
3510921558	USF&G 17B-2	Sec. 17 NENWNW(BHL)	7823	1259	6626	-5367	6686	-5427	6770	-5511	84	6708	6768	2	45	39	45	45	Channel	
3510921617	USF&G 17B-3	Sec.17 NESWNW(BHL)	7610	1260							102			0			50	45		No TVD Log
3510921639	USF&G 17D-2	Sec. 17 SENWSE(BHL)	7270	1260	6594	-5334	6660	-5400	6718	-5458	58	6668	6700	18	0	58	0	0		
3510921626	USF&G 17A-2	Sec. 17 SENWNE(BHL)	7440	1260							80			0			18	14	Mud Channel	No TVD Log
	USF&G 17B-4	Sec. 17 SENW(BHL)	7217	1260	6604	-5344	6664	-5404	6742	-5482	78	6670	6734	8	18	60	18	18	Channel	
	USF&G 18D-2	Sec. 18 SENWSE(BHL)	7550	1238	6702	-5464	6764	-5526	6844	-5606	80	6770	6836	8	22	58	22	16	Channel	
3510921581	USF&G 7D-4	Sec. 18 SESESE(Sec7BHL)	7813	1238	6602	-5364	6666	-5428	6744	-5506	78	6670	6738	6	30	48	30	30	Channel	
3510921618	USF&G 18A-1	Sec. 18 NWNENE(BHL)	7492	1238	6624	-5386	6686	-5448	6768	-5530	82	6698	6768	0	27	55	27	25	Channel	
	USF&G 18A-4	Sec. 18 NWSWNE(BHL)	7450	1238	6684	-5446	6744	-5506	6834	-5596	90	6760	6834	0	44	46	44	44	Channel	
3510921660	USF&G 18A-2	Sec. 18 SENWNE(BHL)	7755	1267	6646	-5379	6712	-5445	6784	-5517	72	6730	6780	4	46	26	46	46	Channel	
3510921669	USF&G 17C-1	Sec. 18 NWNESW(Sec17BHL)	7500	1238	6606	-5368	6666	-5428	6736	-5498	70	6675	6708	28	7	63	7	7		
3510921525	USF&G 20B-2	Sec. 19 CNW(Sec20BHL)	7570	1246	6705	-5459	6760	-5514	6838	-5592	78	6765			0	78	0	0	Mud Channel?	
3510921507	USF&G 19A-1	Sec. 19 700FNL800FEL NE/4	7298	1246	6740	-5494	6800	-5554	6840	-5594	40	6810			0	40	0	0		
	USF&G 19B-2	Sec. 19 NW/4(BHL)	7835	1253	6810	-5557	6880	-5627	6955	-5702	75	6888	6950	5	10	65	10	0	Channel	
3510921612	USF&G 20B-4	Sec. 19 NWSENW(Sec20BHL)	7866	1246	6692	-5446	6738	-5492	6794	-5548	56	6740			0	56	0	0		
3510921519	USF&G 17C-2	Sec. 19 SENWSE(Sec17BHL)	7837	1246	6622	-5376	6689	-5443	6750	-5504	61	6695			0	61	0	0		
	Rowland 1	Sec. 18 CNESW(BHL)	8058	1253	6720	-5467	6789	-5536	6868	-5615	79	6792	6865	3	56	23	56	56	Channel	
3510921738	Young's Park 19D-4	Sec. 19 SESESE(BHL)	8425	1246	6800	-5554	6835	-5589	6895	-5649	60	6840			0	60	0	0		
3510921684	USF&G 20A-4	Sec. 21 SESENE(Sec20BHL)	7640	1234	6622	-5388	6650	-5416	6668	-5434	18	6651			0	18	0	0		
3510921761	Pate 21B-2	Sec. 21 CNWNW(BHL)	8036	1240	6540	-5300	6575	-5335	6582	-5342	7	6580			0	7	0	0		
3510921689	USF&G 21A-3	Sec. 21 NESWNE(BHL)	7602	1234							25						0	0		
	Hissel 1	Sec. 22 SENWSW	6545	1242	6400	-5158	6435	-5193	6510	-5268	75	6440			0	75	0	0		
	Garver 1	Sec. 22 SENWNE	6620	?										50			20	20	Channel	
	Egermeier 4	Sec. 23 NWNWSW	6883	1277	6250	-4973	6285	-5008	6370	-5093	85	6358			30	55	30		Channel	No Por. Log
	Claver 17	Sec. 23 SE/4	6800	1284	6088	-4804	6130	-4846	6215	-4931	85	6131	6215	0	55	30	55		Channel	No Por. Log
	Werner Farley SWD-4	Sec. 23 NENESE	7954	1242	6070	-4828	6122	-4880	6210	-4968	88	6150	6200	10	33	55	33		Channel	No Por. Log
3510920140	Peterson A-11	Sec. 25 SESW	6406	1291	6235	-4944	6294	-5003									63		Channel	Eroded Verd.
	Billen 1	Sec. 26 SESENE	6810	1265	6160	-4895	6225	-4960	6340	-5075	115	6250	6340	0	55	60	55		Channel	No Por. Log
	Wisel 7	Sec. 26 SESWSE	6527	?													75		Channel	No Por. Log
3510900667	Glendale A-6	Sec. 26 NWNWNENW	6773	1291	6300	-5009	6348	-5057	6417	-5126	69	6355	6400	17	37	62	37	27	Channel	
3510921923	Jarvis A-4	Sec. 26 NESENW	6975	1287	6290	-5003	6330	-5043	6403	-5116	73	6335	6400	3	46	27	46	46	Channel	
3510921573	Dayspring 1-27	Sec. 27 SWNW	6779	1269	6520	-5251	6577	-5308	6611	-5342	34	6580			0	34	0	0		
3510921487	Griffin 27-1	Sec. 27 SWSWSW(BHL)	7210	1254							65			0			20	10	Channel	No TVD Log
3510921504	Brumfield 28-1	Sec. 28 SESWNW	7072	1248	6625	-5377	6690	-5442	6755	-5507	65	6695			0	65	0	0		
3510921522	Miller 28-2	Sec. 28 NESWSW(BHL)	7431	1243							50						0	0		No TVD Log
3510921497	Miller 28-1	Sec. 28 SENWSW	7170	1248	6680	-5432	6710	-5462	6785	-5537	75	6715			0	75	0	0		
3510921605	Griffin 28-A-3	Sec. 28 SESWNE(BHL)	7475	1255							30						0	0		No TVD Log
3510921428	Griffin 28-1	Sec. 28 SWSESE(BHL)	7164	1254							60			33			16	16	Dist. Channel	No TVD Log

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API	Header Information	Legal Description	TD	KB	TO	TOS	BO	BOS	TV	TVS	ISO	TP	BP	CHI	SSI	SHI	GS	NT	DPEN	COM
3510921548	Brumfield 29-1	Sec. 28 SWSENE(Sec29BHL)	7534	1243							90						0	0		No TVD Log
	Brumfield 28-B-2	Sec. 28 NWNW(BHL)	7200	1243	6585	-5342	6660	-5417	6772	-5529	112	6605			0	112	0	0		
3510921652	Southern Oaks 28-1	Sec. 28 NENWNE	6864	1244	6490	-5246	6545	-5301	6630	-5386	85	6550			0	85	0	0		
3510921456	Griffin 28-2	Sec. 28 SESESW(BHL)	7686	1253							60						0	0		No TVD Log
3510921664	S.W. Bank 21C-2	Sec. 29 NWSW(Sec29BHL)	7940	1251							70						0	0		No TVD Log
3510921641	Howry 32-1	Sec. 32 NWNESE	8199	1264	6765	-5501	6840	-5576	6920	-5656	80	6855	6875	45	18	62	18	18	Dist. Channel	
3510921414	Advantage 33-1	Sec. 33 SWNENW(BHL)	7398	1260							60			32			8	8	Dist. Channel	No TVD Log
3510921045	Maxey 34-1	Sec. 34 SESWNE	7788	1290	6592	-5302	6650	-5360	6745	-5455	95	6670	6685	60	2	93	2	0	Dist. Channel	
	Steinmeyer 34-1	Sec. 34 NESWSE(BHL)	7391	1326	6705	-5379	6750	-5424	6840	-5514	90	6760	6785	55	4	88	4	4	Dist. Channel	
3510921441	Springfield 2-34	Sec. 34 CNWSW(BHL)	7520	1310	6665	-5355	6710	-5400	6795	-5485	85	6715	6740	55	4	81	4	0	Dist. Channel	
3510920195	LPSU Tract 404	Sec. 35 NESWSENE	6609	1301	6395	-5094	6432	-5131	6543	-5242	111	6436	6535	8	55	56	55	55	Channel	
3510921326	Starr 35-1	Sec. 35 NESWSW(BHL)	7357	1328							70						0	0		No TVD Log
	R. Lord 1	Sec. 35 NWSENE	6630	1287	6475	-5188	6520	-5233	6570	-5283	50	6525			0	50	0	0		
	Miller 2	Sec. 35 CNW	6720	1275	6520	-5245	6590	-5315	6665	-5390	75	6595			0	75	0	0		KB est.
	Goldia Lord 2	Sec. 35 SWNENE	6542	1271	6335	-5064	6395	-5124	6485	-5214	90	6405	6485	0	70	20	70	?	Channel	No Por. Log
3510920179	Oklahoma State C-12	Sec. 36 CNESW	6575	1328	6420	-5092	6445	-5117	6520	-5192	75	6452	6505	15	48	27	48	48	Channel	
3510920174	Oklahoma State A-15	Sec. 36 CSENE	6526	1345	6365	-5020	6405	-5060	6490	-5145	85	6420			44	41	44	44	Channel	
	Tract 15 1-W	Sec. 36 NWSWSW	7200	1305	6532	-5227	6550	-5245	6630	-5325	80	6565	6575	55	10	70	10		Channel	No Por. Log
3510920203	Oklahoma State C-14	Sec. 36 CNWSE	6569	1347	6415	-5068	6440	-5093	6530	-5183	90	6450	6520	10	60	30	60	60	Channel	

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API	Header Information	Legal Description	TD	KB	TO	TOS	BO	BOS	TV	TVS	ISO	TP	BP	CHI	SSI	SHI	GS	NT	OPEN	COM
	Fuson 1	Sec. 1 SWNENE	7749	1195	6654	-5459	6750	-5555	6812	-5617	62	6760			0	62	0	0		
	Spencer 1	Sec. 4 N/2S/2NESW	7762	1223	7090	-5867	7168	-5945	7231	-6008	63	7178			0	63	0	0		
3510920340	Knotts 1	Sec. 5 NENENESW	7840	1227	7178	-5951	7252	-6025	7320	-6093	68	7270			0	68	0	0		
3510920515	Midwest 1	Sec. 6 SESWNW	8180	1228	7302	-6074	7388	-6160	7450	-6222	62	7395			0	62	0	0		
3510920564	Lightner 1	Sec. 6 SWSWNESW	8200	1225	7311	-6086	7395	-6170	7456	-6231	61	7409			0	61	2	0	Bar	
3510920629	Swatek 7-2	Sec. 7 NESENWNW	8183	1262	7355	-6093	7432	-6170	7508	-6246	76	7450			0	76	0	0		
3510920651	Lottie 7-1	Sec. 7 E/2E/2NWSW	8200	1294	7408	-6114	7480	-6186	7555	-6261	75	7500			0	75	0	0		
3510920487	Southern 7-1	Sec. 7 CSWSE	9540	1272	7330	-6058	7408	-6136	7474	-6202	66	7415			0	66	0	0		
3510920682	Council 8-1	Sec. 8 CSWSWNW	9579	1261	7292	-6031	7370	-6109	7438	-6177	68	7380			0	68	0	0		
3510920636	Wolf 8-1	Sec. 8 CSWSWNE	8216	1246	7238	-5992	7313	-6067	7384	-6138	71	7314			0	71	0	0		
3510920918	Salyer 9-1	Sec. 9 NWSWSW	8500	1254	7215	-5961	7290	-6036	7360	-6106	70	7300			0	70	0	0		
	F. Russel Boeking 1	Sec. 10 SWSESE	8420	1255	7040	-5785	7105	-5850	7186	-5931	81	7120			0	81	0	0		
3510921603	USF&G 18C-2	Sec. 13 SWSESE	7585	1235	6770	-5535	6850	-5615	6919	-5684	69	6855	6904	15	36	34	36	36	Channel	
3510921133	Renea 1-14	Sec. 14 SENESW	7515	1268	7108	-5840	7171	-5903	7257	-5989	86	7188			0	86	0	0		
3510920907	Ann 1-14	Sec. 14 NWNWSE	7487	1263	6990	-5727	7058	-5795	7141	-5878	83	7065			6	77	6	0	Bar	
3510921259	Airport 1-15	Sec. 15 NWNESE	7720	1270	7177	-5907	7248	-5978	7332	-6062	84	7260			10	74	10	0	Bar	
	Zurline, H. 1	Sec. 16 CSENW	7685	1287	7260	-5973	7340	-6053	7403	-6116	63	7345			0	63	0	0		
3510920739	FNBTC 1-17	Sec. 17 CNWSE	8623	1268	7312	-6044	7388	-6120	7465	-6197	77	7398			0	77	0	0		
3510920617	Grand Bou. Dev. 1-17	Sec. 17 E/2E/2NWNW	8595	1266	7305	-6039	7380	-6114	7453	-6187	73	7396			0	73	0	0		
3510920482	Shock 18-1	Sec. 18 CW/2E/2NE	8534	1268	7332	-6064	7408	-6140	7482	-6214	74	7422			0	74	0	0		
3510920602	Sharpe 18-1	Sec. 18 NWNENENW	8350	1289	7361	-6072	7435	-6146	7510	-6221	75	7451			0	75	0	0		
3510920346	Winds West 1	Sec. 18 CNESW	8393	1303	7430	-6127	7508	-6205	7580	-6277	72	7518			0	72	0	0		
	Todd 1	Sec. 19 CSESW	8024	1306	7510	-6204	7590	-6284	7668	-6362	78	7598			0	78	0	0		
	Cermak 1	Sec. 19 NWNENW	7885	1298	7450	-6152	7525	-6227	7598	-6300	73	7540			4	69	4	0	Bar	
3510920859	Stotts 1-20	Sec. 20 SESWNE	9408	1278	7341	-6063	7420	-6142	7501	-6223	81	7432			0	81	0	0		
3510920776	Vierson 1-20	Sec. 20 NWSESE	9650	1291	7391	-6100	7480	-6189	7568	-6277	88	7504			0	88	0	0	Mud Channel	Verd. Eroded
3510920802	Hardy 1	Sec. 21 NWSESESW	9530	1294	7312	-6018	7382	-6088	7471	-6177	89	7395			0	89	0	0		
	Nicor 1	Sec. 21 CNWSW	9450	1294	7336	-6042	7412	-6118	7496	-6202	84	7420			0	84	0	0		
3510920803	Naifeh 21-1	Sec. 21 CSWNE	9452	1268	7261	-5993	7331	-6063	7465	-6197	134	7352			4		4	4	Bar	
3510920804	Kroos 1-21	Sec. 21 NWNW	9426	1279	7306	-6027	7379	-6100	7453	-6174	74	7389			0	74	0	0		
	Airport Trust 22-1	Sec. 22 SESW	8024	1254	7162	-5908	7230	-5976	7321	-6067	91	7241			0	91	0	0		
3510920904	Airport Trust B-22-1	Sec. 22 NESESE	8280	1295	7150	-5855	7215	-5920	7312	-6017	97	7246	7310	2	28	69	28	28	Channel	
3510921188	Airport Trust C-22-1	Sec. 22 W/2SESW	7910	1287	7270	-5983	7350	-6063	7438	-6151	88	7253			0	88	0	0	Mud Channel	
3510920994	Caroline 1-22	Sec. 22 SESENE	7640	1310	7138	-5828	7222	-5912	7306	-5996	84	7232			0	84	0	0		
3510920836	Airport Trust 23-1	Sec. 23 CSWSW	7810	1302	7140	-5838	7216	-5914	7307	-6005	91	7245	7305	2	42	49	42	40	Channel	
3510920999	Airport Trust A-23-1	Sec. 23 NESWSE(BHL)	7720	1312	7099	-5787	7166	-5854	7231	-5919	65	7167	7221	10	30	35	30	30	Channel	
3510921096	Airport Trust B-23-1	Sec. 23 N/2SESW	7640	1315	7119	-5804	7198	-5883	7284	-5969	86	7199	7284	0	76	10	76	76	Channel	
3510921339	Airport Trust J-23-1	Sec. 23 SESWNE(BHL)	7580	1283	7047	-5764	7125	-5842	7202	-5919	77	7129	7187	15	42	35	42	42	Channel	
3510921244	Airport Trust I-23-1	Sec. 23 NWSE(BHL)	7600	1305	7085	-5780	7164	-5859	7252	-5947	88	7168	7248	4	59	29	59	59	Channel	
3510921427	Airport Trust K-23-1	Sec. 23 NENENE(BHL)	7450	1285		1285					108				42	66	42	36	Channel	No TVD Log
3510921153	Airport Trust C-23-1	Sec. 23 E/2SENE	7430	1285	7004	-5719	7058	-5773	7160	-5875	102	7078	7142	18	32	70	32	32	Channel	
3510921097	Airport Trust E-23-1	Sec. 23 E/2SESE	7450	1286	7076	-5790	7108	-5822	7204	-5918	96	7108	7180	24	28	68	28	28	Channel	
3510921240	Airport Trust F-23-1	Sec. 23 NENESE	7452	1282	7000	-5718	7080	-5798	7160	-5878	80	7080	7160	0	65	15	65	65	Channel	Part Er. Verd.
3510921314	Airport Trust H-23-1	Sec. 23 SENESW	7558	1304	7080	-5776	7170	-5866	7252	-5948	82	7182	7246	6	54	28	54	54	Channel	
3510921307	Carey 24-1	Sec. 24 NWSENW(BHL)	7753	1281	6941	-5660	7015	-5734	7100	-5819	85	7019	7088	12	64	21	64	64	Channel	
3510921088	Airport Trust A-24-1	Sec. 24 660FSL1980FWL	8678	1267	6967	-5700	7049	-5782				7059			8		8	4	Mud Channel	Eroded Verd.
3510921060	Airport Trust 24-1	Sec. 24 SWSWNW	8646	1275	6975	-5700	7058	-5783	7135	-5860	77	7060	7125	10	65	12	65	65	Channel	
3510921172	Airport Trust B-24-1	Sec. 24 NWSWSW (BHL)	7520	1280		1280		1280		1280	84						19	19	Channel	No TVD Log
3510921157	Airport Trust D-24-1	Sec. 24 NWNWSW(BHL)	7430	1280	6972	-5692	7058	-5778	7127	-5847	69	7058	7121	6	60	9	60	60	Channel	
3510921125	Airport Trust C-24-1	Sec. 24 SENWNW(BHL)	7540	1282	6955	-5673	7010	-5728	7111	-5829	101	7025	7085	26	20	81	20	20	Channel	
3510921315	Carey A-24-1	Sec. 24 SENENW(BHL)	7690	1283							82				20	62	20	20	Channel	No TVD Log
3510921342	Goldman 1-24	Sec. 24 NWSWNE(BHL)	7535	1271							84				56	28	56	56	Channel	No TVD Log

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API	Header Information	Legal Description	TD	KB	TO	TOS	BO	BOS	TV	TVS	ISO	TP	BP	CHI	SSI	SHI	GS	NT	DPEN	COM
3510921374	Goldman 2-24-A	Sec. 24 SENWNE(BHL)	7825	1271							86				26	60	26	26	Channel	No TVD Log
3510921336	Rowland 1-13	Sec. 24 SESWSE(BHL)	8250	1282							90				28	62	28	28	Channel	No TVD Log
3510921345	Goldman 4-24	Sec. 24 NWSENE(BHL)	7785	1271							86				50	36	50	50	Channel	No TVD Log
3510921382	Goldman 5-24	Sec. 24 NWNWSE(BHL)	7400	1271							90				38	52	38	38	Channel	No TVD Log
3510921383	Goldman 6-24	Sec. 24 N/2NESE(BHL)	7700	1271							94				14	80	14	14	Mud Channel	No TVD Log
3510921209	Airport Trust 25-1	Sec. 25 NWNWNW	7500	1282	7026	-5744	7108	-5826	7200	-5918	92	7110	7210	-10	30	62	30	30	Channel	Verd. Eroded
3510921509	Brincks 1	Sec. 25 NESENW	7846	1287	7400	-6113	7460	-6173	7552	-6265	92	7480			0	92	0	0		
3510921286	Airport Trust B-25-1	Sec. 25 NWSESW	7744	1297	7165	-5868	7216	-5919	7290	-5993	74	7226			0	74	0	0		
3510921210	Airport Trust A-25-1	Sec. 25 SWSW	7800	1300	7163	-5863	7202	-5902	7302	-6002	100	7205			0	100	0	0		
3510920867	Airport Trust 26-1	Sec. 26 NWNWNW	8170	1297	7140	-5843	7222	-5925	7310	-6013	88	7230	7310	0	46	42	46	46	Channel	
3510921022	Airport Trust A-26-1	Sec. 26 E/2NENE	7983	1290	7040	-5750	7118	-5828	7184	-5894	66	7120	7176	8	35	31	35	35	Channel	
3510921196	Airport Trust J-26-1	Sec. 26 400FSL2290FWL	8055	1304	7193	-5889	7266	-5962	7357	-6053	91	7276			2	89	2	0	Bar	
3510921099	Airport Trust 26-2	Sec. 26 NENW	7642	1304	7151	-5847	7196	-5892			-7196	7212	7279		49		49	49	Channel	Eroded Verd.
3510921189	Airport Trust C-26-1	Sec. 26 E/2SESE	7700	1307	7142	-5835	7210	-5903	7312	-6005	102	7218			0	102	0	0		
3510921098	Airport Trust D-26-1	Sec. 26 CNWNE(BHL)	7710	1303							72				46		46	46	Channel	No TVD Log
3510921261	Airport Trust G-26-1	Sec. 26 NWSWNW	7730	1298	7154	-5856	7238	-5940	7320	-6022	82	7250	7314	6	36	46	36	36	Channel	
3510920921	Airport Trust 27-1	Sec. 26 NENE(BHL)	8364	1299	7151	-5852	7240	-5941			-7240	7260	7340		55		55	55	Channel	Verd. Eroded
3510921010	Airport Trust A-27-1	Sec. 27 W/2SESW	9253	1276	7275	-5999	7350	-6074	7465	-6189	115	7365			4	111	4	2	Bar	
3510921115	Airport Trust B-27-1	Sec. 27 NWSWNE	7800	1289	7175	-5886	7255	-5966	7346	-6057	91	7260	7346	0	46	45	46	46	Channel	
	Airport Trust C-27-1	Sec. 27 NENW(BHL)	8160	1286	7179	-5893	7257	-5971	7358	-6072	101	7276	7354	4	42	59	42	40	Channel	
3510920786	Airport Trust D-27-1	Sec. 27 SESWNWNW	8040	1290	7218	-5928	7296	-6006	7395	-6105	99	7312	7390	5	18	81	18	18	Dty Channel	
3510921128	Airport Trust E-27-1	Sec. 27 NESE(BHL)	8160	1283	7215	-5932	7290	-6007	7400	-6117	110	7307			2	108	2	0	Bar	
3510921184	Airport Trust F-27-1	Sec. 27 CNE(BHL)	7895	1291							105				36		36	36	Channel	Eroded Verd.
3510920735	Airport Trust 28-3	Sec. 28 E/2W/2NESE	8039	1312	7315	-6003	7388	-6076	7483	-6171	95	7420	7436	47	16	79	16	16	Channel Edge	
3510920684	Airport Trust 28-1	Sec. 28 CNWSE	8096	1303	7342	-6039	7432	-6129	7518	-6215	86	7445			34	52	34	34	Channel	IP 1300BO
3510920729	Clarkland A-28-2	Sec. 28 CSENWSW	8190	1310	7396	-6086	7480	-6170	7585	-6275	105	7498	7550	35	30	75	30	30	Channel	
3510920710	Airport Trust A-28-1	Sec. 28 SWNE	8061	1311	7327	-6016	7412	-6101	7524	-6213	112	7432	7510	14	52	60	52	52	Channel	
3510920752	Airport B-28-1	Sec. 28 CSENE	8152	1300	7313	-6013	7400	-6100	7520	-6220	120	7404	7514	6	64	56	64	64	Channel	
	Airport Trust 28-2	Sec. 28 CSWSE	8074	1299	7370	-6071	7440	-6141	7543	-6244	103	7453	7510	33	14	89	14	14	Channel	
3510920736	Clarkland B-28-1	Sec. 28 SESENW	9386	1311	7334	-6023	7410	-6099	7516	-6205	106	7440	7510	6	35	71	35	35	Channel	
3510920597	Clarkland 1	Sec. 28 CSWSWSW	9455	1317	7448	-6131	7520	-6203	7637	-6320	117	7535	7596	41	46	71	46	46	Channel	
3510921048	Purcell A-29-1	Sec. 29 E/2NWNW	9614	1321	7480	-6159	7562	-6241	7644	-6323	82	7578	7595	49	12	70	12	12	?	
3510920833	Purcell 1-29	Sec. 29 W/2NENW	8768	1305	7464	-6159	7545	-6240	7630	-6325	85	7555	7569	61	10	75	10	10	Channel	
3510921195	Morava 29-3	Sec. 29 NWNENE	9676	1299	7460	-6161	7550	-6251	7642	-6343	92	7562			4	88	4	0	Bar	
3510921052	Hunker 29-1	Sec. 29 SESENW	9554	1311	7468	-6157	7550	-6239	7640	-6329	90	7562			6	84	6	0	Bar	
3510920598	Stone 2	Sec. 29 NESE	9586	1322	7460	-6138	7540	-6218	7645	-6323	105	7568	7630	15	10	95	10	4	Channel Edge	
3510920591	Morava 29-2	Sec. 29 CSENE	9481	1310	7425	-6115	7515	-6205	7598	-6288	83	7530			0	83	0	0	Just Out Chan.	
3510920758	Fretz 29-1	Sec. 29 SWNESESW	8326	1317	7552	-6235	7628	-6311	7723	-6406	95	7670	7710	13	20	75	20	20	Channel	
3510920529	Morava 29-1	Sec. 29 NESWNENE	7920	1306	7465	-6159	7550	-6244	7645	-6339	95	7572	7592	53	12	83	12	12	Channel	
3510920926	Lunsford 1	Sec. 29 CSWSW	8398	1344	7605	-6261	7680	-6336	7775	-6431	95	7697			0	95	0	0		
3510920933	Fletcher 1	Sec. 30 CSWNE	9836	1308	7535	-6227	7618	-6310	7700	-6392	82	7630			8	74	8	6	Bar	
3510920687	Ironman 30-1	Sec. 30 W/2SESESW	8787	1250	7627	-6377	7706	-6456	7796	-6546	90	7718			0	90	0	0		
3510920721	Bear 31-1	Sec. 31 W/2SESENW	8940	1379	7724	-6345	7796	-6417	7892	-6513	96	7808			2	94	2	0	Bar	
3510920673	Schultz 31-1	Sec. 31 CSENE	8450	1335	7652	-6317	7709	-6374	7806	-6471	97	7714	7780	26	20	77	20	20	Channel	
3510920599	Wilkerson 1	Sec. 31 CNESE	8450	1317	7645	-6328	7708	-6391	7820	-6503	112	7720	7788	32	42	70	42	42	Channel	
3510920714	Powell 31-1	Sec. 31 E/2SWSESE	8450	1309	7710	-6401	7738	-6429	7880	-6571	142	7741	7818	62	45	97	45	30	Channel	
	Wilkerson 2	Sec. 31 CSWSE	8547	1331	7769	-6438	7794	-6463	7906	-6575	112	7805	7868	38	38	74	38	38	Channel	
3510920771	Hood 31-1	Sec. 31 CSWSESW	10003	1361	7796	-6435	7860	-6499	7952	-6591	92	7868	7908	44	0	92	0	0	Mud Channel	
3510920749	Aztec-Deweese 31-1	Sec. 31 CNWNWNW	8886	1373	7704	-6331	7780	-6407	7870	-6497	90	7792			4	86	4	0	Bar	
3510920870	Bode 3	Sec. 32 CSESESE	8050	1267	7502	-6235	7562	-6295	7665	-6398	103	7568			2	101	2	0	Bar	
3510920517	Thomason 32-1	Sec. 32 SWNENENW	8285	1282	7512	-6230	7592	-6310	7698	-6416	106	7630	7694	4	45	61	45	45	Channel	
	Drabek 1	Sec. 32 1980FSL1980FWL	8330	1295	7574	-6279	7620	-6325	7760	-6465	140	7630	7690	70	48	94	46	46	Channel	

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API	Header Information	Legal Description	TD	KB	TO	TOS	BO	BOS	TV	TVS	ISO	TP	BP	CHI	SSI	SHI	GS	NT	DPEN	COM
	Osborne 1	Sec. 32 SENW	8342	1306	7545	-6239	7605	-6299	7717	-6411	112	7614	7701	16	66	46	66	66	Channel	
3510920666	Orr 32-3	Sec. 32 CNWNENE	8025	1302	7446	-6144	7516	-6214			-7516	7526	7608		75		75	75	Channel	Eroded Verd.
3510920678	Orr 32-5	Sec. 32 CNWSENE	8000	1290	7469	-6179	7538	-6248	7650	-6360	112	7550	7602	48	40	72	40	40	Channel	
3510920464	Orr 32-1	Sec. 32 CNE	9650	1275	7475	-6200	7545	-6270	7658	-6383	113	7555	7645	13	70	43	70	70	Channel	
3510920614	Rogers 1	Sec. 32 E/2SWSWNW	8445	1339	7595	-6256	7670	-6331	7778	-6439	108	7700	7758	20	55	53	55	55	Channel	
	Frantz 1	Sec. 32 CNW	8388	1334	7580	-6246	7656	-6322	7755	-6421	99	7708	7745	10	12	87	12	12	Channel	
	King 1	Sec. 32 SESW	8325	1297	7620	-6323	7644	-6347	7772	-6475	128	7654	7690	82	8	120	8	0	Channel	
	Maruska 1	Sec. 32 SESW	8380	1307	7655	-6348	7690	-6383	7825	-6518	135	7698	7750	75	40	95	40	40	Channel	
3510921245	Airport Trust D-23-1	Sec. 33 NESE	8082	1259	7394	-6135	7454	-6195	7558	-6299	104	7465			2	102	2	2	Bar	
3510920950	Palmblade 3	Sec. 33 SWSW	8246	1274	7475	-6201	7526	-6252	7640	-6366	114	7548			6	108	6	6	Bar	
3510920500	Palmblade 33-1	Sec. 33 CNWSW	8360	1285	7510	-6225	7544	-6259	7660	-6375	116	7550			0	116	0	0		
3510920499	Patsy Ann 33-1	Sec. 33 CNWNW	8760	1305	7440	-6135	7512	-6207	7610	-6305	98	7532	7575	35	25	73	25	20	Channel	
3510920793	Airport Trust B-33-1	Sec. 33 NWSENE	8100	1275	7385	-6110	7452	-6177	7570	-6295	118	7464	7494	76	8	110	8	8	Channel Edge	
3510921091	Airport Trust C-33-1	Sec. 33 SWSE	8130	1266	7437	-6171	7498	-6232	7596	-6330	98	7511			4	94	4	0	Bar	
3510920816	Airport Trust 34-1	Sec. 34 CNWSW	8140	1262	7365	-6103	7428	-6166	7528	-6266	100	7438			3	97	3	0	Bar	
3510920834	Airport Trust 34-2	Sec. 34 E/2W/2SWNW	8110	1265	7355	-6090	7424	-6159	7532	-6267	108	7435			10	98	10	10	Channel Edge	
3510920875	Airport Trust A-34-1	Sec. 34 E/2SENW	8560	1285	7299	-6014	7363	-6078	7460	-6175	97	7376			0	97	0	0		
	Airport Trust B-34-1	Sec. 34 NWSE	8657	1278	7331	-6053	7401	-6123	7491	-6213	90	7416			0	90	0	0		
3510921278	Airport Trust E-34-1	Sec. 34 SENENW	7740	1279	7312	-6033	7380	-6101	7490	-6211	110	7390			0	110	0	0		
3510920977	Will Rogers 35-1	Sec. 35 1980FSL300FEL	8350	1297	7232	-5935	7287	-5990	7358	-6061	71	7295			0	71	0	0		
3510921283	Airport Trust C-34-1	Sec. 35 NWSWSW	8055	1289	7628	-6339	7700	-6411	7809	-6520	109	7710			4	105	4	0	Bar	
3510921064	Airport Trust A-35-1	Sec. 35 SWNWNE	7880	1302	7290	-5988	7365	-6063	7450	-6148	85	7475			0	85	0	0		
	Airport Trust 35-1	Sec. 35 NWSWNW	8428	1297	7231	-5934	7304	-6007	7391	-6094	87	7314			0	87	0	0		
3510921143	State 1-36	Sec. 36 NWNW	8300	1322	7154	-5832	7218	-5896	7310	-5988	92	7224			0	92	0	0		
	State Tr. 51-1	Sec. 36 NESW	7668	1300	7175	-5875	7242	-5942	7315	-6015	73	7255			0	73	0	0		

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API	Header Information	Legal Description	TD	KB	TO	TOS	BO	BOS	TV	TVS	ISO	TP	BP	CHI	CHI	SSI	GS	NT	DPEN	COM
3501721620	McCauley 1	Sec. 1 CNENW	8695	1242	7335	-6093	7422	-6180	7490	-6248	68	7432			0	68	0	0		
3501721621	McCauley 2	Sec. 1 CNESW	8215	1256	7405	-6149	7483	-6227	7551	-6295	68	7493			0	68	0	0		
3501721870	Swisher 2	Sec. 1 CW/2NESE	8220	1248	7332	-6084	7412	-6164	7488	-6240	76	7425			0	76	0	0		
3501722002	CMI 2	Sec. 1 W/2SESWNW	8315	1250	7410	-6160	7494	-6244	7562	-6312	68	7504			0	68	0	0		
3501721786	CMI 1	Sec. 1 N/2SWSWSE	8285	1255	7390	-6135	7471	-6216	7541	-6286	70	7485			0	70	0	0		
3501722203	Balyeat Gladys 1-1A	Sec. 1 SESWNE	8200	1236	7318	-6082	7400	-6164	7470	-6234	70	7410			0	70	0	0		
3501721688	Faith 1	Sec. 1 NENWSWSW	8720	1285	7589	-6304	7680	-6395	7750	-6465	70	7690			0	70	0	0		
3501721597	Hope 1	Sec. 2 S/2NENWSE	8638	1282	7509	-6227	7601	-6319	7669	-6387	68	7617			0	68	0	0		
3501721807	Patience 1	Sec. 2 SENWNWSW	8650	1286	7574	-6288	7666	-6380	7735	-6449	69				0	69	0	0		
3501721696	Jernigan 1	Sec. 2 E/2NWNENW	9308	1298	7515	-6217	7608	-6310	7677	-6379	69	7614			0	69	0	0		
3501722429	Cary 3-4	Sec. 3 N/2S/2NWNE	8575	1307	7608	-6301	7706	-6399	7771	-6464	65				0	65	0	0		
3501721405	Cary 3-1	Sec. 3 CNWSE	8570	1282	7605	-6323	7700	-6418	7770	-6488	70	7710			0	70	0	0		
3501721810	Cary 3-2	Sec. 3 W/2NENWSW	8685	1297	7655	-6358	7752	-6455	7820	-6523	68	7762			0	68	0	0		
3501721452	McIntyre 2	Sec. 3 CSENW	8560	1303	7628	-6325	7725	-6422	7792	-6489	67				0	67	0	0		
3501721607	Wood Bros 4-4	Sec. 4 CNESENE	8910	1287	7650	-6363	7745	-6458	7820	-6533	75	7758			0	75	0	0		
3501720533	Woods Bros 1-4	Sec. 4 E/2SWNWSW	8320	1306	7776	-6470	7876	-6570	7943	-6637	67	7886			2	65	2	0	Bar	
	Oil Capital Corp "Brelli" 1	Sec. 4 CSESW	8553	1296	7760	-6464	7855	-6559	7928	-6632	73	7870			0	73	0	0		
	Woods Bros 4-6	Sec. 4 CSESESE	8930	1285	7690	-6405	7785	-6500	7855	-6570	70	7798			0	70	0	0		
3501721653	Tullos Henderson 5	Sec. 5 SENWSWSE	9000	1338	7854	-6516	7960	-6622	8038	-6700	78	7972			0	78	0	0		
3501721651	Tullos Henderson 4	Sec. 5 SENWNESE	9028	1319	7798	-6479	7903	-6584	7970	-6651	67	7912			0	67	0	0		
3501720374	Henderson 1	Sec. 5 CSW	8855	1344	7880	-6536	7985	-6641	8056	-6712	71	7995			0	71	0	0		
3501721560	CA Henderson 3	Sec. 5 SWNESWNW	9072	1337	7848	-6511	7955	-6618	8028	-6691	73	7969			0	73	0	0		
3501721851	CA Henderson 4	Sec. 5 SWNENESW	9026	1332	7851	-6519	7954	-6622	8018	-6686	64	7969			0	64	0	0		
3501721341	Tullos Henderson 2	Sec. 5 SWNESWNE	9040	1328	7810	-6482	7915	-6587	7990	-6662	75	7932			0	75	0	0		
	Wedman 1	Sec. 6 W/2SESW	9068	1374	8009	-6635	8118	-6744	8195	-6821	77	8123			4	73	4	0	Bar	
3501721872	Wedman 6-2	Sec. 6 E/2W/2NESW	9580	1370	7995	-6625	8105	-6735	8176	-6806	71				0	71	0	0		
3501720596	Myers 1	Sec. 6 E/2SWSENE	8666	1361	7912	-6551	8018	-6657	8085	-6724	67	8031			0	67	0	0		
3501721294	Shedeck 2	Sec. 6 NWSENWNW	9270	1377	8000	-6623	8115	-6738	8181	-6804	66	8123			0	66	0	0		
3501721357	Maxey 1-6	Sec. 6 CNESE	9150	1354	7910	-6556	8016	-6662	8088	-6734	72	8030			0	72	0	0		
3501721918	Bell 7-1	Sec. 7 S/2N/2SWSW	9250	1388	8062	-6674	8168	-6780	8240	-6852	72	8180			0	72	0	0		
3501720371	Edith Taylor 1	Sec. 7 CNE	8780	1391	8021	-6630	8132	-6741	8200	-6809	68	8142			0	68	0	0		
3501722142	Divis 1	Sec. 7 E/2W/2NESE	9220	1357	7982	-6635	8098	-6741	8170	-6813	72				2	70	2	0	Bar	
3501721857	Taylor 7-1	Sec. 7 CNENE	9035	1381	7985	-6604	8094	-6713	8160	-6779	66	8104			0	66	0	0		
3501721936	Taylor 7-2	Sec. 7 CSWNE	9150	1383	8028	-6645	8138	-6755	8209	-6826	71	8150			5	64	5	0	Bar	
3501722198	Buddy Phillips	Sec. 8 NESWNWNW	8970	1364	7936	-6572	8042	-6678	8112	-6748	70	8054			0	70	0	0		
3501722689	Phillips 1	Sec. 8 N/2SWSW	8800	1347	7944	-6597	8042	-6695	8120	-6773	78	8058			4	74	4	0	Bar	
3501720344	American First T&T Comp. 1	Sec. 8 CSWSE	8891	1339	7895	-6556	8000	-6661	8069	-6730	69	8008			0	69	0	0		
3501721720	Howard 1-8	Sec. 8 CSENE	9582	1322	7845	-6523	7945	-6623	8010	-6688	65	7951			0	65	0	0		
3501721640	Petree 8-1	Sec. 8 NESENWNE	8850	1328	7855	-6527	7958	-6630	8030	-6702	72	7970			10	62	10	0	Bar	
3501721654	American First T&T Comp. 1	Sec. 8 SWNENESE	9000	1346	7870	-6524	7965	-6619	8041	-6695	76	7976			0	76	0	0		
3501721445	Morris 1	Sec. 8 CSWSE	8735	1339	7909	-6570	8004	-6665	8080	-6741	76	8012			0	76	0	0		
3501721358	Turner 1-9	Sec. 9 CSWSE	9171	1296	7773	-6477	7862	-6566	7938	-6642	76	7874			0	76	0	0		
3501721682	Davis 1-9	Sec. 9 CNENE	9206	1289	7712	-6423	7806	-6517	7873	-6584	67				0	64	0	0		
3501721599	Wittkopp 10-2	Sec. 9 CSENE	8435	1265	7608	-6343	7696	-6431	7770	-6505	74	7708			0	74	0	0		
3501721598	Wittkopp 10-1	Sec. 10 CNWNE	8500	1270	7618	-6348	7708	-6438	7785	-6515	77	7724			0	77	0	0		
3501723062	Brogden 1	Sec. 10 NWNW	8590	1275	7670	-6395	7762	-6487	7833	-6558	71	7776			0	71	0	0		
3501722227	Cary 2	Sec. 10 E/2W/2NESE	8649	1271	7618	-6347	7708	-6437	7778	-6507	70				0	70	0	0		
3501721697	Southbound 1	Sec 11 SENWNWSW	8720	1262	7578	-6316	7668	-6406	7740	-6478	72	7678			8	64	8	0	Bar	
3501722060	Hole-N-1	Sec. 11 W/2SWNESE	8575	1257	7538	-6281	7620	-6363	7690	-6433	70	7634			0	70	0	0		
	American First 1	Sec. 11 CSWNWSW	9344	1264	7586	-6322	7678	-6414	7747	-6483	69	7687			0	69	0	0		
	Berousek 2	Sec. 12 NWSE	8316	1259	7412	-6153	7492	-6233	7560	-6301	68	7502			0	68	0	0		
3501720186	Swetek 1	Sec.12 CNE	8140	1255	7398	-6143	7477	-6222	7548	-6293	71	7486			0	71	0	0		
3501720982	Olga 1	Sec. 12 W/2W/2E/2SW	7865	1254	7466	-6212	7552	-6298	7618	-6364	66	7561			0	66	0	0		
3501721874	Kimball 1	Sec. 12 CNENW	8275	1250	7405	-6155	7484	-6234	7549	-6299	65	7495			0	65	0	0		
3501722010	Cobb-Carter 13-1	Sec. 13 CNENW	8352	1282	7510	-6228	7592	-6310	7661	-6379	69				0	69	0	0		

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API	Header Information	Legal Description	TD	KB	TO	TOS	BO	BOS	TV	TVS	ISO	TP	BP	CHI	CHI	SSI	GS	NT	DPEN	COM
3501722368	Krivanek 13-1	Sec. 13 CNENENE	8400	1289	7440	-6151	7516	-6227	7585	-6296	69				0	69	0	0		
3501722388	EC Hirschler 1-13	Sec. 13 E/2W/2NESW	8340	1299	7536	-6237	7618	-6319	7698	-6399	80	7634			8	72	8	4	Bar	
3501721919	George Morgan 1-14	Sec. 14 E/2W/2NESE	8412	1277	7572	-6295	7656	-6379	7734	-6457	78	7666			6	72	6	6	Bar	
3501721740	Netherton 15-1	Sec. 15 CSWSW	8895	1294	7805	-6511	7894	-6600	7988	-6694	94	7917			21	73	21	0	Bar	
3501721811	Johnson 15-1	Sec. 15 CNESW	8640	1285	7752	-6467	7836	-6551	7918	-6633	82	7850			10	74	10	8	Bar	
3501721791	Phillips 2-15	Sec. 15 CNENW	8673	1336	7716	-6380	7806	-6470	7878	-6542	72	7816			2	70	2	0	Bar	Poor Log
3501721998	Shaver 15-1	Sec. 15 CNESE	8520	1290	7690	-6400	7772	-6482	7853	-6563	81	7786			2	79	2	2	Bar	
3501721744	Nicholson 1-15	Sec. 1-15 CNENE	8500	1270	7624	-6354	7708	-6438	7781	-6511	73				0	73	0	0		
3501720802	Smith 16-A	Sec. 16 N/2N/2N/2SW	8650	1328	7884	-6556	7974	-6646	8051	-6723	77	7987			0	77	0	0		
3501721642	Welch 1	Sec. 16 N/2S/2NESW	9040	1291	7880	-6589	7980	-6689	8066	-6775	86	7995			0	86	0	0		
3501721519	Little 1	Sec. 16 SWNENENE	8800	1315	7782	-6467	7872	-6557	7950	-6635	78	7884			0	78	0	0		
3501721821	Patzack 1	Sec. 17 E/2E/2SWSW	9160	1340	7995	-6655	8086	-6746	8169	-6829	83	8098			0	83	0	0		
3501722332	Central Investors	Sec. 17 N/2S/2SWNW	8919	1326	7950	-6624	8042	-6716	8120	-6794	78	8052			3	75	3	0	Bar	
3501721752	Kerr McGee Corp 1	Sec. 18 CNENE	8760	1346	7928	-6582	8021	-6675	8100	-6754	79	8035			0	79	0	0		
3501722228	Eckroat 18-1	Sec. 18 CSWSWSW	9730	1383	8126	-6743	8222	-6839	8304	-6921	82	8238			0	82	0	0		
3501722042	Kerr McGee Corp 2	Sec. 18 CNENW	8500	1368	7970	-6602	8068	-6700	8148	-6780	80	8080			0	80	0	0		
3501722882	Eckroat 18-2	Sec. 18 S/2NESW	8635	1378	8060	-6682	8161	-6783	8245	-6867	84	8185			5	79	5	0	Bar	
3501721921	Brindley 19-1	Sec. 19 CN/2NENE	9129	1336	8040	-6704	8134	-6798	8218	-6882	84	8152			6	78	6	0		
3501722336	Brindley 19-2	Sec. 19 CS/2SESE	8793	1358	8110	-6752	8200	-6842	8287	-6929	87	8215			0	87	0	0		
3501722343	Kozak 19-1 (NW 1/4)	Sec. 19 S/2NWNENW	8800	1363	8094	-6731	8192	-6829	8277	-6914	85	8207			0	85	0	0		
3501722544	Smith 19-1	Sec. 19 CSESWSE	8778	1363	8136	-6773	8225	-6862	8319	-6956	94	8236			0	94	0	0		
3501722094	Horlivy 19-1	Sec. 19 660 FWL & 460 FSL	8830	1391	8203	-6812	8293	-6902	8381	-6990	88	8308			0	88	0	0		
3501722735	Hirsch 3	Sec. 20 SESESE	8543	1324	8008	-6684	8104	-6780	8185	-6861	81	8114			0	81	0	0		
	Mitchell 1-20	Sec. 20 CNENE	8666	1334	7960	-6626	8052	-6718	8130	-6796	78	8064			0	78	0	0		
	Brindley 20-1	Sec. 20 CSWSW	9120	1347	8053	-6706	8144	-6797	8232	-6885	88	8158			0	88	0	0		
	AJ Semtner 1	Sec. 21 CNENW	10153	1316	7890	-6574	7982	-6666	8063	-6747	81	7992			0	81	0	0		
3501720211	Taylor 1	Sec. 21 SWNENE	8502	1302	7848	-6546	7938	-6636	8020	-6718	82	7948			25	57	25	0	Bar	Poor Log
	Semtner 1	Sec. 21 CW/2SWNW	8960	1255	7938	-6683	8028	-6773	8118	-6863	90	8046			8	82	8	0	Bar	
	Thiemer 1	Sec. 21 CSWSE	8636	1314	7918	-6604	8010	-6696	8097	-6783	87	8019			0	87	0	0		
3501720215	Young 1-1	Sec. 22 CSWNW	8505	1292	7839	-6547	7926	-6634	8010	-6718	84	7940			0	84	0	0		
3501721545	Reinaeur 2	Sec. 22 CSWSWNE	8712	1327	7835	-6508	7922	-6595	8003	-6676	81	7935			0	81	0	0		
	Wilson 1	Sec. 22 SWSW	8550	1299	7880	-6581	7964	-6665	8051	-6752	87	7974			0	87	0	0		
3501721579	Young 1-1	Sec. 22 CNWNENW	8962	1283	7794	-6511	7880	-6597	7964	-6681	84	7895			6	78	6	6	Bar	
3501721433	Reinaeur 1	Sec. 22 CNWNE	8730	1299	7804	-6505	7894	-6595	7985	-6686	91	7920			14	77	14	10	Bar	
3501720358	Mosteller 2-A	Sec. 22 SWSWSE	8600	1329	7867	-6538	7957	-6628	8042	-6713	85	7970			0	85	0	0		
3501720209	Franta 1	Sec. 23 CSWNW	9020	1322	7729	-6407	7817	-6495	7895	-6573	78	7827			0	78	0	0		
3501720188	Borneman 1	Sec. 23 SWSW	8690	1355	7806	-6451	7894	-6539	7978	-6623	84	7907			12	72	12	12		
3501721966	Rose Drabek 1-24	Sec. 24 S/2N/2SWSW	8540	1335	7678	-6343	7762	-6427	7838	-6503	76	7774			4	72	4	4	Bar	
3501722485	Brant 1	Sec. 24 CSWNE	8400	1330	7550	-6220	7634	-6304	7709	-6379	75	7656			4	71	4	4	Bar	
3501720172	Krivanek 1	Sec. 25 CNENE	9786	1331	7580	-6249	7662	-6331	7735	-6404	73	7678			0	73	0	0		
3501721546	Bornamann 3	Sec. 26 CW/2NWSW	8844	1282	7905	-6623	7992	-6710	8069	-6787	77	8008			0	77	0	0		
3501723074	Barbour A-1	Sec. 26 E/2NWSE	8300	1345	7828	-6483	7912	-6567	7992	-6647	80	7930			0	80	0	0		
3501723017	Barbour 26-1	Sec. 26 SWNESE	8788	1344	7900	-6556	8000	-6656	8082	-6738	82				0	82	0	0		
	Curtis 1	Sec. 27 CNESW	8560	1324	7912	-6588	7996	-6672	8088	-6764	92	8010			0	92	0	0		
3501720147	Ross 1	Sec. 27 CSWNE		1356	7920	-6564	8006	-6650	8090	-6734	84	8015			6	78	6	0	Bar	
	Dodson 1	Sec. 27 CSWNW	8841	1313	7902	-6589	7994	-6681	8078	-6765	84	8007			0	84	0	0		
3501720165	Morrow Unit 1	Sec. 27 N/2SWSE	8598	1356	7940	-6584	8030	-6674	8109	-6753	79	8043			7	72	7	0	Bar	
3501720293	Curtis 2	Sec. 27 CSWSW	8657	1331	7950	-6619	8048	-6717	8140	-6809	92	8056			0	92	0	0		
	Kerr McGee Fee 1	Sec. 28 CNESW	8690	1329	8007	-6678	8096	-6767	8191	-6862	95	8113			0	95	0	0		
3501722716	Davidson 28-1	Sec. 28 NWNWNW	8850	1330	8970	-7640	8060	-6730	8140	-6810	80	8069			0	80	0	0		
3501720270	Deweese 2	Sec. 28 CE/2SWNE	8700	1332	7955	-6623	8050	-6718	8140	-6808	90	8060			0	90	0	0		
	Deweese 1	Sec. 28 CNENE	8600	1326	7912	-6586	8006	-6680	8091	-6765	85	8014			0	85	0	0		
3501721706	Jacobs 2	Sec. 28 NESW	9040	1291	8010	-6719	8104	-6813	8199	-6908	95	8115			0	95	0	0		
	Stevens 1	Sec. 28 CNESE	8660	1334	7960	-6626	8052	-6718	8142	-6808	90	8064			0	90	0	0		
3501722488	Spitler 1	Sec. 29 S/2SWSW	9050	1372	8194	-6822	8292	-6920	8390	-7018	98	8310			4	94	4	4	Bar	

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3501721737	Swart 1-29	Sec. 29 N/2N/2SENE	1339	9075	8030	1045	8120	955	8204	871	84	8136			0	84	0	0		
3501722518	Brindley 29-1	Sec. 29 SENWNWNW	8711	1346	8100	-6754	8191	-6845	8282	-6936	91	8205			8	83	8	4	Bar	
3501722390	McDowell/Manley-Hadson	Sec. 30 CNWNESW	9510	1355	8208	-6853	8304	-6949	8390	-7035	86	8318			0	86	0	0		
3501722353	Little 1-30	Sec. 30 CNENE	8810	1358	8130	-6772	8220	-6862	8310	-6952	90	8239			8	82	8	4	Bar	
3501722369	Berkley 30-1	Sec. 30 CNWNE	8820	1363	8158	-6795	8248	-6885	8331	-6968	83	8269			0	83	0	0		
3501722276	Masopust 1-30	Sec. 30 CS/2NENW	8902	1384	8193	-6809	8282	-6898	8369	-6985	87	8308			6	81	6	0	Bar	
3501722600	Davis-Mc Whirter 1	Sec. 30 CS/2NWSW	8960	1346	8220	-6874	8315	-6969	8399	-7053	84	8330			0	84	0	0		
	Hoss 1	Sec. 31 SE/4	8995	1347	8230	-6883	8312	-6965	8416	-7069	104	8324			0	104	0	0		
3501720243	Robberson 33-1	Sec. 33 N/2NESESE	8830	1365	8115	-6750	8188	-6823	8279	-6914	91	8205			0	91	0	0		
3501722486	Merrill 1-33	Sec. 33 E/2SESWSW	9110	1354	8208	-6854	8288	-6934	8388	-7034	100	8305			0	100	0	0		
3501720213	Robberson 34-1	Sec. 34 SESWSW		1370	8120	-6750	8192	-6822	8288	-6918	96	8208			8	88	8	0		
3501720158	Morgenson 1	Sec. 34 CNESE	8969	1374	8070	-6696	8140	-6766	8226	-6852	86	8151			0	86	0	0		
3501720290	Directional 1	Sec. 34 S/2SWNWNW	8835	1371	8138	-6767	8220	-6849	8311	-6940	91	8230			0	91	0	0		
3501720155	Trimble 1	Sec. 34 CNWNE	9005	1349	7950	-6601	8030	-6681	8120	-6771	90	8043			0	90	0	0		
3501720198	Fudge and Walker 1	Sec. 34 NESESW	8800	1363	8098	-6735	8170	-6807	8260	-6897	90	8188			2	88	2	0	Bar	
3501720180	Mustang 1	Sec. 34 N/2SENENW	8637	1335	7980	-6645	8058	-6723	8145	-6810	87	8074			10	77	10	8	Bar	
3501720206	Smith 1	Sec. 35 CW/2SWSW	8717	1389	8078	-6689	8155	-6766	8241	-6852	86	8170			0	86	0	0		
3501720181	Robberson 1	Sec. 35 SWSWNW	8638	1395	8020	-6625	8100	-6705	8186	-6791	86	8110			0	86	0	0		
3501720218	La Mons 1	Sec. 35 SWSWNE	8585	1421	7982	-6561	8045	-6624	8133	-6712	88	8055			0	88	0	0		
3501720193	Holiday 1	Sec. 35 NESWSWSE	8632	1370	8002	-6632	8075	-6705	8160	-6790	85	8085			0	85	0	0		
3501722658	Vasicek 2	Sec. 36 SESESE	8965	1415	7893	-6478	7956	-6543	8052	-6637	94	7972			0	94	0	0		
3501722779	Vasicek 3	Sec. 36 SWSWSE	8730	1400	7897	-6497	7968	-6568	8055	-6655	87	7978			0	87	0	0		
3501722333	Vasicek 1	Sec. 36 CNENESE	8623	1416	7875	-6459	7947	-6531	8042	-6626	95	7959			0	95	0	0		
3501722876	Vaughn 1-G-E-36	Sec. 36 NWSENW	8715	1416	7860	-6444	7936	-6520	8031	-6615	95	7950			2	93	2	0	Bar	
3501722929	Vasicek 4-36	Sec. 36 NWSE	8690	1399	7860	-6461	7935	-6536	8018	-6619	83	7947			0	83	0	0		

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3501720241	Wedman 1	Sec. 1 CSWSW	9260	1336	8089	-6753	8200	-6864	8265	-6929	65	8210			0	65	0	0		
3501722351	Miller 2	Sec. 1 CSWNE	9300	1334	8032	-6698	8140	-6806	8218	-6884	78	8160			0	78	0	0		
3501722154	Florence 1	Sec. 1 CSWNW	9350	1340	8069	-6729	8178	-6838	8242	-6902	64	8190			0	64	0	0		
3501723416	Florence 2-1	Sec. 1 SENWNW	9403	1349	8065	-6716	8180	-6831	8240	-6891	60	8185			0	60	0	0		
3501721784	Shedeck 1-1	Sec. 1 CNESE	9530	1370	8057	-6687	8158	-6788	8232	-6862	74	8175			0	77	0	0		
3501721378	Wedmen 2	Sec. 1 W/2E/2SWSW	9310	1338	8088	-6750	8202	-6864	8266	-6928	64	8211			0	64	0	0		
3501721343	Miller 1	Sec. 1 NESWNENE	9260	1353	8010	-6657	8122	-6769	8190	-6837	68	8138			2	66	2	0	Bar	
3501723188	Charlie 2-1	Sec. 2 SENWNW	8990	1361	8175	-6814	8287	-6926	8350	-6989	63	8300			0	63	0	0		
3501721846	Kaplan 2-1	Sec. 2 SESWNENE	9976	1327	8081	-6754	8192	-6865	8258	-6931	66	8204			0	66	0	0		
3501722395	Kaplan 2-2	Sec. 2 CNWNE	9839	1327	8092	-6765	8208	-6881	8275	-6948	67	8216			0	67	0	0		
3501721480	Piuniska 1	Sec. 2 CNW	10175	1357	8194	-6837	9305	-7948	9372	-8015	67	8318			2	65	2	0	Bar	
3501721801	Kirkegard 1	Sec. 3 CSENW	9657	1364	8290	-6926	8405	-7041	8476	-7112	71	8420			0	71	0	0		
3501723124	Alma 1-3	Sec. 3 CSE	8900	1359	8231	-6872	8372	-7013	8438	-7079	66	8357			0	66	0	0		
3501721253	Stejskal 1	Sec. 3 CSWNE	10241	1346	8220	-6874	8330	-6984	8400	-7054	70	8344			0	70	0	0		
3501721252	Smrecka 1	Sec. 3 CSWSE	10335	1362	8252	-6890	8368	-7006	8435	-7073	67	8380			0	67	0	0		
3501721538	Hardesty 1	Sec. 4 CSENE	10505	1373	8321	-6948	8438	-7065	8505	-7132	67	8453			0	67	0	0		
3501721013	Radciff 1	Sec. 4 CNWSW	9849	1367	8382	-7015	8508	-7141	8580	-7213	72	8524			0	72	0	0		
3501721032	Freeman 1	Sec. 5 CNENE	9628	1339	8342	-7003	8468	-7129	8540	-7201	72	8488			0	72	0	0		
3501720880	Manning 1	Sec. 5 CNENW	9623	1324	8364	-7040	8490	-7166	8561	-7237	71	8508			0	71	0	0		
3501721730	Allen 1	Sec. 6 CNENE	10558	1386	8439	-7053	8558	-7172	8633	-7247	75	8575			0	75	0	0		
3501720918	Coleman 1	Sec. 6 CNESW	10092	1328	8548	-7220	8665	-7337	8735	-7407	70	8682			0	70	0	0		
3501721871	Folk 1	Sec. 6 N/2S/2NWNW	9980	1357	8550	-7193	8665	-7308	8730	-7373	65	8680			0	65	0	0		Poor Log
3501720199	Kirkegard 1	Sec. 7 CSESW	10835	1360	8580	-7220	8615	-7255	8692	-7332	77	8640			5	72	5	0	Bar	
3501721421	Kolar 1	Sec. 9 CNWSE	10491	1402	8495	-7093	8602	-7200	8687	-7285	85	8624			0	85	0	0		
3501722670	Sullivan 2	Sec. 10 CNESWNE	8900	1374	8280	-6906	8400	-7026	8479	-7105	79	8410			0	79	0	0		Poor Log
3501721803	Sullivan 1	Sec. 10 CNENE	9840	1371	8266	-6895	8382	-7011	8458	-7087	76	8398			2	74	2	0	Bar	
3501721802	Jay 1	Sec. 10 CSENW	9740	1388	8320	-6932	8440	-7052	8512	-7124	72	8455			0	72	0	0		
3501720454	Stejskal 10-1	Sec. 10 CSE	10180	1374	8285	-6911	8394	-7020	8474	-7100	80	8410			0	80	0	0		
3501721575	Novak 1-11	Sec. 11 CNWNWNE	9680	1335	8140	-6805	8256	-6921	8325	-6990	69	8270			0	69	0	0		
3501721805	Lawson 1	Sec. 11 CNENW	9530	1347	8179	-6832	8288	-6941	8360	-7013	72	8303			4	68	4	0	Bar	
3501722253	Fry 2	Sec. 11 CSWNESW	9780	1365	8212	-6847	8330	-6965	8408	-7043	78	8350			0	78	0	0		
3501721808	Lawson 2	Sec. 11 CSWSE	9652	1364	8201	-6837	8314	-6950	8393	-7029	79	8332			0	79	0	0		
3501721804	Fry 1	Sec. 11 CSWSW	9494	1363	8230	-6867	8340	-6977	8420	-7057	80	8357			0	80	0	0		
3501722288	Lawson 3	Sec. 11 CSWNW	9630	1349	8243	-6894	8364	-7015	8445	-7096	81	8385			4	77	4	0	Bar	
3501721963	Shade 12-2	Sec. 12 CNESE	9797	1408	8122	-6714	8230	-6822	8305	-6897	75	8266			5	70	5	0	Bar	
3501722022	Sophie 12-1	Sec. 12 CNENW	9810	1358	8115	-6757	8220	-6862	8296	-6938	76	8237			0	76	0	0		
3501721848	Shade 12-1	Sec. 12 CNENE	9463	1384	8098	-6714	8205	-6821	8275	-6891	70	8217			0	70	0	0		
3501722082	Scalapino 13-1	Sec. 13 CSWNE	8852	1378	8118	-6740	8219	-6841	8304	-6926	85	8238			0	85	0	0		
3501722122	Krivanek 13-1	Sec. 13 SWNESWSW	9807	1403	8210	-6807	8311	-6908	8392	-6989	81	8325			0	81	0	0		
3501722399	Robberson 13-15	Sec. 13 CSWSE	9210	1396	8172	-6776	8270	-6874	8355	-6959	85	8285			0	85	0	0		
3501722423	Stejskal 13-5	Sec. 13 CSWNW	9800	1381	8140	-6759	8242	-6861	8325	-6944	83	8255			2	81	2	0	Bar	
	Bales Estate 1	Sec. 14 CNWSE	10300	1381	8206	-6825	8310	-6929	8395	-7014	85	8320			0	85	0	0		
3501722029	Smrecka 1	Sec. 14 CSWNW	9620	1371	8234	-6863	8340	-6969	8418	-7047	78	8362			0	78	0	0		
3501722041	Smrecka 2	Sec. 14 CW/2NENW	9880	1359	8200	-6841	8308	-6949	8390	-7031	82	8322			6	76	6	0	Bar	
3501722030	Smrcka 4	Sec. 14 CNENE	9800	1389	8150	-6761	8264	-6875	8342	-6953	78	8275			4	74	4	0	Bar	
3501721591	Lawson 1-14	Sec. 14 CSWSW	1377	9470	8290	1180	8390	1080	8495	975	105	8408			0	105	0	0		
3501722028	Smrcka 3	Sec. 14 CSWNE	9750	1363	8175	-6812	8280	-6917	8365	-7002	85	8300			2	83	2	0	Bar	
3501722133	Stejskal 1	Sec. 15 CNENE	9560	1355	8230	-6875	8340	-6985	8415	-7060	75	8360			0	75	0	0		
3501720965	Kolar 1-16	Sec. 16 W/2W/2E/2NW	9846	1405	8464	-7059	8580	-7175	8665	-7260	85	8600			0	85	0	0		
3501722984	Radcliff 1-17	Sec. 17 SWNESW	9650	1389	8612	-7223	8745	-7356	8830	-7441	85	8765			0	85	0	0		
3501722941	Stejskal 1-18	Sec. 18 SENWSE	9858	1364	8666	-7302	8795	-7431	8872	-7508	77	8810			0	77	0	0		
3501723041	Hanneman 1-19	Sec. 19 E/2W/2SE	10100	1348	8740	-7392	8860	-7512	8940	-7592	80	8878			0	80	0	0		
3501722935	Hendricks 1-20	Sec. 20 NWSENW	9696	1387	8682	-7295	8808	-7421	8893	-7506	85	8821			0	85	0	0		
3501722829	Smith 1-20	Sec. 20 SENWSE	9800	1352	8615	-7263	8732	-7380	8811	-7459	79	8747			0	79	0	0		
3501722870	Zoubek Trust 1-21	Sec. 21 CSW	9540	1353	8580	-7227	8690	-7337	8775	-7422	85	8705			0	85	0	0		

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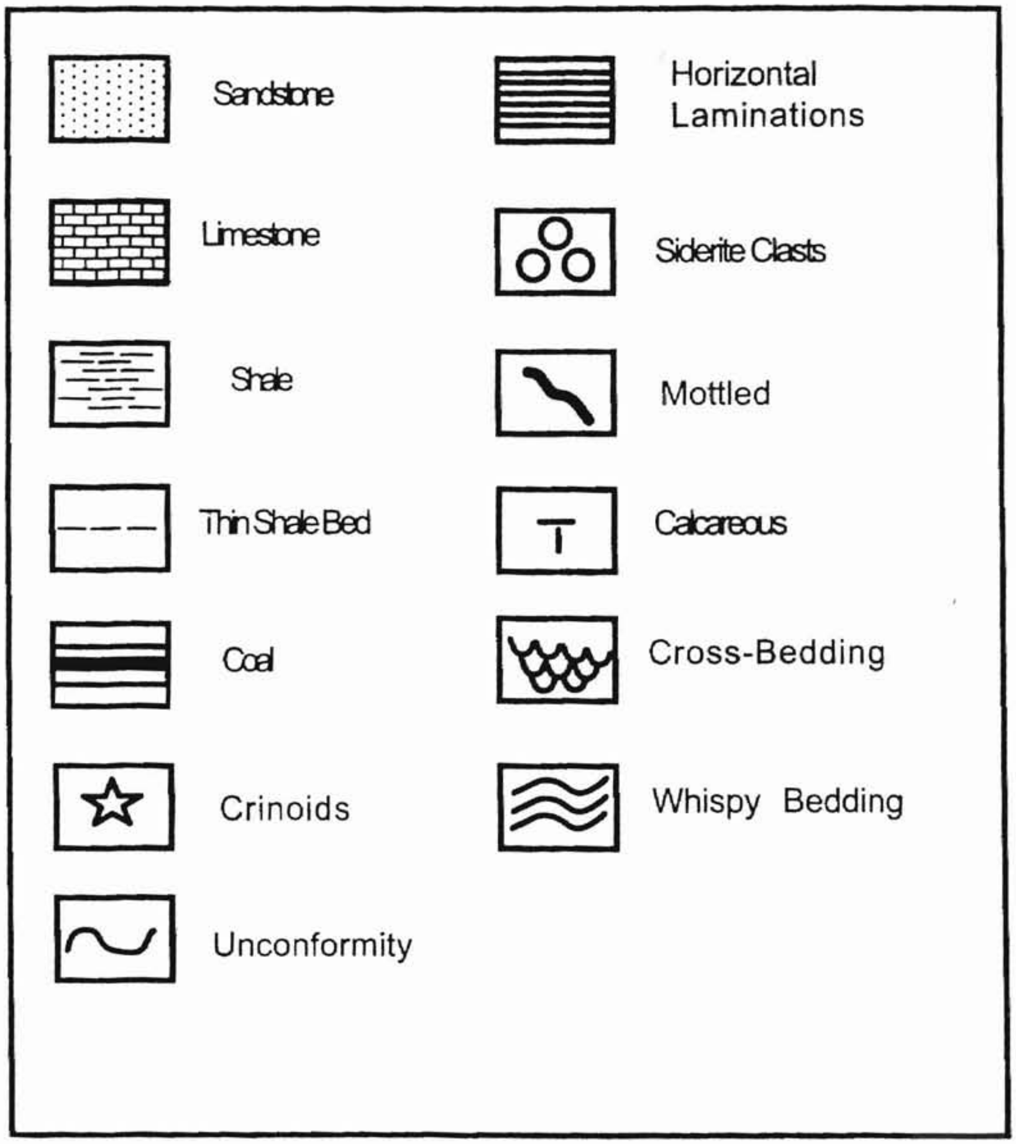
3501722965	Perkins 1	Sec. 22 N/2S/2SE	9630	1386	8411	-7025	8509	-7123	8599	-7213	90	8525			0	90	0	0		
3501720934	W Bejcek 1	Sec. 23 S/2N/2NESE	9487	1411	8302	-6891	8396	-6985	8485	-7074	89	8414			0	86	0	0		
3501722669	Fanning 24-1	Sec. 24 CNENW	8810	1399	8205	-6806	8305	-6906	8387	-6988	82	8320			0	82	0	0		
3501722697	Fanning 24-2	Sec. 24 CNESW	8680	1401	8230	-6829	8326	-6925	8410	-7009	84	8344			0	84	0	0		
3501722442	Frailey-Taylor 24-9	Sec. 24 CNESE	8727	1398	8190	-6792	8280	-6882	8371	-6973	91	8300			2	89	2	0	Bar	
3501722582	Merrill 2-24	Sec. 24 CSWNE	8750	1411	8205	-6794	8298	-6887	8388	-6977	90	8319			2	88	2	0	Bar	
3501722400	Merrill 24-1	Sec. 24 CNENE	9230	1390	8146	-6756	8249	-6859	8330	-6940	81	8265			0	81	0	0		
3501720906	E. Bejcek 1	Sec. 25 CNENW	9403	1341	8250	-6909	8338	-6997	8430	-7089	92	8355			0	92	0	0		
3501722759	Kastner 1	Sec. 25 NWSE	9050	1350	8249	-6899	8339	-6989	8432	-7082	93	8355			0	93	0	0		
3501722762	Smith 1-25	Sec. 25 NENESE	9080	1355	8350	-6995	8430	-7075	8513	-7158	83	8449			0	83	0	0		
3501720647	Paris 1-26	Sec. 26 CNENE	9480	1369	8325	-6956	8400	-7031	8490	-7121	90	8415			0	90	0	0		
3501720423	Bales 26-1	Sec. 26 CNWSE	9508	1357	8384	-7027	8460	-7103	8550	-7193	90	8475			0	90	0	0		
3501722846	Benda 1-27	Sec. 27 S/2NW	9385	1349	8500	-7151	8605	-7256	8697	-7348	92	8611			0	92	0	0		
3501722738	Mosier 1	Sec. 27 NESWSW	9500	1330	8515	-7185	8620	-7290	8708	-7378	88	8638			0	88	0	0		
3501722832	Brown 1-27	Sec. 27 SWSE	9375	1324	8487	-7163	8587	-7263	8673	-7349	86	8603			0	86	0	0		
3501722894	Gutierrez 1-27	Sec. 27 SWNE	9380	1354	8455	-7101	8556	-7202	8645	-7291	89	8578			0	89	0	0		
	Nettie Patzack 1	Sec. 28 CSENE	10016	1338	8525	-7187	8625	-7287	8720	-7382	95	8640			0	95	0	0		
3501722821	Clark 1-28	Sec. 28 N/2SE	9520	1327	8550	-7223	8649	-7322	8738	-7411	89	8669			0	89	0	0		
3501722769	Wiesbrod 1-29	Sec. 29 N/2SE	9770	1314	8667	-7353	8775	-7461	8862	-7548	87	8792			0	77	0	0		
3501722937	Moss 1-30	Sec. 30 CNE	9940	1345	8786	-7441	8908	-7563	8982	-7637	74	8920			0	74	0	0		
3501723059	Jonas 1-31	Sec. 31 SWNESW	10453	1293	8899	-7606	9009	-7716	9103	-7810	94	9030			2	92	2	0	Bar	
3501722521	Klepper 1-33	Sec. 33 CE/2W/2SE	9705	1290	8620	-7330	8725	-7435	8836	-7546	111	8740			0	111	0	0		
3501722497	Hargis 1-34	Sec. 34 N/2N/2S/2SE	9515	1309	8518	-7209	8618	-7309	8720	-7411	102	8640			0	102	0	0		
3501723456	Carpenter 34-1	Sec. 34 CSENW	9450	1305	8540	-7235	8636	-7331	8736	-7431	100	8651			0	100	0	0		
3501722475	Bessie 1	Sec. 35 E/2W/2SESW	9458	1305	8500	-7195	8598	-7293	8706	-7401	106	8610			5	105	5	0	Bar	
3501722476	Ivan 7	Sec. 36 CNW	9127	1306	8310	-7004	8410	-7104	8490	-7184	80	8420			20	60	20	?	?	Single Spike

APPENDIX B

CORE DESCRIPTIONS

Petrolog Symbol Key



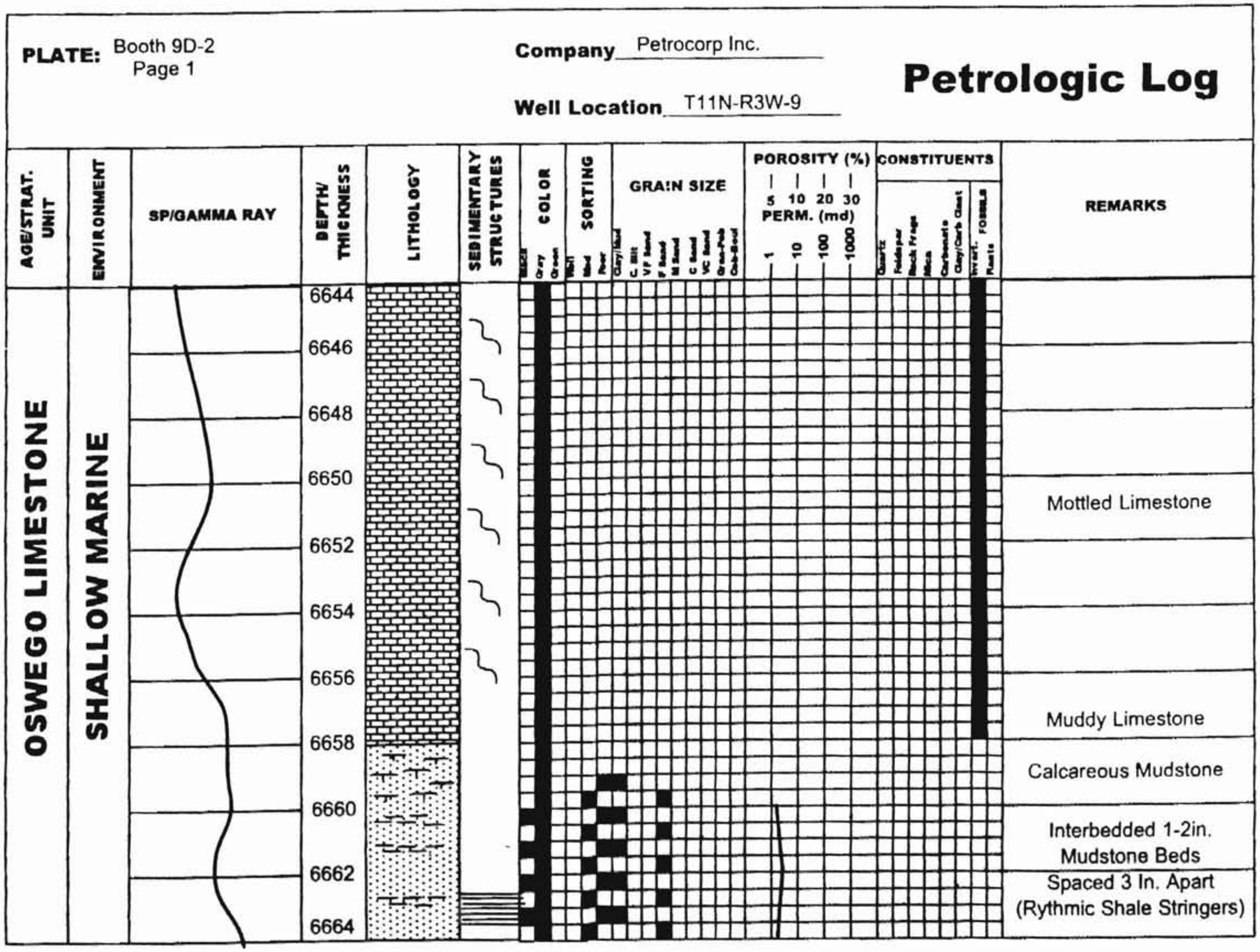


PLATE: Booth 9D-2
Page 1
Company Petrocorp Inc.
Well Location T11N-R3W-9
Petrologic Log
AGE/STRAT. UNIT
ENVIRONMENT
SP/GAMMA RAY
DEPTH/ THICKNESS
LITHOLOGY
SEDIMENTARY STRUCTURES
COLOR
SORTING
GRAIN SIZE
POROSITY (%)
5 10 20 30
PERM. (md)
1 10 100 1000
CONSTITUENTS
FOSSILS
REMARKS
OSWEGO LIMESTONE
SHALLOW MARINE
6644
6646
6648
6650
6652
6654
6656
6658
6660
6662
6664
Mottled Limestone
Muddy Limestone
Calcareous Mudstone
Interbedded 1-2in. Mudstone Beds
Spaced 3 In. Apart
(Rythmic Shale Stringers)

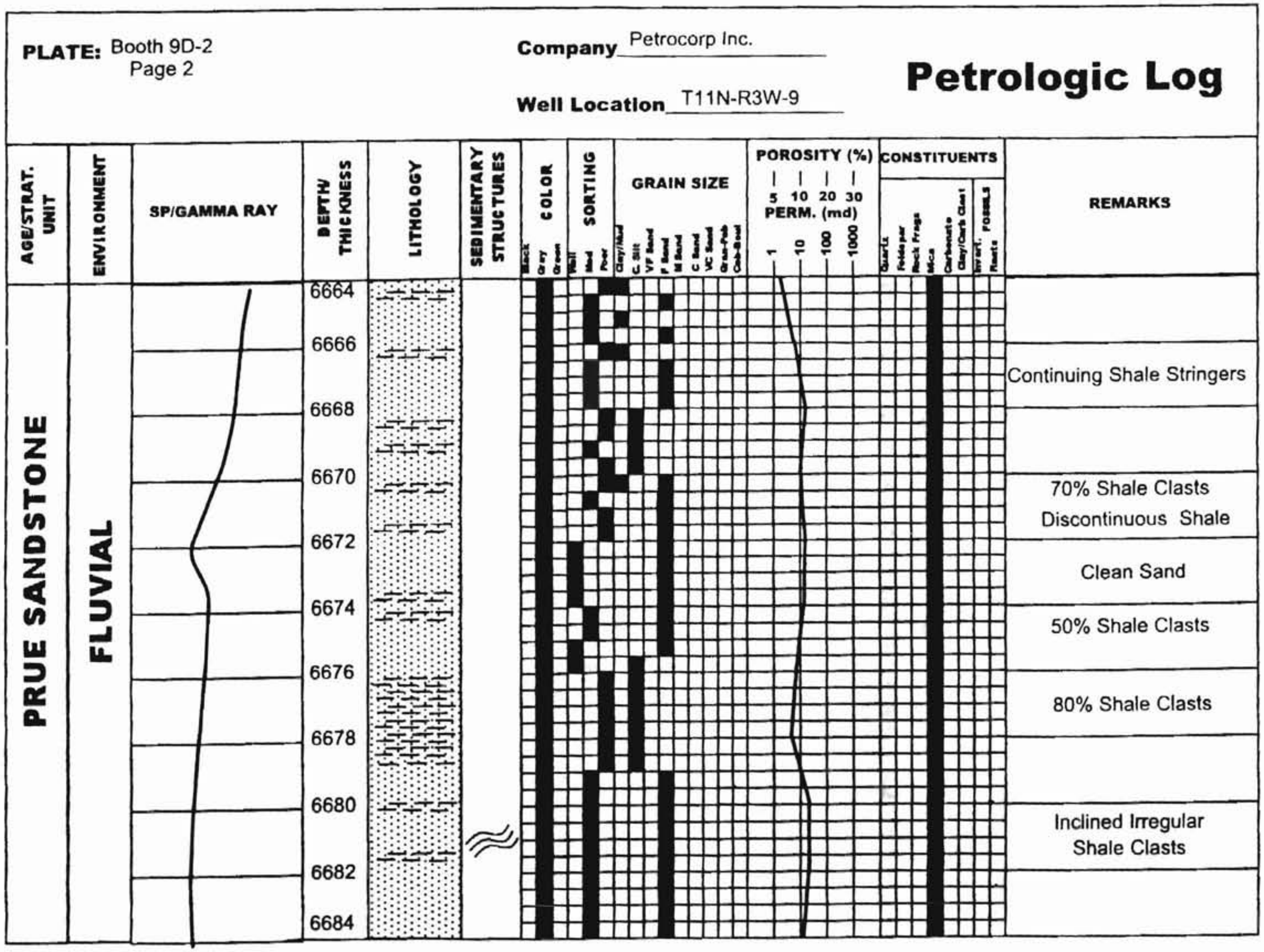


PLATE: Booth 9D-2
Page 2
Company Petrocorp Inc.
Well Location T11N-R3W-9
Petrologic Log
AGE/STRAT. UNIT
ENVIRONMENT
SP/GAMMA RAY
DEPTH/ THICKNESS
LITHOLOGY
SEDIMENTARY STRUCTURES
COLOR
SORTING
GRAIN SIZE
POROSITY (%)
5 10 20 30
PERM. (md)
1 10 100 1000
CONSTITUENTS
REMARKS
PRUE SANDSTONE
FLUVIAL
6664
6666
6668
6670
6672
6674
6676
6678
6680
6682
6684
Continuing Shale Stringers
70% Shale Clasts
Discontinuous Shale
Clean Sand
50% Shale Clasts
80% Shale Clasts
Inclined Irregular
Shale Clasts

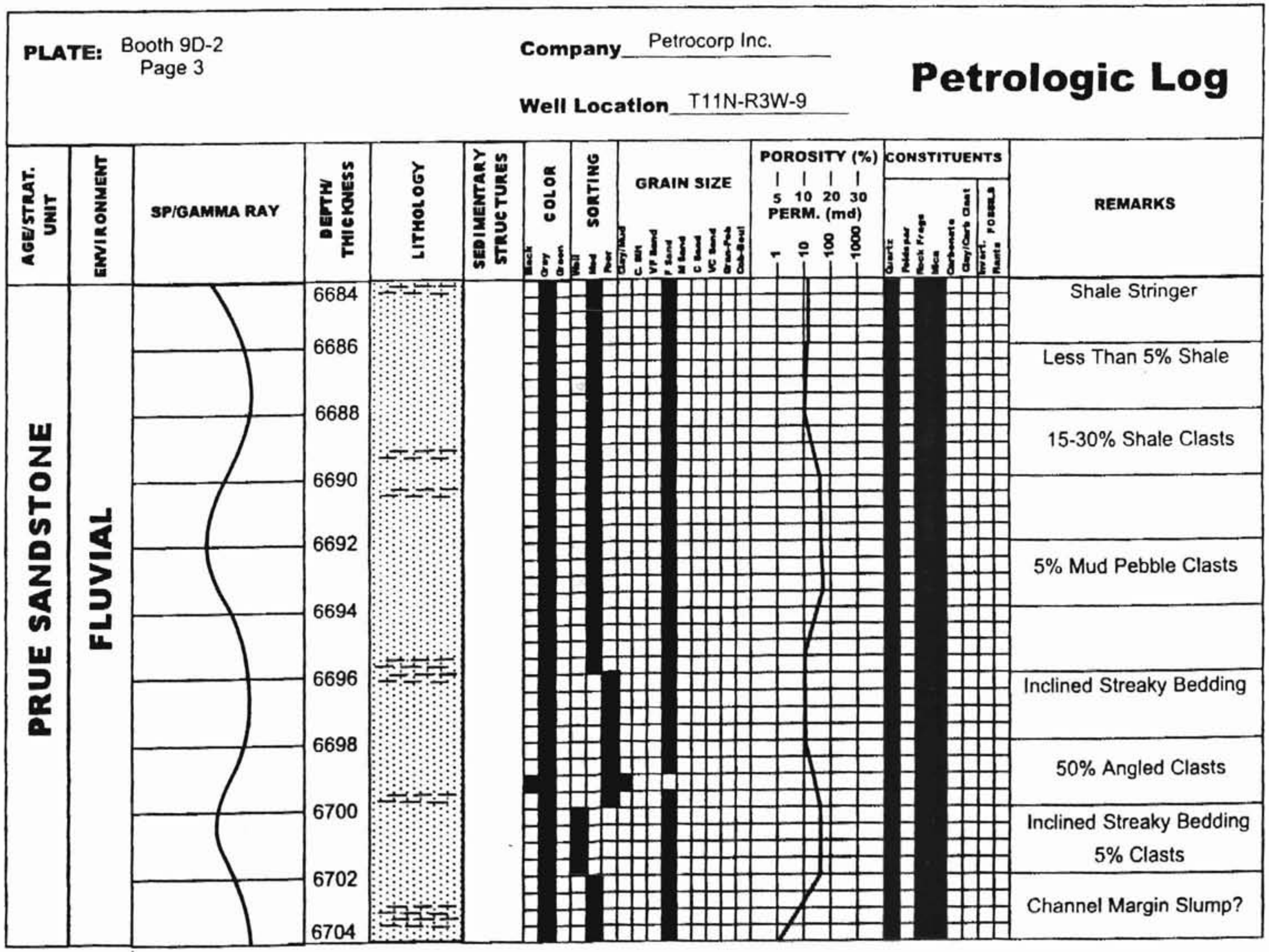


PLATE: Booth 9D-2
Page 3
Company Petrocorp Inc.
Well Location T11N-R3W-9
Petrologic Log
AGE/STRAT. UNIT
ENVIRONMENT
SP/GAMMA RAY
DEPTH/ THICKNESS
LITHOLOGY
SEDIMENTARY STRUCTURES
COLOR
SORTING
GRAIN SIZE
POROSITY (%)
5 10 20 30
PERM. (md)
1 10 100 1000
CONSTITUENTS
REMARKS
PRUE SANDSTONE
FLUVIAL
6684
6686
6688
6690
6692
6694
6696
6698
6700
6702
6704
Shale Stringer
Less Than 5% Shale
15-30% Shale Clasts
5% Mud Pebble Clasts
Inclined Streaky Bedding
50% Angled Clasts
Inclined Streaky Bedding
5% Clasts
Channel Margin Slump?

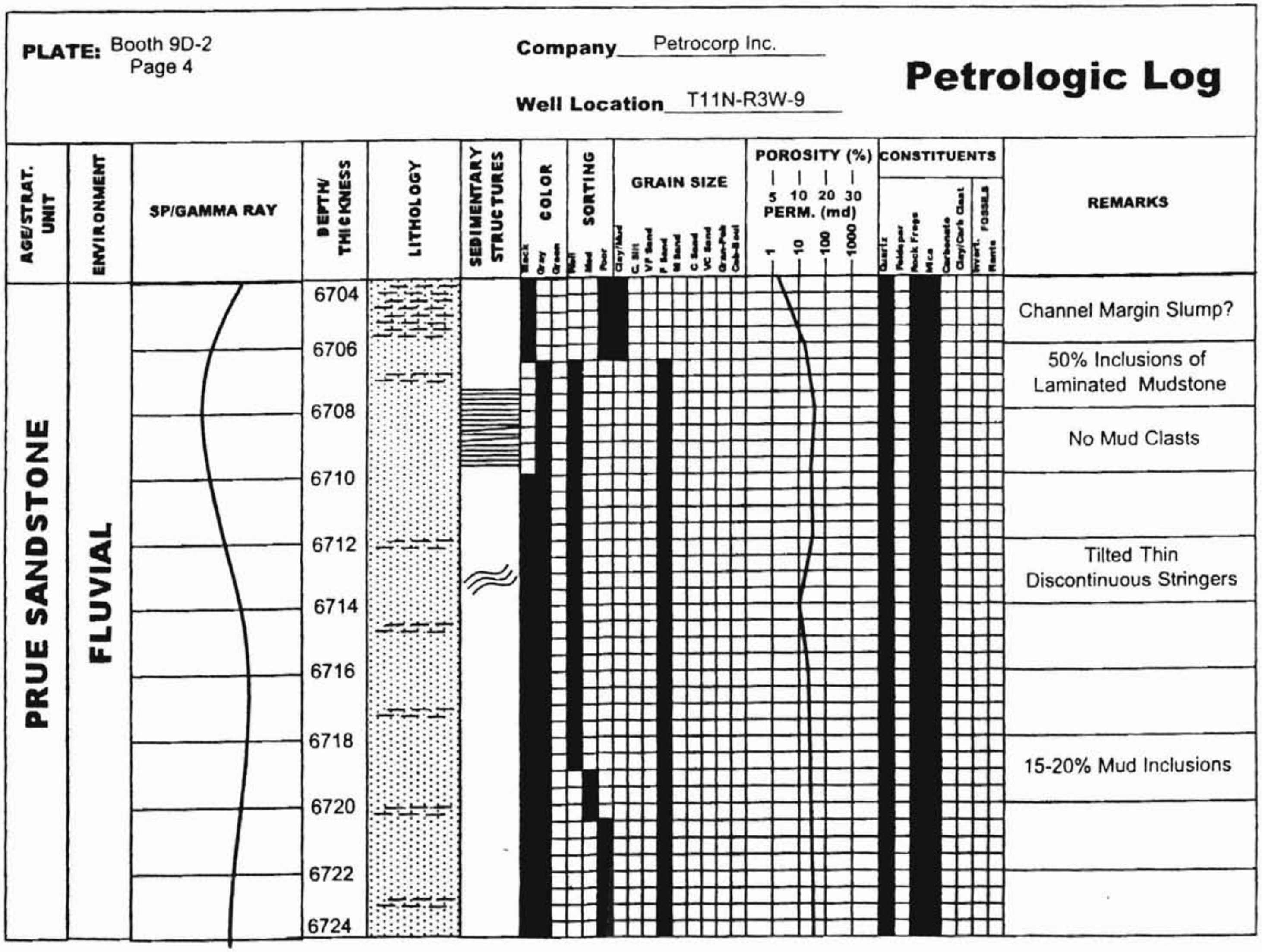


PLATE: Booth 9D-2
Page 4
Company Petrocorp Inc.
Well Location T11N-R3W-9
Petrologic Log
AGE/STRAT. UNIT
ENVIRONMENT
SP/GAMMA RAY
DEPTH/ THICKNESS
LITHOLOGY
SEDIMENTARY STRUCTURES
COLOR
SORTING
GRAIN SIZE
POROSITY (%)
5 10 20 30
PERM. (md)
1 10 100 1000
CONSTITUENTS
REMARKS
PRUE SANDSTONE
FLUVIAL
6704
6706
6708
6710
6712
6714
6716
6718
6720
6722
6724
Channel Margin Slump?
50% Inclusions of Laminated Mudstone
No Mud Clasts
Tilted Thin Discontinuous Stringers
15-20% Mud Inclusions

PLATE: Booth 9D-2
Page 5

Company Petrocorp Inc.

Well Location T11N-R3W-9

Petrologic Log

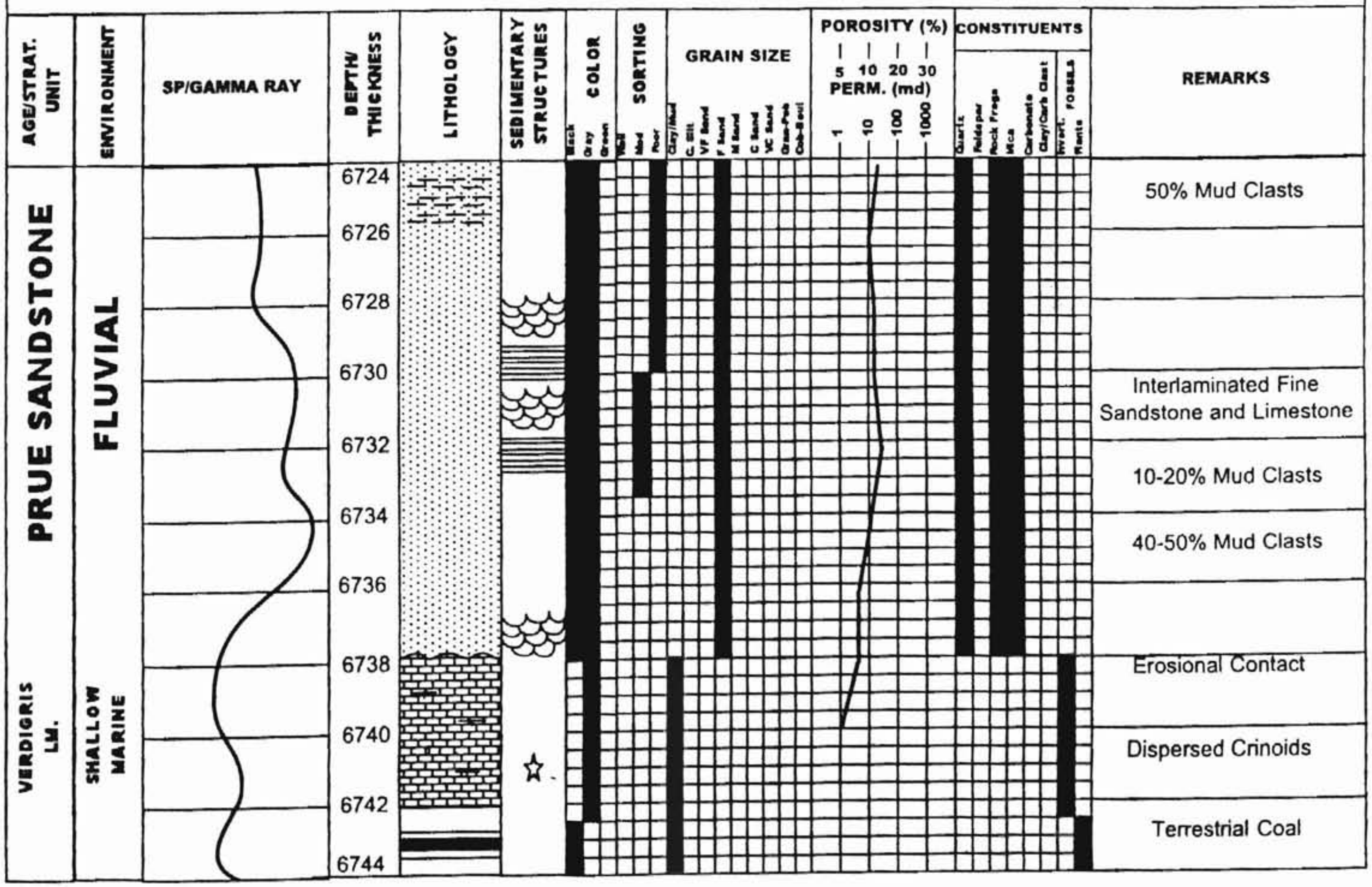


PLATE: Booth 9D-2
Page 6

Company Petrocorp Inc.

Well Location T11N-R3W-9

Petrologic Log

AGE/STRAT. UNIT	ENVIRONMENT	SP/GAMMA RAY	DEPTH/ THICKNESS	LITHOLOGY	SEDIMENTARY STRUCTURES	COLOR (Black, Gray, Green)	SORTING (Well, Mod, Poor)	GRAIN SIZE (Clay/Mud, C. Silt, VF Sand, F Sand, M Sand, C Sand, VC Sand, Gran-Peb, Cob-Boul)	POROSITY (%) 5 10 20 30 / PERM. (md) 1 10 100 1000	CONSTITUENTS (Quartz, Feldspar, Rock Frags, Mica, Carbonate, Clay/Carb Clast, Invert. FOSSILS Plants)	REMARKS
SKINNER SHALE	**MARGINAL MARINE**		6744								Indistinctly Laminated
			6746								Fossil Hash
			6748								
			6750								

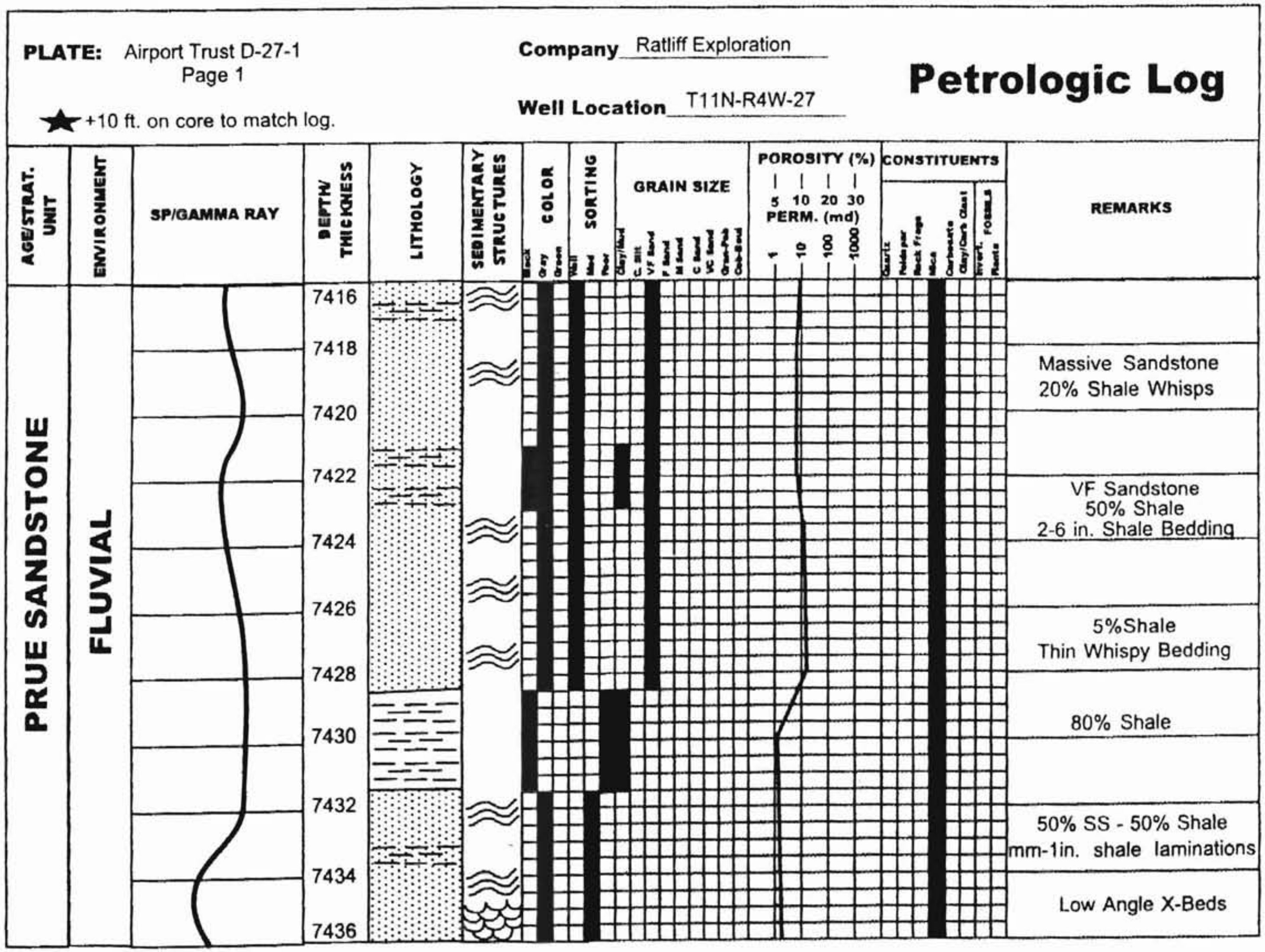


PLATE: Airport Trust D-27-1
Page 1
★ +10 ft. on core to match log.
Company Ratliff Exploration
Well Location T11N-R4W-27
Petrologic Log
AGE/STRAT. UNIT
ENVIRONMENT
SP/GAMMA RAY
DEPTH/ THICKNESS
LITHOLOGY
SEDIMENTARY STRUCTURES
COLOR
SORTING
GRAIN SIZE
POROSITY (%)
5 10 20 30
PERM. (md)
1 10 100 1000
CONSTITUENTS
REMARKS
PRUE SANDSTONE
FLUVIAL
7416
7418
7420
7422
7424
7426
7428
7430
7432
7434
7436
Massive Sandstone
20% Shale Whisps
VF Sandstone
50% Shale
2-6 in. Shale Bedding
5%Shale
Thin Whispy Bedding
80% Shale
50% SS - 50% Shale
mm-1in. shale laminations
Low Angle X-Beds

PLATE: Airport Trust D-27-1
Page 2

Company Ratliff Exploration

Well Location T11N-R4W-27

Petrologic Log

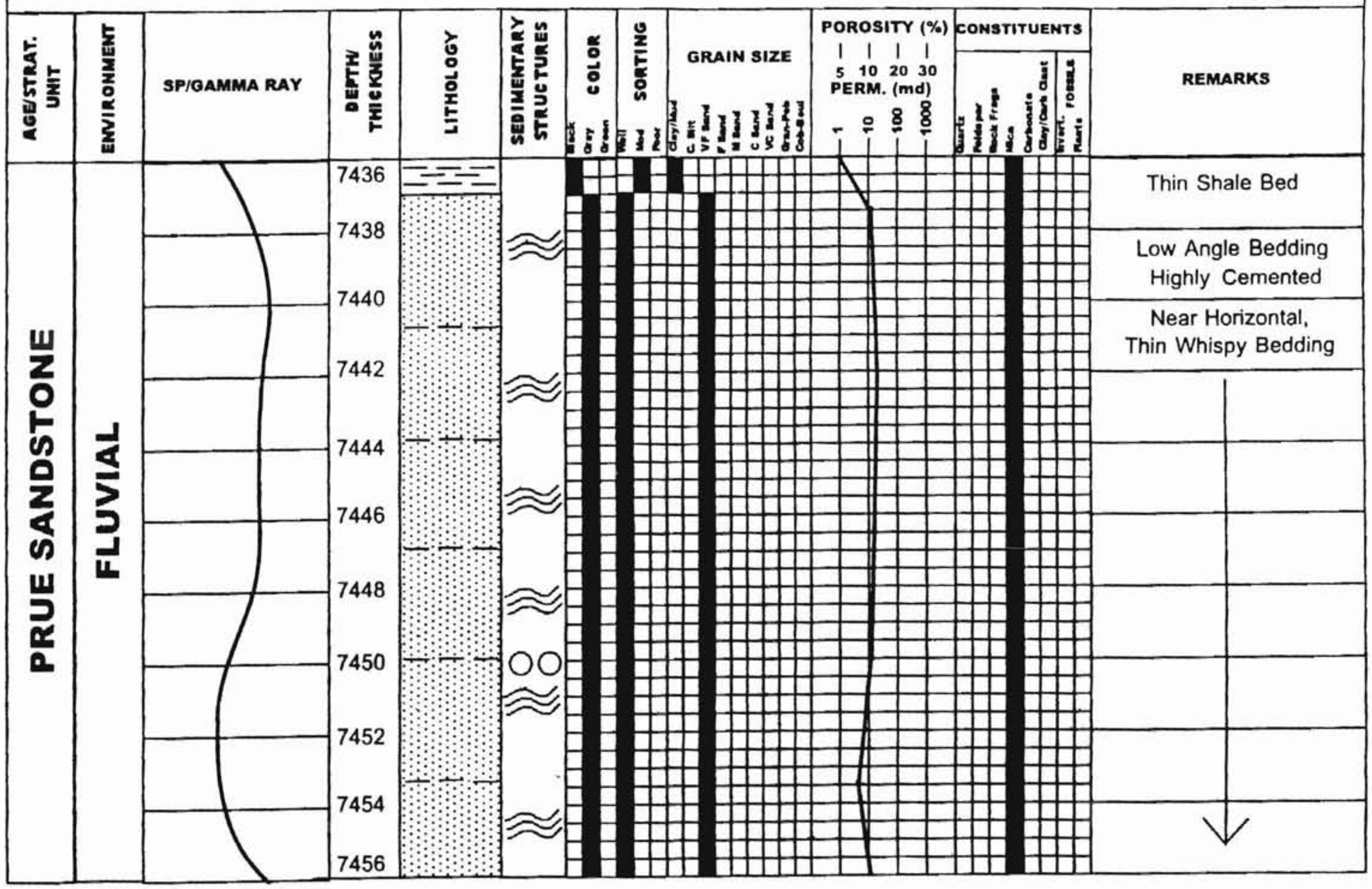
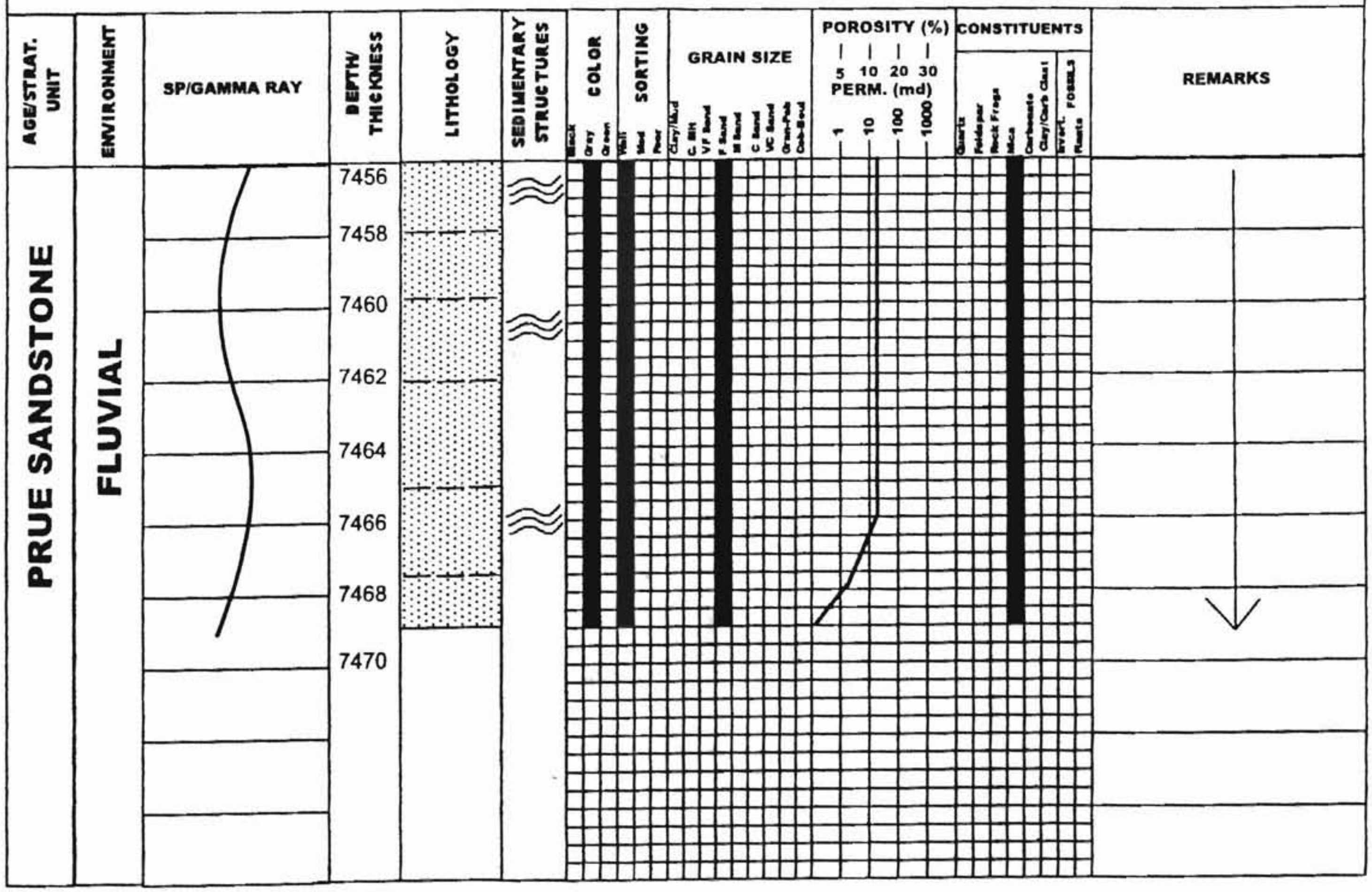


PLATE: Airport Trust D-27-1
Page 3

Company Ratliff Exploration

Well Location T11N-R4W-27

Petrologic Log



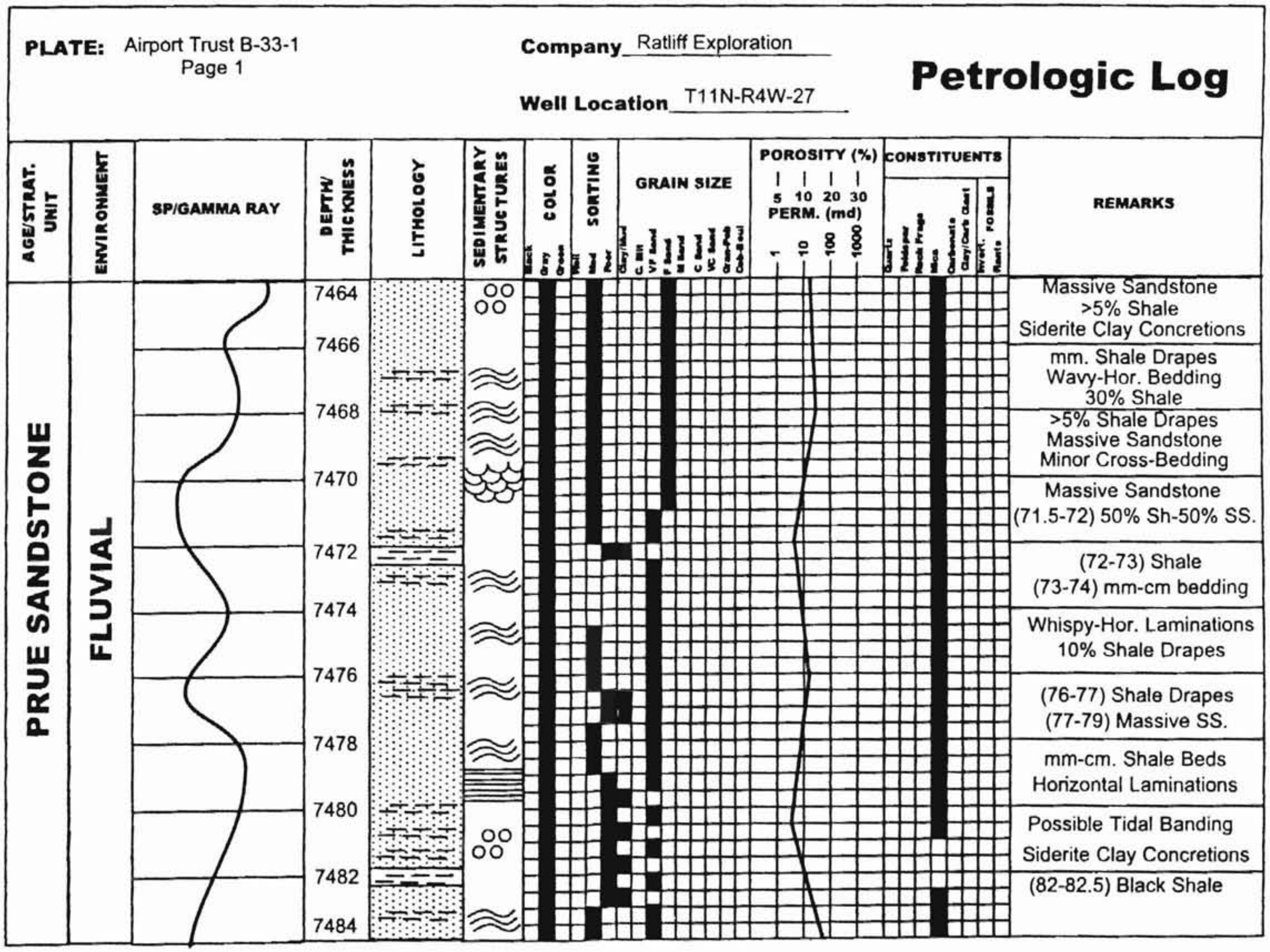


PLATE: Airport Trust B-33-1
Page 1
Company Ratliff Exploration
Well Location T11N-R4W-27
Petrologic Log
AGE/STRAT. UNIT
ENVIRONMENT
SP/GAMMA RAY
DEPTH/ THICKNESS
LITHOLOGY
SEDIMENTARY STRUCTURES
COLOR
SORTING
GRAIN SIZE
POROSITY (%)
5 10 20 30
PERM. (md)
1 10 100 1000
CONSTITUENTS
REMARKS
PRUE SANDSTONE
FLUVIAL
7464
7466
7468
7470
7472
7474
7476
7478
7480
7482
7484
Massive Sandstone
>5% Shale
Siderite Clay Concretions
mm. Shale Drapes
Wavy-Hor. Bedding
30% Shale
>5% Shale Drapes
Massive Sandstone
Minor Cross-Bedding
Massive Sandstone
(71.5-72) 50% Sh-50% SS.
(72-73) Shale
(73-74) mm-cm bedding
Whispy-Hor. Laminations
10% Shale Drapes
(76-77) Shale Drapes
(77-79) Massive SS.
mm-cm. Shale Beds
Horizontal Laminations
Possible Tidal Banding
Siderite Clay Concretions
(82-82.5) Black Shale

PLATE: Airport Trust B-33-1
Page 2

Company Ratliff Exploration

Well Location T11N-R4W-27

Petrologic Log

AGE/STRAT. UNIT	ENVIRONMENT	SP/GAMMA RAY	DEPTH/ THICKNESS	LITHOLOGY	SEDIMENTARY STRUCTURES	COLOR (Black, Gray, Green)	SORTING (Well, Mod, Poor)	GRAIN SIZE (Clay/Mud, C. Silt, VF Sand, F Sand, M Sand, C Sand, VC Sand, Gran-Peb, Cob-Boul)	POROSITY (%) 5 10 20 30 / PERM. (md) 1 10 100 1000	CONSTITUENTS (Quartz, Feldspar, Rock Frags, Mica, Carbonate, Clay/Carb Clast, Invert. Fossils, Plants)	REMARKS
PRUE SANDSTONE	FLUVIAL		7484 7486								Finely Lamintaed Tightly Cemented

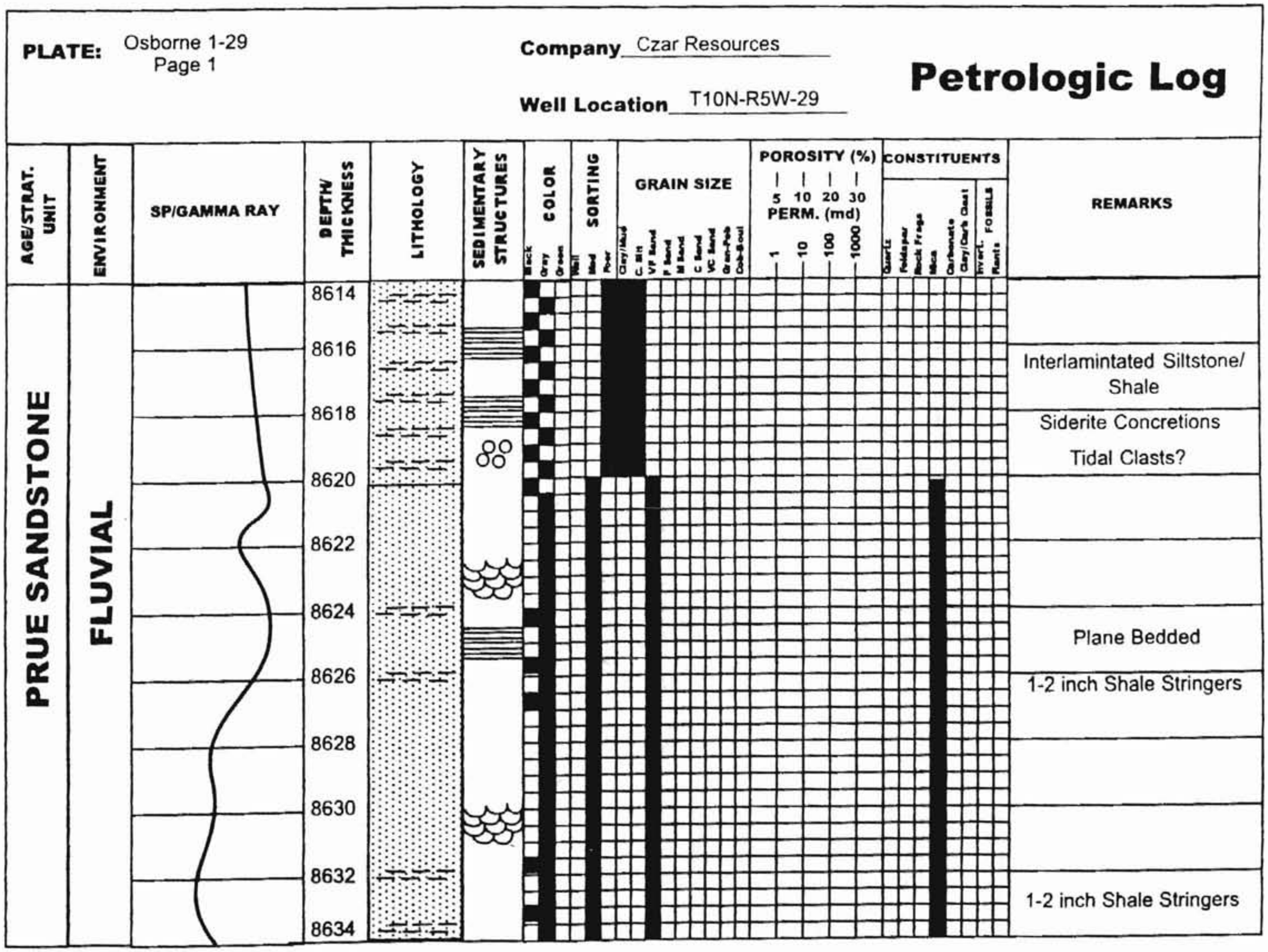


PLATE: Osborne 1-29
Page 1
Company Czar Resources
Well Location T10N-R5W-29
Petrologic Log
AGE/STRAT. UNIT
ENVIRONMENT
SP/GAMMA RAY
DEPTH/ THICKNESS
LITHOLOGY
SEDIMENTARY STRUCTURES
COLOR
SORTING
GRAIN SIZE
POROSITY (%)
5 10 20 30
PERM. (md)
1 10 100 1000
CONSTITUENTS
REMARKS
PRUE SANDSTONE
FLUVIAL
8614
8616
8618
8620
8622
8624
8626
8628
8630
8632
8634
Interlamintated Siltstone/ Shale
Siderite Concretions
Tidal Clasts?
Plane Bedded
1-2 inch Shale Stringers
1-2 inch Shale Stringers

PLATE: Osborne 1-29
Page 2

Company Czar Resources

Well Location T10N-R5W-29

Petrologic Log

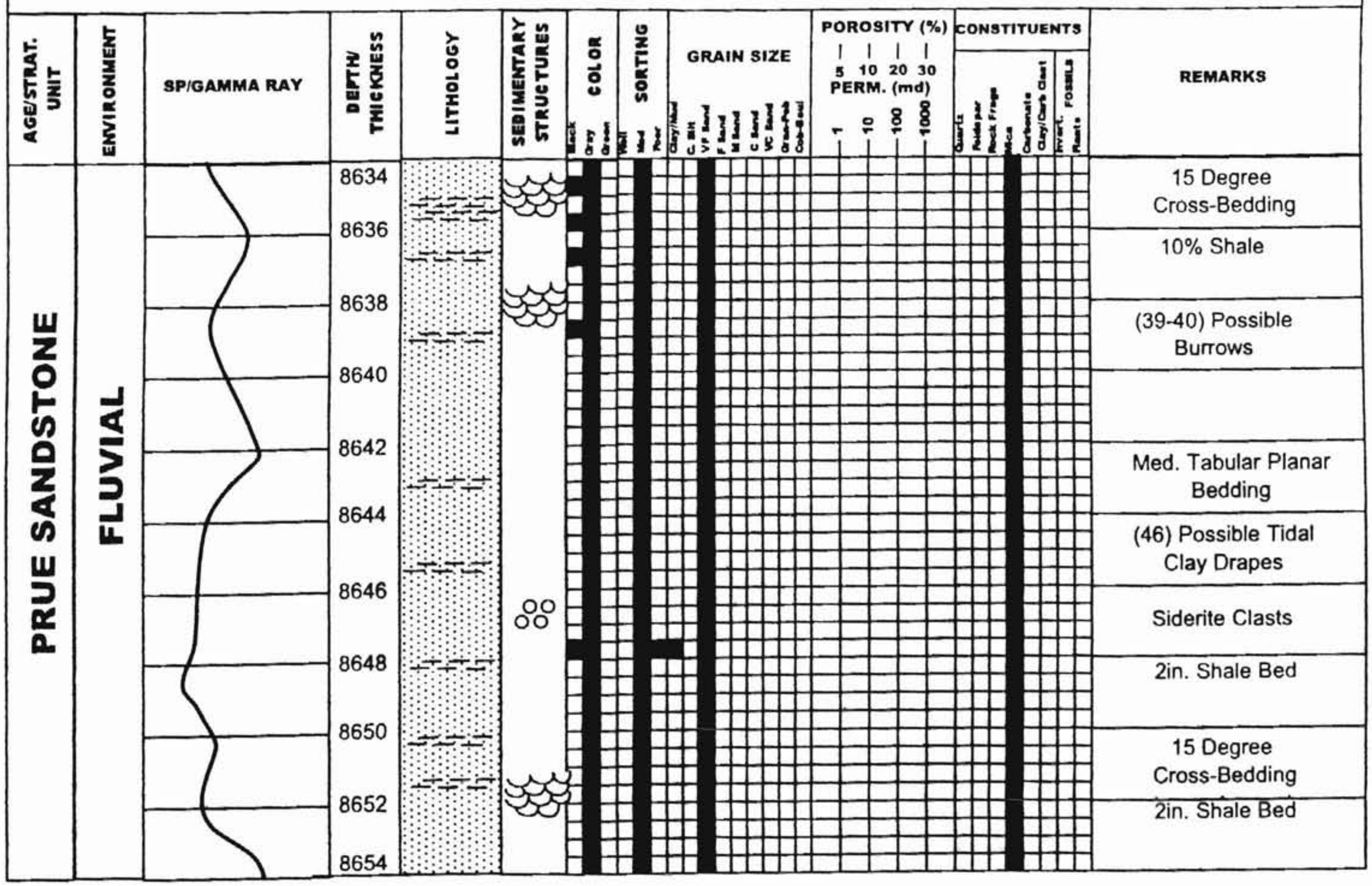
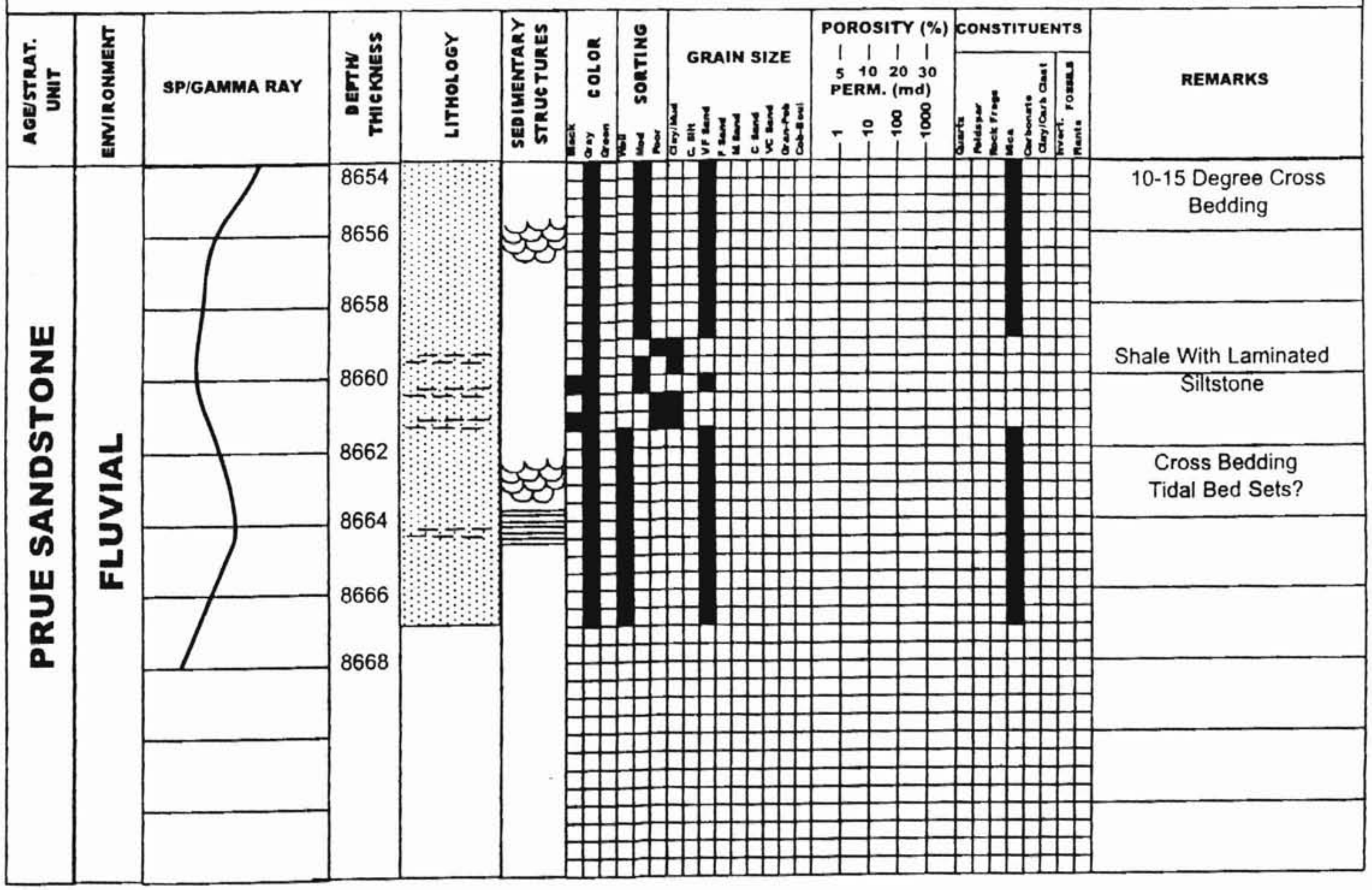


PLATE: Osborne 1-29
Page 3

Company Czar Resources

Well Location T10N-R5W-29

Petrologic Log



PLATES

1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15.

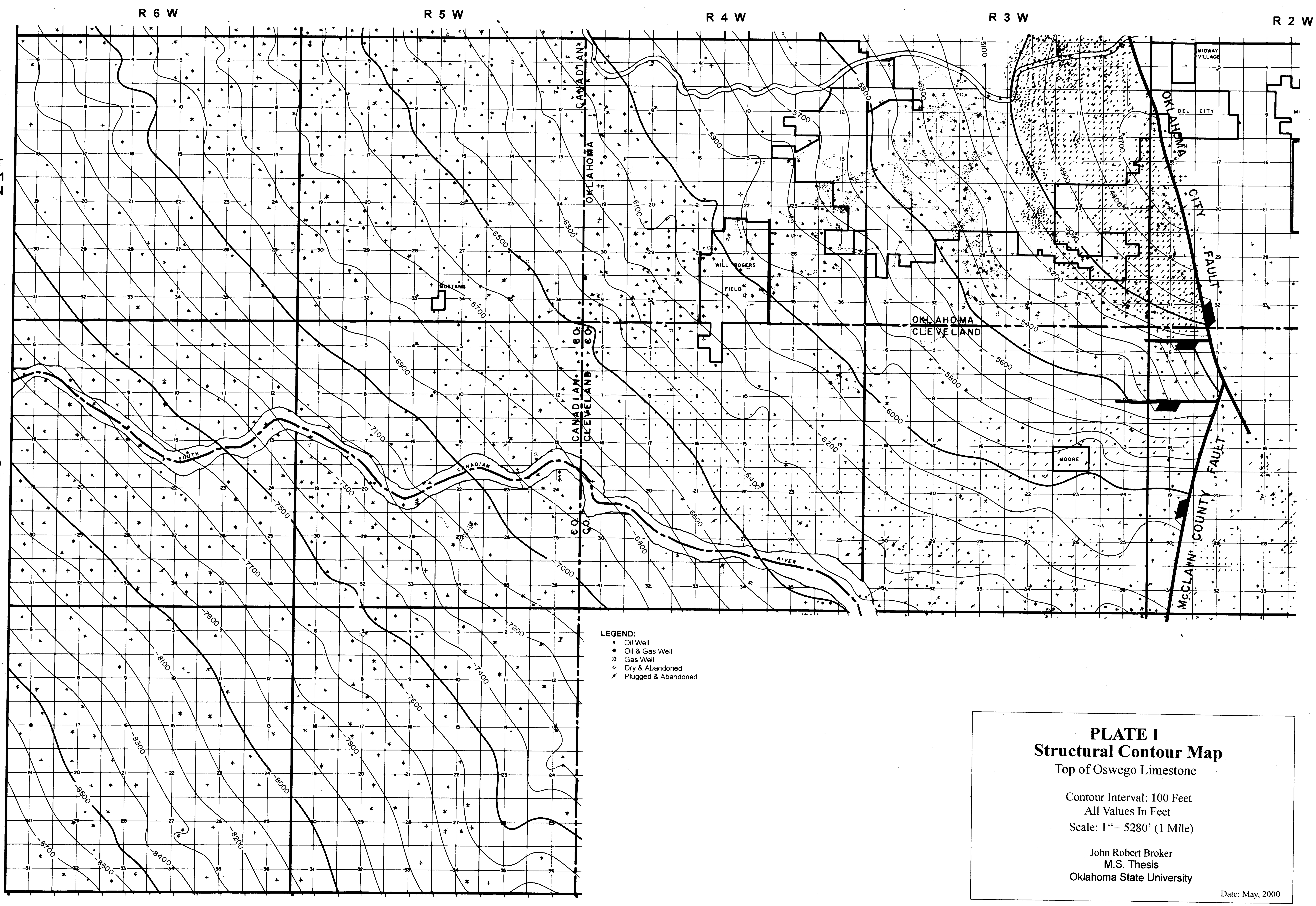


PLATE I
Structural Contour Map
Top of Oswego Limestone

Contour Interval: 100 Feet
All Values In Feet
Scale: 1" = 5280' (1 Mile)

John Robert Broker
M.S. Thesis
Oklahoma State University

Date: May, 2000

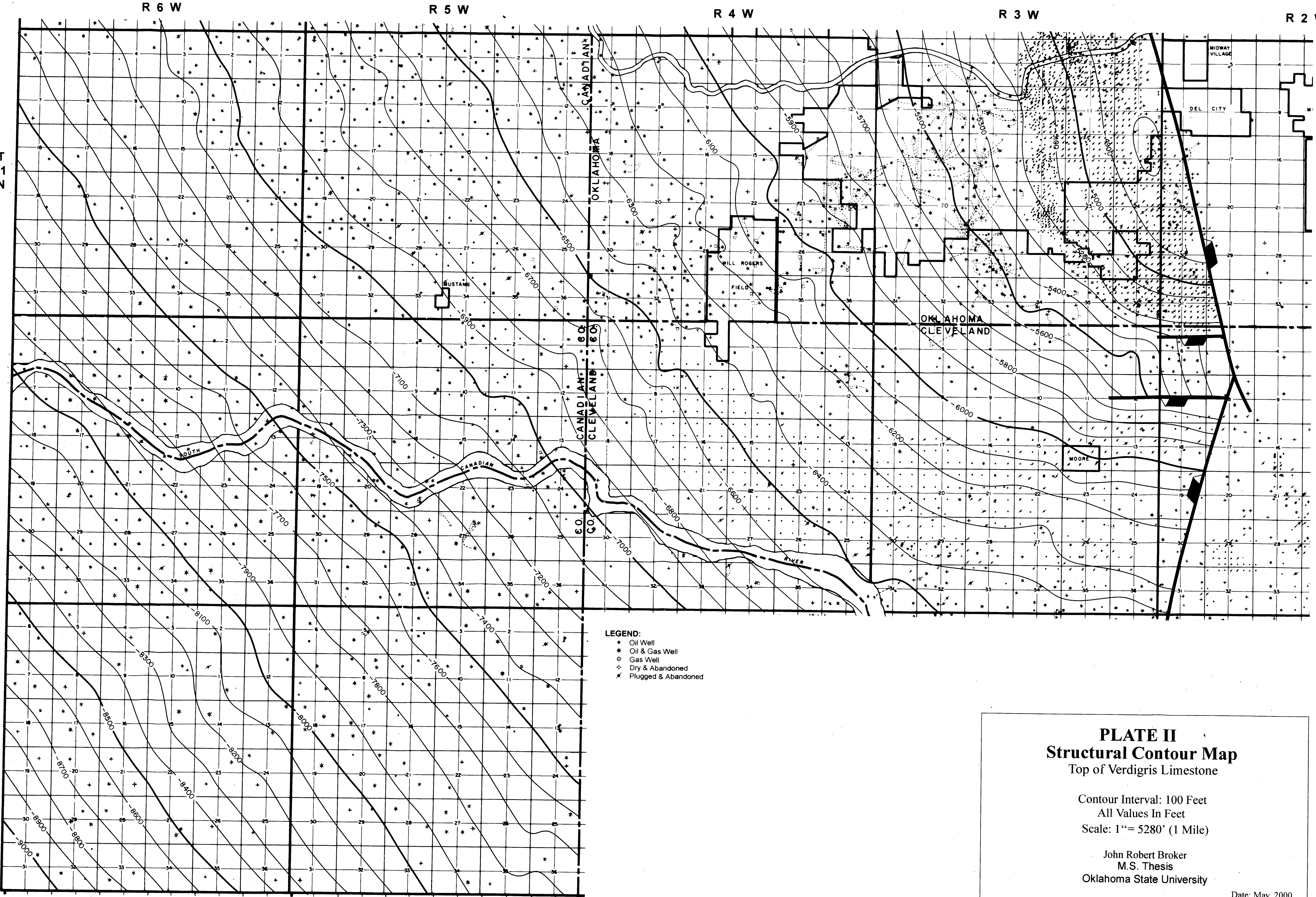


PLATE II
Structural Contour Map
Top of Verdigris Limestone

Contour Interval: 100 Feet
All Values In Feet
Scale: 1"= 5280' (1 Mile)

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M.S. Thesis
Oklahoma State University

Date: May, 2000

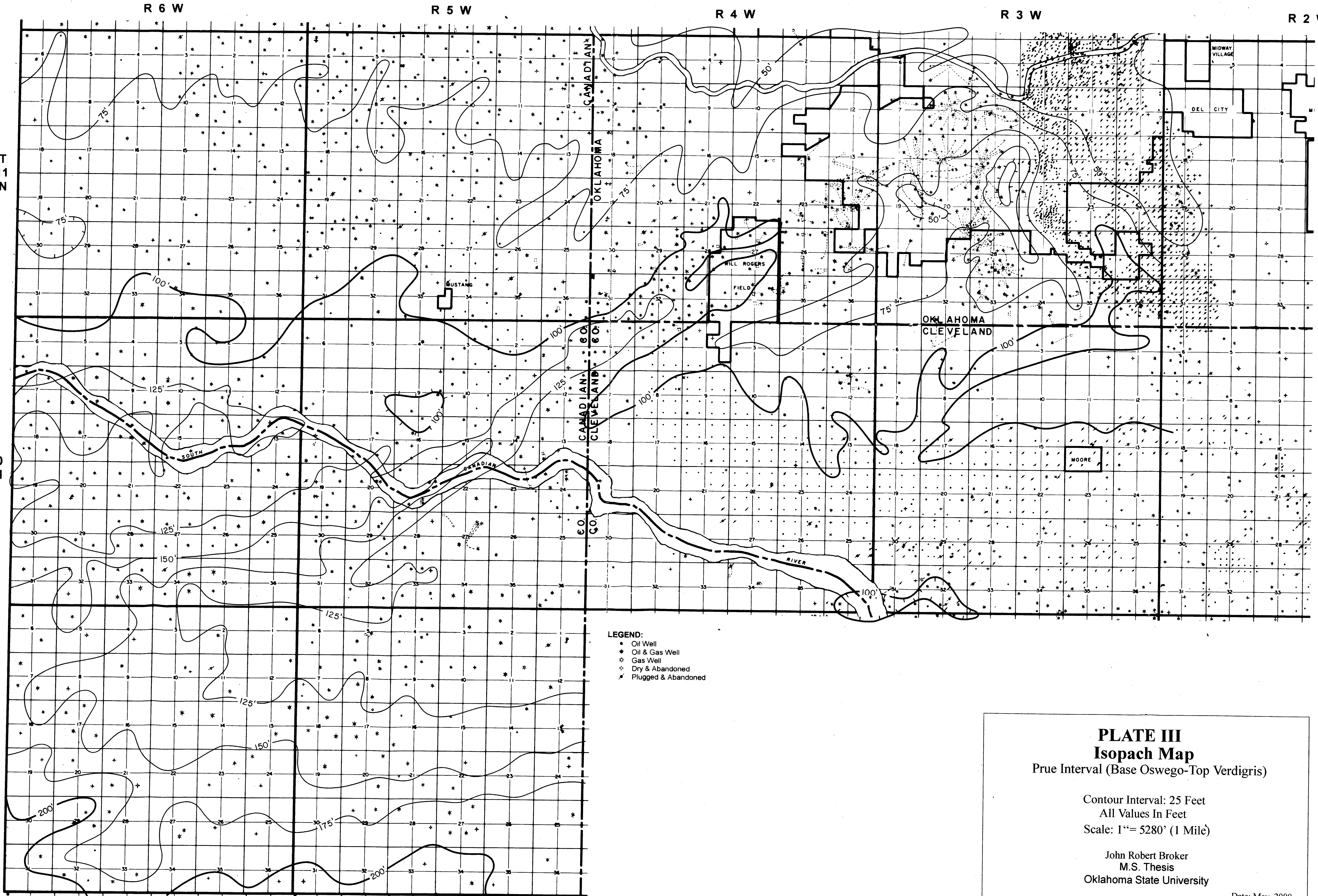

PLATE III
Isopach Map
Prue Interval (Base Oswego-Top Verdigris)

Contour Interval: 25 Feet
All Values In Feet
Scale: 1"= 5280' (1 Mile)

John Robert Broker
M.S. Thesis
Oklahoma State University

Date: May, 2000

PLATE IV
Isopach Map
Base Prue Channel Incision-Top Verdigris

Contour Interval: 10 Feet
All Values In Feet
Scale: 1"= 5280' (1 Mile)

John Robert Broker
M.S. Thesis
Oklahoma State University

Date: May, 2000

PLATE V
Isolith Map
Prue IntervalNet Sandstone

Contour Interval: 20 Feet
All Values In Feet
Scale: 1"= 5280' (1 Mile)

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M.S. Thesis
Oklahoma State University

Date: May, 2000

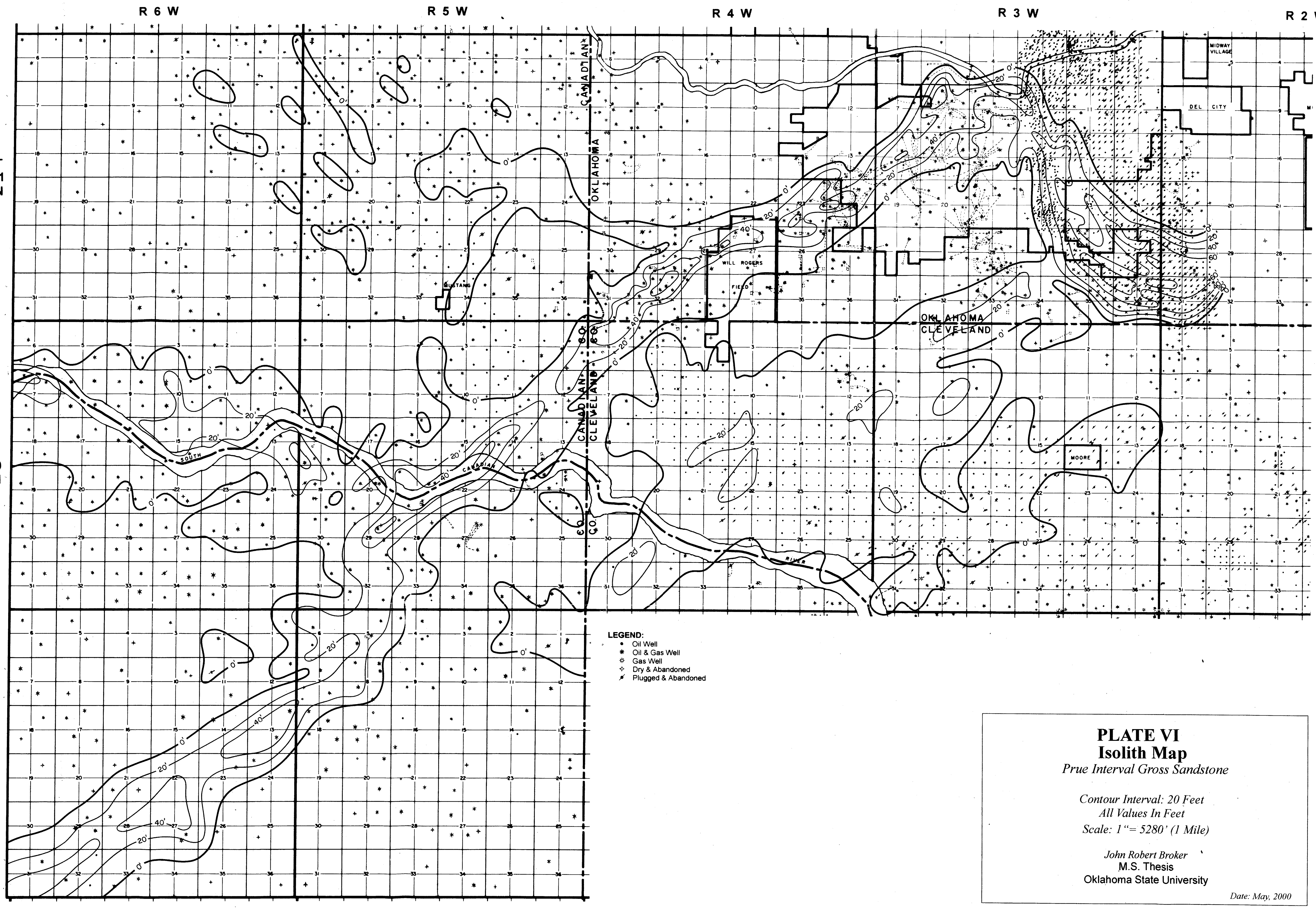

PLATE VI
Isolith Map
Prue Interval Gross Sandstone

Contour Interval: 20 Feet
All Values In Feet
Scale: 1"= 5280' (1 Mile)

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Oklahoma State University

Date: May, 2000

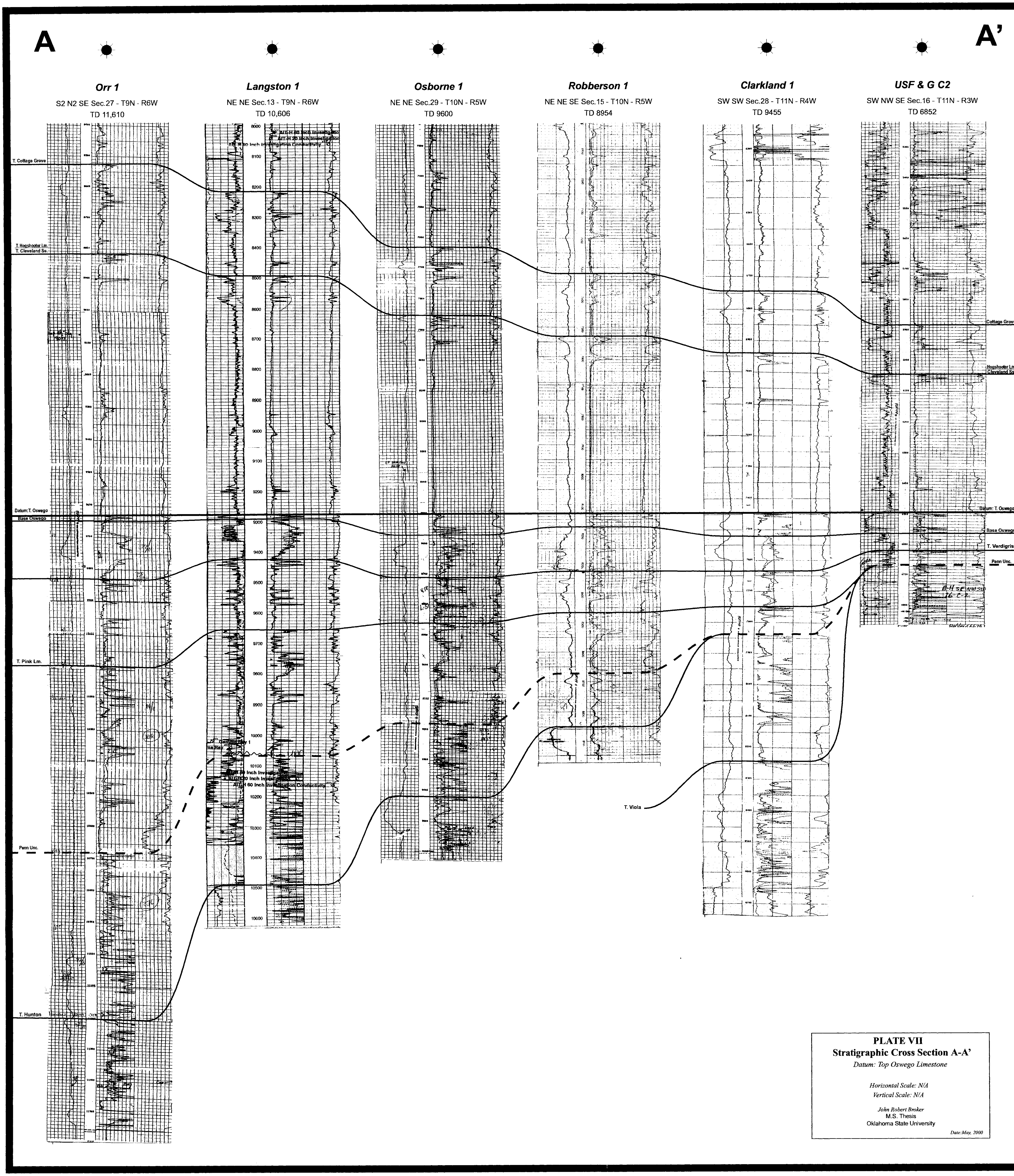

PLATE VII
Stratigraphic Cross Section A-A'
Datum: Top Oswego Limestone

Horizontal Scale: N/A
Vertical Scale: N/A

John Robert Broker
M.S. Thesis
Oklahoma State University

Date:May, 2000

PLATE IX
Stratigraphic Cross Section C-C'
Datum: Top Oswego Limestone

Horizontal Scale: 1" = 600'
Vertical Scale: 2.5" = 200'

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M.S. Thesis
Oklahoma State University

Date: May, 2000

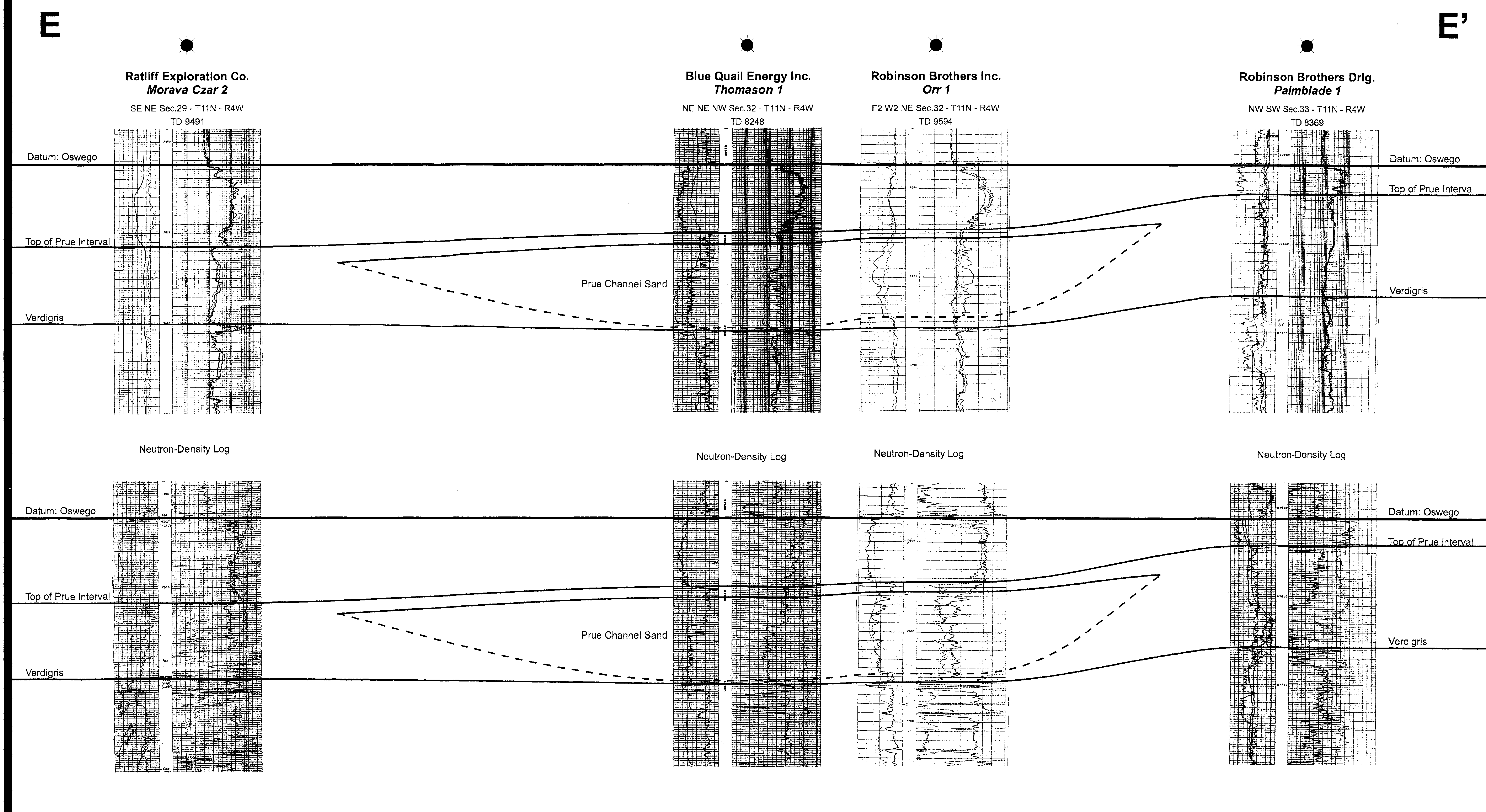

PLATE XI
Stratigraphic Cross Section E-E'
Datum: Top Oswego Limestone

Horizontal Scale: 1" = 600'
Vertical Scale: 2.5" = 200'

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Oklahoma State University

Date: May, 2000

PLATE XIII
Stratigraphic Cross Section G-G'
Datum: Top Oswego Limestone

Horizontal Scale: 1" = 600'
Vertical Scale: 2.5" = 200'

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Oklahoma State University

Date: May, 2000

PLATE XIV
Stratigraphic Cross Section H-H'
Datum: Top Oswego Limestone

Horizontal Scale: 1" = 600'
Vertical Scale: 2.5" = 200'

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Date: May, 2000

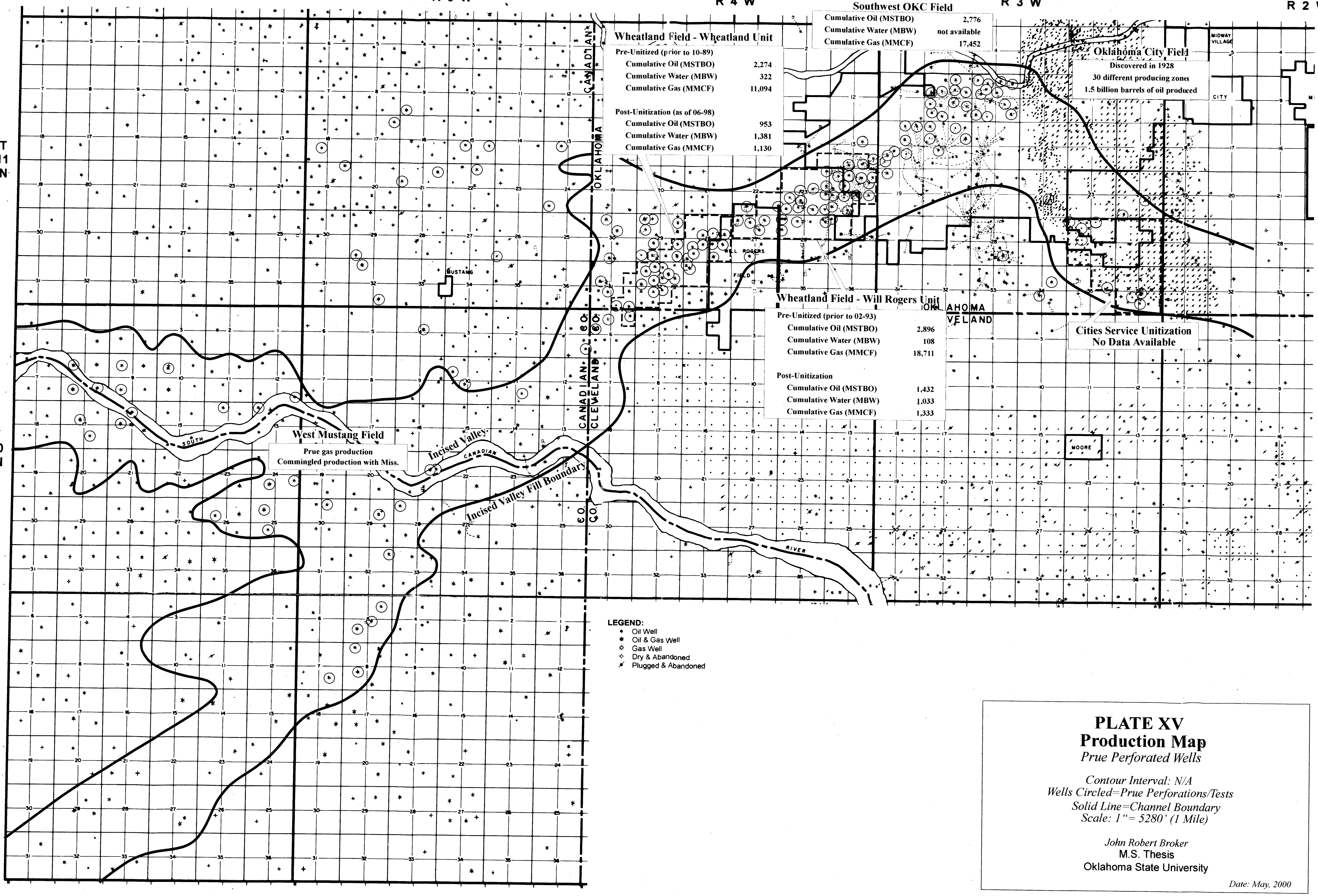

PLATE XV
Production Map
Prue Perforated Wells

Contour Interval: N/A
Wells Circled=Prue Perforations/Tests
Solid Line=Channel Boundary
Scale: 1"= 5280' (1 Mile)

John Robert Broker
M.S. Thesis
Oklahoma State University

Date: May, 2000

VITA

John Robert Broker

Candidate for the Degree of

Master of Science

Thesis: SUBSURFACE STRATIGRAPHIC ANALYSIS OF THE PRUE SANDSTONE INTERVAL IN SOUTH-CENTRAL, OKLAHOMA

Major Field: Geology

Biographical:

Personal Data: Born in Houston, Texas on June 23, 1976, the son of Lena Uta and Leslie John Broker.

Education: Graduated from Edmond Memorial High School, Edmond, Oklahoma in May 1994; received Bachelor of Science degree in Geology from Oklahoma State University, Stillwater, Oklahoma in July 1998. Completed the requirements for the Master of Science degree with a major in Geology at Oklahoma State University in May 2000.

Experience: Employed by Oklahoma State University School of Geology as a Teaching Assistant in Physical Geology, and Stratigraphy. Worked as Geological Intern for Louis Dreyfus Natural Gas, Oklahoma City, Oklahoma, during the summer of 1998. Employed by Stauros Operating Company, Edmond, Oklahoma, during the summers of 1996 and 1997 as a Geological Assistant. Worked as an Oilfield Pumper for Stauros Operating Company, Edmond, Oklahoma, from 1992-1995.

Professional Memberships: American Association of Petroleum Geologists, Oklahoma State University Geological Society.