

1. Report No. TX-85/299-5	2. Government Accession No.	3. Recipient's Catalog No.	
4. Title and Subtitle Oil Field Drilling Activity Data Reduction and Density Map Production		5. Report Date July 1985	6. Performing Organization Code
7. Author(s) D. A. Maxwell, B. E. Stampley, and J. M. Mason		8. Performing Organization Report No. Research Report 299-5	
9. Performing Organization Name and Address Texas Transportation Institute The Texas A&M University System College Station, Texas 77843		10. Work Unit No.	11. Contract or Grant No. Study No. 2-8-81-299
12. Sponsoring Agency Name and Address Texas State Department of Highways and Public Transportation; Transportation Planning Division P. O. Box 5051 Austin, Texas 78763		13. Type of Report and Period Covered Research Report - Phase III April 1983 to December 1984	
15. Supplementary Notes Research Study Title: The Effect of Oil Field Development on Rural Highways.		14. Sponsoring Agency Code	
16. Abstract A series of earlier reports described a method for analyzing the effects of oil and gas field development on rural highways in Texas. This report describes computer programs and data files to generate "grid/density" maps of oil field regions. These maps locate major activity centers and identify impacted roadways. Programs and data files discussed in this report generate maps depicting statewide levels of drilling and production activity. Additional programs aid in developing and updating a database (1977 to Present) of Texas oil and gas activity. This report also contains instructions on the use of these programs and data files. The program results describe statewide variations in activity and identify potential areas of associated truck traffic.			
17. Key Words Truck Traffic, Pavement Distress, Oil Field Traffic, Statewide Variability, Computer Programs, Grid/Density Maps		18. Distribution Statement No restrictions. This document is available to the public through the National Technical Information Service 5285 Port Royal Road Springfield, Virginia 22161	
19. Security Classif. (of this report) Unclassified	20. Security Classif. (of this page) Unclassified	21. No. of Pages 218	22. Price

**OIL FIELD DRILLING ACTIVITY DATA REDUCTION
AND DENSITY MAP PRODUCTION**

by

D. A. Maxwell, B. E. Stampley, and J. M. Mason

Research Report 299-5

Research Project 2-8-81-299

Phase III

Conducted For

The State Department of Highways and Public Transportation

by the

Texas Transportation Institute
Texas A&M University System
College Station, Texas 77843

July 1985

ACKNOWLEDGEMENT

This phase of the study was sponsored by the State Department of Highways and Public Transportation. John M. Mason served as Principal Investigator and Donald A. Maxwell led the development of the required methodology and computer software. They were assisted by Bryan E. Stampley, Robert A. Becker, and Kay F. Simmons. Mr. Gerald B. Peck was the Contact Representative for the SDHPT. The Technical Advisory Committee acted as an integral part of the study, and their help, guidance, and support are greatly appreciated.

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ABSTRACT

A series of earlier reports described a method for analyzing the effects of oil and gas field development on rural highways in Texas. This report describes computer programs and data files to generate "grid/density" maps of oil field regions. These maps locate major activity centers and identify impacted roadways.

Programs and data files discussed in this report generate maps depicting statewide levels of drilling and production activity. Additional programs aid in developing and updating a database (1977 to Present) of Texas oil and gas activity.

This report also contains instructions on the use of these programs and data files. The program results describe statewide variations in activity and identify potential areas of associated truck traffic.

SUMMARY

The process of generating drilling activity and grid/density maps consists of four phases:

1. Collect Data: Obtain the latest copy of the Drilling Permit Master Control Record and the Annual Report of the Oil & Gas Division published by the the Railroad Commission of Texas, along with the current version of the District Highway Maps from the SDHPT.

2. Summarize Statewide Activity: Run program SUMTX to develop a statewide activity summary for later analysis. These files contain drilling and production activity data by year and by county.

3. Produce Maps: Run the series of programs (GET, LOC, and GRID) required to produce maps for the desired SDHPT districts.

4. Summarize Results: Run the SAS/GRAPH series of programs to analyze and plot or graph the various important parameters.

These programs generate statewide summaries of the drilling and production activity. Grid/density maps are available only for those counties where coordinate data have been hand-coded from the District maps.

IMPLEMENTATION STATEMENT

In previous phases of this study, drilling activity and production data were reduced and grid-density maps were drawn by hand. The well locations were taken from commercially available maps. The thrust of this study was to determine whether the same results could be obtained from data records maintained by the Railroad Commission of Texas. If usable results could be produced from readily-obtainable data, then what was originally seen as a research tool could be converted into something useful to the Department's Planning and Design Engineers.

During this phase of development, the state-of-the-art has advanced to the extent that it is possible to use the Railroad Commission data files to produce grid/density maps that in turn can be overlaid on the Department's District Highway Maps. At this stage of the development, much of the data still must be hand-coded; therefore, some lead time is required to obtain meaningful results.

Subsequent phases of the research should investigate the feasibility of using this technique to produce grid-density maps for other types of special-use truck traffic. Integrating the procedure into the Department's computer aided drafting system should also be investigated.

DISCLAIMER

The views, interpretations, analyses, and conclusions expressed or implied in this report are those of the authors. They are not necessarily those of the State Department of Highways and Public Transportation.

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INTRODUCTION

The Problem

There is little doubt that the traffic generated by the development of an oil field causes damage to the surrounding highway system. The primary question is: What is the relationship between drilling and production activity and damage to a particular stretch of road? Previous phases of this study have established the relation between traffic (as represented by 18-kip equivalent single axle wheel loads) and a "typical" well in District 17. (1, 2) The general purpose of this portion of the study was to extend these results to Districts 11 and 13 in particular, and to the entire state in general. The specific problem addressed in this report is the development of the necessary computer software to support the analysis effort.

Previous efforts resulted in the development of a first-cut at the required methodology. This included: (1) identification of the specific sources of usable information; (2) some experimental software; and (3) a well-specified set of required results for use in the subsequent analysis effort. The data sources to be used fall within the following three areas:

1. Drilling activity throughout the state is reported by the Railroad Commission of Texas (RRC). The source of data used for this project is the Drilling Permit Master Control Record, ROGFDM, of their Drilling Permit System. This file contains the history of every permit issued by the RRC since they began to maintain the file in 1977. The following were of particular interest in this project:

- Permit issue date
- Spud-in date (if drilling actually began)
- Completion date (when drilling stopped)

- Whether or not the well went into production
- Location of permit/well
- Depth of well

2. Oil and gas production data, summarized by county, are contained in the Annual Oil and Gas Report, published by the RRC. The data do not, however, identify the number of wells contributing to each county's annual production. In response to our needs, the Railroad Commission developed an Annual Production Report from the RRC.ROGPWCT tape file. This report summarizes the status of each producing well on a county by county basis from 1978 through 1983.

3. The highway network affected by the drilling/production activity came from the District Highway Maps developed by the Texas Department of Highways and Public Transportation. The data obtained from this source were:

- Location of highways impacted by the drilling and production activity.
- Location of the towns/cities used in the permit location description
- District and County boundary lines.

The results expected from the data reduction process fell into four interrelated groups of data. All data were used in the downstream analysis process which seeks to relate drilling and production activity to roadway damage.

1. Drilling activity by county by year from 1977 to present. These include the number of permits, spud-ins, and producing wells totaled by year. This is available in tabular form in the CNTYACTV file or from the appropriate density map.

2. Average drilling activity data by county. The CNTYACTV file also contains county tabulations for four statewide variability parameters: average lag time, average percent drilled, average drill time, and completion success rate. Well depth information is currently not included but is available on the ROGFDM file.

3. Oil and gas production data by county by year. The CNTYPROD file contains annual oil and gas production figures in each county from 1977-1982. The CNTYAREA file identifies the approximate percent area of each county devoted to crude oil production. This information, however, may only be derived for those counties contained within the current set of grid/density maps.

4. District grid/density maps. These maps depict the extent of permit/spud-in/production activity on the existing highway network, as shown in Figure 1.

Study Objectives

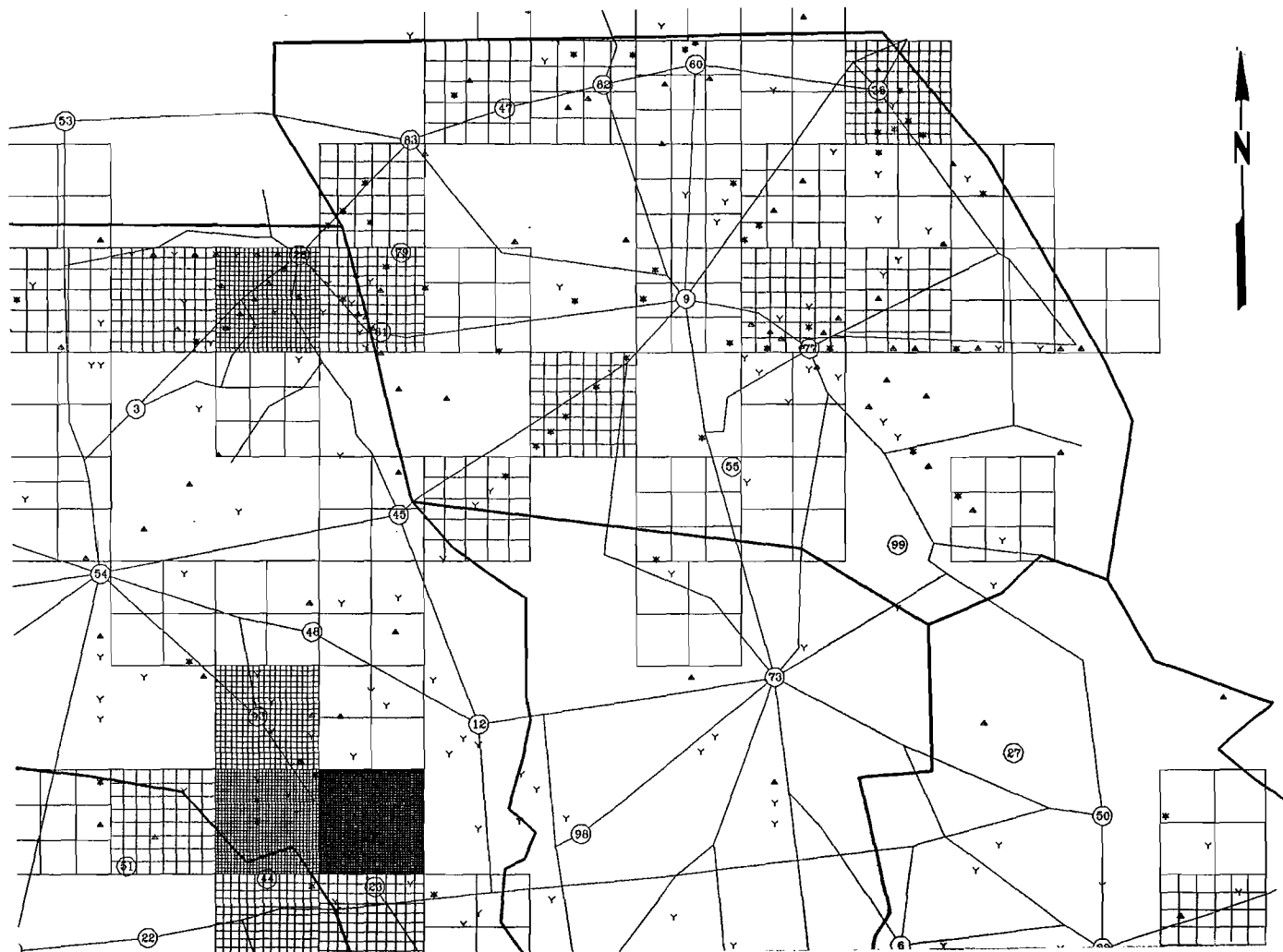
Generally, this part of the study had the overall goal of converting the readily available inputs into the required outputs. This included the following specific objectives:

1. Develop and implement the required methodology. The intent was to extend the previously defined concepts and research level methodology into a more usable and well-defined process. This included an extension of the work completed in District 17 to Districts 11 and 13.

2. Advance the software level of development from a limited research tool to a more complete and practical state.

Subsequent project efforts will focus upon implementation of the methodology and software into the mainstream of the Department's planning efforts.

Atok



LEGEND:

④5 - Town location

Y - Permit location

▲ - Spud-in location

— - Highway

— - County or District boundary

Number of horizontal lines within grid square indicates number of producing wells in grid square area.

Figure 1. Example of Grid/Density Map.

TECHNICAL APPROACH

System Overview

The following is a description of the data reduction process leading up to the analysis phase. For descriptive purposes the process is divided into four steps. These interrelated activities and their relationships are shown in the flow chart in Figure 2.

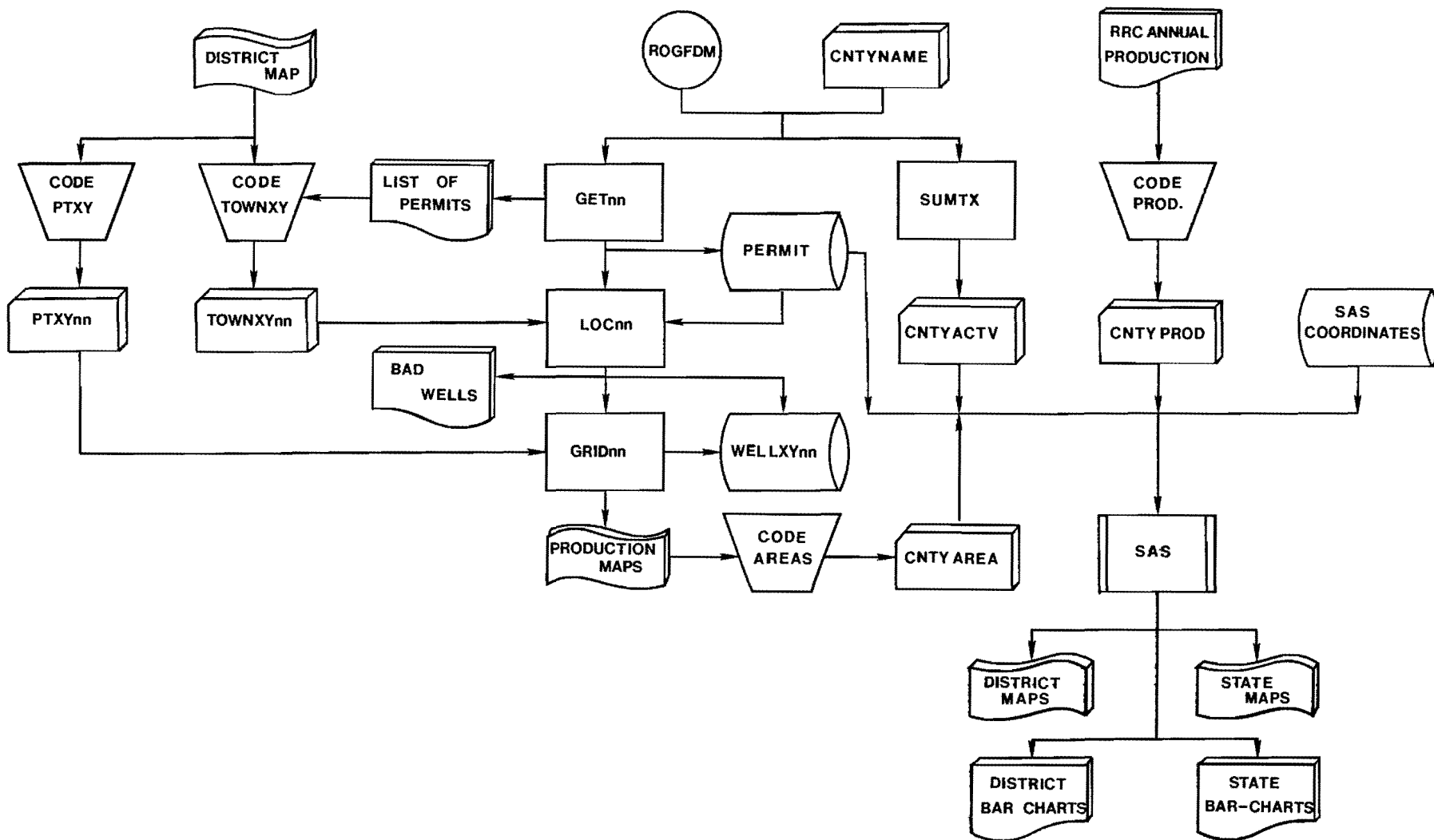
Step I - Data Collection: The first step is to obtain the latest versions of the following:

The Permit Master File: The latest version can be obtained from the Railroad Commission and installed in the tape library for later use.

The Annual Production Report: The latest version of the report can be obtained from the Railroad Commission for use in updating the CNTYPROD file.

The District Highway Maps: If the data for a new district is to be developed, then the appropriate District Map must be obtained from the SDHPT map sales office in Austin. A grid system should be placed on the map to scale town and location coordinates for the new grid/density maps. TOWNXYnn and PTXYnn are built from these map coordinates.

Step II - Summarize the Statewide Drilling Activity: The summary of drilling activity by year and by county is produced by SUMTX and stored in the CNTYACTV file. The results reflect the data on the latest version of the Drilling Permit Master File. A report containing the activity summary, average drill time, development time, and the percent of permits produced is output from SUMTX. SAS/GRAPH can be used to produce maps illustrating the extent of drilling and production activity.



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Figure 2. Flow Chart of Data Reduction Process.

Step III - Produce Drilling/Production Maps: This step consists of a number of steps which must be completed in the following sequence (see flowchart) in order to produce the correct drilling/production maps. The sequence must be executed in the following order for any SDHPT district.

1. Execute GETnn (nn is the current district number): GET extracts the permit records for this district from the ROGFDM file.
2. Code the TOWNXYnn file: GET produces a list of all permits within the district. This list contains the town names to which all wells are referenced. TOWNXY contains the coordinates of each of these towns. The coordinates are scaled from the district map obtained in Step I.
3. Execute LOCnn: LOC establishes the coordinates of each record in the PERMITnn file (extracted from ROGFDM by GETnn) using coordinates stored in TOWNXY. These coordinates are stored in a file named WELLXY for use by GRIDnn. LOC also produces a list of permits for which a location could not be determined (i.e. a mis-spelled town name, unrecognizable direction, etc.). TOWNXY should be corrected and LOC rerun until satisfactory results are obtained.
4. Code the PTXYnn file: PTXY contains the coordinates of the county boundaries, district boundaries, and the roads to be plotted. These coordinates should be scaled from the same district map as TOWNXY.
5. Execute GRIDnn: GRID produces a grid/density map from the data in WELLXY and PTXY. Individual permit and spud-in sites are plotted. Producing well density is indicated by a grid square shading system in which the number of lines within the grid indicates the number of producing wells in an area. The net effect is that regions of high producing well density show up on the map as areas of dense grid shading.

Each grid represents a 5-mile square area. The producing area (amount of land devoted to oil or gas production) is determined by measuring the "square" areas.

Step IV - Statistical Analysis: SAS (Statistical Analysis System) and SAS/GRAPH may be used to produce the following reports and maps:

1. State and district maps and bar charts showing lag time, drill time, total permits, spud-ins, and wells and percent of spud-ins and completions, by county.
2. State and district maps and bar charts showing the oil and gas production by year by county.
3. District maps and bar charts showing the number of permits, spudins, and wells per square mile of production.
4. Trend plots showing depth versus time for each district.

Data Files

There are three types of files used by the data reduction system. All three types have been named and saved under the WYLBUR naming convention so that files can be: pre-allocated, scratched, moved, etc. using WYLBUR commands. This means that extensive knowledge of Job Control Language is not needed by the user. The following is a brief description of each file and its format convention. A more detailed description and a listing of each file follows the brief description:

ROGFDM (Drilling Permit Master): This file contains the the master permit records for all oil/gas well permits in Texas from 1977 until the file was obtained from the RRC. This tape file contains more than 200,000 records, each record having a length of 308 bytes in ASCII (American Standard Code for Information Interchange) format.

CNTYNAME: Contains the correct spelling and RRC sequence number (not the same as the SDHPT alphabetic sequence) of all 254 counties in Texas. This file contains 254 records in WYLBUR¹ card format.

PERMITnn: This file is built by GETnn and contains an exact copy of selected records from the ROGFDM file. The usual rule is to select all of the counties within a specific SDHPT District; however, any group of counties can be selected.

TOWNXYnn: Contains the town names and their coordinates for each SDHPT District (where "nn" is the district number). These are the same towns as appear in the ROGFDM file as permit location references; for example, "5 miles South of Snook." Since many of the town names are misspelled on the ROGFDM file, the spelling variations also appear in the TOWNXYnn list. This file contains not more than 500 records in WYLBUR card format.

WELLXYnn: Contains all of the permit/spud-in/producing well, town location, and spelling information required to produce the grid/density maps. This file is generated by LOCnn and used by GRIDnn. WELLXYnn should contain between 50 and 75 tracks of unformatted FORTRAN-generated records.

PTXYnn: Contains coordinates which define the district and the county boundaries. It also contains the coordinates describing the major highways throughout the district. This file contains not more than 900 records in WYLBUR card format.

1. WYLBUR is the on-line file maintenance system used by the Data Processing Center at TAMU. Documentation concerning this system is available from TTI.

CNTYAREA: Contains the total area (in square miles) and the area devoted to oil or gas production for each county. The producing area is obtained from the maps produced by GRIDnn; therefore, producing area values exist only for those counties where grid/density maps have been produced. This file contains 254 records in WYLBUR card format.

CNTYACTV: Summarizes drilling activity for each county from 1977 thru the present. This includes the total number of permits, spud-ins, and completed wells. CNTYACTV also contains values for average wait time, average drill time, average percent drilled, and average completion success rate. The file contains 254 sets of 5 records per county, in WYLBUR card format.

CNTYPROD: Contains the annual county oil and gas production figures for each county by year from 1977 until the present. This file contains 254 sets of 5 records (a set for each of the 254 counties) in WYLBUR card format.

DISTRICT HIGHWAY MAPS: Although the District Highway Maps are not actual computer files, they are the source of all position data used in the computer plotting process. These maps contain the coordinate data for TOWNXYnn and PTXYnn and the correct spellings of the town names. They also show the location of the surrounding road/highway system that is impacted by the oil field development. They are also the source of the district and county boundary information. The latest copy of each district map can be obtained from the SDHPT map sales office in Austin.

SAS COORDINATE FILES: The Statistical Analysis System (SAS), is one of many systems resident on the mainframe computer at TAMU. SAS, along with SAS/GRAPH, its companion graphics package, can be used to generate plots describing drilling activity in each county. Different shading patterns are used to show various degrees of activity. A file, called MAP.COUNTIES,

contains the coordinates of the county boundaries for all 254 Texas counties and is required to produce many of the plots. The MAP.COUNTIES file uses the same county code sequence as the RRC Drilling Permit System.

Computer Programs

Two groups of computer programs are required to reduce the project data. The grid/density maps are produced by a series of FORTRAN programs specifically created for this project. Two other FORTRAN programs are used to translate data from one format to another. There are also a number of SAS programs used to produce graphs, maps, and bar charts for use in analysis reports. These programs are briefly described below. A more detailed description, along with a program listing, associated Job Control Language (JCL), and input data follow in the Appendices.

GETnn: This program extracts the permit records for a particular set of counties. This is usually one of the SDHPT districts. A maximum of 12 counties can be selected.

LOCnn: This program computes the Y-X coordinates of each permit/spud-in/completion within the specified set of counties. This is usually the same set extracted by GETnn, but it can be a subset.

GRIDnn: This program plots the grid/density map -- that is, a grid map of the wells located by LOCnn. This map also includes the district and county boundaries and the major road system.

SUMTX: This program summarizes the drilling activity within each of the 254 counties in the state.

SAS/GRAPH: Six SAS programs are used, in conjunction with SAS/GRAPH, to generate county and statewide plots of drilling and production activity. The plots may be in map, barchart, and X-Y plot format.

CONCLUSIONS AND RECCONENDATIONS

The next phase of development should be performed in coordination with the staff of D-19, to insure that the methodology and software described in this report is integrated into the mainstream of the Department's planning procedures. For example, the customization required to install this software on the Department's computer will require the assistance of the D-19 staff. In addition, the coordinate scaling and grid system development work could be more efficiently done with the Department's automated mapping system (instead of by hand, as was done during the initial development). Once the correct procedures are worked out, the results can be turned over to the D-19 staff to complete.

The year of experience gained during the development of the existing methodology has resulted in a research tool that is practical in analyzing various types of special-use truck traffic. In fact, the extension of the technique from strictly oil field traffic to other types of special-use truck traffic is currently underway.

REFERENCES

1. Mason, J. M., Scullion, T., and Stampley, B., "Estimating Service Life of Surface-Treated Pavements in Oil Field Areas," Research Report 299-2, Texas Transportation Institute, Texas A & M University, College Station, Texas, July 1983.
2. Mason, J. M., Underbrink, D., Stampley, B., Scullion, T., and Rowan, N. J., "Methodology for Assessing and Predicting the Effects of Oil Field Development," Research Report 299-3, Texas Transportation Institute, Texas A & M University, College Station, Texas, July 1983.

APPENDICES

The following sections contain listings of the actual card images and files used or produced during the execution of each of the computer programs described in this report. In the case of files, only those maintained in card image format are listed. (These are stored on disk and/or tape as fixed block, 80-column ASCII character records, which is the same as WYLBUR card format.) The others are not listed but record layout descriptions are included.

The program runs include: all JCL (job control language), FORTRAN, control cards, and data not included in the file descriptions. The "run decks" were executed as listed. The reports produced by the programs are also included wherever practical -- some listings are too long to include. Listings of the data files are also included wherever possible.

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ROGFDM - Permit Master File

This file can be obtained from the Texas Railroad Commission as required for updates. It is used by SUMTX and GETnn. The layout for the data used by the analysis programs is in the list below. The exact file layout follows on the next page.

<u>Position</u>	<u>Contents</u>
7-12	Permit Date (mm/dd/yy)
19-21	County Code (see Note 1. below)
162-167	Spud-in Date (mm/dd/yy)
186-191	RESV Date (mm/dd/yy)
222-225	Distance From Town (miles)
226-230	Depth of Well
231-236	Direction from Town (North, NNE, NE, etc)
237-249	Town Name (e.g. Snook)
250	RESV-Code (W = completed well)

Note 1: The county numbering code used in this file is equal to: 2 x's county number + 1. Since the county numbers in the CNTYNAME file are in alphabetic sequence from 1-254, this results in a string of odd numbers from 1 to 509. You should also be aware that the RRC sequence and the SDHPT sequence are not the same.

Note 2: The following pages were copied from Railroad Commission and SDHPT handbooks and documentation.

GENERAL PURPOSE TAPE/DISK LAYOUT

FILE ID V.OG.ROGFDM

DP-75

RECORD NAME W-1 Master APPLICATION Drilling Permit System (W-1)

DISK BYTE
TAPE DIGIT

RECORD SIZE 308 BLOCKING FACTOR _____ FILE CONTAINS _____

Permit Number	Issue Date			W-1 Date			API #		Dist	Operator Number	Zip Code	Filler	Type App	Other
	MO	DY	YR	MO	DY	YR	CNTY	API						
1 2 3 4 5 6	7 8 9 10						20			30		40		50

REMARKS:

Type of Operation Comment x(30)	Lease Name x(32)
60	70 80 90 100

Location x(52)
110 120 130 140 150

Filler x(3)	Spud In Date			Cancel Date			Amended Dt			Extension Dt			Resv Date			Rule 37	Rest. YN	Red OS X
	MO	DY	YR	MO	DY	YR	MO	DY	YR	MO	DY	YR	MO	DY	YR			
160																		

Error Key	Well ID x(6)	OFSH CNTY	Acres	Miles	Depth	Direction x(6)	City x(13)	Resv Code
	210		220		230		240	250

R36 App	R36 Fill	Filler x(32)	Location Key	Alternate Address Key	Compltn Key
		260 270 280 290			300

Figure A-1. General Purpose Tape/Disk Layout.

GENERAL PURPOSE TAPE/DISK LAYOUT

FILE ID V.OG.ROGFDM

DP-75

RECORD NAME W-1 Master

APPLICATION Drilling Permit System (W-1)

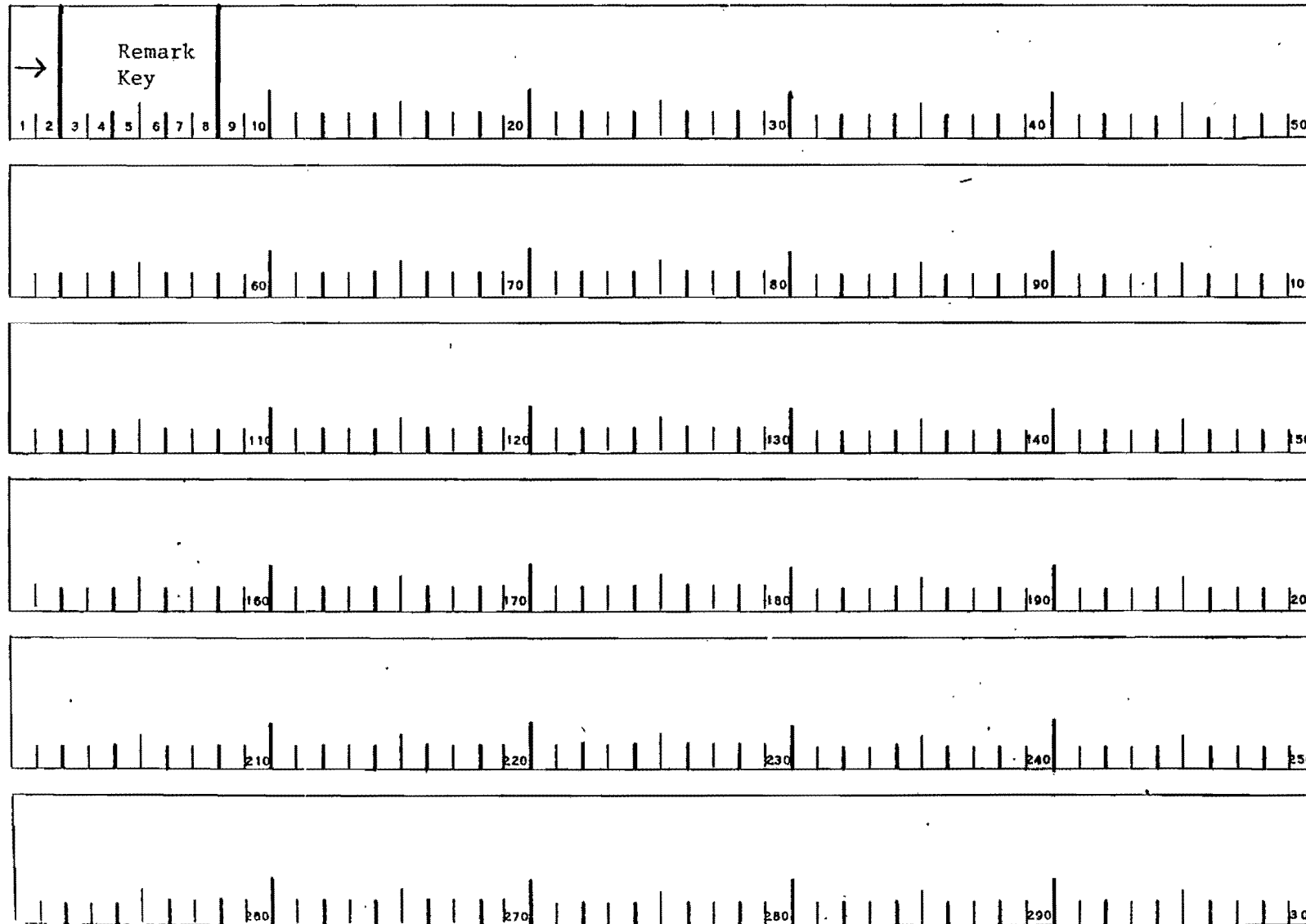
DISK BYTE

TAPE DIGIT

RECORD SIZE 308

BLOCKING FACTOR _____

FILE CONTAINS _____



REMARKS:

- 8i -

Figure A-1. General Purpose Tape/Disk Layout. (cont.)

RECORD DESCRIPTION

Record Name Drilling Permit Master Application Drilling Permit (W-1) Page 1 Of 3

Record Length 308 bytes File ID V. OG. ROGFDM Date 10/80

Item No.	Data Name	Position	Type Data*	Length	Description
1	Permit Number	1 - 6	ND	6 bytes	
2	Issued Date	7 - 12	ND	6 bytes	MO. DY. YR.
3	W-1 Date	13 - 18	ND	6 bytes	MO. DY. YR.
4	API County	19 - 21	ND	3 bytes	
5	API Number	22 - 26	ND	5 bytes	
6	District	27 - 28	ND	2 bytes	District subscript.
7	Operator Number	29 - 34	ND	6 bytes	
8	Zip Code	35 - 39	ND	5 bytes	
9	Filler	40 - 43	ND	4 bytes	To be used for zip code.
10	Type Application	44	ND	1 byte	1 = drill 2 = deepen (below casing) 3 = deepen (within casing) 4 = plug back 5 = other
11	Other Explanation	45 - 74	AN	30 bytes	
12	Lease Name	75 - 106	AN	32 bytes	
13	Location	107 - 158	AN	52 bytes	
14	Filler	159 - 161	AN	3 bytes	
15	Spud in Dt.	163 - 167	ND	6 bytes	MO. DY. YR.
16	Cancelled Dt.	168 - 173	ND	6 bytes	MO. DY. YR.
17	Amended Dt.	180 - 185	ND	6 bytes	MO. DY. YR.

* SD - Signed Display, ND - Unsigned Display, AN - Alpha-Numeric, SC - Signed Comp, NC - Numeric Comp.

Figure A-2. ROGFDM Record Description.

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RECORD DESCRIPTION

Record Name Drilling Permit Master Application Drilling Permit (W-1) Page 2 Of 3
 Record Length 308 bytes File ID v. OG. ROGFDM Date 10/80

Item No.	Data Name	Position	Type Data*	Length	Description
18	Extension Dt.	180 - 185	ND	6 bytes	MO. DY. YR.
19	Reserve Dt.	186 - 191	ND	6 bytes	MO. DY. YR.
20	Filler	192	ND	1 bytes	
21	Rule 37 Number	193 - 198	ND	6 bytes	
22	Rest. (yes-no)	199	ND	1 byte	0 - no restriction 1 - restrictions
23	Fed. Offshore	200	ND	1 byte	"x" = federal offshore
24	ERR - PRT Key	201 - 206	ND	6 bytes	
25	Well Number	207 - 212	AN	6 bytes	
26	Offshore Cnty	213 - 215	ND	3 bytes	
27	Acres	216 - 221	ND	6 bytes	
28	Miles	222 - 2235	ND	4 bytes	
29	Depth	226 - 230	ND	5 bytes	
30	Direction	231 - 236	AN	6 bytes	
31	City	237 - 249	AN	13 bytes	
32	Reserve Code	250	ND	1 byte	See page 2-9.
33	Rule 36 Application	251	AN	1 byte	Y = Yes, N = No
34	Rule 36 Filing	252	AN	1 byte	Y = Yes, N = No
35	Filler	253 - 284	AN	32 bytes	
36	Location Key	285 - 290	ND	6 bytes	This points to the remarks file.

* SD - Signed Display, ND - Unsigned Display, AN - Alpha-Numeric, SC - Signed Comp, NC - Numeric Comp.

Figure A-2. ROGFDM Record Description. (cont.)

Table A-1. CW-1 Update Codes.

Spud-In Casing Set

Code

Letter Date

None

Spud-In and Surface Casing or Pip

Reserved Dates

Reserve Code S

Letter of Form Dates

A	Long String
B	Conductor Casing
C	Test Bottom Hole Pressure
D	Plug Dry Hole-P & A (W-3)
E	
F	Circulate Production String Casing
G	Drive Pipe
H	Plug Dry Hole-P & A (ltr.)
I	Temperature Survey
J	Liner
K	P & A Sulphur Core Test
L	Plug Back
M	Core Test (P & A)
N	Intermediate String
O	Plug Dry Hole (oil)
P	Plug Dry Hole (gas)
Q	Plug Fresh Water
R	Plug Stat Test

Table A-1. CW-1 Update Codes. (cont.)

Reserved Dates

Reserve Code S

Letter of Form Dates

S	Plug Dry Hole (Explore)
U	Unsuccessful W/O - See Old Zone
V	Plug Uranium Test
W	Final Completion
X	Lignite Expl. (P & A)
Z	Equals Removed Reserved Code

Table A-2. Texas Counties Printed
in Alphabetical Order.

CNTYNAME	COUNTY	THDCNTY	HWY_DIST
ANDERSON	1	1	10
ANDREWS	2	2	6
ANGELINA	3	3	11
ARANSAS	4	4	16
ARCHER	5	5	3
ARMSTRONG	6	6	4
ATASCOSA	7	7	15
AUSTIN	8	8	12
BAILEY	9	9	5
BANDERA	10	10	15
BASTROP	11	11	14
BAYLOR	12	12	3
BEE	13	13	16
BELL	14	14	9
BEXAR	15	15	15
BLANCO	16	16	14
BORDEN	17	17	8
BOSQUE	18	18	9
BOWIE	19	19	19
BRAZORIA	20	20	12
BRAZOS	21	21	17
BREWSTER	22	22	24
BRISCOE	23	23	25
BROOKS	24	24	21
BROWN	25	25	23
BURLESON	26	26	17
BURNET	27	27	14
CALDWELL	28	28	14
CALHOUN	29	29	13
CALLAHAN	30	30	8
CAMERON	31	31	21
CAMP	32	32	19
CARSON	33	33	4
CASS	34	34	19
CASTRO	35	35	5
CHAMBERS	36	36	20
CHEROKEE	37	37	10
CHILDRESS	38	38	25
CLAY	39	39	3
COCHRAN	40	40	5
COKE	41	41	7
COLEMAN	42	42	23
COLLIN	43	43	18
COLLINGSWORTH	44	44	25
COLORADO	45	45	13
COMAL	46	46	15
COMANCHE	47	47	23
CONCHO	48	48	7
COOKE	49	49	3
CORYELL	50	50	9
COTTLE	51	51	25
CRANE	52	52	6
CROCKETT	53	53	7
CROSBY	54	54	5
CULBERSON	55	55	24
DALLAM	56	56	4
DALLAS	57	57	18
DAWSON	58	58	5
DEAF SMITH	59	59	4
DELTA	60	60	1
DENTON	61	61	18
DEWITT	62	62	13
DICKENS	63	63	25
DIMMIT	64	64	22
DONLEY	65	65	25
DUVAL	66	67	21
EASTLAND	67	68	23
ECTOR	68	69	6
EDWARDS	69	70	22
EL PASO	71	72	24
ELLIS	70	71	18
ERATH	72	73	2
FALLS	73	74	9

Table A-2. Texas Counties Printed
in Alphabetical Order. (cont.)

CNTYNAME	COUNTY	THDCNTY	HWY_DIST
FANNIN	74	75	1
FAYETTE	75	76	13
FISHER	76	77	8
FLOYD	77	78	5
FOARD	78	79	25
FORT BEND	79	80	12
FRANKLIN	80	81	1
FREESTONE	81	82	17
FRIO	82	83	15
GAINES	83	84	5
GALVESTON	84	85	12
GARZA	85	86	5
GILLESPIE	86	87	14
GLASSCOCK	87	88	7
GOLIAD	88	89	16
GONZALES	89	90	13
GRAY	90	91	4
GRAYSON	91	92	1
GREGG	92	93	10
GRIMES	93	94	17
GUADALUPE	94	95	15
HALE	95	96	5
HALL	96	97	25
HAMILTON	97	98	9
HANSFORD	98	99	4
HARDEMAN	99	100	25
HARDIN	100	101	20
HARRIS	101	102	12
HARRISON	102	103	19
HARTLEY	103	104	4
HASKELL	104	105	8
HAYS	105	106	14
HEMPHILL	106	107	4
HENDERSON	107	108	10
HIDALGO	108	109	21
HILL	109	110	9
HOCKLEY	110	111	5
HODD	111	112	2
HOPKINS	112	113	1
HOUSTON	113	114	11
HOWARD	114	115	8
HUDSPETH	115	116	24
HUNT	116	117	1
HUTCHINSON	117	118	4
IRION	118	119	7
JACK	119	120	2
JACKSON	120	121	13
JASPER	121	122	20
JEFF DAVIS	122	123	24
JEFFERSON	123	124	20
JIM HOGG	124	125	21
JIM WELLS	125	126	16
JOHNSON	126	127	2
JONES	127	128	8
KARNES	128	129	16
KAUFMAN	129	130	18
KENDALL	130	131	15
KENEDY	131	66	21
KENT	132	132	8
KERR	133	133	15
KIMBLE	134	134	7
KING	135	135	25
KINNEY	136	136	22
KLEBERG	137	137	16
KNOX	138	138	25
LA SALLE	142	142	15
LAMAR	139	139	1
LAMB	140	140	5
LAMPASAS	141	141	23
LAVACA	143	143	13
LEE	144	144	14
LEON	145	145	17
LIBERTY	146	146	20

Table A-2. Texas Counties Printed
 An Alphabetical Order. (cont.)

CNTYNAME	COUNTY	THDCNTY	HWY_DIST
LIMESTONE	147	147	9
LIPSCOMB	148	148	4
LIVE OAK	149	149	16
LLANO	150	150	14
LOVING	151	151	6
LUBBOCK	152	152	5
LYNN	153	153	5
MADISON	157	154	17
MARION	158	155	19
MARTIN	159	156	6
MASON	160	157	14
MATAGORDA	161	158	12
MAVERICK	162	159	22
MCCULLOCH	154	160	23
MCLENNAN	155	161	9
MCMULLEN	156	162	15
MEDINA	163	163	15
MENARD	164	164	7
MIDLAND	165	165	6
MILAM	166	166	17
MILLS	167	167	23
MITCHELL	168	168	8
MONTAGUE	169	169	3
MONTGOMERY	170	170	12
MOORE	171	171	4
MORRIS	172	172	19
MOTLEY	173	173	25
NACOGDOCHES	174	174	11
NAVARRO	175	175	18
NEWTON	176	176	20
NOLAN	177	177	8
NUECES	178	178	16
OCHILTREE	179	179	4
OLDHAM	180	180	4
ORANGE	181	181	20
PALO PINTO	182	182	2
PANOLA	183	183	19
PARKER	184	184	2
PARMER	185	185	5
PECOS	186	186	6
POLK	187	187	11
POTTER	188	188	4
PRESIDIO	189	189	24
RAINS	190	190	1
RANDALL	191	191	4
REAGAN	192	192	7
REAL	193	193	22
RED RIVER	194	194	1
REEVES	195	195	6
REFUGIO	196	196	16
ROBERTS	197	197	4
ROBERTSON	198	198	17
ROCKWALL	199	199	18
RUNNELS	200	200	7
RUSK	201	201	10
SABINE	202	202	11
SAN AUGUSTINE	203	203	11
SAN JACINTO	204	204	11
SAN PATRICIO	205	205	16
SAN SABA	206	206	23
SCHLEICHER	207	207	7
SCURRY	208	208	8
SHACKELFORD	209	209	8
SHELBY	210	210	11
SHERMAN	211	211	4
SMITH	212	212	10
SOMERVELL	213	213	2
STARR	214	214	21
STEPHENS	215	215	23
STERLING	216	216	7
STONEWALL	217	217	8
SUTTON	218	218	7
SWISHER	219	219	5

Table A-2. Texas Counties Printed
in Alphabetical Order. (cont.)

CNTYNAME	COUNTY	THDCNTY	HWY_DIST
TARRANT	220	220	2
TAYLOR	221	221	8
TERRELL	222	222	6
TERRY	223	223	5
THROCKMORTON	224	224	3
TITUS	225	225	19
TOM GREEN	226	226	7
TRAVIS	227	227	14
TRINITY	228	228	11
TYLER	229	229	20
UPSHUR	230	230	19
UPTON	231	231	6
UVALDE	232	232	22
VAL VERDE	233	233	22
VAN ZANDT	234	234	10
VICTORIA	235	235	13
WALKER	236	236	17
WALLER	237	237	12
WARD	238	238	6
WASHINGTON	239	239	17
WEBB	240	240	21
WHARTON	241	241	13
WHEELER	242	242	25
WICHITA	243	243	3
WILBARGER	244	244	3
WILLACY	245	245	21
WILLIAMSON	246	246	14
WILSON	247	247	15
WINKLER	248	248	6
WISE	249	249	2
WOOD	250	250	10
YOAKUM	251	251	5
YOUNG	252	252	3
ZAPATA	253	253	21
ZAVALA	254	254	22

APPENDIX B

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CNTYNAME - County Name File

This file was built from an alphabetical crosslisting of county names and sequence numbers developed for use in accident analysis. It is used by GETnn, LOCnn, GRIDnn, and SUMTX.

<u>Position</u>	<u>Contents</u>
1-3	RRC Sequence No.
5-21	Alpha Name
23-25	SDH&PT Sequence Number
27-28	SDH&PT District Number
33-36	County Seat Y Coordinate
39-42	County Seat X Coordinate
45-60	County Seat Name

1.	001	ANDERSON	001	10	1825	2904	PALESTINE
2.	002	ANDREWS	002	06	1959	1109	ANDREWS
3.	003	ANGELINA	003	11	1708	3142	LUFKIN
4.	004	ARANSAS	004	16	0663	2588	ROCKPORT
5.	005	ARCHER	005	03	2353	2110	ARCHER CITY
6.	006	ARMSTRONG	006	04	2816	1394	CLAUDE
7.	007	ATASCOSA	007	15	0919	2167	JOURDANTON
8.	008	AUSTIN	008	12	1342	2350	SEALY
9.	009	BAILEY	009	05	2540	1070	MULESHOE
10.	010	BANDERA	010	15	1175	2025	BANDERA
11.	011	BASTROP	011	14	1300	2483	BASTROP
12.	012	BAYLOR	012	03	2348	1948	SEYMOUR
13.	013	BEE	013	16	0775	2386	BEEVILLE
14.	014	BELL	014	09	1585	2438	BELTON
15.	015	BEXAR	015	15	1075	2169	SAN ANTONIO
16.	016	BLANCO	016	14	1342	2192	JOHNSON CITY
17.	017	BORDEN	017	08	2095	1394	GAIL
18.	018	BOSQUE	018	09	1850	2375	MERIDIAN
19.	019	BOWIE	019	19	2350	3175	BOSTON
20.	020	BRAZORIA	020	12	1038	3006	ANGLETON
21.	021	BRAZOS	021	17	1467	2725	BRYAN
22.	022	BREWSTER	022	24	1367	0808	ALPINE
23.	023	BRISCOE	023	25	2620	1412	SILVERTON
24.	024	BROOKS	024	21	0408	2292	FALFURRIAS
25.	025	BROWN	025	23	1775	2031	BROWNWOOD
26.	026	BURLESON	026	17	1438	2650	CALDWELL
27.	027	BURNET	027	14	1492	2235	BURNET
28.	028	CALDWELL	028	14	1225	2392	LOCKHART
29.	029	CALHOUN	029	13	0850	2694	PORT LAVACA
30.	030	CALLAHAN	030	08	1988	1923	BAIRD
31.	031	CAMERON	031	21	0000	2488	BROWNSVILLE
32.	032	CAMP	032	19	2210	3048	PITTSBURYG
33.	033	CARSON	033	04	2880	1391	PANHANDLE
34.	034	CASS	034	19	2225	3206	LINDEN
35.	035	CASTRO	035	05	2648	1160	DIMITT
36.	036	CHAMBERS	036	20	1233	3194	ANAHUAC
37.	037	CHEROKEE	037	10	1844	3025	RUSK
38.	038	CHILDRESS	038	25	2606	1687	CHILDRESS
39.	039	CLAY	039	03	2421	2417	HENRIETTA
40.	040	COCHRAN	040	05	2390	1060	MORTON
41.	041	COKE	041	07	1826	1644	ROBERT LEE
42.	042	COLEMAN	042	23	1807	1815	COLEMAN
43.	043	COLLIN	043	18	2246	2625	MCKINNEY
44.	044	COLLINGSWORTH	044	25	2735	1683	WELLINGTON
45.	045	COLORADO	045	13	1190	2690	COLUMBUS
46.	046	COMAL	046	15	1169	2275	NEW BRAUNFELS
47.	047	COMANCHE	047	23	1834	2127	COMANCHE
48.	048	CONCHO	048	07	1706	1788	PAINT ROCK
49.	049	COOKE	049	03	2375	2483	GAINESVILLE
50.	050	CORYELL	050	09	1700	2358	GATESVILLE
51.	051	COTTLE	051	25	2473	1682	PADUCAH
52.	052	CRANE	052	06	1677	1154	CRANE
53.	053	CROCKETT	053	07	1467	1450	OZONA
54.	054	CROSBY	054	05	2367	1448	CROSBYTON
55.	055	CULBERSON	055	24	1590	0504	VAN HORN
56.	056	DALLAM	056	04	3110	1113	DALHART
57.	057	DALLAS	057	18	2110	2579	DALLAS
58.	058	DAWSON	058	05	2085	1263	LAMESA
59.	059	DEAF SMITH	059	04	2728	1140	HEREFORD
60.	060	DELTA	060	01	2310	2860	COOPER

61.	061 DENTON	061 18	2254	2492	DENTON
62.	062 DEWITT	062 13	0980	2583	CUERO
63.	063 DICKENS	063 25	2353	1545	DICKENS
64.	064 DIMMIT	064 22	0796	1817	CARRIZO SPRINGS
65.	065 DONLEY	065 25	2760	1513	CLARENDON
66.	066 DUVAL	067 21	0573	2277	SAN DIEGO
67.	067 EASTLAND	068 23	1989	2070	EASTLAND
68.	068 ECTOR	069 06	1812	1152	ODESSA
69.	069 EDWARDS	070 22	1250	1717	ROCK SPRINGS
70.	071 EL PASO	072 24	1830	0090	EL PASO
71.	070 ELLIS	071 18	2000	2581	WAXAHACHIE
72.	072 ERATH	073 02	1938	2225	STEPHENVILLE
73.	073 FALLS	074 09	1669	2583	MARLIN
74.	074 FANNIN	075 01	2371	2735	BONHAM
75.	075 FAYETTE	076 13	1242	2606	LA GRANGE
76.	076 FISHER	077 08	2085	1670	ROBY
77.	077 FLOYD	078 05	2464	1425	FLOYDADA
78.	078 FOARD	079 25	2467	1825	CROWELL
79.	079 FORT BEND	080 12	1158	2908	RICHMOND
80.	080 FRANKLIN	081 01	2265	2983	MOUNT VERNON
81.	081 FREESTONE	082 17	1804	2765	FAIRFIELD
82.	082 FRIO	083 15	0913	2021	PEARSALL
83.	083 GAINES	084 05	2081	1085	SEMINOLE
84.	084 GALVESTON	085 12	1085	3167	GALVESTON
85.	085 GARZA	086 05	2220	1410	POST
86.	086 GILLESPIE	087 14	1340	2071	FREDERICKSBURG
87.	087 GLASSCOCK	088 07	1815	1389	GARDEN CITY
88.	088 GOLIAD	089 16	0858	2483	GOLIAD
89.	089 GONZALES	090 13	1113	2456	GONZALES
90.	090 GRAY	091 04	2939	1495	PAMPA
91.	091 GRAYSON	092 01	2385	2625	SHERMAN
92.	092 GREGG	093 10	2060	3115	LONGVIEW
93.	093 GRIMES	094 17	1433	2833	ANDERSON
94.	094 GUADALUPE	095 15	1125	2319	SEGUIN
95.	095 HALE	096 05	2527	1330	PLAINVIEW
96.	096 HALL	097 25	2696	1604	MEMPHIS
97.	097 HAMILTON	098 09	1777	2250	HAMILTON
98.	098 HANSFORD	099 04	3146	1437	SPEARMAN
99.	099 HARDEMAN	100 25	2560	1820	QUANAH
100.	100 HARDIN	101 20	1423	3275	KOUNTZE
101.	101 HARRIS	102 12	1225	3006	HOUSTON
102.	102 HARRISON	103 19	2081	3217	MARSHALL
103.	103 HARTLEY	104 04	2992	1158	CHANNING
104.	104 HASKELL	105 08	2211	1827	HASKELL
105.	105 HAYS	106 14	1225	2317	SAN MARCOS
106.	106 HEMPHILL	107 04	3056	1652	CANADIAN
107.	107 HENDERSON	108 10	1958	2838	ATHENS
108.	108 HIDALGO	109 21	0119	2298	EDINBURG
109.	109 HILL	110 09	1883	2508	HILLSBORO
110.	110 HOCKLEY	111 05	2348	1160	LEVELLAND
111.	111 HOOD	112 02	2010	2333	GRANBURY
112.	112 HOPKINS	113 01	2248	2886	SULPHUR SPRINGS
113.	113 HOUSTON	114 11	1692	2956	CROCKETT
114.	114 HOWARD	115 08	1934	1385	BIG SPRING
115.	115 HUDSPETH	116 24	1633	0375	SIERRA BLANCA
116.	116 HUNT	117 01	2235	2754	GREENVILLE
117.	117 HUTCHINSON	118 04	3030	1378	STINNETT
118.	118 IRION	119 07	1635	1550	MERTZON
119.	119 JACK	120 02	2244	2229	JACKSBORO
120.	120 JACKSON	121 13	0950	2681	EDNA
121.	121 JASPER	122 20	1600	3342	JASPER

122.	122	JEFF DAVIS	123 24	1440	0750	FORT DAVIS
123.	123	JEFFERSON	124 20	1342	3325	BEAUMONT
124.	124	JIM HOGG	125 21	0425	2150	HEBBRONVILLE
125.	125	JIM WELLS	126 16	0567	2302	ALICE
126.	126	JOHNSON	127 02	1983	2440	CLEBURNE
127.	127	JONES	128 08	2087	1789	ANSON
128.	128	KARNES	129 16	0917	2344	KARNES CITY
129.	129	KAUFMAN	130 18	2067	2717	KAUFMAN
130.	130	KENDALL	131 15	1192	2113	BOERNE
131.	131	KENEDY	066 21	0408	2388	SARITA
132.	132	KENT	132 08	2240	1618	JAYTON
133.	133	KERR	133 15	1267	2000	KERRVILLE
134.	134	KIMBLE	134 07	1400	1825	JUNCTION
135.	135	KING	135 25	2355	1678	GUTHRIE
136.	136	KINNEY	136 22	1035	1667	BRACKETTVILLE
137.	137	KLEBERG	137 16	0500	2369	KINGSVILLE
138.	138	KNOX	138 25	2344	1810	BENJAMIN
139.	142	LA SALLE	142 15	0775	1983	COTULLA
140.	139	LAMAR	139 01	2404	2888	PARIS
141.	140	LAMB	140 05	2453	1169	LITTLEFIELD
142.	141	LAMPASAS	141 23	1583	2246	LAMPASAS
143.	143	LAVACA	143 13	1102	2598	HALLETSVILLE
144.	144	LEE	144 14	1325	2590	GIDDINGS
145.	145	LEON	145 17	1667	2819	CENTERVILLE
146.	146	LIBERTY	146 20	1319	3150	LIBERTY
147.	147	LIMESTONE	147 09	1738	2673	GROESBECK
148.	148	LIPSCOMB	148 04	3150	1661	LIPSCOMB
149.	149	LIVE OAK	149 16	0750	2792	GEDRGE WEST
150.	150	LLANO	150 14	1488	2117	LLANO
151.	151	LOVING	151 06	1775	0838	MENTONE
152.	152	LUBBOCK	152 05	2340	1292	LUBBOCK
153.	153	LYNN	153 05	2215	1306	TAHOKA
154.	157	MADISON	154 17	1575	2842	MADISONVILLE
155.	158	MARION	155 19	2150	3210	JEFFERSON
156.	159	MARTIN	156 06	1896	1310	STANTON
157.	160	MASON	157 14	1483	1975	MASON
158.	161	MATAGORDA	158 13	0971	2865	BAY CITY
159.	162	MAVERICK	159 22	0850	1646	EAGLE PASS
160.	154	MCCULLOCH	160 23	1598	1944	BRADY
161.	155	MCLENNAN	161 09	1742	2510	WACO
162.	156	MCMULLEN	162 15	0783	2173	TILDEN
163.	163	MEDINA	163 15	1052	2004	HONDO
164.	164	MENARD	164 07	1533	1825	MENARD
165.	165	MIDLAND	165 06	1856	1224	MIDLAND
166.	166	MILAM	166 17	1533	2567	CAMERON
167.	167	MILLS	167 23	1700	2139	GOLDTHWAITE
168.	168	MITCHELL	168 08	1978	1541	COLORADO CITY
169.	169	MONTAGUE	169 03	2381	2340	MONTAGUE
170.	170	MONTGOMERY	170 12	1388	2975	CONROE
171.	171	MOORE	171 04	3044	1248	DUMAS
172.	172	MORRIS	172 19	2225	3108	DAINGERFIELD
173.	173	MOTLEY	173 25	2470	1548	MATADOR
174.	174	NACOGDOCHES	174 11	1794	3150	NACOGDOCHES
175.	175	NAVARRO	175 18	1921	2679	CORSICANA
176.	176	NEWTON	176 20	1579	3410	NEWTON
177.	177	NOLAN	177 08	2000	1674	SWEETWATER
178.	178	NUECES	178 16	0592	2494	CORPUS CHRISTI
179.	179	OCHILTREE	179 04	3206	1532	PERRYTON
180.	180	OLDHAM	180 04	2858	1133	VEGA
181.	181	ORANGE	181 20	1350	3435	ORANGE
182.	182	PALO PINTO	182 02	2105	2199	PALO PINTO

183.	183	PANOLA	183	19	1965	3229	CARTHAGE
184.	184	PARKER	184	02	2104	2325	WEATHERFORD
185.	185	PARMER	185	05	0981	2604	FARWELL
186.	186	PECOS	186	06	1533	1013	FORT STOCKTON
187.	187	POLK	187	11	1517	3102	LIVINGSTON
188.	188	POTTER	188	04	2840	1280	AMARILLO
189.	189	PRESIDIO	189	24	1358	0713	MARFA
190.	190	RAINS	190	01	2158	2850	EMORY
191.	191	RANDALL	191	04	2776	1257	CANYON
192.	192	REAGAN	192	07	1610	1388	BIG LAKE
193.	193	REAL	193	22	1842	1167	LEAKEY
194.	194	RED RIVER	194	01	2396	3017	CLARKSVILLE
195.	195	REEVES	195	06	1692	0858	PECOS
196.	196	REFUGIO	196	16	0750	2523	REFUGIO
197.	197	ROBERTS	197	04	2990	1577	MIAMI
198.	198	ROBERTSON	198	17	1596	2692	FRANKLIN
199.	199	ROCKWALL	199	18	2171	2667	ROCKWALL
200.	200	RUNNELS	200	07	1775	1779	BALLINGER
201.	201	RUSK	201	10	1956	3104	HENDERSON
202.	202	SABINE	202	11	1725	3375	HEMPHILL
203.	203	SAN AUGUSTINE	203	11	1781	3302	SAN AUGUSTINE
204.	204	SAN JACINTO	204	11	1475	3054	COLD SPRINGS
205.	205	SAN PATRICIO	205	16	0665	2458	SINTON
206.	206	SAN SABA	206	23	1619	2102	SAN SABA
207.	207	SCHLEICHER	207	07	1513	1615	ELDORADO
208.	208	SCURRY	208	08	2076	1526	SNYDER
209.	209	SHACKELFORD	209	08	2083	1946	ALBANY
210.	210	SHELBY	210	11	1858	3275	CENTER
211.	211	SHERMAN	211	04	3189	1225	STRATFORD
212.	212	SMITH	212	10	2004	2975	TYLER
213.	213	SOMERVELL	213	02	1946	2344	GLEN ROSE
214.	214	STARR	214	21	0125	2115	RIO GRANDE CITY
215.	215	STEPHENS	215	23	2095	2046	BRECKENRIDGE
216.	216	STERLING	216	07	1817	1512	STERLING CITY
217.	217	STONEWALL	217	08	2209	1700	ASPERMONT
218.	218	SUTTON	218	07	1421	1606	SONORA
219.	219	SWISHER	219	05	2640	1296	TULIA
220.	220	TARRANT	220	02	2100	2450	FORT WORTH
221.	221	TAYLOR	221	08	1998	1825	ABILENE
222.	222	TERRELL	222	06	1294	1135	SANDERSON
223.	223	TERRY	223	05	2221	1180	BROWNFIELD
224.	224	THROCKMORTON	224	03	2224	1982	THROCKMORTON
225.	225	TITUS	225	19	2267	3046	MOUNT PLEASANT
226.	226	TOM GREEN	226	07	1692	1650	SAN ANGELO
227.	227	TRAVIS	227	14	1342	2375	AUSTIN
228.	228	TRINITY	228	11	1617	3044	GROVETON
229.	229	TYLER	229	20	1544	3242	WOODVILLE
230.	230	UPSHUR	230	19	2127	3056	GILMER
231.	231	UPTON	231	06	1625	1260	RANKIN
232.	232	UVALDE	232	22	1008	1833	UVALDE
233.	233	VAL VERDE	233	22	1050	1525	DEL RIO
234.	234	VAN ZANDT	234	10	2063	2825	CANTON
235.	235	VICTORIA	235	13	0904	2592	VICTORIA
236.	236	WALKER	236	17	1513	2942	HUNTSVILLE
237.	237	WALLER	237	12	1310	2815	HEMPSTEAD
238.	238	WARD	238	06	1742	1017	MONAHANS
239.	239	WASHINGTON	239	17	1331	2731	BRENHAM
240.	240	WEBB	240	21	0481	1919	LAREDO
241.	241	WHARTON	241	13	1071	2825	WHARTON
242.	242	WHEELER	242	25	2915	1667	WHEELER
243.	243	WICHITA	243	03	2444	2131	WICHITA FALLS

244.	244 WILBARGER	244 03	2519 1940	VERNON
245.	245 WILLACY	245 21	0177 2400	RAYMONDVILLE
246.	246 WILLIAMSON	246 14	1458 2383	GEORGETOWN
247.	247 WILSON	247 15	0994 2275	FLORESVILLE
248.	248 WINKLER	248 06	1818 0965	KERMIT
249.	249 WISE	249 02	2252 2375	DECATUR
250.	250 WOOD	250 10	2138 2933	QUITMAN
251.	251 YOAKUM	251 05	2229 1036	PLAINS
252.	252 YOUNG	252 03	2205 2125	GRAHAM
253.	253 ZAPATA	253 21	0300 1985	ZAPATA
254.	254 ZAVALA	254 22	0850 1825	CRYSTAL CITY

APPENDIX C

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TOWNXYnn - Town Name and Coordinate File

This file was built from coordinates scaled from the appropriate SDHPT District Map. (NOTE: There is a unique file for every district). The contents are used by LOCnn to generate WELLXYnn.

<u>Position</u>	<u>Contents</u>
1-3	RCC County Sequence Number
5-25	Alpha Town Names
28-30	County Number (not required)
35-40	Y-Coordinate
45-50	X-Coordinate
55-	Remarks

1.	1 ALLENHURST	161	353165	654747	
2.	2 ALLEYTOWN	45	607120	445094	
3.	3 ALTAIR	45	561076	456329	
4.	4 ALVIN	45	500000	750000	CNTY 20
5.	5 ARNECKEVILLE	62	350000	199049	
6.	6 ASHWOOD	161	388765	645094	
7.	7 AUSTWELL	29	075000	250000	CNTY 196
8.	8 BAY CITY	161	345885	613449	
9.	9 BEBE	89	503956	081646	
10.	10 BELLVILLE	8	699049	517404	
11.	11 BELMONT	89	542721	067404	
12.	12 BERNARD	241	542721	580060	
13.	13 BERNARDO	45	630060	476896	
14.	14 BLEIBERVILLE	8	720568	457911	
15.	15 BLESSING	161	304747	534810	
16.	16 BLOOMINGTON	29	222150	318986	
17.	17 BOLING	241	451582	619777	
18.	18 BONUS	241	517404	529269	
19.	19 BORDEN	45	603165	379269	
20.	20 BRENHAM	8	775000	450000	CNTY 239
21.	21 BUCKEYE	161	314240	587974	
22.	22 CANEY	161	337974	653165	
23.	23 CARMINE	75	770568	384810	
24.	24 CAT SPRING	8	661076	497467	
25.	25 CEDAR LANE	161	329269	691139	
26.	26 CHEAPSIDE	89	454747	155538	
27.	27 CISTERN	75	650000	214240	
28.	28 CITRUS GROVE	161	259494	572150	
29.	29 CLEMVILLE	161	351582	562658	
30.	30 COCHRAN	8	728478	557911	
31.	31 COLLEGEPORT	161	253956	550000	
32.	32 COLOGNE	235	242721	243512	
33.	33 COLONY	75	634019	225314	
34.	34 COLOTOVILLE	235	264240	237183	
35.	35 COLUMBUS	45	609494	428478	
36.	36 CORDELE	120	401582	401582	
37.	37 COST	89	511076	115822	
38.	38 CUERO	62	386392	191930	
39.	39 DACOSTA	235	248258	323732	
40.	40 DAVEVANG	241	372150	537974	
41.	41 DILWORTH	89	537974	204747	
42.	42 EAGLE LAKE	45	567404	495885	
43.	43 EAST BERNARD	241	546676	580060	
44.	44 EDGAR	62	426896	210285	
45.	45 EDNA	120	343512	397467	
46.	46 EGYPT	241	501582	526105	
47.	47 EL CAMPO	241	423732	517404	
48.	48 EL MATON	161	310285	559494	
49.	49 EL TORO	120	331646	378478	
50.	50 ELM GROVE	75	641930	206329	
51.	51 ENGLEHART	45	533228	473732	
52.	52 EZZELL	143	455538	315822	
53.	53 FANNIN	235	200000	150000	CNTY 88
54.	54 FAYETTEVILLE	75	682437	387974	
55.	55 FLATONIA	75	603165	249049	
56.	56 FORDTRAN	235	373732	284019	
57.	57 FRANCITAS	120	300000	495885	
58.	58 FRELSBURG	45	670568	427687	
59.	59 FRYDEK	8	627687	572941	
60.	60 GANADO	120	367404	439556	

61.	61 GARWOOD	45	515822	475314	
62.	62 GIDDINGS	75	775000	250000	CNTY 144
63.	63 GILLET	62	425000	020000	CNTY 128
64.	64 GLEN FLORA	241	480060	541139	
65.	65 GLIDDEN	45	608703	418195	
66.	66 GONZALES	89	534810	140348	
67.	67 GREEN LAKE	29	178478	351582	
68.	68 HALLETTSVILLE	143	514240	302373	
69.	69 HARWOOD	89	595094	122941	
70.	70 HEMPSTEAD	8	775000	575000	CNTY 237
71.	71 HEMPSTEAD, T	8	775000	575000	CNTY 237
72.	72 HIGH HILL	75	614240	305538	
73.	73 HILLJE	241	407911	494303	
74.	74 HOLMAN	75	642721	350000	
75.	75 HOPE	143	430060	284810	
76.	76 HOSTYN	75	661076	311867	
77.	77 HUNGERFORD	241	499049	579269	
78.	78 IAGO	241	454747	613449	
79.	79 INDIANOLA	29	180851	439556	
80.	80 INDUSTRY	8	707911	442721	
81.	81 INEZ	235	315822	350791	
82.	82 KAMEY	29	217404	366613	
83.	83 KENDLETON	241	520000	610000	CNTY 79
84.	84 KENEDY	143	250000	050000	CNTY 128
85.	85 KENNEY	8	734019	496676	
86.	86 KIRTLEY	75	705538	250000	
87.	87 KOMENSKY	143	561076	268986	
88.	88 LA GRANGE	75	683228	321359	
89.	89 LA SALLE	120	275314	389556	
90.	90 LA WARD	120	294303	455568	
91.	91 LANE CITY	241	432437	594303	
92.	92 LEESVILLE	89	500000	047467	
93.	93 LEDBETTER	75	772150	351582	
94.	94 LISSIE	241	556329	530060	
95.	95 LITTLE NEW YORK	89	553165	187183	
96.	96 LOLITA	120	292721	430851	
97.	97 LONE OAK	75	680851	416613	
98.	98 LONG MOTT	29	164240	351582	
99.	99 LOUISE	241	391139	472941	
100.	100 MACKAY	241	451582	554747	
101.	101 MCFADDIN	235	187974	280060	
102.	102 MAGNET	241	408703	606329	
103.	103 MAGNOLIA BEACH	29	191930	430851	
104.	104 MARKHAM	161	336392	583228	
105.	105 MATAGORDA	161	238765	615822	
106.	106 MATTHEWS	45	522941	495094	
107.	107 MEYERSVILLE	62	325314	184810	
108.	108 MIDFIELD	161	328478	537974	
109.	109 MISSION VALLEY	235	314240	221359	
110.	110 MONTHALIA	89	522150	091139	
111.	111 MORALES	143	398258	361076	
112.	112 MORAVIA	143	287974	567404	
113.	113 MOULTON	143	561867	237974	
114.	114 MUELLERSVILL	8	749840	483228	
115.	115 MULDOON	75	650791	259494	
116.	116 NADA	45	500000	480060	
117.	117 NAVIDAD	120	375314	357911	
118.	118 NECHANITZ	75	732437	334019	
119.	119 NELSONVILLE	8	707911	471359	
120.	120 NEW TAITON	241	469777	494303	
121.	121 NEW ULM	8	678478	445885	

122.	122 NEWGULF	241	447467	634810	
123.	123 NICKEL	89	554747	207120	
124.	124 NIXON	89	450791	041139	
125.	125 NORDHEIM	62	337974	087974	
126.	126 NORTHRUP	75	750000	200000	CNTY 144
127.	127 NURSERY	235	322941	251582	
128.	128 O"QUINN	75	651582	298258	
129.	129 OAK FOREST	89	534019	098258	
130.	130 OLD OCEAN	161	379269	673732	
131.	131 OLDENBERG	75	708703	359494	
132.	132 OLIVIA	29	221359	460285	
133.	133 OTTINE	89	570568	098258	
134.	134 PALACIOS	161	246676	537974	
135.	135 PIERCE	241	440348	539556	
136.	136 PLACEDO	235	237974	339556	
137.	137 PLEDGER	161	420568	631646	
138.	138 PLUM	75	693512	291139	
139.	139 POINT COMFORT	29	226896	427687	
140.	140 PORT ALTO	29	224523	468195	
141.	141 PORT LAVACA	29	211076	404747	
142.	142 PORT O"CONNOR	29	144303	463449	
143.	143 PRAHA	75	595885	261076	
144.	144 PROVIDENT CITY	45	454747	403956	
145.	145 RABB PRAIRIE	75	704747	317404	
146.	146 RACCOON BEND	8	723732	557911	
147.	147 RAISIN	235	257120	244303	
148.	148 RAMSEY	45	573732	475314	
149.	149 ROCK ISLAND	45	547467	419777	
150.	150 ROCKPORT	29	100000	200000	CNTY 4
151.	151 ROUND TOP	75	741139	381646	
152.	152 RUTERSVILLE	75	698258	349840	
153.	153 SAMPLE	89	430851	115822	
154.	154 SAN FELIPE	8	645885	568986	
155.	155 SARGENT	161	292721	711867	
156.	156 SATURN	89	571359	176896	
157.	157 SCHROEDER	235	250000	150000	CNTY 88
158.	158 SCHULENBURG	75	601582	314240	
159.	159 SEADRIFT	29	137183	376105	
160.	160 SEALY	8	631646	551582	
161.	161 SECLUSION	143	465031	389556	
162.	162 SHERIDAN	45	532437	390348	
163.	163 SHINER	143	507911	230060	
164.	164 SIMPSONVILLE	161	272941	564240	
165.	165 SLAYDEN	89	564240	115822	
166.	166 SMILEY	89	451582	081646	
167.	167 SMITHVILLE	75	700000	150000	CNTY 11
168.	168 SPANISH CAMP	241	494303	545885	
169.	169 SPEAKS	143	444303	380851	
170.	170 SUBLIME	143	523732	350000	
171.	171 SUGAR VALLEY	161	374523	655538	
172.	172 SUMMERVILLE	89	519777	136392	
173.	173 SWEENY	161	350000	710000	CNTY 20
174.	174 SWEET HOME	143	478478	261076	
175.	175 SWISS ALP	75	637974	311076	
176.	176 TAITON	120	481646	483228	
177.	177 TELFERNER	235	297467	318195	
178.	178 TERRYVILLE	62	420568	261076	
179.	179 THOMASTON	62	350000	234019	
180.	180 THOMSONVILLE	89	607911	155538	
181.	181 TIVOLI	29	125000	250000	CNTY 196
182.	182 VAN VLECK	161	357911	638765	

183.	183 VANDERBILT	120	286392	406329
184.	184 VICTORIA	235	276896	284810
185.	185 VIENNA	143	489556	351582
186.	186 WADSWORTH	161	291139	625314
187.	187 WAELDER	89	605538	189556
188.	188 WALDECK	75	741139	350000
189.	189 WALLHALLA	75	726105	361076
190.	190 WALLIS	241	583228	580851
191.	191 WARDA	75	737974	309494
192.	192 WARRENTON	75	720568	367404
193.	193 WAYSIDE	120	421359	396676
194.	194 WEESATCHE	62	300000	140000
195.	195 WELCOME	8	726896	445885
196.	196 WEIMER	45	609494	354747
197.	197 WESTHOFF	62	422150	134019
198.	198 WEST COLUMBIA	161	400000	700000
199.	199 WEST POINT	75	696676	269777
200.	200 WHARTON	241	467404	570568
201.	201 WINCHESTER	75	720568	276896
202.	202 WITTING	143	537974	265822
203.	203 WORTHING	143	502373	278478
204.	204 WRIGHTSBORO	89	489556	104747
205.	205 YOAKUM	62	455538	238765
206.	206 YORKTOWN	62	344303	120568
207.	999999999999			
208.	3 ALTOER	45	561076	456329
209.	8 BAY CITY, TX	161	345885	613449
210.	14 BLEIBLERVILL	8	720568	457911
211.	24 CAT SPRING T	8	661076	497467
212.	30 COCKRAN	8	728478	557911
213.	40 DANAVANG	241	372150	537974
214.	43 E. BERNARD	241	546676	580060
215.	47 CAMPO	241	423732	517404
216.	47 EL CAMPOL	241	423732	517404
217.	52 EZELLE	143	455538	315822
218.	177 FERNER	235	297467	318195
219.	55 FLATTONIA	75	603165	249049
220.	56 FORTRAN	235	373732	284019
221.	60 GANADA	120	367404	439556
222.	68 HALLETSVILLE	143	514240	302373
223.	68 HALLETTSVILL	143	514240	302373
224.	73 HILJE	241	407911	494303
225.	73 HILLGE	241	407911	494303
226.	88 LE GRANGE	75	683228	321359
227.	88 LAGRANGE	75	683228	321359
228.	89 LASALLE	120	275314	389556
229.	90 LAWARD	120	294303	455538
230.	91 LANE	241	432437	594303
231.	92 LEASVILLE	89	500000	047467
232.	92 LEEVILLE	89	500000	047467
233.	94 LESSEE	241	556329	530060
234.	95 LITTLE N YOR	89	553165	187183
235.	96 LOTITIA	120	292721	430851
236.	102 MAGNE	241	408703	606329
237.	103 MAGNOLIA BEA	29	191930	430851
238.	103 MAGNOLIABEAC	29	191930	430851
239.	104 MARKHAM TEKA	161	336392	583228
240.	105 MATAGORDA IS	161	238765	615822
241.	105 MATAFORDA	161	238765	615822
242.	106 MATHEWS	45	522941	495094
243.	107 MYERSVILLE	62	325314	184810

CNTY 88

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244.	108 MIDFIED	161	328478	537974
245.	108 MIDFIELDS	161	328478	537974
246.	109 MISSION VALL	235	314240	221359
247.	109 MISSION	235	314240	221359
248.	109 MISSION VLY	235	314240	221359
249.	111 MORALES TOWN	143	398258	361076
250.	120 NEW TATION	241	469777	494303
251.	122 NEW GULF	241	447467	634810
252.	125 NORDEHEIM	62	337974	087974
253.	125 MORDHEIM	62	337974	087974
254.	125 NARDHEIM	62	337974	087974
255.	134 PALACIOUS	161	246676	537974
256.	134 PALACIOS TOW	161	246676	537974
257.	136 PLACEDO JUNC	235	237974	339556
258.	139 POINT COMFOR	29	226896	427687
259.	139 PT. COMFORT	29	226896	427687
260.	140 PALO ALTO	29	224523	468195
261.	141 PT. LAVACA	29	211076	404747
262.	142 PT. O'CONNOR	29	144303	463449
263.	142 PORT O'CONNO	29	144303	463449
264.	142 PORT O'CONNE	29	144303	463449
265.	144 PROVIDENT CI	45	454747	403956
266.	144 PROVIDENT CY	45	454747	403956
267.	144 PROVIDENT CT	45	454747	403956
268.	146 RACCOON	8	723732	557911
269.	151 ROUNDTOP	75	741139	381646
270.	152 ROOTERSVILLE	75	698258	349840
271.	169 S.W.SPEAKS	143	444303	380851
272.	170 SUBLIM	143	523732	350000
273.	176 TATION	120	481646	483228
274.	177 TELFNER	235	297467	318195
275.	178 TERRYVLE	62	420568	261076
276.	182 VAN FLECK	161	357911	638765
277.	183 VANDERBUILT	120	286392	406329
278.	183 VENDERBILT	120	286392	406329
279.	184 VOCTORIA	235	276896	284810
280.	187 WEALDER	89	605538	189556
281.	194 WEESCTCHE	62	300000	140000
282.	198 WEST COLUMBI	161	400000	700000
283.	196 WIEMER	45	609494	354747
284.	201 WINDCHESTER	75	720568	276896
285.	202 WHITTING	143	537974	265822
286.	128 O'QUINN	75	651582	298258
287.	142 PORT O'CONNOR	29	144303	463449

CNTY 88
CNTY 20

APPENDIX D

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PTXYnn - Point Coordinate File

This file was built from coordinates scaled from the appropriate SDHPT District Map. (NOTE: There is a unique file for every District). The coordinates are used by GRIDnn to generate the district and county boundary lines and the desired road system.

<u>Position</u>	<u>Contents</u>
1-3	RCC County Sequence Number
5-25	Alpha Remarks
28-30	Point Number (not required)
35-40	Y-Coordinate
45-50	X-Coordinate
55-80	Remarks

286.	US 59	200	245885	229269
287.		201	455538	560285
288.		202	482437	568195
289.		203	488765	575314
290.		204	500791	581646
291.		205	512658	597467
292.	US 77	206	180060	270568
293.		207	271359	270568
294.		208	660285	311076
295.		209	675314	322941
296.		210	700000	322150
297.		211	717404	316613
298.		212	747467	307911
299.	US 77ALT.	213	313449	170568
300.		214	361867	183228
301.		215	374523	180060
302.		216	404747	195885
303.		217	468195	237974
304.		218	507120	283228
305.	US 183	219	501582	164240
306.		220	507911	153165
307.		221	555538	130060
308.		222	584810	99049
309.	US 87	223	211076	376105
310.		224	292721	280060
311.		225	345094	234810
312.		226	365031	227687
313.	US 90	227	634019	589556
314.		228	589556	106329
315.	US 90ALT.	229	545885	54747
316.	US 290	230	772941	394303
317.		231	768986	359494
318.	SH 35	232	375896	655538
319.		233	374523	655538
320.		234	250791	459494
321.		235	161076	328478
322.	SH 36	236	749840	483228
323.	SH 71	237	307911	544303
324.		238	376896	537183
325.		239	400000	520568
326.		240	680060	356329
327.	SH 72	241	382437	171359
328.		242	318986	71359
329.	SH 80	243	573732	72941
330.	SH 95	244	679269	221359
331.	SH 97	245	472941	43512
332.		246	523732	142721
333.		247	553165	151582
334.		248	571359	176896
335.		249	595885	187974
336.	SH 111	250	415822	300000
337.	SH 119	251	309494	132437
338.		252	361076	111076
339.		253	383228	75314
340.	SH 159	254	704747	356329
341.		255	709494	418986
342.		256	708703	480851
343.		257	734019	565031
344.	SH 175	258	250000	273732
345.		259	263449	287974

346.		260	297467	318195
347.	SH 237	261	768195	398258
348.	SH 238	262	145094	370568
349.		263	168195	397467
350.		264	192721	401582
351.	SH 304	265	602373	151582
352.		266	620568	154747
353.	SH 316	267	180851	439556
354.	FM 108	268	400791	99049
355.		269	405538	91930
356.		270	462658	87974
357.		271	468195	84019
358.		272	514240	127687
359.	FM 109	273	623732	425314
360.		274	637974	434019
361.		275	745094	459494
362.	FM 153	276	722941	261867
363.	FM 154	277	615822	246676
364.		278	625314	247467
365.		279	666613	270568
366.	FM 155	280	528478	372150
367.		281	551582	360285
368.		282	631646	355538
369.		283	650791	352373
370.		284	662658	342721
371.		285	331076	334810
372.	FM 236	286	322150	211076
373.		287	369777	200000
374.	FM 237	288	315822	217404
375.		289	303165	201582
376.		290	321359	178478
377.		291	348258	126896
378.	FM 240	292	399840	129269
379.		293	403165	122941
380.	FM 331	294	659494	545885
381.		295	687183	553165
382.	FM 389	296	725314	411867
383.		297	741139	419777
384.	FM 442	298	437183	602373
385.		299	436392	611076
386.		300	457911	623732
387.		301	468986	634810
388.	FM 445	302	189556	269777
389.	FM 447	303	307911	228478
390.	FM 448	304	736392	287183
391.	FM 457	305	268986	727687
392.		306	321359	706329
393.		307	339556	665822
394.	FM 466	308	497467	112658
395.		309	534019	46676
396.	FM 521	310	292721	650791
397.		311	339556	703165
398.		383	284019	621359
399.		384	273732	537974
400.	FM 529	312	686392	563449
401.	FM 530	313	351582	412658
402.		314	360285	404747
403.		315	415822	400791
404.		316	415822	396676
405.		317	425896	396676
406.		318	435601	391930

407.		319	441139	389556
408.		320	440348	382437
409.		321	468986	380851
410.		322	499049	333228
411.		323	499840	322941
412.	FM 531	324	457120	293512
413.		325	507911	245885
414.	FM 532	326	558703	309494
415.		327	555538	310285
416.		328	578478	357911
417.		329	538765	153165
418.	FM 609	330	607911	256329
419.		331	681646	313449
420.	FM 616	332	269777	380060
421.	FM 794	333	561867	136392
422.	FM 949	334	661867	542721
423.		335	672941	515031
424.		336	673732	511076
425.		337	667404	499840
426.		338	618986	466613
427.		339	600791	479269
428.		340	593512	472941
429.	FM 955	341	663449	371359
430.	FM 1093	342	599049	595094
431.	FM 1095	343	253956	563449
432.		344	315822	558703
433.	FM 1115	345	625314	199049
434.		346	627687	210285
435.	FM 1117	347	462658	41930
436.		348	498258	22150
437.	FM 1289	349	141139	434810
438.		350	187974	400791
439.	FM 1300	351	438765	507911
440.	FM 1301	352	466613	600000
441.		353	445094	626105
442.		354	418986	655538
443.	FM 1371	360	741139	531646
444.	FM 1432	355	242721	303165
445.		356	235601	292721
446.	FM 1447	357	433228	274523
447.	FM 1456	358	730851	532437
448.		359	730851	550000
449.	FM 1457	548	709494	428478
450.		361	744303	394303
451.		362	745885	386392
452.	FM 1458	363	591139	587183
453.		364	635601	565822
454.		365	349049	572150
455.		366	349049	537183
456.	FM 1593	367	283228	426896
457.		368	334019	437974
458.	FM 1862	369	251582	487183
459.		370	253165	473732
460.	FM 2091	371	562658	95885
461.		372	578478	102373
462.	FM 2237	373	641139	276896
463.	FM 2429	375	689556	522150
464.	FM 2433	374	199049	395885
465.	FM 2437	376	481646	395094
466.	FM 2502	377	741139	437974
467.	FM 2540	378	310285	670568

468.		379	331646	649049
469.	FM 2668	380	280060	616613
470.		381	319777	607120
471.		382	333228	618986
472.	FM 3013	385	532437	503165
473.		386	564240	500000
474.		387	625314	553165
475.	FM 3131	388	310285	453165
476.		389	311076	415822
477.		390	336392	406329
478.	MISCELLANEOUS	391	463449	191139
479.	IH 10	392	604747	206329
480.		393	607120	268195
481.		394	603165	295885
482.		395	606329	328478
483.		396	603165	339556
484.		397	604747	430060
485.	MISCELLANEOUS	398	345885	600000
486.	DISTRICT BOUNDARY	400	7911	330851
487.		401	100000	350791
488.		402	117404	350791
489.		403	136392	329269
490.		404	143512	335601
491.		405	131646	354747
492.		406	136392	360285
493.		407	141139	359494
494.		408	149049	353165
495.		409	142721	344303
496.	DISTRICT BOUNDARY	410	171359	318986
497.		411	164240	312658
498.		412	169777	298258
499.		413	168195	289556
500.		414	186392	268195
501.		415	180060	257911
502.		416	187974	250791
503.		417	186392	234019
504.		418	207911	225314
505.		419	255538	226896
506.	DISTRICT BOUNDARY	420	269777	233228
507.		421	289556	223732
508.		422	302373	208703
509.		423	297467	208703
510.		424	294303	187183
511.		425	301582	187183
512.		426	323732	150791
513.		427	283228	100000
514.		428	356329	43512
515.		429	394303	88765
516.	DISTRICT BOUNDARY	430	483228	11076
517.		431	589556	83228
518.		432	582437	95094
519.		433	638765	184019
520.		434	735601	273732
521.		435	729269	275314
522.		436	760285	330851
523.		437	777687	350791
524.		438	771359	375314
525.		439	776896	384810
526.	DISTRICT BOUNDARY	440	772941	385601
527.		441	734019	404747
528.		442	742721	412658

529.		443	753165	507120
530.		444	742721	553165
531.		445	718986	573732
532.		446	708703	568986
533.		447	705538	559494
534.		448	697467	567404
535.		449	699049	561076
536.	DISTRICT BOUNDARY	450	690348	557911
537.		451	678478	561076
538.		452	671359	572150
539.		453	669777	565031
540.		454	661867	567404
541.		455	657911	561076
542.		456	652373	568986
543.		457	645885	580060
544.		458	643512	586392
545.		459	620568	588765
546.	DISTRICT BOUNDARY	460	615031	596676
547.		461	609494	599049
548.		462	609494	594303
549.		463	600791	599049
550.		464	600000	583228
551.		465	595885	586392
552.		466	593512	591930
553.		467	586392	595885
554.		468	573732	593512
555.		469	567404	582437
556.	DISTRICT BOUNDARY	470	557911	587183
557.		471	547467	584810
558.		472	537974	594303
559.		473	533228	592721
560.		474	531646	583228
561.		475	525314	583228
562.		476	511076	603165
563.		477	503165	609494
564.		478	494303	611867
565.		479	484810	621359
566.	DISTRICT BOUNDARY	480	480851	616613
567.		481	474523	626105
568.		482	454747	638765
569.		483	450000	653165
570.		484	437974	642721
571.		485	429269	653165
572.		486	424523	650000
573.		487	406329	654747
574.		488	387183	654747
575.		489	384019	665822
576.	DISTRICT BOUNDARY	490	373732	678478
577.		491	365822	665031
578.		492	340348	679269
579.		493	340348	700791
580.		494	337974	708703
581.		495	330851	717404
582.		496	318195	720568
583.		497	300791	739556
584.		498	291139	742721
585.		499	293512	762658
586.	DISTRICT BOUNDARY	500	126896	483228
587.	COUNTY BOUNDARY	501	220568	501582
588.		502	337974	505538
589.		503	404747	610285

590.		504	441139	400791
591.		505	500791	491930
592.		506	541139	504747
593.		507	584810	545885
594.		508	180060	314240
595.		509	186392	317404
596.	COUNTY BOUNDARY	510	194303	312658
597.		511	200000	306329
598.		512	217404	330060
599.		513	230060	372941
600.		514	243512	391139
601.		515	241139	393512
602.		516	243512	395094
603.		517	254747	389556
604.		518	264240	389556
605.		519	275896	380851
606.	COUNTY BOUNDARY	520	283228	377687
607.		521	287974	373732
608.		522	296676	378478
609.		523	312658	367404
610.		524	320568	356329
611.		525	321359	351582
612.		526	359494	336392
613.		527	375314	303165
614.		528	390348	291139
615.		529	491930	207911
616.	COUNTY BOUNDARY	530	537183	219777
617.		531	564240	218986
618.		532	580851	237974
619.		533	586392	241930
620.		534	582437	322941
621.		535	474523	424523
622.		536	447467	394303
623.		537	703165	420568
624.		538	668195	447467
625.		539	625314	506329
626.	COUNTY BOUNDARY	540	613449	515031
627.		541	607911	512658
628.		542	593512	523732
629.		543	242721	452373
630.		544	242721	467404
631.		545	253165	474523
632.		546	232437	501582
633.	COUNTY BOUNDARY	547	232437	474523
634.	FM 1457	548	709494	428478
635.	US 87	549	450000	36392
636.	SH 71	550	711076	245886

APPENDIX E

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CNTYAREA - County Area and Production Area File	51
CNTYAREA File Listing	52

CNTYAREA - County Area and Production Area File

This file contains the total county area and the approximate area devoted to oil and gas production in square miles.

<u>Position</u>	<u>Contents</u>
1-3	RRC County Sequence Number
5-21	County Name
23-26	Total County Area in Square Miles
29-32	Approximate Production Area (for those counties for which grid/density maps have been developed).

1.	001	ANDERSON	1072
2.	002	ANDREWS	1504
3.	003	ANGELINA	738
4.	004	ARANSAS	275
5.	005	ARCHER	913
6.	006	ARMSTRONG	907
7.	007	ATASCOSA	1206
8.	008	AUSTIN	663
9.	009	BAILEY	835
10.	010	BANDERA	763
11.	011	BASTROP	890
12.	012	BAYLOR	845
13.	013	BEE	842
14.	014	BELL	1047
15.	015	BEXAR	1246
16.	016	BLANCO	719
17.	017	BORDEN	907
18.	018	BOSQUE	990
19.	019	BOWIE	891
20.	020	BRAZORIA	1423
21.	021	BRAZOS	586
22.	022	BREWSTER	6204
23.	023	BRISCOE	874
24.	024	BROOKS	904
25.	025	BROWN	938
26.	026	BURLESON	670
27.	027	BURNET	996
28.	028	CALDWELL	544
29.	029	CALHOUN	527
30.	030	CALLAHAN	656
31.	031	CAMERON	896
32.	032	CAMP	192
33.	033	CARSON	900
34.	034	CASS	941
35.	035	CASTRO	880
36.	036	CHAMBERS	616
37.	037	CHEROKEE	1049
38.	038	CHILDRESS	699
39.	039	CLAY	1102
40.	040	COCHRAN	783
41.	041	COKE	911
42.	042	COLEMAN	1280
43.	043	COLLIN	836
44.	044	COLLINGSWORTH	894
45.	045	COLORADO	949
46.	046	COMAL	567
47.	047	COMANCHE	944
48.	048	CONCHO	1004
49.	049	COOKE	985
50.	050	CORYELL	1043
51.	051	COTTLE	900
52.	052	CRANE	795
53.	053	CROCKETT	2794
54.	054	CROSBY	911
55.	055	CULBERSON	3851
56.	056	DALLAM	1494
57.	057	DALLAS	859
58.	058	DAWSON	902
59.	059	DEAF SMITH	1510
60.	060	DELTA	276

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61.	061 DENTON	911
62.	062 DEWITT	910
63.	063 DICKENS	931
64.	064 DIMMIT	1349
65.	065 DONLEY	905
66.	066 DUVAL	1814
67.	067 EASTLAND	952
68.	068 ECTOR	907
69.	069 EDWARDS	2076
70.	071 EL PASO	1057
71.	070 ELLIS	940
72.	072 ERATH	1065
73.	073 FALLS	764
74.	074 FANNIN	905
75.	075 FAYETTE	934
76.	076 FISHER	904
77.	077 FLOYD	993
78.	078 FOARD	676
79.	079 FORT BEND	669
80.	080 FRANKLIN	293
81.	081 FREESTONE	865
82.	082 FRIO	1116
83.	083 GAINES	1489
84.	084 GALVESTON	399
85.	085 GARZA	914
86.	086 GILLESPIE	1055
87.	087 GLASSCOCK	863
88.	088 GOLIAID	871
89.	089 GONZALES	1056
90.	090 GRAY	934
91.	091 GRAYSON	940
92.	092 GREGG	282
93.	093 GRIMES	801
94.	094 GUADALUPE	714
95.	095 HALE	979
96.	096 HALL	885
97.	097 HAMILTON	844
98.	098 HANSFORD	907
99.	099 HARDEMAN	687
100.	100 HARDIN	897
101.	101 HARRIS	1723
102.	102 HARRISON	894
103.	103 HARTLEY	1488
104.	104 HASKELL	877
105.	105 HAYS	650
106.	106 HEMPHILL	904
107.	107 HENDERSON	943
108.	108 HIDALGO	1543
109.	109 HILL	1010
110.	110 HOCKLEY	908
111.	111 HOOD	426
112.	112 HOPKINS	793
113.	113 HOUSTON	1237
114.	114 HOWARD	911
115.	115 HUDSPETH	4554
116.	116 HUNT	826
117.	117 HUTCHINSON	875
118.	118 IRION	1073
119.	119 JACK	945
120.	120 JACKSON	850
121.	121 JASPER	907

122.	122 JEFF DAVIS	2259	
123.	123 JEFFERSON	951	
124.	124 JIM HOGG	1143	
125.	125 JIM WELLS	845	
126.	126 JOHNSON	740	
127.	127 JONES	956	
128.	128 KARNES	758	
129.	129 KAUFMAN	815	
130.	130 KENDALL	670	
131.	131 KENEDY	1394	
132.	132 KENT	890	
133.	133 KERR	1101	
134.	134 KIMBLE	1274	
135.	135 KING	944	
136.	136 KINNEY	1393	
137.	137 KLEBERG	851	
138.	138 KNOX	851	
139.	142 LA SALLE	1500	
140.	139 LAMAR	984	
141.	140 LAMB	1022	
142.	141 LAMPASAS	726	
143.	143 LAVACA	975	
144.	144 LEE	637	
145.	145 LEON	1102	
146.	146 LIBERTY	1180	
147.	147 LIMESTONE	931	
148.	148 LIPSCOMB	934	
149.	149 LIVE OAK	1055	
150.	150 LLANO	941	
151.	151 LOVING	848	
152.	152 LUBBOCK	893	
153.	153 LYNN	915	
154.	157 MADISON	480	
155.	158 MARION	380	
156.	159 MARTIN	911	
157.	160 MASON	935	
158.	161 MATAGORDA	1157	
159.	162 MAVERICK	1289	
160.	154 MCCULLOCH	1066	
161.	155 MCLENNAN	1000	
162.	156 MCMULLEN	1159	
163.	163 MEDINA	1352	
164.	164 MENARD	914	
165.	165 MIDLAND	939	
166.	166 MILAM	1026	
167.	167 MILLS	734	
168.	168 MITCHELL	920	
169.	169 MONTAGUE	932	
170.	170 MONTGOMERY	1090	
171.	171 MOORE	909	
172.	172 MORRIS	260	
173.	173 MOTLEY	980	
174.	174 NACOGDOCHES	902	592
175.	175 NAVARRO	1070	
176.	176 NEWTON	949	
177.	177 NOLAN	922	
178.	178 NUECES	841	
179.	179 OCHILTREE	907	
180.	180 OLDHAM	1478	
181.	181 ORANGE	359	
182.	182 PALO PINTO	948	

183.	183 PANOLA	869	
184.	184 PARKER	903	
185.	185 PARMER	859	
186.	186 PECOS	4740	
187.	187 POLK	1100	442
188.	188 POTTER	898	
189.	189 PRESIDIO	3892	
190.	190 RAINS	210	
191.	191 RANDALL	914	
192.	192 REAGAN	1132	
193.	193 REAL	622	
194.	194 RED RIVER	1033	
195.	195 REEVES	2608	
196.	196 REFUGIO	744	
197.	197 ROBERTS	899	
198.	198 ROBERTSON	877	
199.	199 ROCKWALL	147	
200.	200 RUNNELS	1058	
201.	201 RUSK	939	
202.	202 SABINE	456	148
203.	203 SAN AUGUSTINE	473	76
204.	204 SAN JACINTO	624	304
205.	205 SAN PATRICIO	685	
206.	206 SAN SABA	1120	
207.	207 SCHLEICHER	1331	
208.	208 SCURRY	904	
209.	209 SHACKELFORD	887	
210.	210 SHELBY	778	511
211.	211 SHERMAN	916	
212.	212 SMITH	934	
213.	213 SOMERVELL	197	
214.	214 STARR	1211	
215.	215 STEPHENS	899	
216.	216 STERLING	914	
217.	217 STONEWALL	926	
218.	218 SUTTON	1493	
219.	219 SWISHER	896	
220.	220 TARRANT	861	
221.	221 TAYLOR	912	
222.	222 TERRELL	2391	
223.	223 TERRY	899	
224.	224 THROCKMORTON	920	
225.	225 TITUS	418	
226.	226 TOM GREEN	1500	
227.	227 TRAVIS	1020	
228.	228 TRINITY	707	191
229.	229 TYLER	919	
230.	230 UPSHUR	584	
231.	231 UPTON	1312	
232.	232 UVALDE	1588	
233.	233 VAL VERDE	3241	
234.	234 VAN ZANDT	845	
235.	235 VICTORIA	892	
236.	236 WALKER	790	
237.	237 WALLER	509	
238.	238 WARD	827	
239.	239 WASHINGTON	594	
240.	240 WEBB	3306	
241.	241 WHARTON	1076	
242.	242 WHEELER	914	
243.	243 WICHITA	611	

244.	244 WILBARGER	952
245.	245 WILLACY	591
246.	246 WILLIAMSON	1104
247.	247 WILSON	802
248.	248 WINKLER	887
249.	249 WISE	922
250.	250 WOOD	721
251.	251 YOAKUM	830
252.	252 YOUNG	888
253.	253 ZAPATA	957
254.	254 ZAVALA	1291

APPENDIX F

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CNTYACTV - County Drilling Activity File	58
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CNTYACTV - County Drilling Activity File

This file contains the drilling activity summary for the entire state, since 1977, by county by year. The file is produced by SUMTX and used by the SAS analysis procedure.

<u>Card/Position</u> ²	<u>Contents</u>
1/ 1-3	RRC Sequence Number
1/ 6-21	Alpha Name
1/ 23-24	Card Number
1/ 27/30	Total Permits
1/ 32-35	Percent Drilled (Spudins/Permits*100)
1/ 37-40	Lag Time (Spud-in Date - Permit Date)
1/ 42-45	Total Spudins
1/ 47-50	Completion W Success Rate (RESV-W/Permits*100)
1/ 52-55	Drilling Time (RESV Date - Permit Date)
1/ 57-60	Total RESV W's

2. The information for each county is stored on a set of 5 cards. Card/Position is shown thus: 1/ 1-3 is card #1, columns 1-3; 2/ 23-24 is card #2, columns 23-24; etc.

2/ 23-24	Card Number
2/ 28-30	1977 Number of Permits (this County)
32-35	Number of Spudins
37-40	Number of RESV W's
43-45	1978 Permits
47-50	Spudins
52-55	RESV W's
57-60	1979 Permits
62-65	Spudins
67-70	RESV W's

Card #3	1980-1982
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Card #4	1983-1985
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Card #5	1986
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1.	1	ANDERSON	01	637	24.2	49	154	36.3	88	231		
2.			02	17	7	0	40	21	6	50	26	20
3.			03	114	35	54	267	44	104	86	11	36
4.			04	63	10	11	0	0	0	0	0	0
5.			05	0	0	0						
6.	2	ANDREWS	01	2420	50.5	65	1222	65.3	22	1580		
7.			02	137	34	10	253	142	35	437	229	341
8.			03	482	220	365	539	269	433	413	237	331
9.			04	159	91	65	0	0	0	0	0	0
10.			05	0	0	0						
11.	3	ANGELINA	01	68	54.4	55	37	44.1	94	30		
12.			02	0	0	0	1	2	0	8	5	2
13.			03	8	8	5	24	12	12	20	7	11
14.			04	7	3	0	0	0	0	0	0	0
15.			05	0	0	0						
16.	4	ARANSAS	01	240	37.9	83	91	31.3	54	75		
17.			02	21	7	0	51	16	5	35	18	18
18.			03	55	15	20	34	19	14	27	11	12
19.			04	17	5	6	0	0	0	0	0	0
20.			05	0	0	0						
21.	5	ARCHER	01	4499	12.7	61	571	32.5	28	1460		
22.			02	319	38	3	424	89	39	593	103	238
23.			03	855	146	351	1000	106	397	969	68	349
24.			04	339	21	83	0	0	0	0	0	0
25.			05	0	0	0						
26.	6	ARMSTRONG	01	8	12.5	20	1	0.0	0	0		
27.			02	1	0	0	0	0	0	0	0	0
28.			03	0	0	0	5	1	0	2	0	0
29.			04	0	0	0	0	0	0	0	0	0
30.			05	0	0	0						
31.	7	ATASCOSA	01	1181	8.0	49	94	41.1	48	485		
32.			02	52	8	6	94	14	10	108	9	45
33.			03	131	17	79	248	26	101	377	14	186
34.			04	171	6	58	0	0	0	0	0	0
35.			05	0	0	0						
36.	8	AUSTIN	01	254	24.0	56	61	33.9	93	86		
37.			02	22	4	3	42	15	3	48	10	23
38.			03	48	17	27	55	10	24	33	5	6
39.			04	6	0	0	0	0	0	0	0	0
40.			05	0	0	0						
41.	9	BAILEY	01	5	40.0	43	2	0.0	0	0		
42.			02	0	0	0	0	0	0	0	0	0
43.			03	2	1	0	2	1	0	0	0	0
44.			04	1	0	0	0	0	0	0	0	0
45.			05	0	0	0						
46.	10	BANDERA	01	10	10.0	48	1	0.0	0	0		
47.			02	0	0	0	2	0	0	2	0	0
48.			03	1	0	0	3	1	0	2	0	0
49.			04	0	0	0	0	0	0	0	0	0
50.			05	0	0	0						
51.	11	BASTROP	01	398	9.0	89	36	24.4	74	97		
52.			02	16	3	0	39	10	4	32	4	10
53.			03	53	8	23	105	4	19	116	4	31
54.			04	37	3	10	0	0	0	0	0	0
55.			05	0	0	0						
56.	12	BAYLOR	01	501	24.0	55	120	22.0	10	110		
57.			02	23	9	1	50	14	0	92	29	18
58.			03	88	25	24	88	19	18	113	14	40
59.			04	47	10	9	0	0	0	0	0	0
60.			05	0	0	0						

61.	13	BEE	01	1375	21.5	48	295	25.6	34	352		
62.			02	109	29	3	129	43	12	197	96	57
63.			03	319	35	105	380	62	81	183	23	74
64.			04	58	7	20	0	0	0	0	0	0
65.			05	0	0	0						
66.	14	BELL	01	29	10.3	40	3	3.4	0	1		
67.			02	0	0	0	1	0	0	0	0	0
68.			03	7	1	1	9	2	0	11	0	0
69.			04	1	0	0	0	0	0	0	0	0
70.			05	0	0	0						
71.	15	BEXAR	01	2609	4.6	74	119	48.0	48	1252		
72.			02	64	6	2	142	10	12	157	36	101
73.			03	410	31	184	646	24	289	842	8	510
74.			04	348	4	154	0	0	0	0	0	0
75.			05	0	0	0						
76.	16	BLANCO	01	0	0.0	0	0	0.0	0	0		
77.			02	0	0	0	0	0	0	0	0	0
78.			03	0	0	0	0	0	0	0	0	0
79.			04	0	0	0	0	0	0	0	0	0
80.			05	0	0	0						
81.	17	BORDEN	01	603	54.7	50	330	33.5	43	202		
82.			02	55	26	2	76	52	5	53	29	21
83.			03	111	64	45	142	78	67	93	55	49
84.			04	73	26	13	0	0	0	0	0	0
85.			05	0	0	0						
86.	18	BOSQUE	01	3	33.3	0	1	0.0	0	0		
87.			02	1	0	0	1	1	0	1	0	0
88.			03	0	0	0	0	0	0	0	0	0
89.			04	0	0	0	0	0	0	0	0	0
90.			05	0	0	0						
91.	19	BOWIE	01	34	52.9	67	18	17.6	63	6		
92.			02	1	1	0	7	5	2	4	2	1
93.			03	5	2	0	10	6	1	5	2	1
94.			04	2	0	1	0	0	0	0	0	0
95.			05	0	0	0						
96.	20	BRAZORIA	01	1111	23.8	63	264	32.7	73	363		
97.			02	105	16	8	198	60	36	210	74	113
98.			03	199	53	79	177	32	74	170	21	42
99.			04	52	8	11	0	0	0	0	0	0
100.			05	0	0	0						
101.	21	BRAZOS	01	706	41.8	30	295	59.3	53	419		
102.			02	56	24	3	81	47	10	59	35	39
103.			03	78	50	62	146	40	105	192	60	141
104.			04	94	39	59	0	0	0	0	0	0
105.			05	0	0	0						
106.	22	BREWSTER	01	100	36.0	50	36	0.0	0	0		
107.			02	81	30	0	0	2	0	1	0	0
108.			03	6	0	0	5	1	0	1	1	0
109.			04	6	2	0	0	0	0	0	0	0
110.			05	0	0	0						
111.	23	BRISCOE	01	251	4.0	87	10	0.8	82	2		
112.			02	125	2	0	96	4	0	0	0	0
113.			03	0	0	0	8	1	1	19	3	1
114.			04	3	0	0	0	0	0	0	0	0
115.			05	0	0	0						
116.	24	BROOKS	01	1142	34.0	40	388	27.4	35	313		
117.			02	96	30	9	211	69	35	132	67	55
118.			03	183	68	79	228	77	67	228	52	51
119.			04	64	25	17	0	0	0	0	0	0
120.			05	0	0	0						
121.	25	BROWN	01	2320	27.0	52	626	36.1	21	837		

122.		02	193	41	15	371	108	65	294	134	160
123.		03	403	141	167	450	108	208	411	68	168
124.		04	198	26	54	0	0	0	0	0	0
125.		05	0	0	0						
126.	26	01	2223	24.4	44	543	76.4	36	1699		
127.		02	28	6	4	54	10	6	190	46	126
128.		03	704	215	505	826	180	715	325	67	296
129.		04	96	19	47	0	0	0	0	0	0
130.		05	0	0	0						
131.	27	01	1	0.0	0	0	0.0	0	0		
132.		02	0	0	0	0	0	0	0	0	0
133.		03	0	0	0	0	0	0	1	0	0
134.		04	0	0	0	0	0	0	0	0	0
135.		05	0	0	0						
136.	28	01	2155	3.6	88	77	45.4	24	979		
137.		02	55	3	1	55	7	13	152	7	74
138.		03	488	21	272	782	29	374	475	9	204
139.		04	148	1	41	0	0	0	0	0	0
140.		05	0	0	0						
141.	29	01	683	19.6	60	134	28.1	45	192		
142.		02	71	15	2	120	35	11	118	22	46
143.		03	110	10	41	125	28	36	104	18	39
144.		04	35	6	17	0	0	0	0	0	0
145.		05	0	0	0						
146.	30	01	2728	29.8	40	812	31.3	36	855		
147.		02	209	63	5	280	114	40	398	177	181
148.		03	521	154	170	566	161	259	564	118	163
149.		04	190	25	37	0	0	0	0	0	0
150.		05	0	0	0						
151.	31	01	93	36.6	40	34	19.4	224	18		
152.		02	10	2	0	19	10	0	11	4	4
153.		03	15	6	2	13	7	3	17	5	5
154.		04	8	0	4	0	0	0	0	0	0
155.		05	0	0	0						
156.	32	01	53	35.8	47	19	45.3	43	24		
157.		02	2	0	1	2	2	1	3	1	0
158.		03	11	7	7	14	5	3	10	2	8
159.		04	11	2	4	0	0	0	0	0	0
160.		05	0	0	0						
161.	33	01	867	45.4	66	394	56.6	16	491		
162.		02	44	14	4	65	39	24	75	60	67
163.		03	115	76	87	217	80	141	269	96	144
164.		04	82	29	24	0	0	0	0	0	0
165.		05	0	0	0						
166.	34	01	155	56.8	43	88	42.6	67	66		
167.		02	5	2	0	14	12	4	14	12	7
168.		03	30	21	10	38	23	23	38	11	19
169.		04	16	7	3	0	0	0	0	0	0
170.		05	0	0	0						
171.	35	01	2	0.0	0	0	0.0	0	0		
172.		02	0	0	0	0	0	0	0	0	0
173.		03	1	0	0	1	0	0	0	0	0
174.		04	0	0	0	0	0	0	0	0	0
175.		05	0	0	0						
176.	36	01	1162	21.7	72	252	33.1	48	385		
177.		02	101	16	5	174	43	21	199	55	87
178.		03	220	43	78	196	40	91	201	40	82
179.		04	71	15	21	0	0	0	0	0	0
180.		05	0	0	0						
181.	37	01	273	54.2	44	148	45.1	74	123		
182.		02	25	13	3	52	29	13	37	25	30

183.		03	37	25	22	61	33	36	42	18	16
184.		04	19	5	3	0	0	0	0	0	0
185.		05	0	0	0						
186.	38	CHILDRESS	01	30	23.3	17	7	3.3	0	1	
187.			02	2	1	0	2	0	0	5	1
188.			03	7	2	0	7	1	0	6	2
189.			04	1	0	0	0	0	0	0	0
190.			05	0	0	0					
191.	39	CLAY	01	2300	18.4	52	424	38.0	35	875	
192.			02	149	34	8	276	68	44	350	63
193.			03	459	80	194	536	99	262	398	65
194.			04	132	15	44	0	0	0	0	0
195.			05	0	0	0					
196.	40	COCHRAN	01	943	71.9	63	678	55.2	14	521	
197.			02	68	49	0	201	161	22	154	89
198.			03	158	123	127	172	123	134	136	98
199.			04	54	35	22	0	0	0	0	0
200.			05	0	0	0					
201.	41	COKE	01	657	57.7	50	379	44.1	23	290	
202.			02	49	23	1	102	70	17	145	88
203.			03	127	71	55	122	68	66	88	42
204.			04	24	17	10	0	0	0	0	0
205.			05	0	0	0					
206.	42	COLEMAN	01	2754	34.4	40	948	34.1	25	940	
207.			02	260	82	23	363	164	52	338	160
208.			03	512	194	219	472	136	198	548	136
209.			04	261	76	76	0	0	0	0	0
210.			05	0	0	0					
211.	43	COLLIN	01	9	11.1	9	1	0.0	0	0	
212.			02	1	0	0	1	0	0	2	0
213.			03	1	0	0	2	0	0	2	1
214.			04	0	0	0	0	0	0	0	0
215.			05	0	0	0					
216.	44	COLLINGSWORTH	01	122	42.6	54	52	46.7	28	57	
217.			02	5	3	2	15	5	4	34	26
218.			03	28	12	19	7	4	6	27	1
219.			04	6	1	0	0	0	0	0	0
220.			05	0	0	0					
221.	45	COLORADO	01	766	25.2	46	193	30.8	64	236	
222.			02	77	20	9	145	44	25	137	31
223.			03	126	31	47	108	32	49	122	24
224.			04	51	11	18	0	0	0	0	0
225.			05	0	0	0					
226.	46	COMAL	01	1	0.0	0	0	0.0	0	0	
227.			02	0	0	0	0	0	0	0	0
228.			03	0	0	0	1	0	0	0	0
229.			04	0	0	0	0	0	0	0	0
230.			05	0	0	0					
231.	47	COMANCHE	01	665	38.2	38	254	38.6	25	257	
232.			02	42	17	0	84	43	15	107	68
233.			03	122	47	47	149	45	62	130	28
234.			04	31	6	12	0	0	0	0	0
235.			05	0	0	0					
236.	48	CONCHO	01	307	49.2	37	151	32.9	17	101	
237.			02	18	11	1	33	21	5	36	17
238.			03	57	30	18	64	38	30	76	25
239.			04	23	9	10	0	0	0	0	0
240.			05	0	0	0					
241.	49	COOKE	01	1402	15.3	62	215	33.8	24	474	
242.			02	107	15	2	189	25	14	223	34
243.			03	217	37	92	288	58	128	241	35

244.		04	137	11	21	0	0	0	0	0	0
245.		05	0	0	0						
246.	50	01	3	33.3	8	1	0.0	0	0		
247.		02	0	0	0	1	0	0	0	0	0
248.		03	1	0	0	0	0	0	1	1	0
249.		04	0	0	0	0	0	0	0	0	0
250.		05	0	0	0						
251.	51	01	175	61.1	37	107	22.9	59	40		
252.		02	22	11	0	34	24	6	40	29	15
253.		03	16	11	2	22	9	6	30	15	9
254.		04	11	8	2	0	0	0	0	0	0
255.		05	0	0	0						
256.	52	01	1759	42.7	55	751	61.0	24	1073		
257.		02	108	45	0	261	147	53	251	143	186
258.		03	293	126	219	392	145	302	316	109	266
259.		04	138	36	47	0	0	0	0	0	0
260.		05	0	0	0						
261.	53	01	3185	43.6	52	1388	51.6	22	1644		
262.		02	289	103	6	433	187	83	461	216	289
263.		03	659	300	416	627	300	396	543	232	386
264.		04	173	50	68	0	0	0	0	0	0
265.		05	0	0	0						
266.	54	01	480	62.3	59	299	65.6	23	315		
267.		02	19	7	0	39	30	9	105	71	66
268.		03	140	74	93	102	63	88	56	47	55
269.		04	19	7	4	0	0	0	0	0	0
270.		05	0	0	0						
271.	55	01	337	38.6	33	130	36.2	16	122		
272.		02	17	9	2	34	18	3	16	4	2
273.		03	28	14	12	117	48	55	111	30	41
274.		04	14	7	7	0	0	0	0	0	0
275.		05	0	0	0						
276.	56	01	6	66.7	117	4	16.7	119	1		
277.		02	1	0	0	0	1	0	0	0	0
278.		03	1	0	0	1	1	0	3	2	1
279.		04	0	0	0	0	0	0	0	0	0
280.		05	0	0	0						
281.	57	01	3	33.3	31	1	33.3	0	1		
282.		02	0	0	0	0	0	0	1	1	1
283.		03	1	0	0	1	0	0	0	0	0
284.		04	0	0	0	0	0	0	0	0	0
285.		05	0	0	0						
286.	58	01	738	61.2	44	452	47.4	28	350		
287.		02	61	27	1	77	48	8	94	53	36
288.		03	121	84	68	202	120	115	131	79	100
289.		04	52	41	22	0	0	0	0	0	0
290.		05	0	0	0						
291.	59	01	13	46.2	65	6	0.0	0	0		
292.		02	0	0	0	3	2	0	1	1	0
293.		03	1	0	0	4	1	0	3	1	0
294.		04	1	1	0	0	0	0	0	0	0
295.		05	0	0	0						
296.	60	01	11	45.5	111	5	0.0	0	0		
297.		02	1	1	0	2	0	0	3	1	0
298.		03	1	3	0	3	0	0	1	0	0
299.		04	0	0	0	0	0	0	0	0	0
300.		05	0	0	0						
301.	61	01	168	17.3	50	29	17.3	60	29		
302.		02	6	3	0	22	9	4	17	1	6
303.		03	20	3	4	56	3	9	27	7	6
304.		04	20	3	0	0	0	0	0	0	0

305.		05	0	0	0								
306.	62	DEWITT	01	734	22.9	49	168	28.9	55	212			
307.			02	96	27	2	163	51	22	119	19	53	
308.			03	110	14	50	115	28	43	95	20	31	
309.			04	36	9	11	0	0	0	0	0	0	
310.			05	0	0	0							
311.	63	DICKENS	01	66	66.7	25	44	3.0	18	2			
312.			02	5	4	1	8	7	0	6	4	0	
313.			03	13	10	0	14	9	0	15	7	1	
314.			04	5	3	0	0	0	0	0	0	0	
315.			05	0	0	0							
316.	64	DIMMIT	01	1053	22.7	42	239	41.2	63	434			
317.			02	154	51	10	174	52	24	120	22	62	
318.			03	258	31	140	196	42	121	120	34	72	
319.			04	31	7	5	0	0	0	0	0	0	
320.			05	0	0	0							
321.	65	DONLEY	01	12	33.3	75	4	0.0	0	0			
322.			02	1	0	0	8	3	0	1	0	0	
323.			03	0	0	0	1	1	0	1	0	0	
324.			04	0	0	0	0	0	0	0	0	0	
325.			05	0	0	0							
326.	66	DUVAL	01	4474	19.6	46	878	12.1	59	540			
327.			02	258	90	4	578	143	35	1568	301	118	
328.			03	762	68	113	774	121	124	416	110	111	
329.			04	118	45	35	0	0	0	0	0	0	
330.			05	0	0	0							
331.	67	EASTLAND	01	4239	33.0	41	1399	38.6	27	1638			
332.			02	269	117	10	477	224	84	451	211	234	
333.			03	671	231	275	909	294	440	1027	244	475	
334.			04	435	78	120	0	0	0	0	0	0	
335.			05	0	0	0							
336.	68	ECTOR	01	1901	51.8	60	985	52.3	19	994			
337.			02	228	112	7	339	190	62	269	136	190	
338.			03	321	157	188	315	210	284	298	127	229	
339.			04	131	53	34	0	0	0	0	0	0	
340.			05	0	0	0							
341.	69	EDWARDS	01	200	34.5	54	69	34.0	8	68			
342.			02	14	1	2	22	13	1	17	8	5	
343.			03	30	15	10	65	11	23	48	19	26	
344.			04	4	2	1	0	0	0	0	0	0	
345.			05	0	0	0							
346.	70	EL PASO	01	240	4.2	45	10	36.3	19	87			
347.			02	0	0	0	4	0	0	37	1	11	
348.			03	99	5	43	54	1	17	17	2	16	
349.			04	29	1	0	0	0	0	0	0	0	
350.			05	0	0	0							
351.	71	ELLIS	01	1	0.0	0	0	0.0	0	0			
352.			02	0	0	0	0	0	0	0	0	0	
353.			03	1	0	0	0	0	0	0	0	0	
354.			04	0	0	0	0	0	0	0	0	0	
355.			05	0	0	0							
356.	72	ERATH	01	537	43.8	53	235	45.3	51	243			
357.			02	28	22	2	120	69	56	169	72	83	
358.			03	113	46	52	72	18	40	19	4	8	
359.			04	16	4	2	0	0	0	0	0	0	
360.			05	0	0	0							
361.	73	FALLS	01	120	34.2	54	41	21.7	47	26			
362.			02	3	2	0	4	3	0	14	7	3	
363.			03	27	17	9	27	6	6	33	5	7	
364.			04	12	1	1	0	0	0	0	0	0	
365.			05	0	0	0							

366.	74	FANNIN	01	5	0.0	0	0	0.0	0	0		
367.			02	0	0	0	0	0	0	0	0	0
368.			03	0	0	0	3	0	0	2	0	0
369.			04	0	0	0	0	0	0	0	0	0
370.			05	0	0	0						
371.	75	FAYETTE	01	1340	23.7	49	317	63.8	50	855		
372.			02	9	2	0	29	7	4	128	36	66
373.			03	441	126	254	428	90	337	199	38	142
374.			04	106	18	52	0	0	0	0	0	0
375.			05	0	0	0						
376.	76	FISHER	01	1023	51.6	43	528	37.9	26	388		
377.			02	79	45	4	106	66	14	120	74	50
378.			03	199	111	94	265	113	113	180	86	95
379.			04	74	33	18	0	0	0	0	0	0
380.			05	0	0	0						
381.	77	FLOYD	01	21	85.7	39	18	4.8	129	1		
382.			02	5	4	0	2	2	0	1	9	0
383.			03	8	0	0	1	1	0	4	2	1
384.			04	0	0	0	0	0	0	0	0	0
385.			05	0	0	0						
386.	78	FOARD	01	174	27.6	38	48	24.1	20	42		
387.			02	5	2	0	16	9	2	32	12	8
388.			03	21	9	8	43	5	10	46	10	12
389.			04	11	1	2	0	0	0	0	0	0
390.			05	0	0	0						
391.	79	FORT BEND	01	748	27.9	53	209	39.2	56	293		
392.			02	51	11	4	95	33	10	129	41	61
393.			03	132	43	71	150	45	72	139	26	71
394.			04	52	10	4	0	0	0	0	0	0
395.			05	0	0	0						
396.	80	FRANKLIN	01	139	40.3	50	56	47.5	20	66		
397.			02	5	1	0	14	10	3	16	12	11
398.			03	38	20	17	27	7	8	32	3	21
399.			04	7	3	6	0	0	0	0	0	0
400.			05	0	0	0						
401.	81	FREESTONE	01	479	53.2	42	255	50.5	72	242		
402.			02	30	11	2	71	60	18	95	51	50
403.			03	89	60	67	81	43	46	67	17	43
404.			04	46	13	16	0	0	0	0	0	0
405.			05	0	0	0						
406.	82	FRIO	01	908	18.6	47	169	45.8	42	416		
407.			02	163	46	7	135	38	40	79	11	65
408.			03	190	13	97	205	40	133	111	20	68
409.			04	25	1	6	0	0	0	0	0	0
410.			05	0	0	0						
411.	83	GAINES	01	1549	60.9	58	944	52.2	24	808		
412.			02	169	74	3	231	173	29	241	143	154
413.			03	253	159	159	361	228	247	193	110	160
414.			04	101	57	56	0	0	0	0	0	0
415.			05	0	0	0						
416.	84	GALVESTON	01	576	23.6	84	136	34.2	45	197		
417.			02	60	14	3	115	33	8	111	27	41
418.			03	101	26	53	91	19	47	65	10	33
419.			04	33	7	12	0	0	0	0	0	0
420.			05	0	0	0						
421.	85	GARZA	01	1324	64.4	60	852	57.0	32	755		
422.			02	66	36	4	92	60	11	157	137	100
423.			03	296	176	174	376	230	211	283	180	212
424.			04	53	33	43	1	0	0	0	0	0
425.			05	0	0	0						
426.	86	GILLESPIE	01	0	0.0	0	0	0.0	0	0		

427.		02	0	0	0	0	0	0	0	0	0
428.		03	0	0	0	0	0	0	0	0	0
429.		04	0	0	0	0	0	0	0	0	0
430.		05	0	0	0						
431.	87	GLASSCOCK	01	649	44.2	44	287	51.3	33	333	
432.			02	56	21	7	73	32	12	97	39 66
433.			03	98	31	52	135	69	93	142	62 80
434.			04	48	33	23	0	0	0	0	0 0
435.			05	0	0	0					
436.	88	GOLIAD	01	1145	18.8	44	215	34.0	40	389	
437.			02	139	31	3	195	62	26	164	32 70
438.			03	206	13	90	205	43	102	172	22 73
439.			04	64	12	25	0	0	0	0	0 0
440.			05	0	0	0					
441.	89	GONZALES	01	1192	17.6	43	210	56.0	48	667	
442.			02	60	16	2	59	21	3	49	10 25
443.			03	247	27	133	480	94	334	220	28 144
444.			04	77	14	26	0	0	0	0	0 0
445.			05	0	0	0					
446.	90	GRAY	01	851	47.4	50	403	53.1	21	452	
447.			02	34	21	1	61	43	17	86	56 46
448.			03	136	65	69	225	101	138	232	87 149
449.			04	77	30	32	0	0	0	0	0 0
450.			05	0	0	0					
451.	91	GRAYSON	01	531	26.9	51	143	32.2	74	171	
452.			02	58	12	0	58	19	7	65	15 27
453.			03	87	29	37	125	41	42	97	24 47
454.			04	41	3	11	0	0	0	0	0 0
455.			05	0	0	0					
456.	92	GREGG	01	222	44.6	62	99	52.3	87	116	
457.			02	5	2	0	19	7	3	28	19 21
458.			03	56	28	27	53	31	38	43	8 23
459.			04	18	4	4	0	0	0	0	0 0
460.			05	0	0	0					
461.	93	GRIMES	01	180	35.0	65	63	39.4	77	71	
462.			02	15	3	3	31	11	5	20	8 11
463.			03	26	11	11	54	19	26	22	6 9
464.			04	12	5	6	0	0	0	0	0 0
465.			05	0	0	0					
466.	94	GUADALUPE	01	1838	4.5	69	82	50.1	73	921	
467.			02	35	2	2	121	11	34	215	17 111
468.			03	326	18	205	602	25	311	387	7 230
469.			04	152	2	28	0	0	0	0	0 0
470.			05	0	0	0					
471.	95	HALE	01	64	60.9	80	39	35.9	24	23	
472.			02	6	2	0	20	10	0	6	7 7
473.			03	16	4	5	7	9	6	7	6 4
474.			04	2	1	1	0	0	0	0	0 0
475.			05	0	0	0					
476.	96	HALL	01	20	30.0	46	6	0.0	0	0	
477.			02	7	1	0	3	1	0	2	2 0
478.			03	2	0	0	5	2	0	1	0 0
479.			04	0	0	0	0	0	0	0	0 0
480.			05	0	0	0					
481.	97	HAMILTON	01	56	35.7	35	20	19.6	56	11	
482.			02	4	1	0	9	7	1	7	3 1
483.			03	14	2	0	15	7	7	5	0 2
484.			04	2	0	0	0	0	0	0	0 0
485.			05	0	0	0					
486.	98	HANSFORD	01	367	55.6	56	204	32.2	36	118	
487.			02	48	24	2	67	42	7	56	38 24

488.		03	58	46	19	77	31	38	47	17	23
489.		04	14	6	5	0	0	0	0	0	0
490.		05	0	0	0						
491.	99	01	353	37.4	42	132	27.5	39	97		
492.		02	7	2	0	32	15	4	43	12	10
493.		03	52	27	18	72	27	19	99	33	38
494.		04	48	16	8	0	0	0	0	0	0
495.		05	0	0	0						
496.	100	01	1072	18.2	70	195	41.8	42	448		
497.		02	89	13	3	146	36	14	149	26	81
498.		03	207	49	87	192	28	119	195	29	108
499.		04	94	14	36	0	0	0	0	0	0
500.		05	0	0	0						
501.	101	01	1266	16.7	82	211	31.8	46	403		
502.		02	117	9	8	170	25	17	181	42	66
503.		03	241	52	115	250	38	102	224	32	73
504.		04	83	13	22	0	0	0	0	0	0
505.		05	0	0	0						
506.	102	01	688	53.6	50	369	55.2	51	380		
507.		02	50	28	2	116	83	39	103	80	66
508.		03	125	71	84	140	73	105	119	29	70
509.		04	35	5	14	0	0	0	0	0	0
510.		05	0	0	0						
511.	103	01	40	45.0	73	18	17.5	54	7		
512.		02	4	0	0	4	6	1	11	2	1
513.		03	7	4	1	5	3	1	8	2	3
514.		04	1	1	0	0	0	0	0	0	0
515.		05	0	0	0						
516.	104	01	827	49.1	46	406	27.7	32	229		
517.		02	51	27	2	65	42	5	121	64	27
518.		03	164	84	58	201	76	57	153	82	61
519.		04	72	31	19	0	0	0	0	0	0
520.		05	0	0	0						
521.	105	01	4	0.0	0	0	0.0	0	0		
522.		02	0	0	0	0	0	0	0	0	0
523.		03	0	0	0	0	0	0	4	0	0
524.		04	0	0	0	0	0	0	0	0	0
525.		05	0	0	0						
526.	106	01	797	58.1	48	463	52.9	69	422		
527.		02	100	51	5	131	97	27	137	97	100
528.		03	130	85	95	148	70	90	120	44	93
529.		04	31	19	12	0	0	0	0	0	0
530.		05	0	0	0						
531.	107	01	219	57.1	61	125	50.7	87	111		
532.		02	18	12	1	34	23	13	36	24	17
533.		03	60	33	26	31	25	36	35	4	15
534.		04	5	4	3	0	0	0	0	0	0
535.		05	0	0	0						
536.	108	01	875	46.7	47	409	39.4	74	345		
537.		02	79	27	0	128	67	15	139	78	62
538.		03	160	66	78	164	89	89	145	63	80
539.		04	60	19	21	0	0	0	0	0	0
540.		05	0	0	0						
541.	109	01	70	10.0	34	7	5.7	198	4		
542.		02	3	0	0	5	0	0	1	0	0
543.		03	10	3	0	15	1	2	26	3	2
544.		04	10	0	0	0	0	0	0	0	0
545.		05	0	0	0						
546.	110	01	1605	72.9	59	1170	58.8	17	944		
547.		02	112	73	0	237	183	29	168	156	138
548.		03	291	187	192	334	229	243	314	247	276

549.		04	149	95	66	0	0	0	0	0	0
550.		05	0	0	0						
551.	111	HOOD	01	396	44.9	28	178	37.1	30	147	
552.			02	75	42	4	121	62	45	37	18
553.			03	94	36	47	36	7	16	29	9
554.			04	4	4	1	0	0	0	0	0
555.			05	0	0	0					
556.	112	HOPKINS	01	83	53.0	39	44	16.9	43	14	
557.			02	7	5	0	8	8	2	11	7
558.			03	13	10	3	25	5	3	11	6
559.			04	8	3	0	0	0	0	0	0
560.			05	0	0	0					
561.	113	HOUSTON	01	228	41.2	56	94	39.0	88	89	
562.			02	16	6	0	17	10	4	40	14
563.			03	37	22	15	49	23	27	51	13
564.			04	18	6	7	0	0	0	0	0
565.			05	0	0	0					
566.	114	HOWARD	01	1817	52.3	52	951	55.3	22	1004	
567.			02	146	75	6	205	128	16	353	157
568.			03	305	156	212	309	186	219	394	184
569.			04	105	65	59	0	0	0	0	0
570.			05	0	0	0					
571.	115	HUDSPETH	01	18	38.9	58	7	0.0	0	0	
572.			02	0	0	0	0	0	0	3	0
573.			03	4	4	0	7	2	0	2	0
574.			04	2	1	0	0	0	0	0	0
575.			05	0	0	0					
576.	116	HUNT	01	28	50.0	48	14	10.7	63	3	
577.			02	1	1	0	0	0	0	6	2
578.			03	4	7	2	12	4	1	2	0
579.			04	3	0	0	0	0	0	0	0
580.			05	0	0	0					
581.	117	HUTCHINSON	01	1033	52.2	77	539	71.9	17	743	
582.			02	16	5	2	61	49	16	135	90
583.			03	237	127	158	328	189	307	208	65
584.			04	48	14	22	0	0	0	0	0
585.			05	0	0	0					
586.	118	IRION	01	1057	60.6	43	641	55.9	19	591	
587.			02	74	29	5	142	99	8	166	106
588.			03	211	128	144	208	151	165	184	100
589.			04	72	28	32	0	0	0	0	0
590.			05	0	0	0					
591.	119	JACK	01	3695	26.3	51	973	38.2	34	1413	
592.			02	257	79	9	452	170	70	531	178
593.			03	606	183	284	814	209	381	721	113
594.			04	314	41	83	0	0	0	0	0
595.			05	0	0	0					
596.	120	JACKSON	01	1565	15.5	62	242	40.1	31	628	
597.			02	199	37	5	271	58	44	229	36
598.			03	250	34	137	272	38	119	261	33
599.			04	83	6	34	0	0	0	0	0
600.			05	0	0	0					
601.	121	JASPER	01	165	27.3	70	45	35.8	81	59	
602.			02	18	1	0	18	8	7	22	8
603.			03	29	7	13	21	8	10	40	8
604.			04	17	5	4	0	0	0	0	0
605.			05	0	0	0					
606.	122	JEFF DAVIS	01	1	0.0	0	0	0.0	0	0	
607.			02	0	0	0	0	0	0	1	0
608.			03	0	0	0	0	0	0	0	0
609.			04	0	0	0	0	0	0	0	0

610.			05	0	0	0														
611.	123	JEFFERSON	01	814	24.1	63	196	30.7	57	250										
612.			02	83	20	2	134	41	11	127	33	56								
613.			03	147	42	65	151	36	56	103	16	47								
614.			04	69	8	13	0	0	0	0	0	0								
615.			05	0	0	0														
616.	124	JIM HOGG	01	874	24.7	36	216	16.0	32	140										
617.			02	49	16	0	80	36	9	276	32	26								
618.			03	165	37	39	152	46	28	121	36	29								
619.			04	31	13	9	0	0	0	0	0	0								
620.			05	0	0	0														
621.	125	JIM WELLS	01	1476	30.1	41	444	29.4	55	434										
622.			02	154	33	4	242	86	23	237	89	100								
623.			03	312	70	108	281	91	100	181	54	75								
624.			04	69	21	24	0	0	0	0	0	0								
625.			05	0	0	0														
626.	126	JOHNSON	01	8	37.5	15	3	0.0	0	0										
627.			02	0	0	0	2	1	0	3	2	0								
628.			03	0	0	0	1	0	0	1	0	0								
629.			04	1	0	0	0	0	0	0	0	0								
630.			05	0	0	0														
631.	127	JONES	01	1879	51.9	40	976	33.4	24	628										
632.			02	131	63	3	170	109	8	263	159	105								
633.			03	400	227	139	407	191	175	341	153	139								
634.			04	167	74	59	0	0	0	0	0	0								
635.			05	0	0	0														
636.	128	KARNES	01	586	18.8	49	110	16.9	62	99										
637.			02	54	2	0	92	18	6	81	14	14								
638.			03	84	38	31	111	26	24	153	11	21								
639.			04	11	1	3	0	0	0	0	0	0								
640.			05	0	0	0														
641.	129	KAUFMAN	01	72	66.7	58	48	15.3	133	11										
642.			02	5	4	0	7	8	0	13	8	2								
643.			03	19	13	4	15	10	2	9	4	3								
644.			04	4	1	0	0	0	0	0	0	0								
645.			05	0	0	0														
646.	130	KENDALL	01	7	42.9	43	3	0.0	0	0										
647.			02	0	0	0	1	1	0	0	0	0								
648.			03	0	0	0	4	0	0	2	2	0								
649.			04	0	0	0	0	0	0	0	0	0								
650.			05	0	0	0														
651.	131	KENEDY	01	766	45.8	46	351	32.4	28	248										
652.			02	39	16	2	116	45	11	130	79	52								
653.			03	116	56	54	114	57	45	161	69	51								
654.			04	90	29	33	0	0	0	0	0	0								
655.			05	0	0	0														
656.	132	KENT	01	441	49.0	45	216	50.1	56	221										
657.			02	17	10	1	50	32	6	40	24	22								
658.			03	96	32	56	124	66	65	85	43	60								
659.			04	29	9	11	0	0	0	0	0	0								
660.			05	0	0	0														
661.	133	KERR	01	9	11.1	4	1	11.1	0	1										
662.			02	2	0	0	0	0	0	0	0	0								
663.			03	0	0	0	2	0	1	5	1	0								
664.			04	0	0	0	0	0	0	0	0	0								
665.			05	0	0	0														
666.	134	KIMBLE	01	61	52.5	43	32	14.8	17	9										
667.			02	5	1	0	12	5	2	19	9	4								
668.			03	3	4	2	12	10	1	8	2	0								
669.			04	2	1	0	0	0	0	0	0	0								
670.			05	0	0	0														

671.	135	KING	01	406	59.4	37	241	33.5	18	136		
672.			02	38	22	1	32	21	4	49	39	15
673.			03	55	41	31	78	36	34	111	62	39
674.			04	43	20	12	0	0	0	0	0	0
675.			05	0	0	0						
676.	136	KINNEY	01	25	8.0	39	2	0.0	0	0		
677.			02	0	0	0	1	0	0	1	0	0
678.			03	1	0	0	14	1	0	4	0	0
679.			04	4	1	0	0	0	0	0	0	0
680.			05	0	0	0						
681.	137	KLEBERG	01	1700	28.1	44	478	25.7	29	437		
682.			02	160	35	5	264	104	23	240	77	74
683.			03	265	73	103	332	99	96	312	67	103
684.			04	127	23	33	0	0	0	0	0	0
685.			05	0	0	0						
686.	138	KNOX	01	842	51.2	34	431	23.8	17	200		
687.			02	56	23	0	70	49	1	90	49	16
688.			03	156	88	40	219	89	73	196	105	58
689.			04	55	28	12	0	0	0	0	0	0
690.			05	0	0	0						
691.	139	LA SALLE	01	13	84.6	46	11	0.0	0	0		
692.			02	0	0	0	1	1	0	2	2	0
693.			03	4	4	0	1	0	0	5	4	0
694.			04	0	0	0	0	0	0	0	0	0
695.			05	0	0	0						
696.	140	LAMAR	01	75	66.7	47	50	22.7	20	17		
697.			02	13	6	1	15	14	2	11	8	4
698.			03	15	10	6	15	7	3	5	5	1
699.			04	1	0	0	0	0	0	0	0	0
700.			05	0	0	0						
701.	141	LAMB	01	4	50.0	6	2	0.0	0	0		
702.			02	0	0	0	1	0	0	0	0	0
703.			03	0	0	0	2	2	0	0	0	0
704.			04	1	0	0	0	0	0	0	0	0
705.			05	0	0	0						
706.	142	LAMPASAS	01	425	19.5	58	83	25.2	57	107		
707.			02	34	8	1	48	16	2	38	4	9
708.			03	44	5	18	136	24	39	92	15	31
709.			04	33	11	7	0	0	0	0	0	0
710.			05	0	0	0						
711.	143	LAVACA	01	879	18.7	42	164	35.6	110	313		
712.			02	143	38	2	164	45	16	137	22	69
713.			03	134	15	65	137	26	82	119	13	61
714.			04	45	5	18	0	0	0	0	0	0
715.			05	0	0	0						
716.	144	LEE	01	1248	34.9	38	435	56.8	36	709		
717.			02	93	21	2	170	70	16	175	97	125
718.			03	214	92	139	317	71	225	204	70	166
719.			04	75	14	36	0	0	0	0	0	0
720.			05	0	0	0						
721.	145	LEON	01	292	44.5	47	130	44.5	107	130		
722.			02	22	6	1	20	13	2	37	22	15
723.			03	57	36	28	92	41	50	54	9	32
724.			04	10	3	2	0	0	0	0	0	0
725.			05	0	0	0						
726.	146	LIBERTY	01	609	21.0	64	128	28.9	51	176		
727.			02	44	10	3	100	26	20	85	17	32
728.			03	87	25	30	120	26	38	121	16	44
729.			04	52	8	9	0	0	0	0	0	0
730.			05	0	0	0						
731.	147	LIMESTONE	01	327	45.6	52	149	35.8	71	117		

732.		02	24	14	0	48	32	7	43	20	14
733.		03	65	37	32	41	18	28	79	24	29
734.		04	27	4	7	0	0	0	0	0	0
735.		05	0	0	0						
736.	148	LIPSCOMB	01	933	58.5	59	546	54.0	29	504	
737.		02	47	25	3	115	76	29	131	113	84
738.		03	206	129	113	206	129	166	144	42	84
739.		04	84	32	25	0	0	0	0	0	0
740.		05	0	0	0						
741.	149	LIVE OAK	01	2040	16.1	53	329	19.5	70	398	
742.		02	167	38	3	353	70	24	213	104	71
743.		03	496	19	63	480	53	100	281	38	110
744.		04	50	7	27	0	0	0	0	0	0
745.		05	0	0	0						
746.	150	LLAND	01	0	0.0	0	0	0.0	0	0	
747.		02	0	0	0	0	0	0	0	0	0
748.		03	0	0	0	0	0	0	0	0	0
749.		04	0	0	0	0	0	0	0	0	0
750.		05	0	0	0						
751.	151	LOVING	01	261	47.5	51	124	54.0	109	141	
752.		02	12	3	0	17	9	1	30	13	12
753.		03	43	25	33	90	40	38	40	13	37
754.		04	29	21	20	0	0	0	0	0	0
755.		05	0	0	0						
756.	152	LUBBOCK	01	554	69.3	51	384	57.0	18	316	
757.		02	19	17	0	62	50	9	67	49	37
758.		03	136	82	82	110	85	77	118	75	89
759.		04	42	26	22	0	0	0	0	0	0
760.		05	0	0	0						
761.	153	LYNN	01	127	64.6	41	82	28.3	128	36	
762.		02	7	4	0	6	5	0	15	11	0
763.		03	23	16	8	45	27	15	25	16	10
764.		04	6	3	3	0	0	0	0	0	0
765.		05	0	0	0						
766.	154	MADISON	01	336	26.5	43	89	16.1	35	54	
767.		02	38	6	1	67	19	15	54	24	18
768.		03	44	17	8	61	14	7	60	7	4
769.		04	12	2	1	0	0	0	0	0	0
770.		05	0	0	0						
771.	155	MARION	01	281	12.5	52	35	34.2	53	96	
772.		02	2	0	1	5	0	0	13	1	1
773.		03	82	6	31	143	24	50	28	3	12
774.		04	8	1	1	0	0	0	0	0	0
775.		05	0	0	0						
776.	156	MARTIN	01	1070	14.2	56	152	17.6	59	188	
777.		02	39	18	1	196	40	6	312	27	27
778.		03	177	10	49	145	14	33	129	24	51
779.		04	72	19	21	0	0	0	0	0	0
780.		05	0	0	0						
781.	157	MASON	01	312	26.6	55	83	45.8	63	143	
782.		02	27	8	1	33	14	6	31	8	19
783.		03	51	15	19	64	18	40	67	9	41
784.		04	39	11	17	0	0	0	0	0	0
785.		05	0	0	0						
786.	158	MATAGORDA	01	159	47.8	47	76	36.5	41	58	
787.		02	10	6	0	33	22	8	24	14	9
788.		03	16	13	12	35	12	14	21	4	9
789.		04	20	5	6	0	0	0	0	0	0
790.		05	0	0	0						
791.	159	MAVERICK	01	845	46.6	48	394	67.3	33	569	
792.		02	57	24	1	99	43	13	90	49	60

793.		03	184	110	136	179	85	153	189	57	166
794.		04	47	26	40	0	0	0	0	0	0
795.		05	0	0	0						
796.	160	MCCULLOCH	01	0	0.0	0	0	0.0	0	0	
797.		02	0	0	0	0	0	0	0	0	0
798.		03	0	0	0	0	0	0	0	0	0
799.		04	0	0	0	0	0	0	0	0	0
800.		05	0	0	0						
801.	161	MCLENNAN	01	860	21.4	73	184	31.6	74	272	
802.		02	82	11	1	121	31	16	148	33	52
803.		03	162	43	66	173	41	74	125	22	49
804.		04	49	3	14	0	0	0	0	0	0
805.		05	0	0	0						
806.	162	MCMULLEN	01	999	17.9	47	179	37.2	40	372	
807.		02	57	10	3	124	31	10	204	41	100
808.		03	207	52	133	178	24	80	123	13	46
809.		04	106	8	0	0	0	0	0	0	0
810.		05	0	0	0						
811.	163	MEDINA	01	1894	8.3	84	157	35.3	59	669	
812.		02	70	6	6	160	24	18	141	16	37
813.		03	430	44	172	690	53	283	316	12	128
814.		04	87	2	25	0	0	0	0	0	0
815.		05	0	0	0						
816.	164	MENARD	01	260	46.2	25	120	23.8	23	62	
817.		02	31	16	0	15	8	0	23	15	4
818.		03	37	19	9	62	38	29	66	13	15
819.		04	26	11	5	0	0	0	0	0	0
820.		05	0	0	0						
821.	165	MIDLAND	01	517	42.0	44	217	62.5	33	323	
822.		02	40	16	0	58	17	10	67	29	49
823.		03	115	63	87	98	51	82	95	22	68
824.		04	44	19	27	0	0	0	0	0	0
825.		05	0	0	0						
826.	166	MILAM	01	1334	6.7	73	90	31.2	70	416	
827.		02	60	10	6	141	17	17	95	12	33
828.		03	164	24	98	267	17	69	411	7	120
829.		04	196	3	73	0	0	0	0	0	0
830.		05	0	0	0						
831.	167	MILLS	01	25	28.0	34	7	0.0	0	0	
832.		02	2	2	0	3	1	0	5	2	0
833.		03	3	1	0	2	1	0	7	0	0
834.		04	3	0	0	0	0	0	0	0	0
835.		05	0	0	0						
836.	168	MITCHELL	01	1463	45.7	55	669	56.2	17	822	
837.		02	120	47	5	168	95	36	192	89	124
838.		03	284	117	200	344	158	237	245	124	188
839.		04	110	39	32	0	0	0	0	0	0
840.		05	0	0	0						
841.	169	MONTAGUE	01	1414	25.4	49	359	38.5	29	544	
842.		02	123	23	4	168	58	19	177	53	86
843.		03	295	67	130	330	90	174	248	51	108
844.		04	73	17	23	0	0	0	0	0	0
845.		05	0	0	0						
846.	170	MONTGOMERY	01	275	30.5	51	84	36.4	32	100	
847.		02	31	9	1	37	11	5	53	23	27
848.		03	41	14	20	50	7	24	29	6	13
849.		04	34	14	10	0	0	0	0	0	0
850.		05	0	0	0						
851.	171	MOORE	01	519	44.7	70	232	51.6	17	268	
852.		02	20	6	0	37	29	4	41	24	29
853.		03	75	44	51	128	55	67	143	58	102

854.		04	75	16	15	0	0	0	0	0	0
855.		05	0	0	0						
856.	172	MORRIS	01	8	50.0	51	4	0.0	0	0	
857.			02	1	1	0	1	1	0	1	0
858.			03	1	0	0	2	0	0	2	1
859.			04	0	0	0	0	0	0	0	0
860.			05	0	0	0					
861.	173	MOTLEY	01	25	64.0	50	16	12.0	17	3	
862.			02	2	1	1	4	2	0	4	3
863.			03	1	1	1	10	7	0	4	1
864.			04	0	1	0	0	0	0	0	0
865.			05	0	0	0					
866.	174	NACOGDOCHES	01	710	17.3	63	123	33.5	50	238	
867.			02	27	4	0	36	16	6	28	20
868.			03	80	28	35	138	24	59	267	18
869.			04	134	13	44	0	0	0	0	0
870.			05	0	0	0					
871.	175	NAVARRO	01	2684	8.9	66	239	33.4	62	897	
872.			02	60	11	6	103	36	20	292	34
873.			03	501	72	231	840	54	262	699	20
874.			04	189	12	35	0	0	0	0	0
875.			05	0	0	0					
876.	176	NEWTON	01	129	28.7	45	37	22.5	95	29	
877.			02	19	8	1	19	4	1	15	4
878.			03	21	10	9	25	5	8	18	6
879.			04	12	0	3	0	0	0	0	0
880.			05	0	0	0					
881.	177	NOLAN	01	890	49.2	46	438	41.2	31	367	
882.			02	38	20	0	62	36	7	113	61
883.			03	201	87	80	236	114	131	171	88
884.			04	69	32	25	0	0	0	0	0
885.			05	0	0	0					
886.	178	NUECES	01	1827	32.6	62	596	36.2	49	662	
887.			02	180	38	4	292	95	28	272	100
888.			03	317	102	169	384	148	170	270	90
889.			04	112	23	37	0	0	0	0	0
890.			05	0	0	0					
891.	179	OCHILTREE	01	751	48.2	46	362	52.3	41	393	
892.			02	47	27	1	88	52	12	113	63
893.			03	142	89	94	163	69	115	134	42
894.			04	64	20	15	0	0	0	0	0
895.			05	0	0	0					
896.	180	OLDHAM	01	117	35.9	22	42	37.6	32	44	
897.			02	0	0	0	0	0	0	25	13
898.			03	9	9	3	21	10	6	50	7
899.			04	12	3	1	0	0	0	0	0
900.			05	0	0	0					
901.	181	ORANGE	01	229	27.1	62	62	37.1	62	85	
902.			02	14	1	0	34	10	8	27	7
903.			03	49	16	20	41	8	23	38	8
904.			04	26	12	4	0	0	0	0	0
905.			05	0	0	0					
906.	182	PALO PINTO	01	1592	43.7	45	695	44.5	25	709	
907.			02	201	111	19	218	138	37	242	121
908.			03	280	143	167	312	114	188	268	59
909.			04	71	9	22	0	0	0	0	0
910.			05	0	0	0					
911.	183	PANOLA	01	1145	64.1	60	734	59.9	61	686	
912.			02	129	62	14	231	184	82	219	177
913.			03	148	125	125	224	110	142	167	64
914.			04	27	12	14	0	0	0	0	0

915.			05	0	0	0							
916.	184	PARKER	01	1951	47.1	37	919	40.2	35	785			
917.			02	227	121	22	596	316	160	385	224	214	
918.			03	231	113	139	204	68	115	216	54	109	
919.			04	92	23	26	0	0	0	0	0	0	
920.			05	0	0	0							
921.	185	PARMER	01	7	42.9	50	3	0.0	0	0			
922.			02	3	0	0	1	2	0	2	0	0	
923.			03	0	1	0	0	0	0	0	0	0	
924.			04	1	0	0	0	0	0	0	0	0	
925.			05	0	0	0							
926.	186	PECOS	01	2480	34.4	56	853	48.8	65	1209			
927.			02	188	70	7	288	173	52	333	124	225	
928.			03	391	161	240	479	160	272	501	113	291	
929.			04	300	52	122	0	0	0	0	0	0	
930.			05	0	0	0							
931.	187	POLK	01	228	37.7	53	86	36.4	60	83			
932.			02	14	5	0	45	20	4	33	11	19	
933.			03	50	22	23	43	11	22	32	13	13	
934.			04	11	4	2	0	0	0	0	0	0	
935.			05	0	0	0							
936.	188	POTTER	01	370	51.1	62	189	43.8	7	162			
937.			02	46	20	0	36	28	1	30	22	24	
938.			03	107	56	56	81	47	57	41	12	21	
939.			04	29	4	3	0	0	0	0	0	0	
940.			05	0	0	0							
941.	189	PRESIDIO	01	346	9.2	38	32	0.0	0	0			
942.			02	2	2	0	0	1	0	173	17	0	
943.			03	69	0	0	26	2	0	66	10	0	
944.			04	10	0	0	0	0	0	0	0	0	
945.			05	0	0	0							
946.	190	RAINS	01	18	55.6	52	10	27.8	80	5			
947.			02	2	0	0	2	4	1	3	1	1	
948.			03	2	2	0	0	0	0	6	1	3	
949.			04	3	2	0	0	0	0	0	0	0	
950.			05	0	0	0							
951.	191	RANDALL	01	35	5.7	44	2	0.0	0	0			
952.			02	0	0	0	1	1	0	0	0	0	
953.			03	0	0	0	21	0	0	13	0	0	
954.			04	0	1	0	0	0	0	0	0	0	
955.			05	0	0	0							
956.	192	REAGAN	01	1508	48.5	52	731	72.9	15	1100			
957.			02	60	32	1	143	93	50	246	94	158	
958.			03	329	188	261	329	155	279	288	107	261	
959.			04	113	62	90	0	0	0	0	0	0	
960.			05	0	0	0							
961.	193	REAL	01	9	11.1	17	1	0.0	0	0			
962.			02	0	0	0	3	0	0	0	0	0	
963.			03	0	0	0	5	1	0	0	0	0	
964.			04	1	0	0	0	0	0	0	0	0	
965.			05	0	0	0							
966.	194	RED RIVER	01	167	35.9	65	60	18.0	27	30			
967.			02	4	2	0	15	7	0	16	9	5	
968.			03	68	33	19	36	8	2	23	0	4	
969.			04	5	1	0	0	0	0	0	0	0	
970.			05	0	0	0							
971.	195	REEVES	01	599	45.6	36	273	41.4	56	248			
972.			02	80	33	3	100	59	18	74	38	37	
973.			03	97	35	44	78	38	43	115	42	74	
974.			04	55	28	29	0	0	0	0	0	0	
975.			05	0	0	0							

976.	196	REFUGIO	01	1444	14.3	57	207	37.5	62	541		
977.			02	175	35	6	251	44	13	296	43	148
978.			03	225	19	127	207	40	109	204	18	98
979.			04	86	8	40	0	0	0	0	0	0
980.			05	0	0	0						
981.	197	ROBERTS	01	438	54.1	60	237	43.2	43	189		
982.			02	56	19	2	72	47	20	96	57	43
983.			03	93	61	58	59	31	42	44	14	20
984.			04	18	8	4	0	0	0	0	0	0
985.			05	0	0	0						
986.	198	ROBERTSON	01	99	37.4	38	37	42.4	87	42		
987.			02	7	1	0	17	7	3	9	7	4
988.			03	11	6	7	41	13	20	12	2	8
989.			04	2	1	0	0	0	0	0	0	0
990.			05	0	0	0						
991.	199	ROCKWALL	01	3100	0	31	3	0.0	0	0		
992.			02	0	0	0	1	1	0	1	1	0
993.			03	0	0	0	1	1	0	0	0	0
994.			04	0	0	0	0	0	0	0	0	0
995.			05	0	0	0						
996.	200	RUNNELS	01	2115	41.1	49	870	35.2	22	745		
997.			02	153	70	5	253	148	37	233	125	89
998.			03	434	178	166	493	150	238	398	149	171
999.			04	151	50	39	0	0	0	0	0	0
1000.			05	0	0	0						
1001.	201	RUSK	01	1201	52.5	47	631	55.7	58	669		
1002.			02	82	43	2	137	120	39	126	78	83
1003.			03	208	145	131	290	131	191	254	87	188
1004.			04	104	27	35	0	0	0	0	0	0
1005.			05	0	0	0						
1006.	202	SABINE	01	56	25.0	77	14	26.8	25	15		
1007.			02	1	1	0	0	0	0	2	2	0
1008.			03	9	2	1	15	6	10	25	3	3
1009.			04	4	0	1	0	0	0	0	0	0
1010.			05	0	0	0						
1011.	203	SAN AUGUSTINE	01	46	21.7	35	10	6.5	12	3		
1012.			02	1	1	0	1	0	0	3	2	0
1013.			03	5	1	2	17	6	1	5	0	0
1014.			04	14	0	0	0	0	0	0	0	0
1015.			05	0	0	0						
1016.	204	SAN JACINTO	01	132	20.5	62	27	31.8	40	42		
1017.			02	17	6	0	18	2	2	14	6	7
1018.			03	23	7	12	27	3	14	27	3	7
1019.			04	6	0	0	0	0	0	0	0	0
1020.			05	0	0	0						
1021.	205	SAN PATRICIO	01	1167	29.9	52	349	35.6	48	415		
1022.			02	148	35	4	155	66	22	178	37	76
1023.			03	197	65	95	215	72	111	187	52	87
1024.			04	87	22	20	0	0	0	0	0	0
1025.			05	0	0	0						
1026.	206	SAN SABA	01	24	20.8	22	5	0.0	0	0		
1027.			02	1	0	0	5	0	0	5	0	0
1028.			03	4	1	0	9	4	0	0	0	0
1029.			04	0	0	0	0	0	0	0	0	0
1030.			05	0	0	0						
1031.	207	SCHLEICHER	01	860	56.4	42	485	39.1	26	336		
1032.			02	126	28	1	103	73	24	124	84	58
1033.			03	137	92	71	210	124	95	122	70	71
1034.			04	38	14	16	0	0	0	0	0	0
1035.			05	0	0	0						
1036.	208	SCURRY	01	1478	39.3	59	581	60.8	27	898		

1037.		02	87	28	5	188	50	55	190	84	120
1038.		03	343	107	214	369	171	295	217	114	174
1039.		04	84	27	35	0	0	0	0	0	0
1040.		05	0	0	0						
1041.	209	01	3111	23.1	41	719	35.7	20	1111		
1042.		02	202	93	8	337	158	51	406	114	160
1043.		03	567	159	240	650	106	256	704	59	292
1044.		04	245	30	104	0	0	0	0	0	0
1045.		05	0	0	0						
1046.	210	01	229	47.2	45	108	29.7	76	68		
1047.		02	21	10	3	20	13	6	21	6	3
1048.		03	25	20	12	69	28	23	54	18	18
1049.		04	19	13	3	0	0	0	0	0	0
1050.		05	0	0	0						
1051.	211	01	101	53.5	62	54	31.7	23	32		
1052.		02	13	5	1	22	22	7	11	6	6
1053.		03	11	7	6	12	9	2	22	4	7
1054.		04	10	1	3	0	0	0	0	0	0
1055.		05	0	0	0						
1056.	212	01	459	45.1	38	207	41.0	47	188		
1057.		02	26	15	3	54	37	3	43	35	10
1058.		03	71	38	37	113	45	46	110	20	74
1059.		04	42	17	15	0	0	0	0	0	0
1060.		05	0	0	0						
1061.	213	01	12	66.7	85	8	41.7	299	5		
1062.		02	5	2	1	5	4	2	1	1	0
1063.		03	1	1	1	0	0	0	0	0	1
1064.		04	0	0	0	0	0	0	0	0	0
1065.		05	0	0	0						
1066.	214	01	1064	33.6	48	357	39.2	57	417		
1067.		02	143	36	6	156	47	18	162	48	80
1068.		03	176	57	90	196	80	95	168	65	107
1069.		04	63	24	21	0	0	0	0	0	0
1070.		05	0	0	0						
1071.	215	01	2422	43.6	49	1056	46.3	28	1122		
1072.		02	243	127	18	347	207	66	377	207	215
1073.		03	444	167	275	412	157	243	443	149	251
1074.		04	156	42	54	0	0	0	0	0	0
1075.		05	0	0	0						
1076.	216	01	787	42.8	57	337	53.1	23	418		
1077.		02	63	23	0	116	72	19	101	43	64
1078.		03	102	45	70	166	58	110	189	66	119
1079.		04	50	30	36	0	0	0	0	0	0
1080.		05	0	0	0						
1081.	217	01	980	54.4	54	533	36.3	25	356		
1082.		02	43	17	2	109	69	7	113	69	38
1083.		03	191	107	74	269	127	122	178	102	84
1084.		04	77	42	29	0	0	0	0	0	0
1085.		05	0	0	0						
1086.	218	01	1151	57.3	55	659	55.0	12	633		
1087.		02	113	56	12	130	74	45	183	123	109
1088.		03	160	101	104	207	119	122	292	138	202
1089.		04	66	48	39	0	0	0	0	0	0
1090.		05	0	0	0						
1091.	219	01	25	8.0	13	2	0.0	0	0		
1092.		02	10	0	0	10	1	0	0	0	0
1093.		03	1	1	0	2	0	0	2	0	0
1094.		04	0	0	0	0	0	0	0	0	0
1095.		05	0	0	0						
1096.	220	01	48	25.0	53	12	37.5	91	18		
1097.		02	8	3	2	8	4	3	11	3	7

1098.		03	2	0	0	11	2	2	8	0	4
1099.		04	0	0	0	0	0	0	0	0	0
1100.		05	0	0	0						
1101.	221	TAYLOR	01	1500	48.0	49	720	35.7	25	536	
1102.			02	123	34	11	142	88	20	227	107 77
1103.			03	304	156	96	316	173	156	272	109 144
1104.			04	116	53	32	0	0	0	0	0
1105.			05	0	0	0					
1106.	222	TERRELL	01	138	41.3	61	57	37.7	138	52	
1107.			02	8	5	0	22	7	1	25	10 10
1108.			03	31	15	12	30	16	17	17	3 12
1109.			04	5	1	0	0	0	0	0	0
1110.			05	0	0	0					
1111.	223	TERRY	01	586	74.4	38	436	51.7	31	303	
1112.			02	41	27	0	142	97	34	67	60 56
1113.			03	94	70	60	137	107	87	86	65 55
1114.			04	19	10	11	0	0	0	0	0
1115.			05	0	0	0					
1116.	224	THROCKMORTON	01	2405	26.8	51	644	30.7	24	738	
1117.			02	154	52	16	294	111	58	281	92 99
1118.			03	518	143	216	523	153	168	423	74 141
1119.			04	212	19	40	0	0	0	0	0
1120.			05	0	0	0					
1121.	225	TITUS	01	192	44.8	75	86	52.6	35	101	
1122.			02	7	1	0	19	16	4	24	13 16
1123.			03	57	32	27	53	15	36	26	5 16
1124.			04	6	4	2	0	0	0	0	0
1125.			05	0	0	0					
1126.	226	TOM GREEN	01	990	45.9	38	454	35.8	35	354	
1127.			02	49	17	1	62	40	12	127	57 53
1128.			03	172	90	61	189	97	70	273	99 122
1129.			04	118	54	35	0	0	0	0	0
1130.			05	0	0	0					
1131.	227	TRAVIS	01	96	6.3	20	6	15.6	0	15	
1132.			02	1	0	0	3	2	0	8	1 0
1133.			03	9	0	4	30	1	4	26	0 6
1134.			04	19	2	1	0	0	0	0	0
1135.			05	0	0	0					
1136.	228	TRINITY	01	80	33.8	79	27	15.0	69	12	
1137.			02	7	3	0	26	15	8	9	3 1
1138.			03	12	3	2	14	1	1	12	2 0
1139.			04	0	0	0	0	0	0	0	0
1140.			05	0	0	0					
1141.	229	TYLER	01	96	29.2	53	28	31.3	225	30	
1142.			02	14	2	0	20	6	2	10	4 3
1143.			03	12	8	5	19	6	9	17	1 8
1144.			04	4	1	3	0	0	0	0	0
1145.			05	0	0	0					
1146.	230	UPSHUR	01	219	53.9	44	118	51.1	61	112	
1147.			02	23	11	1	20	14	6	40	30 24
1148.			03	31	20	21	50	21	24	42	17 31
1149.			04	13	5	5	0	0	0	0	0
1150.			05	0	0	0					
1151.	231	UPTON	01	1041	39.1	48	407	55.3	38	576	
1152.			02	137	77	5	160	40	36	171	60 116
1153.			03	209	98	140	173	67	151	130	42 95
1154.			04	61	23	33	0	0	0	0	0
1155.			05	0	0	0					
1156.	232	UVALDE	01	10	20.0	34	2	0.0	0	0	
1157.			02	0	0	0	0	0	0	0	0
1158.			03	1	0	0	8	2	0	1	0 0

1159.		04	0	0	0	0	0	0	0	0	0
1160.		05	0	0	0						
1161.	233	01	153	24.2	88	37	20.3	128	31		
1162.		02	11	3	2	22	10	2	17	3	1
1163.		03	51	13	12	23	5	5	23	3	8
1164.		04	6	0	1	0	0	0	0	0	0
1165.		05	0	0	0						
1166.	234	01	190	53.2	42	101	26.3	84	50		
1167.		02	16	7	1	31	26	4	34	15	3
1168.		03	31	28	9	44	18	19	21	4	14
1169.		04	13	3	0	0	0	0	0	0	0
1170.		05	0	0	0						
1171.	235	01	1507	19.0	47	286	38.2	58	575		
1172.		02	188	51	6	299	82	52	204	50	109
1173.		03	268	14	134	239	40	135	216	34	110
1174.		04	93	15	29	0	0	0	0	0	0
1175.		05	0	0	0						
1176.	236	01	68	30.9	56	21	14.7	41	10		
1177.		02	10	1	0	13	4	2	10	7	4
1178.		03	19	3	0	8	4	1	5	2	2
1179.		04	3	0	1	0	0	0	0	0	0
1180.		05	0	0	0						
1181.	237	01	264	17.8	55	47	33.7	83	89		
1182.		02	21	6	2	38	6	2	39	9	10
1183.		03	35	11	20	57	6	18	52	5	23
1184.		04	22	4	14	0	0	0	0	0	0
1185.		05	0	0	0						
1186.	238	01	1493	42.0	63	627	57.0	45	851		
1187.		02	174	96	7	159	88	19	233	111	157
1188.		03	263	105	179	286	112	206	265	88	242
1189.		04	113	27	41	0	0	0	0	0	0
1190.		05	0	0	0						
1191.	239	01	221	28.5	48	63	48.0	70	106		
1192.		02	12	2	0	9	3	0	35	12	18
1193.		03	64	22	28	59	12	34	28	10	22
1194.		04	14	2	4	0	0	0	0	0	0
1195.		05	0	0	0						
1196.	240	01	2076	38.2	43	792	45.5	62	944		
1197.		02	220	90	14	360	167	83	365	120	224
1198.		03	370	112	240	330	156	176	329	117	173
1199.		04	102	30	34	0	0	0	0	0	0
1200.		05	0	0	0						
1201.	241	01	1621	18.0	54	292	33.4	53	541		
1202.		02	175	21	9	260	58	30	283	46	110
1203.		03	285	62	119	270	45	137	245	31	97
1204.		04	103	29	39	0	0	0	0	0	0
1205.		05	0	0	0						
1206.	242	01	737	44.5	48	328	45.9	85	338		
1207.		02	49	24	4	122	77	35	121	83	65
1208.		03	108	64	55	192	46	100	114	27	71
1209.		04	31	7	8	0	0	0	0	0	0
1210.		05	0	0	0						
1211.	243	01	4702	13.1	55	615	41.0	18	1930		
1212.		02	382	43	10	636	98	73	791	134	437
1213.		03	1065	156	541	889	96	498	688	63	290
1214.		04	251	25	81	0	0	0	0	0	0
1215.		05	0	0	0						
1216.	244	01	775	24.5	46	190	47.0	15	364		
1217.		02	52	11	2	88	21	13	130	27	69
1218.		03	158	41	98	212	48	114	106	33	59
1219.		04	29	9	9	0	0	0	0	0	0

APPENDIX G

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CNTYPROD - County Annual Oil/Gas Production File	82
CNTYPROD File Listing	83

CNTYPROD - County Annual Oil/Gas Production File

This file contains oil and gas production figures for each Texas county. The records, which begin in 1977, may be updated to include production data through 1986. It is used by SAS to project statewide production trends.

<u>Card/Position</u>	<u>Contents</u>
1/ 1-3	RRC Sequence No.
1/ 6-19	Alpha County Name
1/ 22-23	Card Sequence Number (1/ is card 1, etc)
1/ 25-33	1977 Gas Production
36-44	Oil Production
1/ 47-55	1978 Gas Production
58-66	Oil Production

2/ 1-3	RCC Sequence No.
2/ 22-23	Card Sequence Number
2/ 25-33	1979 Gas Production
36-44	Oil Production
2/ 47-55	1980 Gas Production
58-66	Oil Production

Card #3	1981 and 1982 Production Data (Gas/Oil)

Card #4	1983 and 1984 Production Data (Gas/Oil)

Card #5	1985 and 1986 Production Data (Gas/Oil)

1.	001	ANDERSON	01	8812443	4709781	7368527	4504542
2.	001		02	6076360	4008597	6249110	3839890
3.	001		03	9128789	3810553	10787612	3561702
4.	001		04				
5.	001		05				
6.	003	ANDREWS	01	4897636	46881663	4331513	44200394
7.	003		02	4226957	41563603	3767253	39844906
8.	003		03	4151265	39673890	3806356	39042016
9.	003		04				
10.	003		05				
11.	005	ANGELINA	01	439614	667	428459	484
12.	005		02	483961	322	451093	486
13.	005		03	933347	674	1976469	1005
14.	005		04				
15.	005		05				
16.	007	ARANSAS	01	14531062	419268	11718602	442921
17.	007		02	14203191	440102	12394828	438562
18.	007		03	14929429	497706	16741234	542332
19.	007		04				
20.	007		05				
21.	009	ARCHER	01	0	3958704	0	3760086
22.	009		02	0	3591612	0	3770623
23.	009		03	0	3744040	4131	3789560
24.	009		04				
25.	009		05				
26.	011	ARMSTRONG	01	0	0	0	0
27.	011		02	0	0	0	0
28.	011		03	0	0	0	0
29.	011		04				
30.	011		05				
31.	013	ATASCOSA	01	26999336	2313089	22749634	2021375
32.	013		02	19426375	1822828	20656590	1698972
33.	013		03	22835371	1620819	25135305	1620030
34.	013		04				
35.	013		05				
36.	015	AUSTIN	01	8063796	1309283	7994367	1023945
37.	015		02	7257966	911368	6224107	760442
38.	015		03	7410644	707226	5582162	648179
39.	015		04				
40.	015		05				
41.	017	BAILEY	01	0	0	0	0
42.	017		02	0	0	0	0
43.	017		03	0	0	0	0
44.	017		04				
45.	017		05				
46.	019	BANDERA	01	0	0	0	0
47.	019		02	0	0	0	0
48.	019		03	0	0	0	0
49.	019		04				
50.	019		05				
51.	021	BASTROP	01	0	103744	0	165964
52.	021		02	0	130997	0	146408
53.	021		03	15581	129099	51635	125968
54.	021		04				
55.	021		05				
56.	023	BAYLOR	01	0	469551	0	444688
57.	023		02	0	393955	0	414142
58.	023		03	0	390275	0	406444
59.	023		04				
60.	023		05				

61.	025	BEE	01	39350912	916137	33505591	811466
62.	025		02	30384078	813869	28247764	874425
63.	025		03	27814296	840285	23961445	861323
64.	025		04				
65.	025		05				
66.	027	BELL	01	0	0	0	0
67.	027		02	0	0	0	0
68.	027		03	0	118	0	89
69.	027		04				
70.	027		05				
71.	029	BEXAR	01	22817	293164	33708	281263
72.	029		02	24387	278049	21811	369681
73.	029		03	15930	404379	19133	514784
74.	029		04				
75.	029		05				
76.	031	BLANCO	01	0	0	0	0
77.	031		02	0	0	0	0
78.	031		03	0	0	0	0
79.	031		04				
80.	031		05				
81.	033	BORDEN	01	0	10338254	0	10228245
82.	033		02	0	9060918	0	8295936
83.	033		03	0	7801118	0	7620366
84.	033		04				
85.	033		05				
86.	035	BOSQUE	01	0	0	0	0
87.	035		02	0	0	0	0
88.	035		03	0	0	0	0
89.	035		04				
90.	035		05				
91.	037	BOWIE	01	1561476	37075	1167496	29090
92.	037		02	1608654	18261	1368243	11436
93.	037		03	790825	12300	432538	7918
94.	037		04				
95.	037		05				
96.	039	BRAZORIA	01	227767539	31494081	222740347	28458983
97.	039		02	218251901	20886269	165687340	13594406
98.	039		03	131971514	10656633	105101882	8927553
99.	039		04				
100.	039		05				
101.	041	BRAZOS	01	1169661	418177	206394	1664065
102.	041		02	204686	2130553	149119	2439856
103.	041		03	1291369	2107423	1535138	6731006
104.	041		04				
105.	041		05				
106.	043	BREWSTER	01	0	0	0	0
107.	043		02	0	0	0	0
108.	043		03	0	0	0	0
109.	043		04				
110.	043		05				
111.	045	BRISCOE	01	0	0	0	0
112.	045		02	0	0	0	0
113.	045		03	0	0	0	3554
114.	045		04				
115.	045		05				
116.	047	BROOKS	01	123838652	1022409	124128969	788341
117.	047		02	113795202	786941	114744326	693651
118.	047		03	108661862	715547	90434098	740041
119.	047		04				
120.	047		05				
121.	049	BROWN	01	3934380	428293	3418843	406729

122.	049	02	3687190	400870	5157832	392545	
123.	049	03	10300894	443982	5115720	444461	
124.	049	04					
125.	049	05					
126.	051	BURLESON	01	844019	133108	531424	293431
127.	051		02	417609	1396132	2730012	10018981
128.	051		03	17615373	21179857	28882841	17024889
129.	051		04				
130.	051		05				
131.	053	BURNET	01	0	0	0	0
132.	053		02	0	0	0	0
133.	053		03	0	0	0	0
134.	053		04				
135.	053		05				
136.	055	CALDWELL	01	0	2009289	88620	1903160
137.	055		02	74035	1813983	39779	2032776
138.	055		03	23017	2342416	27621	2543050
139.	055		04				
140.	055		05				
141.	057	CALHOUN	01	35420383	802433	27307440	928227
142.	057		02	33078457	916809	36629517	918959
143.	057		03	46287053	852975	43787907	849240
144.	057		04				
145.	057		05				
146.	059	CALLAHAN	01	2668207	774818	2212234	777624
147.	059		02	2831013	774388	3603377	897803
148.	059		03	3666631	1036833	3507377	1406054
149.	059		04				
150.	059		05				
151.	061	CAMERON	01	7598891	5413	6657955	4574
152.	061		02	6794350	3286	4364443	4935
153.	061		03	3080772	5023	2424550	4239
154.	061		04				
155.	061		05				
156.	063	CAMP	01	5419040	498020	4797163	427232
157.	063		02	2825960	389470	2729886	374002
158.	063		03	3793372	368477	4322947	435159
159.	063		04				
160.	063		05				
161.	065	CARSON	01	91327336	1415851	84865389	1359979
162.	065		02	79141581	1337496	62818255	1322325
163.	065		03	51421598	1350370	43457646	1380817
164.	065		04				
165.	065		05				
166.	067	CASS	01	21430296	1035809	19476421	847975
167.	067		02	19762451	814856	19644068	821962
168.	067		03	23728625	815369	24977620	900279
169.	067		04				
170.	067		05				
171.	069	CASTRO	01	0	0	0	0
172.	069		02	0	0	0	0
173.	069		03	0	0	0	0
174.	069		04				
175.	069		05				
176.	071	CHAMBERS	01	59464777	16511037	59566112	13852852
177.	071		02	57073305	11064583	49624862	8857468
178.	071		03	41598909	8001929	36223773	7762738
179.	071		04				
180.	071		05				
181.	073	CHEROKEE	01	1271951	2083756	6063112	2164872
182.	073		02	10792938	2004014	10389546	1901423

183.	073	03	12262972	1547941	9311292	1205424	
184.	073	04					
185.	073	05					
186.	075	CHILDRESS	01	0	10533	0	20668
187.	075		02	0	10561	0	9608
188.	075		03	0	7962	0	8472
189.	075		04				
190.	075		05				
191.	077	CLAY	01	90206	1907580	86760	2064169
192.	077		02	80321	2134535	158961	2289138
193.	077		03	228937	2600815	439070	2839795
194.	077		04				
195.	077		05				
196.	079	COCHRAN	01	4574615	12086985	5443959	12303089
197.	079		02	5090029	11979522	3721931	11639141
198.	079		03	3015922	11302101	2510094	11057217
199.	079		04				
200.	079		05				
201.	081	COKE	01	2425257	2294258	2159341	2596681
202.	081		02	1813129	2828311	1790846	3160359
203.	081		03	1571392	2378436	1619355	2242600
204.	081		04				
205.	081		05				
206.	083	COLEMAN	01	5216629	813139	5456749	886475
207.	083		02	5818850	941608	5840050	588379
208.	083		03	6783286	974660	6601652	982233
209.	083		04				
210.	083		05				
211.	085	COLLIN	01	0	0	0	0
212.	085		02	0	0	0	0
213.	085		03	0	0	0	0
214.	085		04				
215.	085		05				
216.	087	COLLINGSWORTH	01	4753577	21294	3547403	18708
217.	087		02	3950027	18657	3906852	17074
218.	087		03	3917250	16079	2747143	12784
219.	087		04				
220.	087		05				
221.	089	COLORADO	01	60146912	277438	54026184	293046
222.	089		02	50959564	350607	45642402	359679
223.	089		03	43401372	382064	38459485	445757
224.	089		04				
225.	089		05				
226.	091	COMAL	01	0	0	0	0
227.	091		02	0	0	0	0
228.	091		03	0	0	0	0
229.	091		04				
230.	091		05				
231.	093	COMANCHE	01	1335670	13870	1627966	27340
232.	093		02	1979456	49639	2605230	91451
233.	093		03	2730537	93858	2373942	83357
234.	093		04				
235.	093		05				
236.	095	CONCHO	01	2214890	178111	1699000	182839
237.	095		02	1285688	180255	1058288	159567
238.	095		03	730209	178663	1982444	218601
239.	095		04				
240.	095		05				
241.	097	COOKE	01	119466	5158315	72933	4446903
242.	097		02	299190	4020633	456650	4046141
243.	097		03	317262	4069707	299711	4285800

244.	097		04				
245.	097		05				
246.	099	CORYELL	01	0	0	0	0
247.	099		02	0	0	0	0
248.	099		03	0	0	0	0
249.	099		04				
250.	099		05				
251.	101	COTTLE	01	2588619	222436	2163375	198713
252.	101		02	4430428	213670	6648735	228219
253.	101		03	3673273	187474	3104915	148876
254.	101		04				
255.	101		05				
256.	103	CRANE	01	64725683	35156954	57089771	34003781
257.	103		02	51450448	32624578	49729058	30336534
258.	103		03	45138826	29133249	46682693	26803532
259.	103		04				
260.	103		05				
261.	105	CROCKETT	01	92714990	4696573	91936201	4742939
262.	105		02	81008509	4565893	92101914	4635979
263.	105		03	93699018	4488477	77057572	4628382
264.	105		04				
265.	105		05				
266.	107	CROSBY	01	0	185670	0	267689
267.	107		02	0	452559	0	856163
268.	107		03	0	1056194	0	1252839
269.	107		04				
270.	107		05				
271.	109	CULBERSON	01	688608	587550	2989222	541368
272.	109		02	4463401	364454	5348557	284482
273.	109		03	2814102	756892	2666772	1101228
274.	109		04				
275.	109		05				
276.	111	DALLAM	01	85388	0	80297	0
277.	111		02	67744	0	66530	0
278.	111		03	57360	0	58467	0
279.	111		04				
280.	111		05				
281.	113	DALLAS	01	0	0	0	0
282.	113		02	0	0	0	0
283.	113		03	0	0	0	0
284.	113		04				
285.	113		05				
286.	115	DAWSON	01	0	9400603	0	7991139
287.	115		02	0	6866569	0	6269651
288.	115		03	0	6261103	0	6764598
289.	115		04				
290.	115		05				
291.	117	DEAF SMITH	01	0	0	0	0
292.	117		02	0	0	0	0
293.	117		03	0	0	0	0
294.	117		04				
295.	117		05				
296.	119	DELTA	01	0	0	0	0
297.	119		02	0	0	0	0
298.	119		03	0	0	0	0
299.	119		04				
300.	119		05				
301.	121	DENTON	01	2343499	18881	2945868	16607
302.	121		02	2633097	13723	1942699	11967
303.	121		03	1562649	15458	1359075	15375
304.	121		04				

305.	121		05				
306.	123	DE WITT	01	30726719	518960	26352046	528954
307.	123		02	30840800	499289	28102788	472502
308.	123		03	24793767	397515	20710110	358978
309.	123		04				
310.	123		05				
311.	125	DICKENS	01	0	282793	0	226243
312.	125		02	0	163859	0	113483
313.	125		03	0	110034	0	93179
314.	125		04				
315.	125		05				
316.	127	DIMMIT	01	14046395	3832484	12986016	3486796
317.	127		02	12378668	3286414	9796719	3440650
318.	127		03	9127412	3761439	5896799	3892782
319.	127		04				
320.	127		05				
321.	129	DONLEY	01	68771	0	41414	0
322.	129		02	54046	0	48390	0
323.	129		03	46167	0	32949	0
324.	129		04				
325.	129		05				
326.	131	DUVAL	01	40862512	4734901	36418213	4571010
327.	131		02	39192969	4349103	40417166	4063907
328.	131		03	40938561	3795209	45065544	3557126
329.	131		04				
330.	131		05				
331.	133	EASTLAND	01	5253238	792231	6072688	852263
332.	133		02	6627004	942882	7268108	1197919
333.	133		03	10452891	1805198	8737664	2463028
334.	133		04				
335.	133		05				
336.	135	ECTOR	01	61909501	62241072	65202435	59132342
337.	135		02	57779822	55799238	61894511	52233647
338.	135		03	63791121	48187607	61963546	45899359
339.	135		04				
340.	135		05				
341.	137	EDWARDS	01	9207474	3688	9907723	3546
342.	137		02	12069799	2807	10164775	3549
343.	137		03	8899307	7294	7535125	12801
344.	137		04				
345.	137		05				
346.	139	ELLIS	01	0	3783	0	3810
347.	139		02	0	2996	0	4914
348.	139		03	0	19648	0	23014
349.	139		04				
350.	139		05				
351.	141	EL PASO	01	0	0	0	0
352.	141		02	0	0	0	0
353.	141		03	0	0	0	0
354.	141		04				
355.	141		05				
356.	143	ERATH	01	2827252	10496	3029475	9924
357.	143		02	3373723	11309	4664872	9212
358.	143		03	6377324	18575	4524216	12819
359.	143		04				
360.	143		05				
361.	145	FALLS	01	591320	3761	300009	2197
362.	145		02	212906	15749	181506	30608
363.	145		03	164992	10777	90906	9859
364.	145		04				
365.	145		05				

366.	147	FANNIN	01	0	0	0	0
367.	147		02	0	0	106009	0
368.	147		03	0	0	0	0
369.	147		04				
370.	147		05				
371.	149	FAYETTE	01	29457	187222	24173	250707
372.	149		02	81484	1614082	1279798	4684216
373.	149		03	6736206	7325924	17872078	6561596
374.	149		04				
375.	149		05				
376.	151	FISHER	01	453565	7192826	426081	5688537
377.	151		02	365537	4181555	494700	3867033
378.	151		03	302783	3867482	433037	3880550
379.	151		04				
380.	151		05				
381.	153	FLOYD	01	0	5847	0	1441
382.	153		02	0	1047	0	1572
383.	153		03	0	768	0	2163
384.	153		04				
385.	153		05				
386.	155	FOARD	01	162818	213050	147455	190939
387.	155		02	159594	219335	144204	317714
388.	155		03	116758	387439	126989	493234
389.	155		04				
390.	155		05				
391.	157	FORT BEND	01	10093659	13321655	11601621	11409356
392.	157		02	16664628	9806208	21139981	8562069
393.	157		03	31347391	7354053	41294292	7019405
394.	157		04				
395.	157		05				
396.	159	FRANKLIN	01	17539130	1952077	16013267	1751374
397.	159		02	16937363	1767683	15995899	1667128
398.	159		03	14282740	1571764	12394986	1733619
399.	159		04				
400.	159		05				
401.	161	FREESTONE	01	27175843	72466	31289743	61683
402.	161		02	47488674	76502	57156318	93225
403.	161		03	52131689	85267	42682586	294234
404.	161		04				
405.	161		05				
406.	163	FRIO	01	2204723	6736099	3230379	6331860
407.	163		02	3988900	4505645	3604685	3954961
408.	163		03	2727358	3685227	2164929	3333690
409.	163		04				
410.	163		05				
411.	165	GAINES	01	2893090	58855267	3173080	60703206
412.	165		02	5301262	62091695	3932896	60270516
413.	165		03	2646489	53257653	2429543	47520145
414.	165		04				
415.	165		05				
416.	167	GALVESTON	01	168928291	6518500	166435666	6206675
417.	167		02	154948495	5038532	147473631	4220510
418.	167		03	100567149	3935305	57542540	3411297
419.	167		04				
420.	167		05				
421.	169	GARZA	01	0	6957359	0	6752054
422.	169		02	0	6847327	0	7469123
423.	169		03	0	7471502	0	7743015
424.	169		04				
425.	169		05				
426.	171	GILLESPIE	01	0	0	0	0

427.	171		02	0	0	0	0
428.	171		03	0	0	0	0
429.	171		04				
430.	171		05				
431.	173	GLASSCOCK	01	158673	4587218	474103	4538715
432.	173		02	234431	4242106	973529	4091496
433.	173		03	652722	4019401	181321	4297532
434.	173		04				
435.	173		05				
436.	175	GOLIAD	01	23621500	1165150	21427286	1062512
437.	175		02	20320171	881403	21473149	705887
438.	175		03	19747393	725129	19476372	704390
439.	175		04				
440.	175		05				
441.	177	GONZALES	01	1961057	507258	2147326	712221
442.	177		02	2231670	545776	2767399	1008383
443.	177		03	2544993	3786570	2405981	5212205
444.	177		04				
445.	177		05				
446.	179	GRAY	01	34003003	5022811	30184145	4697918
447.	179		02	29897112	4331780	27286264	3988582
448.	179		03	24859711	3852834	22945981	3769574
449.	179		04				
450.	179		05				
451.	181	GRAYSON	01	5786983	4604919	6405022	4096014
452.	181		02	7064340	3881755	5698394	3582874
453.	181		03	4764458	3361603	5836158	3603785
454.	181		04				
455.	181		05				
456.	183	GREGG	01	9484462	47217233	9217169	45882928
457.	183		02	9511671	44659782	9814023	43527927
458.	183		03	10842204	41924232	11770255	39131736
459.	183		04				
460.	183		05				
461.	185	GRIMES	01	372570	4421	852439	11119
462.	185		02	1371581	9529	3429862	19983
463.	185		03	9558245	137342	17299244	139058
464.	185		04				
465.	185		05				
466.	187	GUADALUPE	01	0	1817646	303155	1740337
467.	187		02	154683	1715449	117638	1764846
468.	187		03	96150	1750518	98422	1693105
469.	187		04				
470.	187		05				
471.	189	HALE	01	0	7725785	0	9162609
472.	189		02	0	8807174	0	7057158
473.	189		03	0	5412395	0	4468840
474.	189		04				
475.	189		05				
476.	191	HALL	01	0	0	0	0
477.	191		02	0	0	0	0
478.	191		03	0	0	0	0
479.	191		04				
480.	191		05				
481.	193	HAMILTON	01	399931	5397	282690	7276
482.	193		02	238348	7869	190473	6148
483.	193		03	119049	6122	214109	5123
484.	193		04				
485.	193		05				
486.	195	HANSFORD	01	64692937	401617	62197951	378908
487.	195		02	54968973	337056	45911290	296587

488.	195	03	36867692	368788	29091168	482341	
489.	195	04					
490.	195	05					
491.	197	HARDEMAN	01	23678	632410	16648	647714
492.	197		02	12265	850413	9089	936538
493.	197		03	7137	1098498	3060	1717984
494.	197		04				
495.	197		05				
496.	199	HARDIN	01	5787493	3043757	4109183	2989530
497.	199		02	4288907	2971285	5644291	2773478
498.	199		03	11469943	2804853	14412508	3313844
499.	199		04				
500.	199		05				
501.	201	HARRIS	01	35302499	29989102	34423916	23992846
502.	201		02	33196633	14536339	37693793	10781861
503.	201		03	32366573	9457557	29310003	8812152
504.	201		04				
505.	201		05				
506.	203	HARRISON	01	18304176	1077557	17879335	919364
507.	203		02	27862015	835157	36105856	883636
508.	203		03	38742014	88940	36605314	872251
509.	203		04				
510.	203		05				
511.	205	HARTLEY	01	11883478	0	11334359	0
512.	205		02	10007816	0	9230782	0
513.	205		03	7366808	0	6592406	0
514.	205		04				
515.	205		05				
516.	207	HASKELL	01	0	1747528	0	1493195
517.	207		02	0	1393975	0	1411542
518.	207		03	0	1409498	22136	1474171
519.	207		04				
520.	207		05				
521.	209	HAYS	01	0	0	0	0
522.	209		02	0	0	0	0
523.	209		03	0	0	0	0
524.	209		04				
525.	209		05				
526.	211	HEMPHILL	01	168791678	1181337	163103690	879518
527.	211		02	172373649	633943	164664156	661346
528.	211		03	154324855	565626	140361712	533272
529.	211		04				
530.	211		05				
531.	213	HENDERSON	01	22825327	5263912	18565879	4211727
532.	213		02	24502441	3756768	25651045	2949270
533.	213		03	40850240	3428425	44585974	3080057
534.	213		04				
535.	213		05				
536.	215	HIDALGO	01	116444103	103003	109627087	103240
537.	215		02	109658948	119653	109847364	102437
538.	215		03	113001789	112529	98487211	139995
539.	215		04				
540.	215		05				
541.	217	HILL	01	0	74	0	512
542.	217		02	0	767	0	844
543.	217		03	0	922	0	1914
544.	217		04				
545.	217		05				
546.	219	HOCKLEY	01	694054	48985428	641272	47420979
547.	219		02	509374	45259624	443215	43318942
548.	219		03	367941	41046073	521410	39115115

549.	219		04					
550.	219		05					
551.	221	HOOD	01	1458688	0	3451917	2208	
552.	221		02	3045148	1603	2478850	925	
553.	221		03	2762906	416	2450195	74	
554.	221		04					
555.	221		05					
556.	223	HOPKINS	01	4315398	1364416	4637249	1529833	
557.	223		02	6615216	1504210	5543087	1406833	
558.	223		03	4656761	1331471	2834317	1279370	
559.	223		04					
560.	223		05					
561.	225	HOUSTON	01	12774680	912087	9780253	1106003	
562.	225		02	8584293	1062632	7775420	1027769	
563.	225		03	7313728	806693	7384380	847541	
564.	225		04					
565.	225		05					
566.	227	HOWARD	01	496	14834553	876	14594540	
567.	227		02	817	14547456	21852	14676748	
568.	227		03	129284	13757548	267781	13467701	
569.	227		04					
570.	227		05					
571.	229	HUDSPETH	01	0	0	0	0	
572.	229		02	0	0	0	0	
573.	229		03	0	0	0	0	
574.	229		04					
575.	229		05					
576.	231	HUNT	01	390491	0	389955	0	
577.	231		02	304838	0	236851	1279	
578.	231		03	108354	14524	113927	16235	
579.	231		04					
580.	231		05					
581.	233	HUTCHINSON	01	44823897	2492418	39537124	2423173	
582.	233		02	36592980	2565429	33037435	2774104	
583.	233		03	28044242	2928946	22583798	3002356	
584.	233		04					
585.	233		05					
586.	235	IRION	01	2682867	2424566	5456367	2711211	
587.	235		02	5375512	2756976	6454893	2986932	
588.	235		03	7656830	3136626	6695432	3292924	
589.	235		04					
590.	235		05					
591.	237	JACK	01	22575122	1707738	21048530	1890558	
592.	237		02	21194690	2125078	24172972	2333472	
593.	237		03	24200025	2433809	25237681	2749972	
594.	237		04					
595.	237		05					
596.	239	JACKSON	01	31702600	14975770	30565978	13995261	
597.	239		02	31763838	11422611	28018657	8860381	
598.	239		03	19753929	7295768	18352810	6662923	
599.	239		04					
600.	239		05					
601.	241	JASPER	01	663813	619539	643512	602043	
602.	241		02	680881	614229	851239	610511	
603.	241		03	899910	534784	1004551	552899	
604.	241		04					
605.	241		05					
606.	243	JEFF DAVIS	01	0	0	0	0	
607.	243		02	0	0	0	11623	
608.	243		03	0	9243	0	0	
609.	243		04					

610.	243		05				
611.	245	JEFFERSON	01	74197636	3809457	77078446	4061290
612.	245		02	63893410	3819880	96420832	3513509
613.	245		03	91616157	3501409	76663975	3296208
614.	245		04				
615.	245		05				
616.	247	JIM HOGG	01	20887549	514750	18983545	489749
617.	247		02	16950127	499036	14798660	503441
618.	247		03	11434913	569315	12047688	596897
619.	247		04				
620.	247		05				
621.	249	JIM WELLS	01	152366432	2536364	134383902	2028089
622.	249		02	121107960	1495945	93270375	1429924
623.	249		03	83925685	1304145	71145452	1075739
624.	249		04				
625.	249		05				
626.	251	JOHNSON	01	0	0	0	0
627.	251		02	0	0	0	0
628.	251		03	0	0	0	0
629.	251		04				
630.	251		05				
631.	253	JONES	01	828	1864333	9606	1634039
632.	253		02	55936	1620327	19214	1870373
633.	253		03	0	2258158	83976	2622398
634.	253		04				
635.	253		05				
636.	255	KARNES	01	23945847	1075332	22855890	891652
637.	255		02	20207030	800651	19787864	767742
638.	255		03	20211348	791011	16426667	634173
639.	255		04				
640.	255		05				
641.	257	KAUFMAN	01	0	300639	0	233959
642.	257		02	0	192758	0	201654
643.	257		03	124850	278848	377910	261613
644.	257		04				
645.	257		05				
646.	259	KENDALL	01	0	0	0	0
647.	259		02	0	0	0	0
648.	259		03	0	0	0	0
649.	259		04				
650.	259		05				
651.	261	KENEDY	01	70219962	298566	54266822	317896
652.	261		02	57047499	294342	56657853	282826
653.	261		03	69220486	357882	72105730	420856
654.	261		04				
655.	261		05				
656.	263	KENT	01	0	15797254	0	13849900
657.	263		02	0	13106087	0	11316272
658.	263		03	0	10634180	0	10525205
659.	263		04				
660.	263		05				
661.	265	KERR	01	0	0	0	0
662.	265		02	0	0	0	0
663.	265		03	0	0	0	10396
664.	265		04				
665.	265		05				
666.	267	KIMBLE	01	938286	1112	416559	5493
667.	267		02	335129	4509	231221	4909
668.	267		03	238280	2644	295406	2388
669.	267		04				
670.	267		05				

671.	269	KING	01	1476088	4242575	977664	4264412
672.	269		02	1822535	3752872	2634415	3560515
673.	269		03	4703352	3357776	3134997	3493369
674.	269		04				
675.	269		05				
676.	271	KINNEY	01	0	0	0	0
677.	271		02	0	0	0	0
678.	271		03	0	0	0	0
679.	271		04				
680.	271		05				
681.	273	KLEBERG	01	420655810	2799551	391684430	3122630
682.	273		02	325855830	3508544	254925506	3753287
683.	273		03	230440425	3307514	202712617	2827788
684.	273		04				
685.	273		05				
686.	275	KNOX	01	0	820631	0	768120
687.	275		02	0	738101	0	800544
688.	275		03	0	991408	0	1421964
689.	275		04				
690.	275		05				
691.	277	LAMAR	01	0	0	0	0
692.	277		02	0	0	0	0
693.	277		03	0	0	0	0
694.	277		04				
695.	277		05				
696.	279	LAMB	01	0	1745121	819387	1093087
697.	279		02	1557451	1124130	1156981	1219655
698.	279		03	1042069	1128053	0	1103238
699.	279		04				
700.	279		05				
701.	281	LAMPASAS	01	0	0	0	0
702.	281		02	0	0	0	0
703.	281		03	0	0	0	0
704.	281		04				
705.	281		05				
706.	283	LA SALLE	01	4351844	581947	5163082	492060
707.	283		02	5136691	351116	4679649	245307
708.	283		03	4531653	399610	4668423	505611
709.	283		04				
710.	283		05				
711.	285	LAVACA	01	41047108	418262	40798375	360133
712.	285		02	42260132	418078	47363427	374695
713.	285		03	45696361	388859	44344646	468572
714.	285		04				
715.	285		05				
716.	287	LEE	01	834691	896538	996646	3192057
717.	287		02	5395964	6016657	15787660	8113802
718.	287		03	20301324	9547443	14894878	9972995
719.	287		04				
720.	287		05				
721.	289	LEON	01	3265000	246052	3235036	272865
722.	289		02	3680185	255250	4852064	267521
723.	289		03	7070420	333669	9536499	346320
724.	289		04				
725.	289		05				
726.	291	LIBERTY	01	8470259	5080150	7057223	4485563
727.	291		02	8803536	3936637	7392270	3674187
728.	291		03	6870063	3417082	6250400	3228271
729.	291		04				
730.	291		05				
731.	293	LIMESTONE	01	6197522	166996	8080887	174365

732.	293		02	11271401	134630	12087744	157564
733.	293		03	22153825	150471	19383471	168079
734.	293		04				
735.	293		05				
736.	295	LIPSCOMB	01	40257607	553606	39647160	618194
737.	295		02	47558207	990501	61662346	910181
738.	295		03	72994001	1003500	60970151	1550484
739.	295		04				
740.	295		05				
741.	297	LIVE OAK	01	30077770	747523	31401300	710608
742.	297		02	44206700	684640	54772130	705139
743.	297		03	65025618	746639	83877663	778374
744.	297		04				
745.	297		05				
746.	299	LLANO	01	0	0	7509	0
747.	299		02	136121	0	86031	0
748.	299		03	0	0	0	0
749.	299		04				
750.	299		05				
751.	301	LOVING	01	65088239	964400	54225586	999973
752.	301		02	45843070	1081613	40608021	1182756
753.	301		03	58765254	1259593	54841771	1292507
754.	301		04				
755.	301		05				
756.	303	LUBBOCK	01	0	783830	0	1061683
757.	303		02	0	1285952	0	1415352
758.	303		03	0	1625981	0	1953145
759.	303		04				
760.	303		05				
761.	305	LYNN	01	0	248160	0	218621
762.	305		02	0	275896	0	312446
763.	305		03	0	335927	0	386642
764.	305		04				
765.	305		05				
766.	307	MCCULLOCH	01	321325	12769	304333	19074
767.	307		02	596564	14696	558504	10175
768.	307		03	222310	7429	460510	5176
769.	307		04				
770.	307		05				
771.	309	MCLENNAN	01	0	416	0	2910
772.	309		02	0	1398	0	2234
773.	309		03	0	6725	0	7832
774.	309		04				
775.	309		05				
776.	311	MCMULLEN	01	28442467	1204164	29128431	893407
777.	311		02	26823427	647689	27402913	543879
778.	311		03	27614631	529487	20209632	899661
779.	311		04				
780.	311		05				
781.	313	MADISON	01	10632659	600056	6935699	729105
782.	313		02	6350020	829367	7156826	945639
783.	313		03	7041951	982135	6652239	1308239
784.	313		04				
785.	313		05				
786.	315	MARION	01	4777522	537353	6186806	455092
787.	315		02	6544240	427322	5139639	410543
788.	315		03	5136020	395452	3987033	381918
789.	315		04				
790.	315		05				
791.	317	MARTIN	01	126888	10267271	61766	9586669
792.	317		02	60357	9283261	45737	8819505

793.	317	03	51805	8576375	44268	8859306	
794.	317	04					
795.	317	05					
796.	319	MASON	01	0	0	0	
797.	319		02	0	0	0	
798.	319		03	0	0	0	
799.	319		04				
800.	319		05				
801.	321	MATAGORDA	01	115005514	3458667	108312348	2631523
802.	321		02	107391226	2238110	142522863	2029403
803.	321		03	135172810	1900039	97440054	1819422
804.	321		04				
805.	321		05				
806.	323	MAVERICK	01	2064936	1185319	3012014	1290413
807.	323		02	5994112	1292809	4553416	1310220
808.	323		03	3163665	1339977	3233446	1448823
809.	323		04				
810.	323		05				
811.	325	MEDINA	01	257167	240181	142434	231989
812.	325		02	136649	230718	103647	248123
813.	325		03	157578	282852	115529	299669
814.	325		04				
815.	325		05				
816.	327	MENARD	01	643613	182897	422553	208672
817.	327		02	272514	148846	196976	132214
818.	327		03	266943	170241	230514	167903
819.	327		04				
820.	327		05				
821.	329	MIDLAND	01	46983292	7333026	41438065	6426969
822.	329		02	37749379	6188648	35413458	6411543
823.	329		03	35220190	6721474	30682667	7099212
824.	329		04				
825.	329		05				
826.	331	MILAM	01	298320	231303	465136	253850
827.	331		02	281699	217610	262334	227756
828.	331		03	209947	252434	141999	298535
829.	331		04				
830.	331		05				
831.	333	MILLS	01	0	0	0	0
832.	333		02	0	0	0	0
833.	333		03	0	0	0	28122
834.	333		04				
835.	333		05				
836.	335	MITCHELL	01	162479	5401970	27318	5792932
837.	335		02	273905	5984728	688749	6242958
838.	335		03	517016	6397192	495098	6568751
839.	335		04				
840.	335		05				
841.	337	MONTAGUE	01	364027	2562767	601706	2362021
842.	337		02	435465	2274703	562200	2492007
843.	337		03	1075982	2488678	866645	2452140
844.	337		04				
845.	337		05				
846.	339	MONTGOMERY	01	12883788	21208634	7887337	21994990
847.	339		02	6438677	20829753	5534186	16960263
848.	339		03	5609685	11537139	5576350	9200262
849.	339		04				
850.	339		05				
851.	341	MOORE	01	216494832	375684	192857140	423808
852.	341		02	176278915	383317	162587133	385243
853.	341		03	139649797	520726	117477283	672069

854.	341		04					
855.	341		05					
856.	343	MORRIS	01	0	0	0	0	0
857.	343		02	0	0	0	0	0
858.	343		03	0	0	0	0	0
859.	343		04					
860.	343		05					
861.	345	MOTLEY	01	0	216387	0	185296	
862.	345		02	0	165809	0	155571	
863.	345		03	0	122604	0	122025	
864.	345		04					
865.	345		05					
866.	347	NACOGDOCHES	01	31287806	16424	34895507	14356	
867.	347		02	37214228	16754	30027012	15730	
868.	347		03	31270567	16406	36969883	32143	
869.	347		04					
870.	347		05					
871.	349	NAVARRO	01	7662851	661242	8893734	612555	
872.	349		02	6899479	747552	7670325	1330385	
873.	349		03	9284598	1622682	7853549	1134186	
874.	349		04					
875.	349		05					
876.	351	NEWTON	01	1070673	728499	1010486	632366	
877.	351		02	884238	613216	795772	567746	
878.	351		03	1639438	561040	1250481	558490	
879.	351		04					
880.	351		05					
881.	353	NOLAN	01	918008	2877236	643944	2395633	
882.	353		02	422900	2289566	632736	2591449	
883.	353		03	781018	2720758	2547191	2848407	
884.	353		04					
885.	353		05					
886.	355	NUECES	01	146179359	3811981	137109915	3203718	
887.	355		02	148488494	2795143	140130801	2495308	
888.	355		03	114657792	2568036	106296737	2544461	
889.	355		04					
890.	355		05					
891.	357	OCHILTREE	01	37513298	3320009	33330111	2717377	
892.	357		02	33182553	2341928	32171076	2234297	
893.	357		03	30673490	2654945	31105142	2870607	
894.	357		04					
895.	357		05					
896.	359	OLDHAM	01	1319132	242260	1125575	242467	
897.	359		02	1085236	575870	960746	708394	
898.	359		03	888210	742834	809702	1558394	
899.	359		04					
900.	359		05					
901.	361	ORANGE	01	2298535	863039	1996874	790607	
902.	361		02	2144112	721445	2805219	755898	
903.	361		03	3382294	798819	3523487	756520	
904.	361		04					
905.	361		05					
906.	363	PALO PINTO	01	26288291	238405	25556831	367254	
907.	363		02	26882676	283348	30164973	278524	
908.	363		03	29790422	275175	28547922	245109	
909.	363		04					
910.	363		05					
911.	365	PANOLA	01	84077264	562799	104756009	524345	
912.	365		02	129027668	614183	144001821	636909	
913.	365		03	137832194	586643	130800053	615878	
914.	365		04					

915.	365		05					
916.	367	PARKER	01	17512553	28564	25385658	34100	
917.	367		02	49256402	54321	47513041	79604	
918.	367		03	39040814	72692	32600897	65233	
919.	367		04					
920.	367		05					
921.	369	PARMER	01	0	0	0	0	
922.	369		02	0	0	0	0	
923.	369		03	0	0	0	0	
924.	369		04					
925.	369		05					
926.	371	PECOS	01	583195725	41484484	492400064	44637653	
927.	371		02	469375668	50512922	439126049	50565026	
928.	371		03	378133049	51808536	274741143	50472279	
929.	371		04					
930.	371		05					
931.	373	POLK	01	11995526	960998	12126192	847516	
932.	373		02	17062218	1185399	17785239	883473	
933.	373		03	18427489	790524	17915547	703001	
934.	373		04					
935.	373		05					
936.	375	POTTER	01	84201401	446961	74833652	434560	
937.	375		02	64823663	394562	61236079	431402	
938.	375		03	50458812	504721	48476960	381341	
939.	375		04					
940.	375		05					
941.	377	PRESIDIO	01	0	0	0	0	
942.	377		02	0	0	0	994	
943.	377		03	0	879	0	0	
944.	377		04					
945.	377		05					
946.	379	RAINS	01	5315909	0	3974645	0	
947.	379		02	3575559	0	3933430	0	
948.	379		03	3441788	0	3380905	0	
949.	379		04					
950.	379		05					
951.	381	RANDALL	01	0	0	0	0	
952.	381		02	0	0	0	0	
953.	381		03	0	0	0	0	
954.	381		04					
955.	381		05					
956.	383	REAGAN	01	969778	6886043	1146101	6454672	
957.	383		02	1172576	6374188	979742	6591064	
958.	383		03	860499	7021596	1276563	7457385	
959.	383		04					
960.	383		05					
961.	385	REAL	01	0	0	0	0	
962.	385		02	0	0	0	0	
963.	385		03	0	0	0	0	
964.	385		04					
965.	385		05					
966.	387	RED RIVER	01	0	14700	36215	21040	
967.	387		02	2308	28990	0	69527	
968.	387		03	0	69067	0	65066	
969.	387		04					
970.	387		05					
971.	389	REEVES	01	119620551	1226462	106805253	1149217	
972.	389		02	107060957	1099084	96128310	1019881	
973.	389		03	80632450	1068981	65126748	1253246	
974.	389		04					
975.	389		05					

976.	391	REFUGIO	01	65769640	35792377	55127105	34705410
977.	391		02	84295352	31430931	90116551	28536219
978.	391		03	91957845	25304898	56470457	23483771
979.	391		04				
980.	391		05				
981.	393	ROBERTS	01	70179264	390735	63183802	385832
982.	393		02	59837986	453106	46351256	832844
983.	393		03	40461042	1030434	35297745	796205
984.	393		04				
985.	393		05				
986.	395	ROBERTSON	01	485114	10833	1171035	9732
987.	395		02	1534090	10968	2109090	12549
988.	395		03	2178868	38720	4777436	30897
989.	395		04				
990.	395		05				
991.	397	ROCKWALL	01	0	0	0	0
992.	397		02	0	0	0	0
993.	397		03	0	0	0	0
994.	397		04				
995.	397		05				
996.	399	RUNNELS	01	1414217	1731444	1257365	2101813
997.	399		02	1555115	1809795	1799156	1797948
998.	399		03	2979270	2203609	2851463	2346513
999.	399		04				
1000.	399		05				
1001.	401	RUSK	01	14729499	16693504	19355305	15813787
1002.	401		02	27483104	15213918	36796346	14924572
1003.	401		03	50450524	14639197	46293706	14746802
1004.	401		04				
1005.	401		05				
1006.	403	SABINE	01	0	0	0	0
1007.	403		02	0	0	0	0
1008.	403		03	3876	18117	58744	36244
1009.	403		04				
1010.	403		05				
1011.	405	SAN AUGUSTINE	01	0	0	0	0
1012.	405		02	0	0	0	0
1013.	405		03	25260	0	43490	483
1014.	405		04				
1015.	405		05				
1016.	407	SAN JACINTO	01	3585638	36484	5743881	101577
1017.	407		02	3752711	79662	4201525	73834
1018.	407		03	4036704	60189	4738038	91742
1019.	407		04				
1020.	407		05				
1021.	409	SAN PATRICIO	01	35774903	3239543	32405183	2922264
1022.	409		02	44457123	2784482	46569714	3076449
1023.	409		03	48356358	2825143	37903839	2506860
1024.	409		04				
1025.	409		05				
1026.	411	SAN SABA	01	0	0	0	0
1027.	411		02	0	0	0	0
1028.	411		03	0	0	275198	0
1029.	411		04				
1030.	411		05				
1031.	413	SCHLEICHER	01	16407778	858114	16921368	855226
1032.	413		02	17302618	813590	16981955	900927
1033.	413		03	16962628	1047842	16585286	1143746
1034.	413		04				
1035.	413		05				
1036.	415	SCURRY	01	0	70745781	0	58074266

1037.	415		02	0	48187208	0	39377274
1038.	415		03	0	34940136	0	31731929
1039.	415		04				
1040.	415		05				
1041.	417	SHACKELFORD	01	4404287	2240666	3703199	2065704
1042.	417		02	4090896	1929573	3521588	1854663
1043.	417		03	3598351	1878806	3192705	2054805
1044.	417		04				
1045.	417		05				
1046.	419	SHELBY	01	4114339	81709	4182464	40951
1047.	419		02	3545994	23864	5865191	26682
1048.	419		03	4570796	22749	6858807	24416
1049.	419		04				
1050.	419		05				
1051.	421	SHERMAN	01	57974789	95356	54035026	133208
1052.	421		02	51214887	142090	49593974	136461
1053.	421		03	44957727	142879	41151447	102037
1054.	421		04				
1055.	421		05				
1056.	423	SMITH	01	7708168	4045050	10028305	3717282
1057.	423		02	11066160	3569889	9615211	3345919
1058.	423		03	9741989	3442699	9729412	3823476
1059.	423		04				
1060.	423		05				
1061.	425	SOMERVELL	01	0	0	15220	0
1062.	425		02	27500	0	98460	0
1063.	425		03	72211	0	51235	0
1064.	425		04				
1065.	425		05				
1066.	427	STARR	01	54929906	2839983	50244371	2518173
1067.	427		02	45684610	2167880	44023375	2053522
1068.	427		03	42920765	1813755	40471564	1641749
1069.	427		04				
1070.	427		05				
1071.	429	STEPHENS	01	8177370	3589749	7238887	3869658
1072.	429		02	8900603	4305610	9044194	4586208
1073.	429		03	8417646	4719240	9227609	4955578
1074.	429		04				
1075.	429		05				
1076.	431	STERLING	01	6322616	1685088	5938573	1915946
1077.	431		02	6963096	1918072	7931193	1827373
1078.	431		03	7058056	2106194	7636295	2517081
1079.	431		04				
1080.	431		05				
1081.	433	STONEWALL	01	11933	4694325	2021	4428280
1082.	433		02	0	4390440	0	4203583
1083.	433		03	0	4410853	0	4423007
1084.	433		04				
1085.	433		05				
1086.	435	SUTTON	01	65684246	60660	63277035	66419
1087.	435		02	68776136	66817	63866379	60455
1088.	435		03	61562365	77442	56380657	105359
1089.	435		04				
1090.	435		05				
1091.	437	SWISHER	01	0	0	0	0
1092.	437		02	0	0	0	0
1093.	437		03	20015	0	0	0
1094.	437		04				
1095.	437		05				
1096.	439	TARRANT	01	9701	0	7960	0
1097.	439		02	3421	0	5386	0

1098.	439		03	16648	0	90249	0
1099.	439		04				
1100.	439		05				
1101.	441	TAYLOR	01	308452	3028632	430453	2935581
1102.	441		02	622758	2631303	467936	2378532
1103.	441		03	415031	2104265	295339	2266860
1104.	441		04				
1105.	441		05				
1106.	443	TERRELL	01	33720525	2324	32122416	3248
1107.	443		02	27933206	20570	47395712	69917
1108.	443		03	46644212	67468	31015931	47330
1109.	443		04				
1110.	443		05				
1111.	445	TERRY	01	3721358	13169893	3002171	12199056
1112.	445		02	3452414	12718569	2669833	14121690
1113.	445		03	1665551	13807653	1842433	14375681
1114.	445		04				
1115.	445		05				
1116.	447	THROCKMORTON	01	141476	1471366	89189	1496423
1117.	447		02	218461	1599175	207767	1546470
1118.	447		03	461998	1719897	520063	1779269
1119.	447		04				
1120.	447		05				
1121.	449	TITUS	01	0	2085506	0	2031012
1122.	449		02	0	2083109	0	2076845
1123.	449		03	0	2133405	0	2044405
1124.	449		04				
1125.	449		05				
1126.	451	TOM GREEN	01	1125370	1978477	2066957	1846199
1127.	451		02	2053258	1924363	1812494	2205689
1128.	451		03	1422206	2028088	1353760	2351552
1129.	451		04				
1130.	451		05				
1131.	453	TRAVIS	01	0	5873	0	4783
1132.	453		02	0	2127	0	4224
1133.	453		03	0	7136	0	8438
1134.	453		04				
1135.	453		05				
1136.	455	TRINITY	01	193006	2835	55101	3291
1137.	455		02	30564	3084	678869	1824
1138.	455		03	244447	1446	182169	999
1139.	455		04				
1140.	455		05				
1141.	457	TYLER	01	9820443	447629	10008464	391171
1142.	457		02	11031957	356924	8439946	321181
1143.	457		03	6468751	284446	3540129	278775
1144.	457		04				
1145.	457		05				
1146.	459	UPSHUR	01	11242041	1624254	14454000	1398757
1147.	459		02	13937111	1252443	15553445	1094869
1148.	459		03	20973796	922916	24514652	746541
1149.	459		04				
1150.	459		05				
1151.	461	UPTON	01	17826186	10914941	15158530	10828535
1152.	461		02	12987092	10548355	13312474	10396395
1153.	461		03	13130506	10224951	12123576	10706000
1154.	461		04				
1155.	461		05				
1156.	463	UVALDE	01	1764	0	0	0
1157.	463		02	0	0	18892	0
1158.	463		03	62844	0	0	0

1159.	463		O4				
1160.	463		O5				
1161.	465	VAL VERDE	O1	6117599	3161	8433450	2173
1162.	465		O2	9342374	3297	9821043	2738
1163.	465		O3	12222326	2701	8289867	1764
1164.	465		O4				
1165.	465		O5				
1166.	467	VAN ZANDT	O1	11765119	12878172	11688943	9853980
1167.	467		O2	11619422	8131466	13983323	6099733
1168.	467		O3	13057637	4014315	12652758	3448974
1169.	467		O4				
1170.	467		O5				
1171.	469	VICTORIA	O1	33055757	2608771	27265950	2383230
1172.	469		O2	26798420	2140679	25167135	2192297
1173.	469		O3	20501495	2062752	18647981	1984139
1174.	469		O4				
1175.	469		O5				
1176.	471	WALKER	O1	408579	4660	809821	3746
1177.	471		O2	1085866	3237	1232146	5696
1178.	471		O3	839532	5924	856503	5400
1179.	471		O4				
1180.	471		O5				
1181.	473	WALLER	O1	267969192	82128	248590555	85690
1182.	473		O2	251599989	62555	247320072	66652
1183.	473		O3	172370863	59132	139264619	71891
1184.	473		O4				
1185.	473		O5				
1186.	475	WARD	O1	240330858	7648200	182606512	8318466
1187.	475		O2	188638598	7934188	172816783	8956155
1188.	475		O3	157279976	8705423	122242679	8710677
1189.	475		O4				
1190.	475		O5				
1191.	477	WASHINGTON	O1	220361	161057	126902	159587
1192.	477		O2	167112	229464	685176	279507
1193.	477		O3	1613786	269521	2830107	460052
1194.	477		O4				
1195.	477		O5				
1196.	479	WEBB	O1	71876224	1298613	56620108	1341512
1197.	479		O2	91422959	1252968	122805616	963614
1198.	479		O3	132471241	863508	106351146	871669
1199.	479		O4				
1200.	479		O5				
1201.	481	WHARTON	O1	50087254	3786090	46479889	3487645
1202.	481		O2	47534759	3427253	42125935	3294212
1203.	481		O3	34978404	3113898	32483640	3328171
1204.	481		O4				
1205.	481		O5				
1206.	483	WHEELER	O1	81581667	872574	71903661	1078360
1207.	483		O2	103410983	1410712	96332757	1050935
1208.	483		O3	85889417	887358	81402841	820749
1209.	483		O4				
1210.	483		O5				
1211.	485	WICHITA	O1	0	6128918	0	6162611
1212.	485		O2	0	6087815	0	5980457
1213.	485		O3	0	5735541	0	5288864
1214.	485		O4				
1215.	485		O5				
1216.	487	WILBARGER	O1	3790	2499476	16634	2190463
1217.	487		O2	11257	1960161	7073	1892128
1218.	487		O3	4656	2117724	10466	1968615
1219.	487		O4				

1220.	487		05					
1221.	489	WILLACY	01	17359622	1221363	13568766	1220553	
1222.	489		02	16529757	1311589	17342020	1281823	
1223.	489		03	27595342	1347620	27035730	1496887	
1224.	489		04					
1225.	489		05					
1226.	491	WILLIAMSON	01	0	20615	0	21171	
1227.	491		02	0	20935	0	22408	
1228.	491		03	0	18547	0	16271	
1229.	491		04					
1230.	491		05					
1231.	493	WILSON	01	0	833876	0	758550	
1232.	493		02	641362	674508	540726	818572	
1233.	493		03	572765	1476827	1053572	1903702	
1234.	493		04					
1235.	493		05					
1236.	495	WINKLER	01	190152617	8706843	168098743	8832983	
1237.	495		02	161186670	8634052	154194902	8100190	
1238.	495		03	133287512	8031011	99074269	7955914	
1239.	495		04					
1240.	495		05					
1241.	497	WISE	01	69900955	2102833	68145478	2274988	
1242.	497		02	65134421	2126608	70693985	2058274	
1243.	497		03	70148692	2087703	74971018	2022421	
1244.	497		04					
1245.	497		05					
1246.	499	WOOD	01	8465779	38223264	10909197	32512386	
1247.	499		02	19112468	28435803	16288016	25903774	
1248.	499		03	18436225	20686135	17235565	17767454	
1249.	499		04					
1250.	499		05					
1251.	501	YOAKUM	01	0	74354617	0	71164311	
1252.	501		02	0	67345328	0	60771167	
1253.	501		03	2100	53217597	471054	48442386	
1254.	501		04					
1255.	501		05					
1256.	503	YOUNG	01	2110947	2633849	2469226	2617924	
1257.	503		02	3197096	2546574	4658975	2746820	
1258.	503		03	4617191	3449007	4914391	3871126	
1259.	503		04					
1260.	503		05					
1261.	505	ZAPATA	01	65413526	236668	56207456	206636	
1262.	505		02	83738284	180721	96269729	188774	
1263.	505		03	107044315	304001	96076758	355897	
1264.	505		04					
1265.	505		05					
1266.	507	ZAVALA	01	4484497	1101914	5496589	1153259	
1267.	507		02	5574503	1018919	8154783	841308	
1268.	507		03	9803290	872376	12332437	926765	
1269.	507		04					
1270.	507		05					

APPENDIX H

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GETnn - Extracts a Set of Drilling Permit Records	105
GET13 Program Listing	106
Example of GET13 Output	107

GETnn - Extracts a Set of Drilling Permit Records

Extracts a set of permit records from the Permit Master File; copies these records to a PERMITnn file; and produces a list of activity dates and locations for each record.

INPUTS:

1. ROGFDM tape files.
2. &SELECT card containing county numbers for extracted set.

OUTPUTS:

1. PERMITnn file of extracted permits.
2. List of drilling permit dates and locations.

NOTES:

1. Since the program must read the entire ROGFDM file, it executes for a comparatively long time and should be run only at low priority. See the JOB card for estimates of run times.
2. The PERMITnn file should be pre-allocated to avoid a B37 ABEND when disk space cannot be found during execution.

```

1. //GET13 JOB (W259,503C,007,15,DM), 'CITIES'
2. //*TAMU PRTY=2
3. //VER1 EXEC FORTXCG,REGION.GO=256K,PARAM.GO='SIZE=256K'
4. //FORT.SYSIN DD *
5. C
6. C THIS ROUTINE EXTRACTS PERMIT MASTER RECORDS FOR A SET
7. C OF SPECIFIC (NUMBERED) COUNTIES. (NO MORE THAN 12)
8. C
9. C INTEGER IN(18),COPY(77)
10. C INTEGER CTY(12)/12*00/
11. C
12. C NAMELIST /SELECT/ CTY
13. C
14. C -----
15. C
16. C READ(5,SELECT,END=900)
17. C
18. C NR=0
19. C 10 CONTINUE
20. C READ(11,20,END=900) IN,COPY
21. C 20 FORMAT(I6,3I2,T19,I3,T162,3I2,T186,3I2,T222,I4,T231,A4,A2,
22. C * T237,3A4,T250,A1, T1,77A4 )
23. C DO 25 J=1,12
24. C NCTY= 2* CTY(J) -1
25. C IF( IN(5).EQ.NCTY ) GO TO 30
26. C 25 CONTINUE
27. C GO TO 10
28. C
29. C
30. C 30 CONTINUE
31. C WRITE(6,40) IN
32. C 40 FORMAT( T2,I6,T10,I2,2(' '//,I2), T20,I3,T25,I2,2(' '//,I2),
33. C 2X,I2,2(' '//,I2),5X,
34. C I4,2X,A4,A2, 2X,3A4,3X,A1 )
35. C WRITE(12,50) COPY
36. C 50 FORMAT( 77A4 )
37. C NR=NR+1
38. C GO TO 10
39. C
40. C 900 CONTINUE
41. C WRITE(6,60) NR
42. C 60 FORMAT( ////,T5,'THERE ARE',I6,' RECORDS IN THE PERMIT FILE' )
43. C
44. C STOP
45. C END
46. //GO.FT11FOO1 DD DISP=OLD,UNIT=(TAPE9,,DEFER),LABEL=(,SL),
47. // VOL=SER=000577,DSN=V.OG.ROGFDM
48. // DD DISP=OLD,UNIT=(TAPE9,,DEFER),LABEL=(,SL),
49. // VOL=SER=000578,DSN=V.OG.ROGFDM
50. //GO.FT12FOO1 DD DISP=OLD,DSN=USR.W259.DM.PERMIT13
51. //GO.SYSIN DD *
52. &SELECT CTY=8,29,45,62,75,89,120,143,161,235,241 &END

```

2	6/ 6/77	321	8/23/77	9/ 7/77	8 SW	PALACIOS	D
3	6/ 6/77	321	0/ 0/ 0	7/ 1/77	18 SOUTH	PALACIOS	H
42	6/ 6/77	177	0/ 0/ 0	5/29/79	1 EAST	COST	O
53	6/ 6/77	239	0/ 0/ 0	6/27/77	5 SE	EDNA	D
55	6/ 6/77	285	0/ 0/ 0	6/22/77	4 WEST	VIENNA	D
57	6/ 6/77	57	0/ 0/ 0	4/23/82	6 NE	SEADRIFT	D
59	8/ 8/77	469	0/ 0/ 0	0/ 0/ 0	3 SW	VICTORIA	
63	6/ 6/77	469	0/ 0/ 0	0/ 0/ 0	3 SE	MCFADDIN	
65	6/ 6/77	123	0/ 0/ 0	0/ 0/ 0	2 NORTH	THOMASTON	
69	6/ 6/77	15	9/ 9/77	0/ 0/ 0	7 SW	SEALY	
81	7/25/77	481	0/ 0/ 0	9/27/78	4 NORTH	NEW TAITON	P
156	6/14/77	285	6/22/77	3/19/79	15 SSE	HALLETTSVILL	P
159	6/ 7/77	285	0/ 0/ 0	0/ 0/ 0	5 SOUTH	HOPE	
160	6/ 7/77	285	0/ 0/ 0	0/ 0/ 0	17 WEST	GARWOOD	
163	6/ 7/77	285	0/ 0/ 0	11/ 4/77	4 S	EZZELL	D
165	6/ 7/77	57	0/ 0/ 0	0/ 0/ 0	8 ENE	PT. COMFORT	
224	6/ 8/77	239	0/ 0/ 0	0/ 0/ 0	5 SE	GANADO	
226	6/ 8/77	57	0/ 0/ 0	0/ 0/ 0	6 SW	PORT LAVACA	
228	6/ 8/77	15	0/ 0/ 0	3/ 3/77	3 ESE	NEW ULM	W
229	6/ 8/77	239	0/ 0/ 0	0/ 0/ 0	1 SE	VANDERBILT	
233	10/ 4/77	481	0/ 0/ 0	0/ 0/ 0	7 SW	EL CAMPO	
235	7/25/77	481	0/ 0/ 0	0/ 0/ 0	3 NW	KENDLETON	
303	5/23/77	89	0/ 0/ 0	0/ 0/ 0	4 NW	GARWOOD	
306	6/ 9/77	285	0/ 0/ 0	0/ 0/ 0	4 EAST	EZZELL	
308	6/ 9/77	239	8/ 5/77	8/10/77	7 WEST	EDNA	H
309	7/19/77	469	0/ 0/ 0	0/ 0/ 0	5 SE	NURSERY	
316	6/ 9/77	15	0/ 0/ 0	0/ 0/ 0	6 EAST	NEW ULM	
360	6/ 9/77	177	0/ 0/ 0	4/25/79	3 NNE	NIXON	D
407	6/10/77	123	0/ 0/ 0	0/ 0/ 0	2 NORTH	MEYERSVILLE	
412	6/10/77	123	0/ 0/ 0	0/ 0/ 0	15 EAST	CUERO	
413	6/ 9/77	123	0/ 0/ 0	11/14/79	2 EAST	ARNECKEVILLE	P
414	6/10/77	285	0/ 0/ 0	1/25/78	3 EAST	HOPE	D
416	6/10/77	15	0/ 0/ 0	6/19/77	3 SW	CAT SPRING	D
419	6/10/77	481	0/ 0/ 0	6/20/77	4 NORTH	NEW TAITON	D
420	10/ 4/77	89	6/25/77	0/ 0/ 0	10 WEST	GARWOOD	
424	6/10/77	321	0/ 0/ 0	12/31/79	13 SW	PALACIOS	A
425	6/10/77	321	0/ 0/ 0	7/ 3/77	12 SW	PALACIOS	H
496	6/13/77	469	10/ 1/77	0/ 0/ 0	14 SOUTH	VICTORIA	
498	6/13/77	123	6/30/77	0/ 0/ 0	2 NE	MEYERSVILLE	
499	6/13/77	123	7/ 8/77	0/ 0/ 0	2 NE	MEYERSVILLE	
500	6/13/77	285	0/ 0/ 0	0/ 0/ 0	6 SE	SPEAKS	
502	11/10/77	321	0/ 0/ 0	0/ 0/ 0	6 SE	BAY CITY	
503	6/13/77	123	0/ 0/ 0	0/ 0/ 0	6 WEST	MEYERSVILLE	
506	8/ 2/77	285	6/26/77	0/ 0/ 0	13 SOUTH	SUBLIM	
511	11/ 2/77	89	7/ 1/77	0/ 0/ 0	4 SW	WEIMAR	
513	6/13/77	481	7/ 3/77	8/25/78	9 SE	EL CAMPO	D
517	6/13/77	481	0/ 0/ 0	0/ 0/ 0	5 NE	NEW TAITON	
523	6/13/77	481	0/ 0/ 0	0/ 0/ 0	6 NORTH	HUNGERFORD	
524	6/13/77	481	11/ 6/77	11/17/77	2 NW	MAGNET	D
649	8/10/77	469	6/13/77	0/ 0/ 0	17 NW	VICTORIA	
660	6/14/77	469	0/ 0/ 0	0/ 0/ 0	4 NW	VICTORIA	
664	6/14/77	239	0/ 0/ 0	0/ 0/ 0	6 SE	VANDERBILT	
668	10/31/77	57	7/24/77	1/ 3/80	2 SE	SEADRIFT	G
670	8/10/77	469	0/ 0/ 0	0/ 0/ 0	3 N	VICTORIA	
671	8/10/77	469	6/26/77	0/ 0/ 0	3 N	VICTORIA	
674	10/18/77	285	8/14/77	9/ 9/77	3 SE	YOAKUM	A
675	6/14/77	469	8/ 8/77	8/17/77	2 WEST	MISSION VALL	H
681	6/14/77	469	7/ 6/77	9/19/78	5 SW	MISSION VALL	P
726	6/15/77	15	0/ 0/ 0	6/18/78	6 SSW	HEMPSTEAD	A
734	6/15/77	239	0/ 0/ 0	0/ 0/ 0	3 SE	VANDERBILT	

197694	6/ 8/83	321	0/ 0/ 0	0/ 0/ 0	4 SW	PALACIOS
197700	6/ 8/83	469	0/ 0/ 0	0/ 0/ 0	4 NW	NURSERY
197702	6/ 8/83	177	0/ 0/ 0	0/ 0/ 0	2 SW	COST
197729	5/31/83	239	0/ 0/ 0	0/ 0/ 0	3 SE	VANDERBILT
197803	6/ 9/83	469	0/ 0/ 0	0/ 0/ 0	2 SE	VICTORIA
197811	6/ 9/83	321	0/ 0/ 0	0/ 0/ 0	1 S	CLEMVILLE
197834	6/ 9/83	57	0/ 0/ 0	0/ 0/ 0	2 NE	SEADRIFT
197841	5/26/83	239	0/ 0/ 0	0/ 0/ 0	5 SW	CORDELE
197861	6/ 9/83	149	0/ 0/ 0	0/ 0/ 0	6 NW	MULDOON
197872	6/ 9/83	285	0/ 0/ 0	0/ 0/ 0	4 SOUTH	SHERIDAN
197873	6/10/83	469	0/ 0/ 0	0/ 0/ 0	1 EAST	PLACEDO
197889	6/10/83	321	0/ 0/ 0	0/ 0/ 0	4 SSE	FRANCITAS
197891	6/10/83	89	0/ 0/ 0	0/ 0/ 0	4 SW	SCHULENBURG
197956	6/10/83	149	0/ 0/ 0	0/ 0/ 0	2 WNW	WEIMAR
197957	6/10/83	149	0/ 0/ 0	0/ 0/ 0	6 NW	WEIMAR

THERE ARE 11403 RECORDS IN THE PERMIT FILE

APPENDIX I

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LOCnn - Locates Permits/Wells

Locates the permits with respect to the coordinate system used to build TOWNXYnn and produces a list of wells that could not be located due to errors in the ROGFDM file.

INPUTS:

1. PERMITnn containing the set of permits to be located.
2. &OPTION card to determine whether or not to build a WELLXYnn file.
3. &SELECT card containing the set of counties containing the permits to be located.

OUTPUTS:

1. WELLXYnn containing permit location data for GRIDnn.
2. A list of counties selected for analysis.
3. A list of town names (and the various misspelled versions of these names appearing on the ROGFDM file) within the analysis area.
4. A list of permits for which the location could not be determined for one reason or another.

NOTES:

1. The first run of LOCnn will usually produce a large number of "bad" permits. This list can usually be reduced by "fixing" the missing town names in TOWNXYnn and re-running LOCnn.

```
1. //LOC13 JOB (W259,501D,005,10,DM),'WELLS'
2. //*TAMU PRTY=3
3. //VER1 EXEC FORTXCG,REGION.GO=128OK,PARM.GO='SIZE=128OK'
4. //SYSLIN DD SPACE=(3120,(100,50))
5. //FORT.SYSIN DD *
6. C
7. C RESEARCH STUDY: 2-10-81-2299
8. C THE EFFECTS OF OILFIELD DEVELOPMENT ON RURAL HIGHWAYS.
9. C
10. C THIS ROUTINE READS PERMIT MASTER RECORDS FROM A SET OF
11. C EXTRACTED COUNTIES AND LOCATES THE WELL SITES.
12. C
13. C-----
14. C INTEGER IN(17)
15. C INTEGER CTY(12)/12*00/
16. C
17. C
18. C INTEGER NT,NW, T1(500),T2(500),T3(500),T4(500),WC(12000)
19. C INTEGER*2 PSW(3,10,12000)/360000*0/
20. C REAL MILES,TX(500),TY(500),WX(12000),WY(12000)
21. C
22. C INTEGER NBRNG/59/,BRNG(59)/
23. C * 'SOUT','S','SLY','S-LY','SSW','S-SW','S/SW',
24. C * 'SW','S W','S/W','S&W','WSW','W-SW','W/SW',
25. C * 'WEST','W','WLY','W-LY','WNW','W-NW','W/NW',
26. C * 'NW','N W','N/W','N&W','NNW','N-NW','N/NW',
27. C * 'NORT','N','NLY','N-LY','NNE','N-NE','N/NE',
28. C * 'NE','N E','N/E','N&E','ENE','E-NE','E/NE',
29. C * 'EAST','E','ELY','E-LY','ESE','E-SE','E/SE',
30. C * 'SE','S E','S/E','S&E','SSE','S-SE','S/SE',
31. C * 'N/A','OOOO','WITH' /
32. C
33. C REAL AZM(59)/
34. C * 4*000.0, 3*022.5, 4*045.0, 3*067.5,
35. C * 4*090.0, 3*112.5, 4*135.0, 3*157.5,
36. C * 4*180.0, 3*202.5, 4*225.0, 3*247.5,
37. C * 4*270.0, 3*292.5, 4*315.0, 3*337.5, 3*0.0 /
38. C
39. C INTEGER NPER(10)/10*0/,NSPUD(10)/10*0/,NRESV(10)/10*0/
40. C INTEGER TNPER/O/,TNSPUD/O/,TNRESV/O/
41. C
42. C INTEGER C1(254)/254*' '//,C2(254)/254*' '//,
43. C * C3(254)/254*' '//,NINES/'9999'//,WBBB/'W' '//
44. C LOGICAL BUILD/.FALSE./
45. C
46. C NAMelist /SELECT/CTY /OPTION/BUILD
47. C
48. C-----
49. C READ IN THE CONTROL PARAMETERS
50. C
51. C READ(5,OPTION)
52. C READ(5,SELECT)
53. C
54. C-----
55. C READ IN THE TOWN NAME AND COORDINATE (Y,X) TABLES.
56. C
57. C NT=1
58. C NTT=0
59. C 10 READ(10,20,END=30) T1(NT),T2(NT),T3(NT),T4(NT),TY(NT),TX(NT)
60. C 20 FORMAT( T5,4A4,T31,2F10.0).
```



```

122. C 14-16 = TOWN NAME
123. C 17 = RESV CODE - W'S ONLY
124. C
125. C---
126. C
127. DO 125 J=1,12
128. IF( CTY(J).LE.00 ) GO TO 100
129. NCTY= 2* CTY(J) -1
130. IF( IN(5).EQ.NCTY ) GO TO 130
131. 125 CONTINUE
132. GO TO 100
133. C-----
134. C FOUND ONE -- NOW DETERMINE THE COORDINATES.
135. C
136. C
137. 130 NW=NW+1
138. IF(NW.GE.12000) GO TO 890
139. WX(NW)=00.00
140. WX(NW)=00.00
141. DO 140 J=1,NT
142. JT=J
143. IF(IN(14).EQ.T1(J).AND.IN(15).EQ.T2(J).AND.
144. * IN(16).EQ.T3(J)) GO TO 150
145. 140 CONTINUE
146. GO TO 200
147. C
148. 150 CONTINUE
149. ND=IN(13)
150. DO 160 J=1,NBRNG
151. JD=J
152. IF( ND.EQ.BRNG(J) ) GO TO 170
153. 160 CONTINUE
154. GO TO 200
155. C
156. 170 CONTINUE
157. MILES=IN(12)
158. IF(MILES.LE.00) MILES=1
159. AZ= ( 270.0 - AZM(JD) )/57.2958
160. WY(NW)= TY(JT) + SIN( AZ )*MILES*5280.00
161. WX(NW)= TX(JT) + COS( AZ )*MILES*5280.00
162. WC(NW)=(NCTY+1)/2
163. C
164. C---
165. C
166. IF( IN(4).GE.87 .OR. IN(4).LT.77 ) GO TO 200
167. NYP=IN(4)-76
168. NYS=00
169. IF( IN(8).LT.87 .AND. IN(4).GE.77 ) NYS=IN(8)-76
170. NYR=000
171. IF( IN(11).LT.87 .AND. IN(11).GE.77 ) NYR=IN(11)-76
172. IF( IN(17).NE.WBBB ) NYR=000
173. C
174. IF(NYP.GT.00) PSW(1,NYP,NW)=1
175. IF(NYS.GT.00) PSW(2,NYS,NW)=1
176. IF(NYR.GT.00) PSW(3,NYR,NW)=1
177. C
178. C-----
179. C
180. C
181. IF( XMAX.LT.WX(NW) ) XMAX=WX(NW)
182. IF( YMAX.LT.WY(NW) ) YMAX=WY(NW)

```

```

183.      IF( XMIN.GT.WX(NW) .AND. WX(NW).GT.1.0 ) XMIN=WX(NW)
184.      IF( YMIN.GT.WY(NW) .AND. WY(NW).GT.1.0 ) YMIN=WY(NW)
185.      C
186.      C
187.      C-----
188.      C NOW PRINT THE "BAD" PERMITS AND COLLECT SUMMARY DATA.
189.      C
190.      200 CONTINUE
191.      IF(WY(NW).EQ. 0.0) WRITE(6,240) IN
192.      240 FORMAT( T2,I6,2X,I2,2('/',I2),2X,I3,5X,I2,2('/',I2),
193.      C 2X,I2,2('/',I2),5X,I4,2X,A4, 2X,3A4,2X,A1 )
194.      C
195.      C
196.      GO TO 100
197.      C
198.      C-----
199.      C PRINT THE DRILLING ACTIVITY SUMMARY.
200.      C
201.      890 WRITE(6,894) NW
202.      894 FORMAT('OWARNING: NUMBER OF PERMITS EXCEEDS',I5,'.')
203.      C
204.      900 CONTINUE
205.      C
206.      WRITE(6,970) YMIN,XMIN,YMAX,XMAX
207.      970 FORMAT(///// ,5X,'YMIN=',F10.0,5X,'XMIN=',F10.0,/,
208.      * 5X,'YMAX=',F10.0,5X,'XMAX=',F10.0,/)
209.      C
210.      C
211.      C
212.      C-----
213.      C PRINT THE COUNTY ACTIVITY SUMMARY
214.      C
215.      DO 1050 JC=1,NC
216.      NCC=CTY(JC)
217.      WRITE(6,1005) NCC,C1(NCC),C2(NCC),C3(NCC)
218.      1005 FORMAT('1',//,' ACTIVITY SUMMARY FOR COUNTY # ',I3,' - '3A4,/)
219.      DO 1010 J=1,10
220.      NPER(J)=00
221.      NSPUD(J)=00
222.      NRESV(J)=00
223.      1010 CONTINUE
224.      C
225.      DO 1030 JW=1,NW
226.      IF(WC(JW) .NE. NCC ) GO TO 1030
227.      DO 1020 JY=1,10
228.      IF( PSW(1,JY,JW) .GT. 0 ) NPER(JY)=NPER(JY)+1
229.      IF( PSW(2,JY,JW) .GT. 0 ) NSPUD(JY)=NSPUD(JY)+1
230.      IF( PSW(3,JY,JW) .GT. 0 ) NRESV(JY)=NRESV(JY)+1
231.      1020 CONTINUE
232.      1030 CONTINUE
233.      C
234.      TNPER=00
235.      TNSPUD=0
236.      TNRESV=0
237.      DO 1035 J=1,10
238.      TNPER= TNPER + NPER(J)
239.      TNSPUD=TNSPUD+NSPUD(J)
240.      TNRESV=TNRESV+NRESV(J)
241.      1035 CONTINUE
242.      C
243.      WRITE(6,1040) (NPER(J),NSPUD(J),NRESV(J),J=1,10),

```

```

244.      * TNPER,TNSPUD,TNRESV
245.      1040 FORMAT( T11,'YEAR',5X,'PERMIT',5X,'SPUD-IN',5X,'RESV-W',/,
246.      *      '+',T11,'_____',5X,'_____',5X,'_____',5X,'_____',./,
247.      *      'O',T11,'1977',3(5X,I5),/,'O',T11,'1978',3(5X,I5),/,
248.      *      'O',T11,'1979',3(5X,I5),/,'O',T11,'1980',3(5X,I5),/,
249.      *      'O',T11,'1981',3(5X,I5),/,'O',T11,'1982',3(5X,I5),/,
250.      *      'O',T11,'1983',3(5X,I5),/,'O',T11,'1984',3(5X,I5),/,
251.      *      'O',T11,'1985',3(5X,I5),/,'O',T11,'1986',3(5X,I5),/,
252.      *      '+',T11,'_____',5X,'_____',5X,'_____',5X,'_____',./,
253.      *      'O',T10,'TOTAL',3(5X,I5) )
254.      C
255.      1050 CONTINUE
256.      C
257.      C-----
258.      C DUMP THE COORDINATE FILE TO DISK
259.      C
260.      IF( .NOT.BUILD ) STOP
261.      WRITE(12) NC,NTT,NT,NW, PSW, CTY,C1,C2,C3, T1,T2,T3,T4,TX,TY,
262.      *      WC,WX,WY
263.      C
264.      STOP
265.      END
266.      //GO.FT09FOO1 DD DISP=SHR,DSN=USR.W259.DM.CNTYNAME
267.      //GO.FT10FOO1 DD DISP=SHR,DSN=USR.W259.DM.TOWNXY13
268.      //GO.FT11FOO1 DD DISP=SHR,DSN=USR.W259.DM.PERMIT13
269.      //GO.FT12FOO1 DD DSN=USR.W259.DM.WELLXY13,DISP=OLD
270.      //* GO.FT12FOO1 DD DISP=(NEW,CATLG,DELETE),UNIT=3350,
271.      //*      SPACE=(TRK,(50,10)),DSN=USR.W259.DM.WELLXY13
272.      //GO.SYSIN DD *
273.      &OPTION BUILD=T &END
274.      &SELECT CTY=8,29,45,62,75,89,120,143,161,235,241 &END

```

RESEARCH STUDY: 2-10-81-2299
THE EFFECTS OF OILFIELD DEVELOPMENT ON RURAL HIGHWAYS

COUNTIES WITHIN THE ANALYSIS AREA:

8 AUSTIN
29 CALHOUN
45 COLORADO
62 DEWITT
75 FAYETTE
89 GONZALES
120 JACKSON
143 LAVACA
161 MATAGORDA
235 VICTORIA
241 WHARTON

TOWNS WITHIN THE ANALYSIS AREA:

ALLENHURST	ALLEYTOWN	ALTAIR	ALVIN
ARNECKEVILLE	ASHWOOD	AUSTWELL	BAY CITY
BEBE	BELLVILLE	BELMONT	BERNARD
BERNARDO	BLEIBERVILLE	BLESSING	BLOOMINGTON
BOLING	BONUS	BORDEN	BRENHAM
BUCKEYE	CANEY	CARMINE	CAT SPRING
CEDAR LANE	CHEAPSIDE	CISTERN	CITRUS GROVE
CLEMVILLE	COCHRAN	COLLEGEPORT	COLOGNE
COLONY	COLOTOVILLE	COLUMBUS	CORDELE
COST	CUERO	DACOSTA	DAVEVANG
DILWORTH	EAGLE LAKE	EAST BERNARD	EDGAR
EDNA	EGYPT	EL CAMPO	EL MATON
EL TORO	ELM GROVE	ENGLEHART	EZZELL
FANNIN	FAYETTEVILLE	FLATONIA	FORDTRAN
FRANCITAS	FRELSBURG	FRYDEK	GANADO
GARWOOD	GIDDINGS	GILLETT	GLEN FLORA
GLIDDEN	GONZALES	GREEN LAKE	HALLETTSVILL
HARWOOD	HEMPSTEAD	HEMPSTEAD, T	HIGH HILL
HILLJE	HOLMAN	HOPE	HOSTYN
HUNGERFORD	IAGO	INDIANOLA	INDUSTRY
INEZ	KAMEY	KENDLETON	KENEDY
KENNEY	KIRTLEY	KOMENSKY	LA GRANGE
LA SALLE	LA WARD	LANE CITY	LEESVILLE
LEDBETTER	LISSIE	LITTLE NEW Y	LOLITA
LONE OAK	LONG MOTT	LOUISE	MACKAY
MCFADDIN	MAGNET	MAGNOLIA BEA	MARKHAM
MATAGORDA	MATTHEWS	MEYERSVILLE	MIDFIELD
MISSION VALL	MONTHALIA	MORALES	MORAVIA
MOULTON	MUELLERSVILL	MULDOON	NADA
NAVIDAD	NECHANITZ	NELSONVILLE	NEW TAITON
NEW ULM	NEWGULF	NICKEL	NIXON
NORDHEIM	NORTHROP	NURSERY	O"QUINN
OAK FOREST	OLD OCEAN	OLDENBERG	OLIVIA
OTTINE	PALACIOS	PIERCE	PLACEDO
PLEDGER	PLUM	POINT COMFOR	PORT ALTO
PORT LAVACA	PORT O"CONNO	PRAHA	PROVIDENT CI
RABB PRAIRIE	RACCOON BEND	RAISIN	RAMSEY

ROCK ISLAND
SAMPLE
SCHROEDER
SECLUSION
SLAYDEN
SPEAKS
SWEENEY
TELFERNER
TIVOLI
VIENNA
WALLHALLA
WAYSIDE
WESTHOFF

WINCHESTER
YOAKUM
BAY CITY, TX
DANAVANG
EZELLE
GANADA
HILLGE
LAWARD
LESSEE
MAGNOLIA BEA
MATAFORDA
MIDFIELDS
MORALES TOWN
MORDHEIM
PLACEDO JUNC
PT. LAVACA
PROVIDENT CI
RDUNDTOP
TATION
VANDERBUILT
WEESCTCHE
WHITTING

ROCKPORT
SAN FELIPE
SCHULENBURG
SHERIDAN
SMILEY
SUBLIME
SWEET HOME
TERRYVILLE
VAN VLECK
WADSWORTH
WALLIS
WEESATCHE
WEST COLUMBI

WITTING
YORKTOWN
BLEIBLERVILL
E. BERNARD
FERNER
HALLETSVILLE
LE GRANGE
LANE
LITTLE N YOR
MAGNOLIABEAC
MATHEWS
MISSION VALL
NEW TATION
NARDHEIM
POINT COMFOR
PT. O'CONNOR
PROVIDENT CY
ROOTERSVILLE
TELFNER
VENDERBILT
WEST COLUMBI
O'QUINN

ROUND TOP
SARGENT
SEADRIFT
SHINER
SMITHVILLE
SUGAR VALLEY
SWISS ALP
THOMASTON
VANDERBILT
WAELDER
WARDA
WELCOME
WEST POINT

WORTHING
99999999
CAT SPRING T
CAMPO
FLATTONIA
HALLETTSVILL
LAGRANGE
LEASVILLE
LOTITIA
MARKHAM TEKA
MYERSVILLE
MISSION
NEW GULF
PALACIOUS
PT. COMFORT
PORT O'CONNO
PROVIDENT CT
S.W. SPEAKS
TERRYVLE
VOCTORIA
WIEMER
PORT O'CONNO

RUTERSVILLE
SATURN
SEALY
SIMPSONVILLE
SPANISH CAMP
SUMMERVILLE
TATION
THOMSONVILLE
VICTORIA
WALDECK
WARRENTON
WEIMER
WHARTON

WRIGHTSBORO
ALTOER
COCKRAN
EL CAMPOL
FORTRAN
HILJE
LASALLE
LEEVILLE
MAGNE
MATAGORDA IS
MIDFIED
MISSION VLY
NORDEHEIM
PALACIOS TOW
PALO ALTO
PORT O'CONNOR
RACCOON
SUBLIM
VAN FLECK
WEALDER
WINDCHESTER

PERMITS WITH "BAD" TOWN NAME AND/OR DIRECTION:

511	11/ 2/77	89	7/ 1/77	0/ 0/ 0	4	SW	WEIMAR	
758	7/ 1/77	239	7/14/77	8/ 3/77	4	NE'L	POINT COMFOR	A
946	6/17/77	89	7/30/77	8/19/77	4	SW	WEIMAR	D
1109	6/20/77	89	0/ 0/ 0	0/ 0/ 0	4	SW	WEIMAR	
2457	7/ 7/77	57	0/ 0/ 0	10/ 3/77	11	SE	SEABREEZE	A
2787	7/12/77	481	0/ 0/ 0	0/ 0/ 0	5	NE	DANEVANG	
2793	10/21/77	89	10/14/77	10/22/77	7	SE	WEIMAR	A
3062	7/14/77	57	0/ 0/ 0	0/ 0/ 0	4	NE'L	POINT COMFOR	
3116	7/15/77	89	0/ 0/ 0	6/ 4/77	5	SW	WEIMAR	W
3129	7/15/77	123	0/ 0/ 0	0/ 0/ 0	10	SE'L	YOAKUM	
3705	7/22/77	89	0/ 0/ 0	9/ 6/77	5	SW	WALLACE	D
4649	10/19/77	89	0/ 0/ 0	8/24/77	4	W'LY	GARWOOD	A
5837	8/19/77	57	0/ 0/ 0	9/ 7/77	2	NW	HEYSER SWITC	W
6087	8/24/77	57	0/ 0/ 0	8/19/77	1	NORT	HEYSER SWITC	W
6512	8/30/77	239	0/ 0/ 0	0/ 0/ 0	10	SO'L	PALACIOS	
6513	8/30/77	239	0/ 0/ 0	0/ 0/ 0	10	SO'L	PALACIOS	
6887	9/ 6/77	481	0/ 0/ 0	9/25/77	2	S	CHESTERVILLE	
9299	9/27/77	321	0/ 0/ 0	0/ 0/ 0	2	SE	MIDLAND	
9940	10/17/77	89	0/ 0/ 0	9/ 9/80	7	SE	WEIMAR	H
10975	10/31/77	469	0/ 0/ 0	0/ 0/ 0	4	NE	PALCIDO	
11161	11/ 1/77	239	0/ 0/ 0	8/ 9/79	3	NE	GANDO	P
11887	11/14/77	321	12/ 2/77	12/23/77	4	W	PHEASANT	F
12923	11/29/77	239	0/ 0/ 0	0/ 0/ 0	10	SO'L	PALACIOS	
13806	12/12/77	57	0/ 0/ 0	4/20/78	9	SE	FREEPORT	D
13944	12/13/77	57	0/ 0/ 0	6/27/78	12	SE	SEABREEZE	D
13945	12/13/77	57	0/ 0/ 0	0/ 0/ 0	9	SE	SEABREEZE	
14243	12/19/77	149	12/21/77	2/ 8/78	4	E'LY	ROUND TOP	W
15140	12/27/77	149	0/ 0/ 0	1/ 4/78	1	NW	WEIMAR	H
15718	1/ 6/78	469	0/ 0/ 0	8/11/78	7	N &	VICTORIA	D
15794	1/ 6/78	481	0/ 0/ 0	2/ 4/78	1	SW	CHESTERVILLE	D
15856	1/ 9/78	469	0/ 0/ 0	12/ 8/79	5	N'LY	NURSERY	P
16224	1/12/78	57	0/ 0/ 0	2/16/78	7	ESE	SEABREEZE	D
16233	1/12/78	57	3/16/78	8/27/78	3	NE'L	POINT COMFOR	D
16773	1/23/78	123	1/30/78	2/21/78	4	SE	WESTOFF	D
17060	1/26/78	123	1/29/78	2/26/78	3	NORT	MOONEY	D
17584	2/ 3/78	469	0/ 0/ 0	0/ 0/ 0	2	SW T	FERNER	
17821	2/ 7/78	285	0/ 0/ 0	0/ 0/ 0	6	NW	MORLES	
17847	2/ 8/78	89	0/ 0/ 0	0/ 0/ 0	7	SE	WEIMAR	
19305	3/ 3/78	481	0/ 0/ 0	3/15/78	1	SE	NEW TAITION	D
19492	3/ 6/78	321	0/ 0/ 0	0/ 0/ 0	18	SE	FREEPORT	
20167	3/16/78	15	0/ 0/ 0	4/17/78	3	W'LY	WALLIS	D
20500	3/22/78	89	0/ 0/ 0	0/ 0/ 0	12	SW	HENDERSON	
20924	3/27/78	321	0/ 0/ 0	8/ 8/78	10	SOUT	SWEENEY	D
21487	4/ 5/78	481	0/ 0/ 0	5/12/78	5	SOUT	PIERECE	D
21690	4/10/78	149	0/ 0/ 0	5/25/78	4	E'LY	ROUND TOP	D
21907	3/29/78	469	0/ 0/ 0	0/ 0/ 0	1	NW	BLOOMINTON	
21908	3/22/78	89	10/ 1/78	10/22/78	2	SOUT	WIEMAR	D
22226	4/14/78	89	0/ 0/ 0	3/30/78	4	SE	SHERDIAN	W
22557	4/20/78	57	0/ 0/ 0	5/19/78	3	SOUT	WEEDHAVEN	A
23368	5/ 2/78	469	0/ 0/ 0	5/18/78	1	SSE	DA COSTA	D
23593	5/ 5/78	149	0/ 0/ 0	6/15/78	15	E'LY	ROUND TOP	D
24811	5/22/78	321	0/ 0/ 0	0/ 0/ 0	1	W'LY	CLEMVILLE	
24812	5/22/78	321	0/ 0/ 0	10/ 5/78	1	W'LY	CLEMVILLE	W
24867	5/22/78	89	0/ 0/ 0	0/ 0/ 0	2	WNW	CHESTERVILLE	
24952	5/23/78	321	0/ 0/ 0	0/ 0/ 0	1	W'LY	CLEMVILLE	
26501	6/15/78	149	8/10/78	8/30/78	2	NW	PISEK	D
26745	6/19/78	123	7/18/78	0/ 0/ 0	4	SE	MEYERVILLE	
27163	6/23/78	239	6/25/78	7/ 2/78	5	W &	GANADO	H

27466	6/27/78	321	0/ 0/ 0	0/ 0/ 0
27565	2/ 1/78	239	0/ 0/ 0	5/31/78
27960	6/21/78	469	0/ 0/ 0	0/ 0/ 0
28642	7/17/78	123	0/ 0/ 0	0/ 0/ 0
28964	7/24/78	89	0/ 0/ 0	0/ 0/ 0
29282	7/27/78	57	0/ 0/ 0	10/28/78
29973	7/25/78	57	0/ 0/ 0	0/ 0/ 0
30178	8/ 8/78	89	9/ 5/78	9/14/78
31213	8/23/78	481	0/ 0/ 0	0/ 0/ 0
31568	8/29/78	469	0/ 0/ 0	0/ 0/ 0
31852	8/31/78	177	9/ 2/78	9/20/78
32677	9/14/78	177	0/ 0/ 0	0/ 0/ 0
32770	9/15/78	239	0/ 0/ 0	3/14/79
33695	9/28/78	321	0/ 0/ 0	0/ 0/ 0
34343	10/10/78	89	10/27/78	11/ 1/78
34558	10/16/78	239	12/ 2/78	0/ 0/ 0
34778	10/17/78	123	0/ 0/ 0	10/21/78
34783	10/17/78	469	11/12/78	11/18/78
35776	10/17/78	57	0/ 0/ 0	0/ 0/ 0
36035	11/ 1/78	89	0/ 0/ 0	3/19/79
36036	11/ 1/78	321	11/ 9/78	11/24/78
36154	11/ 3/78	123	0/ 0/ 0	0/ 0/ 0
36974	11/15/78	285	11/28/78	4/14/79
38040	12/ 4/78	481	0/ 0/ 0	5/ 1/79
41383	1/24/79	321	1/25/79	1/30/79
41835	2/ 1/79	285	3/ 8/79	3/ 7/79
42026	2/ 6/79	15	0/ 0/ 0	7/ 9/77
42678	2/16/79	57	3/14/79	4/ 3/79
43695	3/ 5/79	469	3/21/79	3/25/79
43799	3/ 6/79	285	0/ 0/ 0	7/10/79
44958	3/23/79	89	0/ 0/ 0	3/12/79
45220	3/20/79	469	0/ 0/ 0	11/ 8/78
45693	4/ 4/79	481	4/ 4/79	4/ 7/79
46954	4/23/79	57	0/ 0/ 0	5/11/79
49159	5/23/79	15	0/ 0/ 0	4/17/80
49298	5/25/79	285	0/ 0/ 0	5/17/79
49526	5/28/79	149	0/ 0/ 0	4/ 8/79
50320	6/ 8/79	123	0/ 0/ 0	10/ 4/79
50876	6/15/79	89	0/ 0/ 0	8/15/79
51153	6/20/79	15	6/23/79	6/29/79
51448	6/21/79	481	0/ 0/ 0	7/17/79
51725	6/27/79	481	0/ 0/ 0	0/ 0/ 0
52062	7/ 3/79	123	0/ 0/ 0	7/19/79
53191	7/18/79	481	0/ 0/ 0	6/22/80
53816	7/26/79	123	0/ 0/ 0	8/17/79
54197	8/ 1/79	57	0/ 0/ 0	7/14/79
54919	8/ 3/79	15	0/ 0/ 0	9/25/79
56042	8/20/79	89	0/ 0/ 0	9/12/79
56460	8/24/79	15	0/ 0/80	4/19/80
57758	9/ 4/79	481	0/ 0/ 0	12/ 7/79
57898	9/12/79	15	0/ 0/ 0	1/11/80
58293	9/18/79	481	0/ 0/ 0	0/ 0/ 0
60104	9/12/79	57	0/ 0/ 0	0/ 0/ 0
60176	10/10/79	481	0/ 0/ 0	10/18/79
60975	10/ 9/79	57	0/ 0/ 0	0/ 0/ 0
62071	10/26/79	89	0/ 0/ 0	6/ 3/80
62598	11/ 1/79	285	0/ 0/ 0	12/22/80
63351	11/ 9/79	123	7/13/80	8/10/82
64177	11/19/79	57	0/ 0/ 0	12/28/79
64627	11/26/79	89	0/ 0/ 0	0/ 0/ 0
67575	12/27/79	481	0/ 0/ 0	1/19/80

13	S'LY	MATAGORDA	
3	SE	VANDERVILT	A
6	NORT	PALCEDO JUNC	
9	WST'	CUERO	
5	SOUT	WEIMAR	
3	NE'L	POINT COMFOR	D
3	NORT	HEYSER SWITC	
4	NORT	CHESTERVILLE	D
5	NE	DANEVANG	
3	NW	NURSEY	
1	SE	WEIGHTSBORO	A
4	S	GONZLAES	
11	S'LY	PALACIOS	D
1	W'LY	CLEMLVILLE	
1	SOUT	WEIMAR	D
4	SE	GAMADO	
5	SSE	ARNECKEY	W
2	NE	DA COSTA	D
2	NW	HEYSER SWITC	
6	SOUT	WEIMAR	W
1	SOUT	PHEASANT	D
2	NW'L	TERRYVILLE	
3	NE	S.W. SPEAKS	W
5	NE	DANEVANG	W
2	SE	MCCROSKY	D
1	S &	MOULTON	D
3	NORT	CAT SPRINGS	W
2	SE	WEEDHAVEN	W
3	WEST	MCFADDEN	W
2	WEST	SPARKS	D
7	SE	WEIMAR	W
7	NORT	PLACEDO JUNT	W
4	NNE		D
9	SE	SEABREEZE	H
1	WEST	CAT SPRINGS	D
8	SE	EZZEL	W
5	NNE	ENGLE	U
2	SW	CLINTON	W
1	NORT	WEIMAR	D
1	NNW	ORANGE HILL	D
5	NE	DANEVANG	W
6	WEST	DANEVANG	
3	SE	ARNEKEVILLE	W
5	S &	EL CAMPO	A
10	NE	TOMASTON	W
3	SOUT	WEEDHAVEN	W
1	SSW	ORANGE HILL	W
2	N	CHESTERVILLE	D
1	SW	HEMSTEAD	W
6	W	DANEVANG	W
3	NW	CAT SPRINGS	D
5	NE	DANEVANG	
2	NW	HEYSER SWITC	
1	SE	BRATCHER	D
1	NORT	HEYSER SWITC	
2	SSW	ORANGE HILL	W
5	SE	SPARKS	W
3	N	NORDHIEM	D
3	E'LY	BLOOMINGTON	W
2	W	CHESTERVILLE	
2	SE	DANEVANG	D

67714	12/28/79	123	0/ 0/ 0	0/ 0/ 0	6	ENE	VERHELLE	
68806	1/ 7/80	469	0/ 0/ 0	0/ 0/ 0	0	O	VICTORIA	
69302	1/10/80	177	0/ 0/ 0	12/30/80	3	NE	WRIGHTSBORRO	W
69694	1/11/80	123	0/ 0/ 0	2/29/80	3	SE	ARNEKEVILLE	W
70363	1/10/80	89	0/ 0/ 0	11/13/79	4	SOUT	FRESLBURG	W
70458	1/22/80	57	0/ 0/ 0	3/ 5/80	4	SW	BLOOMINTON	W
70756	1/24/80	481	0/ 0/ 0	1/25/80	4	S/NW	LOUISE	W
70933	1/28/80	481	0/ 0/ 0	0/ 0/ 0	0	N/A	N/A	
71421	2/ 1/80	89	0/ 0/ 0	0/ 0/ 0	2	WEST	CHESTERVILLE	
71967	2/ 6/80	57	0/ 0/ 0	12/ 8/80	0	N/A	OLIVA	D
73124	2/19/80	15	0/ 0/ 0	0/ 0/ 0	7	SW	HEMSTEAD	
73140	2/21/80	123	0/ 0/ 0	3/14/80	4	NE	VERHELLE	D
75702	3/20/80	89	4/25/80	4/30/80	2	N	CHESTERVILLE	D
76233	3/25/80	57	0/ 0/ 0	2/26/80	3	S	WEEDHAVEN	W
76934	4/ 1/80	89	4/15/80	4/24/80	2	NORT	CHESTERVILLE	D
77140	4/ 2/80	285	0/ 0/ 0	4/18/80	3	SOUT	EZELL	D
77532	4/ 8/80	285	0/ 0/ 0	7/18/80	4	SE	SPEAKS	W
78650	4/17/80	321	12/ 4/80	5/24/81	0	O	WADSWORTH	W
79528	4/29/80	149	0/ 0/ 0	5/19/80	2	EAST	WESTPOINT	W
79969	5/ 1/80	149	0/ 0/ 0	1/18/81	3	ESE	KERR	D
80540	4/22/80	469	0/ 0/ 0	4/23/80	9	EAS	VICTORIA	W
82026	5/23/80	123	0/ 0/ 0	6/ 8/80	3	SE	ARNEKEVILLE	W
82248	5/28/80	481	0/ 0/ 0	9/ 5/80	2	SOUT	CHESTERVILLE	D
83080	6/ 5/80	123	0/ 0/ 0	7/ 2/80	4	NE	VERHELLE	D
84257	6/17/80	89	0/ 0/ 0	1/16/81	6	SW	WEIMAR	W
84578	6/20/80	123	0/ 0/ 0	0/ 0/ 0	3	SE	ARNEKEVILLE	
84738	6/23/80	89	0/ 0/ 0	6/23/80	6	SE	WEIMAR	W
84791	6/24/80	15	6/17/81	12/15/81	2	NW	BUCKHORN	D
86553	7/14/80	481	0/ 0/ 0	11/15/80	5	NE	DANEVANG	W
87230	7/21/80	57	0/ 0/ 0	4/23/81	5	WEST	PORT COMFORT	D
87686	7/24/80	469	0/ 0/ 0	0/ 0/ 0	4	NE	DE COSTA	
88614	8/ 4/80	321	9/ 4/80	10/ 5/80	2	EAST	VAN VCLICK	H
90154	7/31/80	469	0/ 0/ 0	9/18/80	3	NORT	HEYSER SWITC	W
90383	8/20/80	177	0/ 0/ 0	9/15/80	7	SE'L	GONZALES	W
91084	8/29/80	481	0/ 0/ 0	4/20/81	4	NW	DANEVANG	D
91091	8/29/80	57	0/ 0/ 0	10/12/80	3	EAST	BLOMMINGTON	W
91178	9/ 2/80	321	0/ 0/ 0	0/ 0/ 0	1	N'LY	SIMPSONVILLE	
91255	9/ 2/80	89	10/ 6/80	10/13/80	7	W'LY	GARWOOD	W
91259	9/ 2/80	149	0/ 0/ 0	1/ 5/81	2	WNW	WESTPOINT	W
91409	9/ 4/80	177	0/ 0/ 0	1/22/81	6	SE'L	GONZALES	D
93401	9/19/80	15	0/ 0/ 0	0/ 0/ 0	3	NORT	CAT SPRINGS	
94146	9/29/80	177	0/ 0/ 0	12/ 9/80	7	SE'L	GONZALES	W
94148	9/29/80	177	0/ 0/ 0	0/ 0/ 0	8	SE'L	GONZALES	
94199	9/30/80	481	0/ 0/ 0	0/ 0/ 0	3	SOUT	DANEVANG	
95026	10/ 8/80	469	0/ 0/ 0	9/20/80	6	SW'L	VICTORIA	W
95180	10/ 9/80	321	3/22/81	3/ 4/81	3	NE	PHEASANT	N
96233	10/21/80	177	0/ 0/ 0	12/17/80	5	NO'L	MOULTON	W
96337	10/17/80	177	0/ 0/ 0	11/ 5/80	4	SE	WHITESBORO	W
96421	9/16/80	481	0/ 0/ 0	0/ 0/ 0	5	NE	DANEVANG	
96495	9/11/80	481	0/ 0/ 0	6/21/80	6	SW	DANEVANG	W
96933	9/17/80	15	0/ 0/ 0	1/13/81	5	SSW	HEMPSTEAD, T	W
96950	10/ 9/80	321	0/ 0/ 0	0/ 0/ 0	8	NE	BAY CITY, TX	
100485	11/26/80	177	0/ 0/ 0	12/20/80	2	NE'L	SMILEY	W
101391	12/ 9/80	57	0/ 0/ 0	0/ 0/ 0	11	NW	LAMAR	
102074	12/12/80	149	0/ 0/ 0	0/ 0/ 0	3	NE	CISTEN	
103055	12/17/80	177	0/ 0/ 0	1/21/81	2	NE'L	SMILEY	W
103126	12/23/80	285	0/ 0/ 0	2/ 5/81	7	SE	EZZEL	W
103191	12/23/80	177	0/ 0/ 0	0/ 0/ 0	5	E	WHELDER	
103749	12/31/80	469	0/ 0/ 0	0/ 0/ 0	5	SWS	MISSION VALL	
104070	12/31/80	89	0/ 0/ 0	2/ 1/81	6	SE	WEIMAR	W
104244	12/31/80	481	3/20/81	3/28/81	4	WEST	NEW TATON	D

104658	12/31/80	149	0/ 0/ 0	0/ 0/ 0	4	NNW	WEIMAR	
104771	12/31/80	149	0/ 0/ 0	0/ 0/ 0	2	WVN	HIGH HILL	
105151	1/14/81	321	0/ 0/ 0	5/ 6/81	4	NW	CHALMERS	D
105321	1/14/81	177	3/16/81	4/ 3/81	2	NELY	SMILEY	W
105338	1/14/81	57	0/ 0/ 0	5/14/81	3	NE	PORT COMFORT	A
105437	1/15/81	149	0/ 0/ 0	5/28/81	8	N	SCHLUNBURG	D
105543	1/16/81	177	0/ 0/ 0	9/ 9/81	6	SOUT	LULING	D
105950	12/11/80	149	0/ 0/ 0	12/31/80	0	N/A	N/A	W
106099	1/23/81	149	0/ 0/ 0	0/ 0/ 0	5	E	WESTPOINT	
106236	1/26/81	321	0/ 0/ 0	3/27/81	4	NW	CHALMERS	D
106471	1/27/81	469	0/ 0/ 0	0/ 0/ 0	5	SW	BLOOMINTON	
106989	1/30/81	177	0/ 0/ 0	0/ 0/ 0	5	NWLY	MOULTEN	
108287	2/12/81	469	0/ 0/ 0	0/ 0/ 0	5	EAST	WESER	
108291	2/12/81	481	0/ 0/ 0	2/20/81	4	E'LY	EGYPT	W
108750	2/18/81	481	0/ 0/ 0	3/ 6/81	5	NE	DANEVANG	W
109045	2/20/81	177	0/ 0/ 0	0/ 0/ 0	5	NW'L	MOULTON	
109054	2/13/81	177	0/ 0/ 0	3/ 8/81	4	NE	PILGRIM	W
110254	3/ 2/81	149	0/ 0/ 0	3/26/81	4	SW	WESTPOINT	W
110991	3/ 5/81	89	0/ 0/ 0	6/22/81	7	NW'L	GARWOOD	D
111779	3/11/81	177	4/26/81	5/18/81	6	S &	GONZALES	A
112009	3/12/81	481	0/ 0/ 0	10/13/81	5	NE	DANEVANG	W
112906	3/23/81	149	5/13/81	6/22/81	7	N NE	LA GRANGE	W
113332	3/26/81	239	0/ 0/ 0	5/13/81	4	SSW	VANDEBILDT	W
114714	3/ 3/81	239	0/ 0/ 0	5/ 2/81	5	NW	CORDLE	D
115137	4/15/81	57	0/ 0/ 0	8/ 8/81	5	S	WEEDHAVEN	D
115717	4/21/81	469	0/ 0/ 0	7/ 7/81	5	N	TEFERNER	W
116150	4/27/81	149	5/26/81	6/27/81	1	E'LY	WALDECK	W
116153	4/27/81	149	0/ 0/ 0	5/30/81	5	SOUT	WESTPOINT	W
116611	4/30/81	123	0/ 0/ 0	6/16/81	2	E	VERHELLE	D
117146	4/ 7/81	469	0/ 0/ 0	2/16/80	3	WEST	MCFADDEN	W
117476	4/ 8/81	321	0/ 0/ 0	8/14/81	2	SE	CALHOUN	W
118361	5/18/81	149	9/29/81	11/14/81	1	E	FORDS PRAIRI	W
121146	6/16/81	57	0/ 0/ 0	2/25/82	6	NW	CALHOUN	W
122391	6/24/81	321	7/ 2/81	0/ 0/ 0	4	SE	N/A	
122653	6/25/81	57	0/ 0/ 0	8/19/81	11	E	LAMAR	D
123493	6/18/81	285	0/ 0/ 0	8/10/81	5	E	EZZEL	W
123507	7/ 2/81	123	0/ 0/ 0	7/11/81	7	W NW	NORDHEIM	D
124226	7/ 8/81	149	0/ 0/ 0	0/ 0/ 0	1	E	FORDS PRAIRI	
124426	7/ 9/81	239	1/16/82	5/29/82	6	W'LY	EDNA	D
124742	7/10/81	89	8/ 5/81	9/16/81	10	N	CHESTERVILLE	W
125044	7/ 9/81	57	0/ 0/ 0	0/ 0/ 0	0	N/A	N/A	
126406	7/23/81	149	7/24/81	9/ 7/81	2	NE	WALHALLA	W
126506	7/23/81	89	0/ 0/ 0	0/ 0/ 0	3	WEST	CHESTERVILLE	
126852	7/21/81	89	7/31/81	9/17/81	6	SSE	WEIMAR	D
127194	7/27/81	177	0/ 0/ 0	8/ 6/81	4	SE	OAK FORREST	W
127681	7/27/81	285	0/ 0/ 0	8/22/81	10	SW	SCHULENBERG	D
127710	7/30/81	469	0/ 0/ 0	0/ 0/ 0	3	W	MCFADDEN	
127809	7/27/81	177	0/ 0/ 0	8/14/81	3	ESE	WRIGHTBORO	W
129158	8/ 7/81	285	10/28/81	11/25/81	4	O	SHERIDAN	W
129345	8/ 5/81	481	0/ 0/ 0	8/24/81	6	SE	EL CAPMO	W
129877	8/12/81	89	10/ 5/81	10/10/81	2	NNW	CHESTERVILLE	D
131375	8/26/81	177	0/ 0/ 0	0/ 0/ 0	6	ESE	WRIGHTBORO	
131634	8/31/81	321	0/ 0/ 0	10/ 6/81	2	NE	VAN FLACK	D
132112	8/10/81	57	0/ 0/ 0	0/ 0/ 0	3	NORT	BRECKENRIDGE	
132169	8/19/81	89	0/ 0/ 0	9/18/81	6	NE	EAGLELAKE	W
132436	9/ 8/81	149	0/ 0/ 0	10/29/82	8	SW	WINCHESTER	D
132449	9/ 8/81	149	0/ 0/ 0	9/ 3/82	4	ESE	SMITHVILLE	W
133086	9/11/81	321	0/ 0/ 0	1/31/82	12	SW	BRAZORIA	D
133512	9/ 8/81	149	0/ 0/ 0	10/ 6/81	0	NA	WINCHESTER	W
134894	9/29/81	57	0/ 0/ 0	0/ 0/ 0	1	N	HEYSER SWITC	
135280	10/ 2/81	177	10/10/81	10/21/81	2	NE'L	SMILEY	W

135293	9/29/81	89	10/10/81	11/ 9/81	4	SSW	WEIMAR	U
136570	10/ 5/81	89	0/ 0/ 0	11/15/81	2	NE	CHESTERVILLE	D
136576	10/15/81	481	0/ 0/ 0	0/ 0/ 0	4	NW	NEW TALTON	
136887	10/19/81	89	0/ 0/ 0	12/ 2/81	3	S	EAGLE	D
137374	10/ 9/81	89	11/15/81	12/ 4/81	6	SW	WEIMAR	W
137525	9/29/81	469	0/ 0/ 0	10/30/81	0	NA	BLOOMINGTON	W
137590	10/21/81	177	10/24/81	11/ 6/81	2	NELY	SMILEY	W
140137	11/10/81	123	0/ 0/ 0	3/18/82	7	S'LY	CUERO	W
141093	11/18/81	321	0/ 0/ 0	4/17/82	17	SW	FREEPORT	W
141103	11/19/81	57	0/ 0/ 0	0/ 0/ 0	2	SW	MAGNOLIA BCH	
141119	11/18/81	15	0/ 0/ 0	2/ 2/82	3	SE	KENNY	W
141182	11/19/81	481	11/29/81	11/30/81	7	NE	DANEVANG	W
141235	11/20/81	321	0/ 0/ 0	0/ 0/ 0	2	N'LY	SIMPSONVILLE	
141550	11/25/81	177	0/ 0/ 0	0/ 0/ 0	5	E	MOULDIN	
142383	10/27/81	177	0/ 0/ 0	7/17/81	5	N	SMILEY	W
144803	12/18/81	321	1/21/82	1/30/82	6	N'LY	VAN VLECK	D
146568	12/30/81	481	0/ 0/ 0	2/28/82	8	S SE	HILLJE	W
147985	1/21/82	89	2/ 3/82	3/ 7/82	4	NNW	CHESTERVILLE	D
149378	1/29/82	177	0/ 0/ 0	3/ 4/82	3	N	SMILY	W
151506	2/22/82	177	3/12/82	3/22/82	4	SW'L	GONZALES	W
151687	2/11/82	57	0/ 0/ 0	4/ 7/81	3	S	WEEDHAVEN	W
151874	2/25/82	481	0/ 0/ 0	3/ 8/82	1	SW	DANEVANG	D
152283	3/ 4/82	89	0/ 0/ 0	6/ 6/82	2	W	CHESTERVILLE	W
154716	3/23/82	149	3/28/82	4/28/82	3	NW	OLDENBURG	W
156627	4/ 2/82	149	0/ 0/ 0	4/22/82	3	SW	WESTPOINT	W
156742	3/18/82	89	0/ 0/ 0	0/ 0/ 0	5	SW	WEIMAR	
156940	4/16/82	57	0/ 0/ 0	7/ 8/82	2	N	HEYSER SWITC	W
157522	4/20/82	481	5/21/82	6/ 4/82	3	SE	DANEVANG	D
157893	4/23/82	123	0/ 0/ 0	8/ 3/82	2	SW	CLINTON	W
158301	4/27/82	149	5/27/82	0/ 0/ 0	6	SW	WEIMAR	
158524	4/28/82	481	0/ 0/ 0	0/ 0/ 0	3	NE	CHESTERVILLE	
159810	5/ 5/82	123	0/ 0/ 0	0/ 0/ 0	2	NNW	NORDEHIM	
160467	5/12/82	177	0/ 0/ 0	0/ 0/ 0	12	NE'L	GONZALES	
160468	5/12/82	177	0/ 0/ 0	9/26/82	3	SE'L	GONZALES	W
160523	5/12/82	239	0/ 0/ 0	6/11/82	8	S	LE WARD	W
160525	5/12/82	177	12/27/82	1/10/83	4	S'LY	WAELEDER	W
161066	5/19/82	123	7/ 9/82	7/24/82	3	SE	ARNEKEVILLE	D
161703	5/25/82	239	0/ 0/ 0	3/27/82	10	NNW	FRANCITIS	W
161705	5/25/82	149	0/ 0/ 0	4/14/82	1	NE	WESTPOINT	W
162082	5/27/82	321	0/ 0/ 0	0/ 0/ 0	18	SE	FREEPORT	
162888	6/ 4/82	57	0/ 0/ 0	0/ 0/ 0	5	SW	PALACIAS	
163379	6/11/82	149	0/ 0/ 0	0/ 0/ 0	1	SSW	WALHALLA	
164033	6/17/82	123	0/ 0/ 0	7/15/82	3	SE	ARNEKEVILLE	W
164360	6/21/82	285	0/ 0/ 0	0/ 0/ 0	8	SW	SPARKS	
164683	6/24/82	481	0/ 0/ 0	0/ 0/ 0	7	NW	EL CAMP	
166007	6/23/82	89	0/ 0/ 0	0/ 0/ 0	3	SW	WEIMAR	
166936	7/23/82	57	0/ 0/ 0	8/15/82	1	NW	HEYSER	W
167815	7/30/82	481	0/ 0/ 0	8/27/82	5	NW	WHATRON	W
168236	8/ 3/82	177	0/ 0/ 0	8/19/82	0	W/I	GONZALES	W
169150	8/13/82	285	0/ 0/ 0	11/ 3/82	7	SE	EZZEL	W
169689	8/19/82	469	0/ 0/ 0	0/ 0/ 0	3	NE	NURESERY	
169783	8/18/82	149	0/ 0/ 0	0/ 0/ 0	3	SW	RUTERVILLE	
170057	8/24/82	149	0/ 0/ 0	0/ 0/ 0	1	SSW	WALHALLA	
170060	8/24/82	15	0/ 0/ 0	9/18/82	1	EAST	ORANGE HILL	D
170472	8/30/82	89	9/ 3/82	9/24/82	3	SSW	WEIMAR	W
170840	9/ 3/82	239	0/ 0/ 0	1/14/83	3	S	EDNA T/S	A
171128	9/ 8/82	89	1/14/83	1/19/83	12	SSE	WEIMAR	D
171767	3/12/82	469	0/ 0/ 0	7/ 8/82	3	NORT	HEYSER SWITC	W
172056	9/16/82	89	0/ 0/ 0	0/ 0/ 0	2	NE	CHESTERVILLE	
172156	9/17/82	149	0/ 0/ 0	0/ 0/ 0	3	S	WICHESTER	
173475	9/21/82	149	0/ 0/ 0	10/29/82	6	NW	FLATONTA	W

173656	10/ 5/82	177	0/ 0/ 0	10/ 5/82	2	SE	WALLDEN	W
173701	10/ 5/82	321	10/27/82	10/15/82	0	WNW	DEMOS	D
174719	10/18/82	149	0/ 0/ 0	0/ 0/ 0	1	SW	PARK	
174823	10/ 6/82	15	0/ 0/ 0	0/ 0/ 0	8	NE	BELLVILLE	
175743	10/28/82	481	0/ 0/ 0	10/22/82	1	W	DANAVAN	D
175922	10/29/82	149	0/ 0/ 0	0/ 0/ 0	1	SW	PARK	
176396	11/ 3/82	57	0/ 0/ 0	3/26/83	10	SE	SEDRA	D
176711	11/ 5/82	177	0/ 0/ 0	11/20/82	1	SE	LAKWOOD	W
177010	11/10/82	149	0/ 0/ 0	12/24/82	3	NW	OLDENBURG	W
177329	10/22/82	321	0/ 0/ 0	0/ 0/ 0	0	WNW	DEMOS	
178001	11/23/82	469	0/ 0/ 0	0/ 0/ 0	3	W	MCFADDEN	
179072	12/ 1/82	57	0/ 0/ 0	2/18/83	4	SW	GREENLAKE	D
179130	11/30/82	481	0/ 0/ 0	1/ 9/83	4	SE	EQYPT	W
179291	12/ 8/82	149	0/ 0/ 0	12/14/82	4	NW	RUTTERSVILLE	W
179626	12/10/82	15	0/ 0/ 0	0/ 0/ 0	1	W	SEALEY	
179628	12/10/82	89	0/ 0/ 0	0/ 0/ 0	3	N	CHESTERVILLE	
180023	12/ 7/82	149	0/ 0/ 0	12/22/82	0	SW	WALHALLA	W
181143	12/23/82	89	0/ 0/ 0	3/25/83	6	E	OAKLAND	W
181383	12/28/82	149	0/ 0/ 0	12/28/82	3	S	WESTPOINT	W
181552	12/28/82	149	1/ 4/83	0/ 0/ 0	1	N	WALHALLA	
181969	12/31/82	89	0/ 0/ 0	0/ 0/ 0	6	SE	WEIMAR	
182423	12/31/82	469	2/ 3/83	3/14/83	3	W	MCFADDEN	D
183167	12/31/82	177	0/ 0/ 0	1/24/83	3	S'EL	GONZALES	A
184295	1/25/83	149	0/ 0/ 0	2/14/83	3	SE	WESTPOINT	W
184395	12/31/82	89	0/ 0/ 0	2/ 4/83	4	SSW	WEIMAR	W
184447	1/10/83	89	0/ 0/ 0	2/ 0/83	3	SW	WEIMAR	N
184573	1/27/83	57	0/ 0/ 0	2/16/83	6	NW	PORT COMFORT	D
186183	2/16/83	285	0/ 0/ 0	1/30/83	5	SE	EZZEL	W
186717	2/23/83	149	0/ 0/ 0	0/ 0/ 0	1	W	WALHALLA	
186784	2/24/83	89	0/ 0/ 0	0/ 0/ 0	2	S	WEIMAR	
186955	2/25/83	469	0/ 0/ 0	3/24/81	5	SWS	MISSION VALL	W
187486	3/ 4/83	89	0/ 0/ 0	4/ 8/83	2	NW	CHESTERVILLE	W
187543	3/ 7/83	57	0/ 0/ 0	0/ 0/ 0	10	S	LEWARD	
187621	3/ 7/83	149	3/12/83	0/ 0/ 0	2	SW	WALHALLA	
188638	2/ 4/83	149	0/ 0/ 0	2/26/83	2	E	WECHANITZ	W
189508	3/24/83	57	0/ 0/ 0	0/ 0/ 0	10	S	LEWARD	
190806	4/ 6/83	149	4/19/83	5/14/83	1	SW	WALHALLA	W
192963	4/28/83	57	0/ 0/ 0	0/ 0/ 0	2	N	HEYSER	
193965	5/ 9/83	177	0/ 0/ 0	0/ 0/ 0	6	E	WRIGHTSBOROU	
194652	5/12/83	481	0/ 0/ 0	0/ 0/ 0	4	S	HITCHCOCK	
194928	4/25/83	177	0/ 0/ 0	4/14/83	1	SE	LAKWOOD	W
195010	5/16/83	149	5/23/83	0/ 0/ 0	2	SW	WALHALLA	
195365	5/17/83	89	0/ 0/ 0	0/ 0/ 0	5	W NW	GARWOOD	
195387	5/17/83	177	5/23/83	0/ 0/ 0	2	S	LAKWOOD	
195737	5/19/83	89	0/ 0/ 0	0/ 0/ 0	2	E	CHESTERVILLE	
195882	5/20/83	469	5/25/83	0/ 0/ 0	3	W	MCFADDEN	
196311	5/16/83	285	0/ 0/ 0	0/ 0/ 0	5	SE	EZZEL	
196892	6/ 1/83	149	0/ 0/ 0	0/ 0/ 0	7	SW	WEIMAR	
196921	6/ 1/83	149	0/ 0/ 0	0/ 0/ 0	7	SW	WEIMAR	
197118	6/ 2/83	149	0/ 0/ 0	0/ 0/ 0	2	SE	WESTPOINT	
197368	6/ 6/83	149	0/ 0/ 0	0/ 0/ 0	10	SE'L	GIDDINGS	
197608	6/ 8/83	89	0/ 0/ 0	0/ 0/ 0	2	NW	CHESTERVILLE	
197956	6/10/83	149	0/ 0/ 0	0/ 0/ 0	2	WNW	WEIMAR	
197957	6/10/83	149	0/ 0/ 0	0/ 0/ 0	6	NW	WEIMAR	

YMIN= 16463.
YMAX= 948390.

XMIN= 22471.
XMAX= 738002.

ACTIVITY SUMMARY FOR COUNTY # 8 - AUSTIN

<u>YEAR</u>	<u>PERMIT</u>	<u>SPUD-IN</u>	<u>RESV-W</u>
1977	22	4	2
1978	41	15	3
1979	42	9	22
1980	44	16	26
1981	54	9	23
1982	30	5	5
1983	6	0	0
1984	0	0	0
1985	0	0	0
<u>1986</u>	<u>0</u>	<u>0</u>	<u>0</u>
TOTAL	239	58	81

ACTIVITY SUMMARY FOR COUNTY # 29 - CALHOUN

<u>YEAR</u>	<u>PERMIT</u>	<u>SPUD-IN</u>	<u>RESV-W</u>
1977	64	15	0
1978	114	34	11
1979	112	21	43
1980	104	10	38
1981	117	28	35
1982	98	18	36
1983	31	6	17
1984	0	0	0
1985	0	0	0
<u>1986</u>	<u>0</u>	<u>0</u>	<u>0</u>
TOTAL	640	132	180

ACTIVITY SUMMARY FOR COUNTY # 45 - COLORADO

<u>YEAR</u>	<u>PERMIT</u>	<u>SPUD-IN</u>	<u>RESV-W</u>
1977	69	17	8
1978	136	41	24
1979	132	31	43
1980	118	28	44
1981	98	27	44
1982	111	22	40
1983	45	10	15
1984	0	0	0
1985	0	0	0
<u>1986</u>	<u>0</u>	<u>0</u>	<u>0</u>
TOTAL	709	176	218

ACTIVITY SUMMARY FOR COUNTY # 62 - DEWITT

<u>YEAR</u>	<u>PERMIT</u>	<u>SPUD-IN</u>	<u>RESV-W</u>
1977	95	27	2
1978	157	48	21
1979	114	19	50
1980	105	13	48
1981	112	28	43
1982	91	19	28
1983	36	9	11
1984	0	0	0
1985	0	0	0
<u>1986</u>	<u>0</u>	<u>0</u>	<u>0</u>
TOTAL	710	163	203

ACTIVITY SUMMARY FOR COUNTY # 75 - FAYETTE

<u>YEAR</u>	<u>PERMIT</u>	<u>SPUD-IN</u>	<u>RESV-W</u>
1977	7	1	0
1978	26	6	3
1979	127	36	66
1980	434	126	252
1981	416	86	329
1982	183	36	133
1983	94	14	49
1984	0	0	0
1985	0	0	0
<u>1986</u>	<u>0</u>	<u>0</u>	<u>0</u>
TOTAL	1287	305	832

ACTIVITY SUMMARY FOR COUNTY # 89 - GONZALES

<u>YEAR</u>	<u>PERMIT</u>	<u>SPUD-IN</u>	<u>RESV-W</u>
1977	60	16	2
1978	57	20	3
1979	49	10	25
1980	237	27	127
1981	467	90	326
1982	211	26	138
1983	74	13	24
1984	0	0	0
1985	0	0	0
<u>1986</u>	<u>0</u>	<u>0</u>	<u>0</u>
TOTAL	1155	202	645

ACTIVITY SUMMARY FOR COUNTY # 120 - JACKSON

<u>YEAR</u>	<u>PERMIT</u>	<u>SPUD-IN</u>	<u>RESV-W</u>
1977	194	36	5
1978	267	56	44
1979	229	36	129
1980	250	34	137
1981	269	38	118
1982	258	32	158
1983	83	6	34
1984	0	0	0
1985	0	0	0
<u>1986</u>	<u>0</u>	<u>0</u>	<u>0</u>
TOTAL	1550	238	625

ACTIVITY SUMMARY FOR COUNTY # 143 - LAVACA

<u>YEAR</u>	<u>PERMIT</u>	<u>SPUD-IN</u>	<u>RESV-W</u>
1977	143	38	2
1978	162	44	16
1979	133	21	67
1980	131	15	63
1981	134	25	79
1982	117	13	60
1983	43	5	17
1984	0	0	0
1985	0	0	0
<u>1986</u>	<u>0</u>	<u>0</u>	<u>0</u>
TOTAL	863	161	304

ACTIVITY SUMMARY FOR COUNTY # 161 - MATAGORDA

<u>YEAR</u>	<u>PERMIT</u>	<u>SPUD-IN</u>	<u>RESV-W</u>
1977	80	10	1
1978	113	30	15
1979	147	32	52
1980	157	41	66
1981	164	39	72
1982	122	20	48
1983	49	3	14
1984	0	0	0
1985	0	0	0
<u>1986</u>	<u>0</u>	<u>0</u>	<u>0</u>
TOTAL	832	175	268

ACTIVITY SUMMARY FOR COUNTY # 235 - VICTORIA

<u>YEAR</u>	<u>PERMIT</u>	<u>SPUD-IN</u>	<u>RESV-W</u>
1977	187	51	6
1978	291	81	51
1979	202	49	108
1980	262	14	130
1981	233	40	132
1982	212	34	109
1983	91	13	29
1984	0	0	0
1985	0	0	0
<u>1986</u>	<u>0</u>	<u>0</u>	<u>0</u>
TOTAL	1478	282	565

ACTIVITY SUMMARY FOR COUNTY # 241 - WHARTON

<u>YEAR</u>	<u>PERMIT</u>	<u>SPUD-IN</u>	<u>RESV-W</u>
1977	173	21	9
1978	255	58	30
1979	275	45	107
1980	276	62	116
1981	263	43	132
1982	238	30	95
1983	102	29	38
1984	0	0	0
1985	0	0	0
<u>1986</u>	<u>0</u>	<u>0</u>	<u>0</u>
TOTAL	1582	288	527

APPENDIX J

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GRIDnn - Plots Grid/Density Maps

This program produces a grid/density map locating the permits, spud-ins, and completed wells within a selected region. It can also plot the regional road network and the county and district boundaries, at the user's option. At this time, only one plot per run can be produced.

INPUTS:

1. WELLXYnn produced by LOCnn
2. PTXYnn containing a list of coordinates for the boundary lines and roads.
3. &OPTION card specifying whether or not the program will produce: grid plots, permit/spud-in plots, boundary lines or roads.
4. &SELECT card specifying the span of years (from 1 to 7) to be used.
5. &MAP card containing the title.
6. &WINDOW containing the coordinates of the area to be placed within the window of the plot.
7. &LINE cards describing a string of coordinates to be connected with solid lines to form regional roads or boundaries.

OUTPUTS:

1. Grid/density map, as specified. Output on separate plotter.
2. List of counties and towns within the analysis area, from program.
3. List of drilling activity within each county, from program.

NOTES:

1. The elapsed time on the computer for each run is greater than 30 minutes; so, be prepared to spend some time "baby-sitting" the runs if you need rapid turnaround.

```

1. //GRID13 JOB (W259,008D,002,10,DM), 'MAXWELL'
2. //*TAMU PRTY=3
3. //VER1 EXEC VTEC,WIDTH=36,REGION=1280K
4. //SYSLIN DD SPACE=(3120,(100,50))
5. //FORT.SYSIN DD *
6. C
7. C RESEARCH STUDY: 2-8-81-299
8. C THE EFFECTS OF OILFIELD DEVELOPMENT ON RURAL HIGHWAYS.
9. C
10. C THIS ROUTINE PRODUCES A SERIES OF PLOTS FROM A SUMMARY OF
11. C COUNTY, TOWN AND WELL LOCATIONS ON THE "WELLXY" FILE.
12. C
13. C-----
14. C INTEGER CTY(12)/21,11*0/
15. C
16. C INTEGER NC,NTT,NT,NW, T1(500),T2(500),T3(500),T4(500)
17. C INTEGER*2 PSW(3,10,12000)/360000*00/
18. C INTEGER SPAN(10)/7,9*0/
19. C REAL TX(500),TY(500),WX(12000),WY(12000)
20. C REAL PX(900)/900*0.0/,PY(900)/900*0.0/
21. C INTEGER C1(254),C2(254),C3(254),WC(12000)
22. C INTEGER NPER(10),NSPUD(10),NRESV(10),TNPER,TNSPUD,TNRESV
23. C
24. C NAMELIST /SELECT/SPAN
25. C LOGICAL GRID/.FALSE./,WELL/.FALSE./,LINES/.FALSE./
26. C LOGICAL ROADS/.FALSE./
27. C NAMELIST/OPTION/GRID,WELL,LINES,ROAS
28. C
29. C-----
30. C READ IN THE CONTROL PARAMETERS
31. C
32. C READ(5,OPTION)
33. C READ(5,SELECT)
34. C
35. C-----
36. C READ IN THE PHYSICAL DETAIL COORDINATE (Y,X) TABLES.
37. C
38. C IF((.NOT.ROADS).AND(.NOT.LINES)) GO TO 39
39. C NP=1
40. C 35 READ(13,37,END=39) NNP,PY(NNP),PX(NNP)
41. C NP=NP+1
42. C GO TO 35
43. C 37 FORMAT(T28,I3, T31,2F10.0)
44. C 39 CONTINUE
45. C
46. C-----
47. C READ THE WELLXY FILE
48. C
49. C READ(12) NC,NTT,NT,NW,PSW, CTY,C1,C2,C3,T1,T2,T3,T4,TX,TY,
50. C * WC,WX,WY
51. C
52. C-----
53. C WRITE THE COUNTIES AND TOWNS WITHIN THE ANALYSIS AREA
54. C
55. C WRITE(6,70)
56. C 70 FORMAT('1 RESEARCH STUDY: 2-8-81-299',/,T20,
57. C * 'THE EFFECTS OF OILFIELD DEVELOPMENT ON RURAL HIGHWAYS',///,
58. C * T5,'COUNTIES WITHIN THE ANALYSIS AREA:',// )
59. C
60. C NC=00

```

```

61.      DO 74 J=1,12
62.      IF( CTY(J).EQ.OO ) GO TO 74
63.      NC=NC+1
64.      NCC=CTY(J)
65.      WRITE(6,72) NCC,C1(NCC),C2(NCC),C3(NCC)
66.      72 FDRMAT( T5,I3,5X,3A4)
67.      74 CONTINUE
68.      C
69.      WRITE(6,76) ( JJ,T1(JJ),T2(JJ),T3(JJ),T4(JJ),JJ=1,NT )
70.      76 FORMAT(////,T5,'TOWNS WITHIN THE ANALYSIS AREA:',//,
71.      * 50(5X,I3,1X,4A4,5X,I3,1X,4A4,5X,I3,1X,4A4,5X,I3,1X,4A4,/) )
72.      C
73.      C-----
74.      C PRINT THE COUNTY ACTIVITY SUMMARY
75.      C
76.      DO 1050 JC=1,NC
77.      NCC=CTY(JC)
78.      WRITE(6,1005) NCC,C1(NCC),C2(NCC),C3(NCC)
79.      1005 FORMAT('1',//,' ACTIVITY SUMMARY FOR COUNTY # ',I3,' - '3A4,/)
80.      DO 1010 J=1,10
81.      NPER(J)=OO
82.      NSPUD(J)=OO
83.      NRESV(J)=OO
84.      1010 CONTINUE
85.      C
86.      DO 1030 JW=1,NW
87.      IF(WC(JW) .NE. NCC ) GO TO 1030
88.      DO 1020 JY=1,10
89.      IF( PSW(1,JY,JW) .GT. O ) NPER(JY)=NPER(JY)+1
90.      IF( PSW(2,JY,JW) .GT. O ) NSPUD(JY)=NSPUD(JY)+1
91.      IF( PSW(3,JY,JW) .GT. O ) NRESV(JY)=NRESV(JY)+1
92.      1020 CONTINUE
93.      1030 CONTINUE
94.      C
95.      TNPER=OO
96.      TNSPUD=O
97.      TNRESV=O
98.      DO 1035 J=1,10
99.      TNPER= TNPER + NPER(J)
100.     TNSPUD=TNSPUD+NSPUD(J)
101.     TNRESV=TNRESV+NRESV(J)
102.     1035 CONTINUE
103.     C
104.     WRITE(6,1040) (NPER(J),NSPUD(J),NRESV(J),J=1,10),
105.     * TNPER,TNSPUD,TNRESV
106.     1040 FORMAT( T11,'YEAR',5X,'PERMIT',5X,'SPUD-IN',5X,'RESV-W',/,
107.     * '+',T11,'_____',5X,'_____',5X,'_____',5X,'_____',/,
108.     * 'O',T11,'1977',3(5X,I5),/, 'O',T11,'1978',3(5X,I5),/,
109.     * 'O',T11,'1979',3(5X,I5),/, 'O',T11,'1980',3(5X,I5),/,
110.     * 'O',T11,'1981',3(5X,I5),/, 'O',T11,'1982',3(5X,I5),/,
111.     * 'O',T11,'1983',3(5X,I5),/, 'O',T11,'1984',3(5X,I5),/,
112.     * 'O',T11,'1985',3(5X,I5),/, 'O',T11,'1986',3(5X,I5),/,
113.     * '+',T11,'_____',5X,'_____',5X,'_____',5X,'_____',/,
114.     * 'O',T10,'TOTAL',3(5X,I5) )
115.     C
116.     1050 CONTINUE
117.     C
118.     C-----
119.     C GENERATE THE WELL LOCATION PLOTS.
120.     C
121.     DO 1000 J=1,10

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122.      IF( SPAN(J).LE.OO ) GO TO 1011
123.      CALL SHEET(NT,TX,TY,CTY,T1,T2,T3,T4,C1,C2,C3,SPAN(J))
124.      IF( GRID ) CALL GPLOT(NW,WX,WY,PSW)
125.      IF( WELL ) CALL WPLOT(NW,WX,WY,PSW)
126.      IF(ROADS.OR.LINES) CALL DETAIL(PX,PY,ROADS,LINES)
127.      CALL PLOT( 4200,01,-999 )
128.      1000 CONTINUE
129.      C
130.      C-----
131.      1011 CONTINUE
132.      CALL PLOT( 0.0,0.0,999 )
133.      C
134.      STOP
135.      END
136.      C=====
137.      SUBROUTINE SHEET(NT,TX,TY,CTY,T1,T2,T3,T4,C1,C2,C3,JSP)
138.      C
139.      INTEGER NT,CTY(1),T4(1),T1(1),T2(1),T3(1)
140.      INTEGER C1(1),C2(1),C3(1)
141.      INTEGER ISTR(4),NSYM(3)/9,2,5/,NINES/'9999'/
142.      REAL WX(1),WY(1),TX(1),TY(1)
143.      REAL PX(100),PY(100)
144.      INTEGER KSTR(4)/'1977', ' TH', 'RU ', ' ' //
145.      INTEGER *2 PSW(3,10,12000)
146.      INTEGER*2 NGR(200,150)/30000*0/
147.      LOGICAL LINES,ROADS
148.      C
149.      NAMELIST /MAP/TITLE
150.      INTEGER TITLE(4)/4*' ' //
151.      C
152.      NAMELIST/WINDOW/ WXMIN,WXMAX,WYMIN,WYMAX
153.      INTEGER HNAME(2)/2*' ' //,PT(200)/200*0/
154.      NAMELIST/LINE/ HNAME,PT,KEY
155.      C
156.      C-----
157.      C SET-UP THE 36-INCH PLOTTER
158.      C
159.      READ(5,MAP)
160.      READ(5,WINDOW)
161.      CALL PLOTS( 0, 0, 0 )
162.      CALL SET( 300,3800,300,3300,
163.      *          WXMIN,WXMAX,WYMIN,WYMAX, 1 )
164.      C
165.      C          XMIN, XMAX, YMIN, YMAX
166.      C          PLOTTER FRAME IN INCHES
167.      C          REAL WORLD IN "WHAT EVER"
168.      C
169.      C-----
170.      C PLDT THE OUTSIDE EDGES AND MAP AREA BOUNDARY.
171.      C
172.      CALL OPTION(0,1,0,0)
173.      CALL FRSTPT( 1,1 )
174.      CALL VECTOR( 1,3300)
175.      CALL VECTOR(4100,3300)
176.      CALL VECTOR(4100,1)
177.      CALL VECTOR( 1,1 )
178.      C
179.      CALL FRSTPT(300,300)
180.      CALL VECTOR(300,3290)
181.      CALL VECTOR(3800,3290)
182.      CALL VECTOR(3800,300)

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183.      CALL VECTOR(300,300)
184.      C
185.      CALL FRSTPT(10,3250)
186.      CALL VECTOR(290,3250)
187.      CALL FRSTPT(3810,3250)
188.      CALL VECTOR(4090,3250)
189.      CALL FRSTPT(10,2300)
190.      CALL VECTOR(290,2300)
191.      CALL FRSTPT(10,2310)
192.      CALL VECTOR(290,2310)
193.      CALL FRSTPT(10,2250)
194.      CALL VECTOR(290,2250)
195.      CALL FRSTPT(300,10 )
196.      CALL VECTOR(300,290 )
197.      CALL VECTOR(3800,290)
198.      CALL VECTOR(3800,10)
199.      CALL VECTOR(300,10 )
200.      C
201.      CALL OPTION(O,O,O,O)
202.      C
203.      C-----
204.      C PLOT TOWN LOCATIONS AND NAMES.
205.      C
206.      CALL PWRX(3950,3275,5HTOWNS,5,0.6,0,1)
207.      CALL PWRX( 150,2275,5HTOWNS,5,0.6,0,1)
208.      NPX=70
209.      NPY=2250
210.      JK=0
211.      DO 40 J=1,NT
212.      IF( T1(J).EQ.NINES ) GO TO 42
213.      C
214.      38 CONTINUE
215.      CALL ENCDE( J,JSTR,NC )
216.      CALL PWRX(TX(J),TY(J),5H"731",5,0.5,0,1)
217.      CALL PWRX( TX(J),TY(J),JSTR,NC,0.4,0,1 )
218.      ISTR(1)=T1(J)
219.      ISTR(2)=T2(J)
220.      ISTR(3)=T3(J)
221.      ISTR(4)=T4(J)
222.      JK=JK+1
223.      IF(NPY-JK*25 .GT. 050 ) GO TO 39
224.      JK=1
225.      NPX=3870
226.      NPY=3250
227.      39 CONTINUE
228.      CALL PWRX(NPX,NPY-JK*25,JSTR,NC,0.5,0,4)
229.      CALL PWRX(NPX+20,NPY-JK*25,ISTR,16,0.5,0,2)
230.      40 CONTINUE
231.      42 CONTINUE
232.      C
233.      C-----
234.      C PLOT COUNTY NAMES AND NUMBERS
235.      C
236.      CALL PWRX( 150,3275,8HCOUNTIES,8,0.6,0,1)
237.      DO 50 J=1,12
238.      IF(CTY(J).LE.00) GO TO 52
239.      CALL ENCDE(CTY(J),JSTR,NC)
240.      CALL PWRX( 70,3250-J*25,JSTR,NC,0.5,0,4)
241.      MCP=CTY(J)
242.      ISTR(1)=C1(MCP)
243.      ISTR(2)=C2(MCP)

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244.      ISTR(3)=C3(MCP)
245.      CALL PWRX( 90,3250-J*25,ISTR,12,0.5,0,2)
246.      50 CONTINUE
247.      52 CONTINUE
248.      C
249.      C-----
250.      C PUT ON THE PROJECT TITLE.
251.      C
252.      CALL PWRX( 2050,260,26HRESEARCH STUDY 2-8-81-299,26,1.0,0,1)
253.      CALL PWRX( 2050,200,
254.      * 53HTHE EFFECTS OF OILFIELD DEVELOPMENT ON RURAL HIGHWAYS ,
255.      * 53,1.5,0,1)
256.      C
257.      CALL ENCL( 1976+JSP,KK,NC )
258.      KSTR(4)=KK
259.      CALL PWRX( 2050,075,KSTR,16,1.0,0,1 )
260.      CALL PWRX( 2050,125,TITLE,16,1.0,0,1 )
261.      C
262.      CALL PSYM(350,220,9,2,0,1)
263.      CALL PSYM(350,150,2,2,0,1)
264.      CALL PSYM(350,080,0,2,0,1)
265.      CALL PWRX(370,220,17H- PERMIT LOCATION,17,.75,0,2)
266.      CALL PWRX(370,150,9H- SPUD-IN,9,.75,0,2)
267.      CALL PWRX(370,080,17H- PRODUCTION AREA,17,.75,0,2)
268.      C
269.      RETURN
270.      C
271.      C-----
272.      C GRID THE WELL LOCATIONS
273.      C
274.      ENTRY GLOT(NW,WX,WY,PSW)
275.      C
276.      C
277.      C
278.      CALL OPTION(0,0,0,0)
279.      GWIDTH= 5 * 5280.00
280.      DO 930 JW=1,NW
281.      C
282.      DO 920 JS=1,JSP
283.      IF( PSW(3,JS,JW) .EQ. 1 ) GO TO 928
284.      920 CONTINUE
285.      GO TO 930
286.      C
287.      928 CONTINUE
288.      NX= ( WX(JW) - WXMIN ) / GWIDTH
289.      NY= ( WY(JW) - WYMIN ) / GWIDTH
290.      NX=NX+1
291.      NY=NY+1
292.      IF( NX.LE.0 .OR. NX.GT.200 ) GO TO 930
293.      IF( NY.LE.0 .OR. NY.GT.150 ) GO TO 930
294.      NGR(NX,NY)= NGR(NX,NY) + 1
295.      930 CONTINUE
296.      C
297.      DO 950 JX=1,200
298.      DO 950 JY=1,150
299.      IF( NGR(JX,JY) .LE. 00 ) GO TO 950
300.      XL= WXMIN + (JX-1)*GWIDTH
301.      YL= WYMIN + (JY-1)*GWIDTH
302.      CALL FRSTPT(XL,YL)
303.      CALL VECTOR(XL+GWIDTH,YL)
304.      CALL VECTOR(XL+GWIDTH,YL+GWIDTH)

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305.      CALL VECTOR(XL,YL+GWIDTH)
306.      CALL VECTOR(XL,YL)
307.      C
308.      NL=NGR(JX,JY)
309.      SP=GWIDTH/(NL+1)
310.      DO 945 JL=1,NL
311.      XP=XL+JL*SP
312.      CALL FRSTPT(XP,YL)
313.      CALL VECTOR(XP,YL+GWIDTH)
314.      YP=YL+JL*SP
315.      CALL FRSTPT(XL,YP)
316.      CALL VECTOR(XL+GWIDTH,YP)
317.      945 CONTINUE
318.      C
319.      950 CONTINUE
320.      C
321.      RETURN
322.      C
323.      C-----
324.      C PLOT THE WELL LOCATIONS
325.      C
326.      ENTRY WPLOT(NW,WX,WY,PSW)
327.      C
328.      DO 830 JW=1,NW
329.      NS=0
330.      DO 820 JS=1,JSP
331.      IF( PSW(1,JS,JW) .EQ. 1 ) NS=1
332.      IF( PSW(2,JS,JW) .EQ. 1 ) NS=2
333.      820 CONTINUE
334.      IF(NS.EQ.OO) GO TO 830
335.      CALL PSYM( WX(JW),WY(JW),NSYM(NS),O,O,1)
336.      830 CONTINUE
337.      C
338.      RETURN
339.      C
340.      C-----
341.      C PLOT THE MAIN ROADS CONNECTING CERTAIN TOWNS
342.      C
343.      ENTRY DETAIL(PX,PY,ROADS,LINES)
344.      C
345.      960 CONTINUE
346.      DO 962 J=1,200
347.      962 PT(J)=OO
348.      READ(5,LINE,END=999)
349.      C
350.      IF(ROADS.AND.(KEY.EQ.OO)) GO TO 840
351.      IF(LINES.AND.(KEY.EQ.O1)) GO TO 844
352.      GO TO 960
353.      840 CALL OPTION(O,O,O,O)
354.      GO TO 846
355.      844 CALL OPTION(O,1,O,O)
356.      846 CONTINUE
357.      C
358.      DO 680 JR=2,200
359.      NA=JR
360.      NB=JR-1
361.      IF( PT(NA).EQ.OO ) GO TO 682
362.      KA= IABS( PT(NA) )
363.      KB= IABS( PT(NB) )
364.      C
365.      TXKB=TX(KB)

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366.      IF( PT(NB).LT.00 ) TXKB=PX(KB)
367.      TYKB=TY(KB)
368.      IF( PT(NB).LT.00 ) TYKB=PY(KB)
369.      TXKA=TX(KA)
370.      IF( PT(NA).LT.00 ) TXKA=PX(KA)
371.      TYKA=TY(KA)
372.      IF( PT(NA).LT.00 ) TYKA=PY(KA)
373.      C
374.      DX=TXKA-TXKB
375.      DY=TYKA-TYKB
376.      H=SQRT(DX*DX + DY*DY)
377.      IF( H .LT. 1.0 ) H=1.0
378.      DX=2500.0*DX/H
379.      DY=2500.0*DY/H
380.      C
381.      ADX=0.0
382.      ADY=0.0
383.      IF( PT(NA).LE.00 ) GO TO 964
384.      ADX=DX
385.      ADY=DY
386.      964 BDX=0.0
387.      BDY=0.0
388.      IF( PT(NB).LE.00 ) GO TO 966
389.      BDX=DX
390.      BDY=DY
391.      966 CONTINUE
392.      C
393.      CALL FRSTPT( TXKB+BDX, TYKB+BDY )
394.      CALL VECTOR( TXKA-ADX, TYKA-ADY )
395.      C
396.      680 CONTINUE
397.      682 CONTINUE
398.      GO TO 960
399.      C
400.      999 CONTINUE
401.      CALL OPTION(0,0,0,0)
402.      C
403.      RETURN
404.      END
405.      //GO.PLOTPARM DD *
406.      &PLOT MSGLVL=1,YMIN=0.0,XMIN=0.0,YMAX=35.00,XMAX=42.00 &END
407.      //GO.FT09FOO1 DD DISP=SHR,DSN=USR.W259.DM.CNTYNAME
408.      //GO.FT10FOO1 DD DISP=SHR,DSN=USR.W259.DM.TOWNXY13
409.      //GO.FT11FOO1 DD DISP=SHR,DSN=USR.W259.DM.PERMIT13
410.      //GO.FT12FOO1 DD DISP=SHR,DSN=USR.W259.DM.WELLY13
411.      //GO.FT13FOO1 DD DISP=SHR,DSN=USR.W259.DM.PTXY13
412.      //GO.SYSIN DD *
413.      &OPTION GRID=T,WELL=T,LINES=T,ROADS=T &END
414.      &SELECT SPAN=7 &END
415.      &MAP TITLE=' DI','STRI','CT -',' 13 ' &END
416.      &WINDOW WXMIN=0.0,WXMAX=900000.,WYMIN=0.0,WYMAX=800000.0 &END
417.      &LINE KEY=1,HNAME='DIST-13',PT=-400,-401,-402,-403,-404,-405,
418.      -406,-407,-408,-409,-235,-410,-411,-412,-413,-206,-414,
419.      -415,-416,-417,-418,-200,-419,-420,-421,-422,-423,-424,
420.      -425,-213,-426,-251,-427,-242,-428,-253,-429,-430,-348,
421.      -309,-229,-243,-431,-432,-222,-228,-266,-433,-244,-276,
422.      -434,-435,-304,-212,-436,-437,-231,-438,-439,-440,-230,
423.      -261,-441,-442,-297,-377,-275,-236,-443,-360,-444,-257,
424.      -445,-446,-447,-448,-449,-450,-312,-451,-452,-453,-454,
425.      -455,-456,-457,-458,-227,-459,-460,-461,-462,-463,-464,
426.      -465,-342,-466,-467,-468,-469,-470,-471,-472,-473,-474,

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427. -475,-205,-476,-477,-478,-479,-480,-481,-301,-482,-483,
428. -484,-485,-486,-354,-487,-488,-489,-232,-490,-491,-492,
429. -493,-311,-494,-495,-496,-497,-498,-499,-305,-500,-400 &END
430. &LINE KEY=1,HNAME='CNTY 1',PT=-410,-508,-509,-510,-511,-512,
431. -513,-514,-515,-516,-543,-544,-545,-547,-546,-501,-500 &END
432. &LINE KEY=1,HNAME='CNTY 2',PT=-516,-517,-518,-332,-519,-520,
433. -521,-522,-523,-524,-525,-526,-527,-528,-425 &END
434. &LINE KEY=1,HNAME='CNTY 3',PT=-528,-529,-268,-429 &END
435. &LINE KEY=1,HNAME='CNTY 4',PT=-529,-530,-531,-532,-533,-345,-433 &END
436. &LINE KEY=1,HNAME='CNTY 5',PT=-532,-534,-396,-537,-441 &END
437. &LINE KEY=1,HNAME='CNTY 6',PT=-537,-538,-539,-540,-541,-542,
438. -507,-469 &END
439. &LINE KEY=1,HNAME='CNTY 7',PT=-507,-506,-505,-504,-536,-535,
440. -281,-534 &END
441. &LINE KEY=1,HNAME='CNTY 8',PT=-546,-502,0-504 &END
442. &LINE KEY=1,HNAME='CNTY 9',PT=-502,-503,-484 &END
442.5 &LINE KEY=1,HNAME='CNTY 10',PT=-536,-527 &END
443. &LINE KEY=0,HNAME='I-10',PT=-228,-249,-392,-393,-394,-395,-396,19,
444. -397,2,-539,160,-364,-227 &END
445. &LINE KEY=0,HNAME='US-59',PT=-200,147,-207,184,177,81,-524,49,45,
446. -313,60,99,73,47,135,100,-201,-202,-203,-204,-205 &END
447. &LINE KEY=0,HNAME='US-77',PT=-206,-302,-258,-207,184,56,-324,68,
448. -327,-326,158,175,76,-209,88,-210,-211,191,-212 &END
449. &LINE KEY=0,HNAME='US-77A',PT=-213,-214,-215,38,-216,44,-217,203,-218,68 &END
451. &LINE KEY=0,HNAME='US-87',PT=141,-223,82,136,39,184,-224,127,-225,
452. 179,-226,38,-215,-241,197,153,166,124,-549 &END
453. &LINE KEY=0,HNAME='US-90',PT=-228,69,-265,180,187,55,158,196,
454. 19,65,35,2,-539,160,-364,-227 &END
455. &LINE KEY=0,HNAME='US-90A',PT=-229,11,129,66,-329,163,-325,-218,
456. 68,170,-280,162,149,3,42,-386,94,43,-471 &END
457. &LINE KEY=0,HNAME='US-183',PT=-213,-214,-215,38,-216,-391,-219,
458. -220,-246,66,-221,165,-372,-222 &END
459. &LINE KEY=0,HNAME='US-290',PT=93,-231,-438,23,-440,-230 &END
460. &LINE KEY=0,HNAME='SH-35',PT=-235,67,-234,-369,134,-384,15,-237,-344,
461. 104,-398,8,182,171,-232 &END
462. &LINE KEY=0,HNAME='SH-36',PT=-468,190,-387,160,-294,-334,-375,10,
463. 85,114 &END
464. &LINE KEY=0,HNAME='SH-60',PT=105,-383,186,8,102,91,200,77,43,
465. 190 &END
466. &LINE KEY=0,HNAME='SH-71',PT=-237,108,-366,40,-238,-239,47,-351,
467. 120,176,116,61,3,-397,35,-341,-240,88,-331,138,199,86,-550 &END
468. &LINE KEY=0,HNAME='SH-72',PT=-242,125,206,-291,-241 &END
469. &LINE KEY=0,HNAME='SH-80',PT=124,-347,-245,92,11,-243 &END
470. &LINE KEY=0,HNAME='SH-95',PT=-217,163,113,55,-277,33,27,-244 &END
471. &LINE KEY=0,HNAME='SH-97',PT=-245,9,37,-272,172,-246 &END
472. &LINE KEY=0,HNAME='SH-111',PT=108,-368,-390,45,111,-250,-357,205,
473. -391,-219,-220,-246,66 &END
474. &LINE KEY=0,HNAME='SH-159',PT=88,152,-254,54,-255,-548,80,119,
475. -256,10,30,-257 &END
476. &LINE KEY=0,HNAME='SH-172',PT=132,-234,90,-388,60 &END
477. &LINE KEY=0,HNAME='SH-175',PT=-258,-259,177 &END
478. &LINE KEY=0,HNAME='SH-185',PT=142,-349,159,-262,98,67 &END
479. &LINE KEY=0,HNAME='SH-237',PT=-254,131,192,151,-261 &END
480. &LINE KEY=0,HNAME='SH-238',PT=-262,-263,-350,-264,-374,141 &END
481. &LINE KEY=0,HNAME='SH-304',PT=66,-247,-265,-266 &END
482. &LINE KEY=0,HNAME='SH-316',PT=-267,-264 &END

RESEARCH STUDY: 2-8-81-299
THE EFFECTS OF OILFIELD DEVELOPMENT ON RURAL HIGHWAYS

COUNTIES WITHIN THE ANALYSIS AREA:

8 AUSTIN
29 CALHOUN
45 COLORADO
62 DEWITT
75 FAYETTE
89 GONZALES
120 JACKSON
143 LAVACA
161 MATAGORDA
235 VICTORIA
241 WHARTON

TOWNS WITHIN THE ANALYSIS AREA:

1 ALLENHURST	2 ALLEYTOWN	3 ALTAIR	4 ALVIN
5 ARNECKEVILLE	6 ASHWOOD	7 AUSTWELL	8 BAY CITY
9 BEBE	10 BELLVILLE	11 BELMONT	12 BERNARD
13 BERNARDO	14 BLEIBERVILLE	15 BLESSING	16 BLOOMINGTON
17 BOLING	18 BONUS	19 BORDEN	20 BRENHAM
21 BUCKEYE	22 CANEY	23 CARMINE	24 CAT SPRING
25 CEDAR LANE	26 CHEAPSIDE	27 CISTERN	28 CITRUS GROVE
29 CLEMVILLE	30 COCHRAN	31 COLLEGEPORT	32 COLOGNE
33 COLONY	34 COLOTOVILLE	35 COLUMBUS	36 CORDELE
37 COST	38 CUERO	39 DACOSTA	40 DAVEVANG
41 DILWORTH	42 EAGLE LAKE	43 EAST BERNARD	44 EDGAR
45 EDNA	46 EGYPT	47 EL CAMPO	48 EL MATON
49 EL TORO	50 ELM GROVE	51 ENGLEHART	52 EZZELL
53 FANNIN	54 FAYETTEVILLE	55 FLATONIA	56 FORDTRAN
57 FRANCITAS	58 FRELSBURG	59 FRYDEK	60 GANADO
61 GARWOOD	62 GIDDINGS	63 GILLETT	64 GLEN FLORA
65 GLIDDEN	66 GONZALES	67 GREEN LAKE	68 HALLETTSVILLE
69 HARWOOD	70 HEMPSTEAD	71 HEMPSTEAD, T	72 HIGH HILL
73 HILLJE	74 HOLMAN	75 HOPE	76 HOSTYN
77 HUNGERFORD	78 IAGO	79 INDIANOLA	80 INDUSTRY
81 INEZ	82 KAMEY	83 KENDLETON	84 KENEDY
85 KENNEY	86 KIRTLEY	87 KOMENSKY	88 LA GRANGE
89 LA SALLE	90 LA WARD	91 LANE CITY	92 LEESVILLE
93 LEDBETTER	94 LISSIE	95 LITTLE NEW YORK	96 LOLITA
97 LONE OAK	98 LONG MOTT	99 LOUISE	100 MACKAY
101 MCFADDIN	102 MAGNET	103 MAGNOLIA BEACH	104 MARKHAM
105 MATAGORDA	106 MATTHEWS	107 MEYERSVILLE	108 MIDFIELD
109 MISSION VALLEY	110 MONTHALIA	111 MORALES	112 MORAVIA
113 MOULTON	114 MUELLERSVILL	115 MULDOON	116 NADA
117 NAVIDAD	118 NECHANITZ	119 NELSONVILLE	120 NEW TAITON
121 NEW ULM	122 NEWGULF	123 NICKEL	124 NIXON
125 NORDHEIM	126 NORTHRUP	127 NURSERY	128 O"QUINN
129 OAK FOREST	130 OLD OCEAN	131 OLDENBERG	132 OLIVIA
133 OTTINE	134 PALACIOS	135 PIERCE	136 PLACEDO
137 PLEDGER	138 PLUM	139 POINT COMFORT	140 PORT ALTO
141 PORT LAVACA	142 PORT O"CONNOR	143 PRAHA	144 PROVIDENT CITY
145 RABB PRAIRIE	146 RACCOON BEND	147 RAISIN	148 RAMSEY

ACTIVITY SUMMARY FOR COUNTY # 8 - AUSTIN

<u>YEAR</u>	<u>PERMIT</u>	<u>SPUD-IN</u>	<u>RESV-W</u>
1977	22	4	2
1978	41	15	3
1979	42	9	22
1980	44	16	26
1981	54	9	23
1982	30	5	5
1983	6	0	0
1984	0	0	0
1985	0	0	0
<u>1986</u>	<u>0</u>	<u>0</u>	<u>0</u>
TOTAL	239	58	81

149 ROCK ISLAND
153 SAMPLE
157 SCHROEDER
161 SECLUSION
165 SLAYDEN
169 SPEAKS
173 SWEENEY
177 TELFERNER
181 TIVOLI
185 VIENNA
189 WALLHALLA
193 WAYSIDE
197 WESTHOFF

201 WINCHESTER
205 YOAKUM
209 BAY CITY, TX
213 DANAVANG
217 EZELLE
221 GANADA
225 HILLGE
229 LAWARD
233 LESSEE
237 MAGNOLIA BEA
241 MATAFORDA
245 MIDFIELDS
249 MORALES TOWN
253 MORDHEIM
257 PLACEDO JUNC
261 PT. LAVACA
265 PROVIDENT CI
269 ROUNDTOP
273 TATION
277 VANDERBUILT
281 WEESCTCHE
285 WHITTING

150 ROCKPORT
154 SAN FELIPE
158 SCHULENBURG
162 SHERIDAN
166 SMILEY
170 SUBLIME
174 SWEET HOME
178 TERRYVILLE
182 VAN VLECK
186 WADSWORTH
190 WALLIS
194 WEESATCHE
198 WEST COLUMBIA

202 WITTING
206 YORKTOWN
210 BLEIBLERVILL
214 E. BERNARO
218 FERNER
222 HALLETSVILLE
226 LE GRANGE
230 LANE
234 LITTLE N YOR
238 MAGNOLIABEAC
242 MATHEWS
246 MISSION VALL
250 NEW TATION
254 NARDHEIM
258 POINT COMFOR
262 PT. O'CONNOR
266 PROVIDENT CY
270 ROOTERSVILLE
274 TELFNER
278 VENDERBILT
282 WEST COLUMBI
286 O'QUINN

151 ROUND TOP
155 SARGENT
159 SEADRIFT
163 SHINER
167 SMITHVILLE
171 SUGAR VALLEY
175 SWISS ALP
179 THOMASTON
183 VANDERBILT
187 WAELDER
191 WARDA
195 WELCOME
199 WEST POINT

203 WORTHING
207 99999999
211 CAT SPRING T
215 CAMPO
219 FLATTONIA
223 HALLETTSVILL
227 LAGRANGE
231 LEASVILLE
235 LOTITIA
239 MARKHAM TEKA
243 MYERSVILLE
247 MISSION
251 NEW GULF
255 PALACIOUS
259 PT. COMFORT
263 PORT O'CONNO
267 PROVIDENT CT
271 S.W.SPEAKS
275 TERRYVLL
279 VOCTORIA
283 WIEMER
287 PORT O'CONNOR

152 RUTERSVILLE
156 SATURN
160 SEALY
164 SIMPSONVILLE
168 SPANISH CAMP
172 SUMMERVILLE
176 TAITON
180 THOMSONVILLE
184 VICTORIA
188 WALDECK
192 WARRENTON
196 WEIMER
200 WHARTON

204 WRIGHTSBORO
208 ALTOER
212 COCKRAN
216 EL CAMPOL
220 FORTRAN
224 HILJE
228 LASALLE
232 LEEVILLE
236 MAGNE
240 MATAGORDA IS
244 MIDFIED
248 MISSION VLY
252 NORDEHEIM
256 PALACIOS TOW
260 PALO ALTO
264 PORT O'CONNE
268 RACCOON
272 SUBLIM
276 VAN FLECK
280 WEALDER
284 WINDCHESTER
288

ACTIVITY SUMMARY FOR COUNTY # 29 - CALHOUN

<u>YEAR</u>	<u>PERMIT</u>	<u>SPUD-IN</u>	<u>RESV-W</u>
1977	64	15	0
1978	114	34	11
1979	112	21	43
1980	104	10	38
1981	117	28	35
1982	98	18	36
1983	31	6	17
1984	0	0	0
1985	0	0	0
<u>1986</u>	<u>0</u>	<u>0</u>	<u>0</u>
TOTAL	640	132	180

ACTIVITY SUMMARY FOR COUNTY # 45 - COLORADO

<u>YEAR</u>	<u>PERMIT</u>	<u>SPUD-IN</u>	<u>RESV-W</u>
1977	69	17	8
1978	136	41	24
1979	132	31	43
1980	118	28	44
1981	98	27	44
1982	111	22	40
1983	45	10	15
1984	0	0	0
1985	0	0	0
<u>1986</u>	<u>0</u>	<u>0</u>	<u>0</u>
TOTAL	709	176	218

ACTIVITY SUMMARY FOR COUNTY # 62 - DEWITT

<u>YEAR</u>	<u>PERMIT</u>	<u>SPUD-IN</u>	<u>RESV-W</u>
1977	95	27	2
1978	157	48	21
1979	114	19	50
1980	105	13	48
1981	112	28	43
1982	91	19	28
1983	36	9	11
1984	0	0	0
1985	0	0	0
<u>1986</u>	<u>0</u>	<u>0</u>	<u>0</u>
TOTAL	710	163	203

ACTIVITY SUMMARY FOR COUNTY # 75 - FAYETTE

<u>YEAR</u>	<u>PERMIT</u>	<u>SPUD-IN</u>	<u>RESV-W</u>
1977	7	1	0
1978	26	6	3
1979	127	36	66
1980	434	126	252
1981	416	86	329
1982	183	36	133
1983	94	14	49
1984	0	0	0
1985	0	0	0
<u>1986</u>	<u>0</u>	<u>0</u>	<u>0</u>
TOTAL	1287	305	832

ACTIVITY SUMMARY FOR COUNTY # 89 - GONZALES

<u>YEAR</u>	<u>PERMIT</u>	<u>SPUD-IN</u>	<u>RESV-W</u>
1977	60	16	2
1978	57	20	3
1979	49	10	25
1980	237	27	127
1981	467	90	326
1982	211	26	138
1983	74	13	24
1984	0	0	0
1985	0	0	0
<u>1986</u>	<u>0</u>	<u>0</u>	<u>0</u>
TOTAL	1155	202	645

ACTIVITY SUMMARY FOR COUNTY # 120 - JACKSON

<u>YEAR</u>	<u>PERMIT</u>	<u>SPUD-IN</u>	<u>RESV-W</u>
1977	194	36	5
1978	267	56	44
1979	229	36	129
1980	250	34	137
1981	269	38	118
1982	258	32	158
1983	83	6	34
1984	0	0	0
1985	0	0	0
<u>1986</u>	<u>0</u>	<u>0</u>	<u>0</u>
TOTAL	1550	238	625

ACTIVITY SUMMARY FOR COUNTY # 143 - LAVACA

<u>YEAR</u>	<u>PERMIT</u>	<u>SPUD-IN</u>	<u>RESV-W</u>
1977	143	38	2
1978	162	44	16
1979	133	21	67
1980	131	15	63
1981	134	25	79
1982	117	13	60
1983	43	5	17
1984	0	0	0
1985	0	0	0
<u>1986</u>	<u>0</u>	<u>0</u>	<u>0</u>
TOTAL	863	161	304

ACTIVITY SUMMARY FOR COUNTY # 161 - MATAGORDA

<u>YEAR</u>	<u>PERMIT</u>	<u>SPUD-IN</u>	<u>RESV-W</u>
1977	80	10	1
1978	113	30	15
1979	147	32	52
1980	157	41	66
1981	164	39	72
1982	122	20	48
1983	49	3	14
1984	0	0	0
1985	0	0	0
<u>1986</u>	<u>0</u>	<u>0</u>	<u>0</u>
TOTAL	832	175	268

ACTIVITY SUMMARY FOR COUNTY # 235 - VICTORIA

<u>YEAR</u>	<u>PERMIT</u>	<u>SPUD-IN</u>	<u>RESV-W</u>
1977	187	51	6
1978	291	81	51
1979	202	49	108
1980	262	14	130
1981	233	40	132
1982	212	34	109
1983	91	13	29
1984	0	0	0
1985	0	0	0
<u>1986</u>	<u>0</u>	<u>0</u>	<u>0</u>
TOTAL	1478	282	565

ACTIVITY SUMMARY FOR COUNTY # 241 - WHARTON

<u>YEAR</u>	<u>PERMIT</u>	<u>SPUD-IN</u>	<u>RESV-W</u>
1977	173	21	9
1978	255	58	30
1979	275	45	107
1980	276	62	116
1981	263	43	132
1982	238	30	95
1983	102	29	38
1984	0	0	0
1985	0	0	0
<u>1986</u>	<u>0</u>	<u>0</u>	<u>0</u>

TOTAL 1582 288 527
 THE 9TH CHARACTER IN ISTR, 0 ,IS THE 1TH ILLEGAL FUNCTION CODE.

TRACEBACK	ROUTINE	CALLED FROM ISN	REG. 14	REG. 15	REG. 0	REG. 1
	TRACE	0216	421E65A4	001EF540	00000001	00000000
	PWRX	0072	621DEB64	001E5398	00000000	001CF38C
	SHEET	0073	621CEFE6	001CF0C0	00000007	000F60CC
	MAIN		0001B758	000F5DD8	007AC010	000F4FF8

ENTRY POINT= 000F5DD8
 THE 12TH CHARACTER IN ISTR, 0 ,IS THE 2TH ILLEGAL FUNCTION CODE.

IEVO90I - &PLOT MSGLVL=1,YMIN=0.0,XMIN=0.0,YMAX=35.00,XMAX=42.00 &END

IEVO05I - *MAPP* (BLKSIZE=4002)

*****PLOT OPTIONS IN EFFECT*****

MODEL=8236, XMIN=0.0, XMAX=42.0, YMIN=0.0, YMAX=35.0, XSTART=0.0, YSTART=0.0
MODE=0, MSGLVL=1, MSGSW=0, SCALE=1.0, UNITS=1.0, XFACT=1.0, YFACT=1.0
LYNES=1475, RESERV=0.0, SPACE=100.0, STRIP=35.2, STRIPO=0.0, LPAGE=60, NDEC=2
NIBS=7040, DEN=200.0, LBLK=24750, ISCAN=880, NSCAN=4, NBAND=2100, NSTRIP=1
IEND1=999, IEND2=-999, IEND3=23, IEND4=-23
ICLOSE=999, ID=0, IOPT=2

IEVO10I - PLOT 1: 110,847 PLOTTABLE VECTORS, 7 CLIPPED VECTORS, 8 UNPLOTTABLE VECTORS

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SUMTX - Statewide Drilling Activity Summary

This program develops both a file and a report detailing the drilling activity for all 254 counties.

INPUTS:

1. ROGFDM file
2. &OPTION card specifying whether or not to update the CNTYACTV file. This allows you to make a run to print a list without updating the CNTYACTV file.
3. &SELECT card specifying a list of counties to be summarized. A -99 means all 254.

OUTPUT:

1. A new CNTYACTV file, if desired.
2. A list of drilling activity for selected counties.

```

1. //SUMALL JOB (W259,501D,005,10,DM), 'PETERSEN'
2. //VER1 EXEC FORTXCG,REGION.GO=256K,PARM.GO='SIZE=256K'
3. //FORT.SYSIN DD *
4. C
5. C THIS ROUTINE READS PERMIT MASTER RECORDS FOR A SET OF
6. C SPECIFIC COUNTIES. (NO MORE THAN 10; OR ENTIRE STATE)
6.5 C MODIFIED FROM SUMTX PROGRAM BY D. A. MAXWELL
7. C
8. C INTEGER IN(12),C4(254),BBB/' '/,WWW/'W'/
9. C INTEGER C1(254),C2(254),C3(254),PERM(254,10)/2540*O/,
10. C * SPUD(254,10)/2540*OO/,RESV(254,10)/2540*O/
11. C INTEGER TPERM(254)/254*OO/,TSPUD(254)/254*OO/,
12. C * TRESV(254)/254*O/,NPST(254)/254*O/,NSRT(254)/254*O/
13. C INTEGER PST(254)/254*O/,SRT(254)/254*O/
14. C
15. C REAL PSP(254)/254*O.O/,SRP(254)/254*O.O/
16. C
17. C
18. C INTEGER CNTY(10)/10*OO/
19. C NAMELIST/SELECT/ CNTY
20. C
21. C LOGICAL BUILD/T/,UPDATE/F/
22. C NAMELIST/OPTION/BUILD,UPDATE
23. C
24. C
25. C-----
26. C READ OPTION, SELECT AND APPROPRIATE INPUT FILE CARDS
27. C
28. C READ(5,OPTION,END=100)
29. C READ(5,SELECT,END=100)
30. C
31. C DO 110 K=1,254
32. C IF(UPDATE) READ(20,105,END=120)KC,C1(KC),C2(KC),C3(KC),C4(KC),
33. C *TPERM(KC),PSP(KC),PST(KC),TSPUD(KC),SRP(KC),SRT(KC),TRESV(KC),
34. C * ( PERM(K,L),SPUD(K,L),RESV(K,L), L=1,10 )
35. C 105 FORMAT( I3,2X,4A4, T26,I5,2(F5.1,2I5),
36. C * 4(/,T26, 9I5 ) )
37. C
38. C IF(BUILD) READ(10,106,END=120) KC,C1(KC),C2(KC),C3(KC),C4(KC)
39. C 106 FORMAT( I3,1X,4A4 )
40. C 110 CONTINUE
41. C GO TO 10
42. C
43. C
44. C 100 WRITE(6,103)
45. C 103 FORMAT( //,T5,'FATAL ERROR: BAD OR MISSING CONTROL CARD',//)
46. C STOP
47. C 120 WRITE(6,104)
48. C 104 FORMAT( //,T5,'FATAL ERROR: BAD OR MISSING INPUT FILE',//)
49. C STOP
50. C
51. C-----
52. C READ MASTER DRILLING RECORDS FROM THE "ROGFDM" TAPES.
53. C
54. C 10 CONTINUE
55. C READ(11,20,END=900) IN
56. C 20 FORMAT(I6,3I2,T19,I3,T162,3I2,T186,3I2,T250,A1)
57. C
58. C KEY FOR DECODING THE "IN" ARRAY.
59. C

```

```

60. C 1 = PERMIT NO.
61. C 2-4 = PERMIT DATE - - MM/DD/YY
62. C 5 = COUNTY CODE
63. C 6-8 = SPUD-IN DATE
64. C 9-11 = RESV DATE
65. C 12 = RESV CODE
66. C
67. C
68. DO 25 J=1,10
69. IF( CNTY(J).LT.00 ) GO TO 30
70. NCNTY= 2* CNTY(J) -1
71. IF( IN(5).EQ.NCNTY ) GO TO 30
72. 25 CONTINUE
73. GO TO 10
74. C
75. C
76. C-----
77. C COLLECT SUMMARY DATA.
78. C
79. 30 CONTINUE
80. C
81. NCC= ( IN(5) +1 )/ 2
82. IF( NCC.LE.00 .OR. NCC.GT.254 ) GO TO 10
83. C
84. IF( IN(4).GE.86 .OR. IN(4).LT.77 ) GO TO 10
85. NYP= IN(4) -76
86. NYS= 000
87. IF( IN(8).LT.86 .AND. IN(8).GE.77 ) NYS= IN(8) -76
88. NYR= 000
89. IF( IN(11).LT.86 .AND. IN(11).GE.77 ) NYR= IN(11) -76
90. C
91. IF( NYP.GT.00 ) PERM(NCC,NYP)= PERM(NCC,NYP) +1
92. IF(NYS.NE.0)GOTO 38
93. 16 IF(IN(12).NE.BBB)GOTO 37
93.6 17 IF(NYR.GT.0)GOTO 37
93.65 18 GOTO 41
93.67 37 NYS=10
93.7 38 SPUD(NCC,NYS)=SPUD(NCC,NYS)+1
93.95 41 IF( NYR.NE.00 )GOTO 43
93.97 43 IF( IN(12).EQ.WWW )NYR=10
94. 43 IF( IN(12).EQ.WWW ) RESV(NCC,NYR)= RESV(NCC,NYR) +1
96. IF( NYS.EQ.00 ) GO TO 40
96.1 IF( NYS.EQ.10 ) GOTO 40
97. TIME= (NYS*365+IN(6)*30+IN(7)) - (NYP*365+IN(2)*30+IN(3))
98. IF( TIME.LE.00 ) GO TO 40
99. NPST(NCC)= NPST(NCC) +1
100. PST(NCC)= PST(NCC) + TIME
101. 40 IF(NYR.EQ.00 ) GO TO 45
101.1 IF(NYS.EQ.00) GOTO 45
101.2 IF(NYR.EQ.10) GOTO 45
101.3 IF(NYS.EQ.10) GOTO 45
101.5 IF(IN(12).NE.WWW)GOTO 45
102. TIME= (NYR*365+IN(09)*30+IN(10)) - (NYS*365+IN(6)*30+IN(7))
103. IF( TIME.LE.00 ) GO TO 45
104. NSRT(NCC)= NSRT(NCC) +1
105. SRT(NCC)= SRT(NCC) + TIME
106. 45 CONTINUE
107. C
108. GO TO 10
109. C-----
110. C ALL RECORDS HAVE BEEN READ

```

```

111. C
112.   900 CONTINUE
113.   DO 910 J=1,254
114. C
115.   DO 905 JJ=1,10
116.   TPERM(J)= TPERM(J) +PERM(J, JJ)
117.   TSPUD(J)= TSPUD(J) +SPUD(J, JJ)
118.   905 TRESV(J)= TRESV(J) +RESV(J, JJ)
119. C
120.   PSP(J)=00
121.   IF( TPERM(J).GT.00 ) PSP(J)=100.0*FLOAT( TSPUD(J) )/TPERM(J)
122.   SRP(J)=00
123.   IF( TPERM(J).GT.00 ) SRP(J)=100.0*FLOAT( TRESV(J) )/TPERM(J)
124. C
125.   IF( NPST(J).NE.00 ) PST(J)=PST(J)/NPST(J)
126.   IF( NSRT(J).NE.00 ) SRT(J)=SRT(J)/NSRT(J)
127.   910 CONTINUE
128. C
129. C-----
130. C PRINT THE ACTIVITY SUMMARY FOR COUNTIES WITH DATA.
131. C
132.   NR=99
133.   DO 1050 NCC=1,254
134.   IF( TPERM(NCC).EQ.00 ) GO TO 1050
135. C
136.   NR=NR +1
137.   IF( NR.LE.4 ) GO TO 1004
138.   NR=1
139.   WRITE(6,1001)
140. 1001 FORMAT('1')
141. C
142. 1004 WRITE(6,1005) NCC,C1(NCC),C2(NCC),C3(NCC)
143. 1005 FORMAT(' ACTIVITY SUMMARY FOR COUNTY # ',I3,' - '3A4,/)
144. C
145. C
146.   WRITE(6,1010)
147. 1010 FORMAT( T15, '1977 1978 1979 1980 1981 1982 1983',
147.5 * ' 1984 1985 BAD ',
148. * 6X, 'TOTAL'./, '+ 'T15, 10( ' _____ ' ), ' _____ ',/)
149. C
150.   WRITE(6,1012) (PERM(NCC, JY) , JY=1, 10), TPERM(NCC)
151. 1012 FORMAT( T6, 'PERMIT:' T15, 10(I4,3X), 2X, I6 )
152. C
153.   WRITE(6,1014) (SPUD(NCC, JY) , JY=1, 10), TSPUD(NCC)
154. 1014 FDRMAT( T5, 'SPUD-IN:' T15, 10(I4,3X), 2X, I6 )
155. C
156.   WRITE(6,1016) (RESV(NCC, JY) , JY=1, 10), TRESV(NCC)
157. 1016 FORMAT( T6, 'RESV-W:' T15, 10(I4,3X), 2X, I6 )
158. C
159. C
160.   WRITE(6,1018)PSP(NCC), SRP(NCC), TPERM(NCC), NPST(NCC),
160.5 * NSRT(NCC), PST(NCC), SRT(NCC)
161. 1018 FDRMAT(/, T5, 'DRILLED=', F5.1, '%', 19X, 'PRDDUCED=', F5.1, '%', ./, 5X, I6,
161.4 * ' RECORDS WERE USED FOR %S ABOVE. DUE TO INCOMPLETE DATA'./,
161.6 * 3X, 'ONLY', I6, ' &', I6, ' RECORDS WERE USED TO CALCULATE THE TIMES:',
162. * /, 1X, T4, 'WAIT TIME=', I3, 19X, 'DRILL TIME=', I3, ///)
163. C
164. C
165. 1050 CONTINUE
166. C
167. C

```

```

168. C-----
169. C BUILD NEW "CNTYACTV" FILE
170. C
171.     DO 2020 K=1,254
172.     WRITE(21,2021) K, C1(K),C2(K),C3(K),C4(K),TPERM(K),PSP(K),
173.     * PST(K),TSPUD(K),SRP(K),SRT(K),TRESV(K)
174.     2021 FORMAT( I3,2X,4A4,' 01 ',I5,2(F5.1,2I5))
175.     WRITE(21,2022) PERM(K,1),SPUD(K,1),RESV(K,1),
176.     * PERM(K,2),SPUD(K,2),RESV(K,2),PERM(K,3),SPUD(K,3),RESV(K,3)
177.     2022 FORMAT( T22,' 02 ',9I5 )
178.     WRITE(21,2023) PERM(K,4),SPUD(K,4),RESV(K,4),
179.     * PERM(K,5),SPUD(K,5),RESV(K,5),PERM(K,6),SPUD(K,6),RESV(K,6)
180.     2023 FORMAT( T22,' 03 ',9I5 )
181.     WRITE(21,2024) PERM(K,7),SPUD(K,7),RESV(K,7),
182.     * PERM(K,8),SPUD(K,8),RESV(K,8),PERM(K,9),SPUD(K,9),RESV(K,9)
183.     2024 FORMAT( T22,' 04 ',9I5 )
184.     WRITE(21,2025) PERM(K,10),SPUD(K,10),RESV(K,10)
185.     2025 FORMAT( T22,' 05 ',9I5 )
186.     2020 CONTINUE
187. C
188. C-----
189. C
190.     STOP
191.     END
192. //GO.FT10FOO1 DD DSN=USR.W259.DM.CNTYNAME,DISP=OLD
193. //*GO.FT11FOO1 DD DSN=USR.W259.DM.PERMIT11,DISP=OLD
194. //GO.FT11FOO1 DD DISP=OLD,UNIT=(TAPE9,,DEFER),LABEL=(,SL),
195. //      VOL=SER=000577,DSN=V.OG.ROGFDM
196. //      DD DISP=OLD,UNIT=(TAPE9,,DEFER),LABEL=(,SL),
197. //      VOL=SER=000578,DSN=V.OG.ROGFDM
198. //FT20FOO1 DD DUMMY
198.9 //GO.FT21FOO1 DD DISP=(NEW,CATLG,DELETE),UNIT=SYSDA,
199. //      SPACE=(TRK,(100,100),RLSE),
199.1 //      DCB=(RECFM=FB,LRECL=80,BLKSIZE=6160),
199.2 //      DSN=USR.W259.DM.CNTYACT
203. //GO.SYSIN DD *
204. &OPTION BUILD=T,UPDATE=F &END
205. &SELECT CNTY=-99 &END

```

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SAS/GRAPH - Statistical Analysis and Graphics Programs

The SAS/GRAPH runs produce a variety of plots, bar charts, and X-Y plots used in the subsequent analysis process. The following list summarizes their purpose. In general, the PERMITnn, CNTYPROD, CNTYACTV, CNTYAREA, and CNTYNAME, files must be available to produce the plots.

1. SNORTnn converts the PERMITnn file to a format readable by SAS-GRAPH and manipulable by WYLBUR.
2. GAME2 converts CNTYPROD into a SAS file.
3. GAMET converts CNTYACTV into a SAS file.
4. TPERTS maps the state with respect to total permits issued by county.
5. TSPDIN maps the state with respect to total spudins per county.
6. TCW maps the state with respect to total completion-W's per county; that is, the producing wells per county.
7. LTIME maps the state with respect to lag time.
8. SPUDIN maps the state with respect to percentage of spud-ins to total permits; that is, the percent of permits drilled per county.
9. DTIME maps the state with respect to the drill time.
10. TCWSD maps the state with respect to percentage of completion-W's to total permits; that is, the percent of completed permits per county.
11. GAME12 maps the state with respect to oil and gas production.
12. NO13 produces, for selected districts, tables listing the 25th, 50th, and 75th percentile drill depths and drill times.
13. GAME10 produces bar charts for total permits issued, total spud-ins, and total completion W's for selected districts.

```

1. //SORT13 JOB (W259,008D,S80,25,DM), 'BECKER'
2. //*TAMU PRTY=2
3. //VER1 EXEC FORTXCG,REGION.GO=256K,PARAM.GO='SIZE=265K'
4. //FORT.SYSIN DD *
5.     1 READ(10,2,END=20)ICNTY,MOA, IDYA, IYRA, MOB, IDYB, IYRB, IDPH
6.     2 FORMAT(18X, I3, 140X, 3(I2), 18X, 3(I2), 34X, I5)
7.     IAT=(MOA*30)+(IYRA*365)+IDYA
8.     IF (IAT .EQ. 0) GO TO 1
9.     IBT=(MOB*30)+(IYRB*365)+IDYB
10.    ITT=IBT-IAT
11.    IF (ITT .LT. 0) GO TO 1
12.    WRITE(11,3)ICNTY,MOA, IDYA, IYRA, MOB, IDYB, IYRB, IDPH
13.    3 FORMAT(I3, 1X, 3(I2), 1X, 3(I2), 1X, I5)
14.    GO TO 1
15.    20 STOP
16.    END
17. //GO.FT10FOO1 DD DISP=SHR,DSN=USR.W259.DM.PERMIT13
18. //GO.FT11FOO1 DD DISP=OLD,DSN=USR.W259.DM.PIT13
19. //GO.SYSIN DD *

```

```

1. //GAME2 JOB (W259,008D,S10,10,RB), 'BECKER'
2. // *TAMU PRTY=2
3. //STEP EXEC SAS, REGION=384K
4. //GREEN DD DSN=USR.W259.RB.CNPROD, DISP=OLD
5. //BLUE DD DSN=USR.W259.RB.OGPRO, DISP=(NEW,CATLG),
6. // SPACE=(TRK,(12,10)), UNIT=SYSDA
7. //SYSIN DD *
7.1 * THIS PROGRAM MAKES A SAS DATA FILE FROM CNTYPROD;
8. * COUNTY-COUNTY NUMBER RRC;
9. * NAME-COUNTY ALPHA NAME;
10. * CNT1-CNT5 - CARD COUNTER;
11. * CON1-CON4 - COUNTY NUMBER REPLAYED;
12. * OIL77-OIL82 - OIL PRODUCED FOR THAT YEAR;
13. * GAS77-GAS82 - GAS PRODUCED FOR THAT YEAR;
14. DATA BLUE.OGPRO;
15. INFILE GREEN;
16. INPUT COUNTY 1-3 NAME $ 6-19 CNT1 22-23 GAS77 25-33
17. OIL77 36-44 GAS78 47-55 OIL78 58-66 #2 CON1 1-3 CNT2 22-23
18. GAS79 25-33 OIL79 36-44 GAS80 47-55 OIL80 58-66
19. #3 CON2 1-3 CNT3 22-23 GAS81 25-33 OIL81 36-44 GAS82 47-55
20. OIL82 58-66 #4 CON3 1-3 CNT4 22-23 #5 CON4 1-3 CNT5 22-23;
21. DROP CON1 CON2 CON3 CON4 CNT1 CNT2 CNT3 CNT4
22. CNT5 GAS77 GAS78 GAS79 GAS80 GAS81 GAS82 OIL77 OIL78
23. OIL79 OIL80 OIL81 OIL82;
24. YEAR=1977; OIL=OIL77; GAS=GAS77; OUTPUT;
25. YEAR=1978; OIL=OIL78; GAS=GAS78; OUTPUT;
26. YEAR=1979; OIL=OIL79; GAS=GAS79; OUTPUT;
27. YEAR=1980; OIL=OIL80; GAS=GAS80; OUTPUT;
28. YEAR=1981; OIL=OIL81; GAS=GAS81; OUTPUT;
29. YEAR=1982; OIL=OIL82; GAS=GAS82; OUTPUT;
30. DATA MAG;
31. SET BLUE.OGPRO;
32. IF _N_=50 THEN STOP;
33. PROC PRINT DATA=MAG;
34. ID COUNTY;
35.

```

```

1. //GAMET JOB (W259,502A,S10,10,RB), 'BECKER'
2. // *LEVEL O
3. //STEP EXEC SAS, REGION=384K
4. //GREEN DD DSN=USR.W259.RB.COUNTYA, DISP=OLD
5. //BLUE DD DSN=USR.W259.RB.CPROD, DISP=(NEW,CATLG),
6. // SPACE=(TRK,(20,10)), UNIT=SYSDA
7. //SYSIN DD *
7.1 * THIS PROGRAM MAKES A SAS DATA FILE FROM CNTYACTV;
8. * COUNTY-COUNTY NUMBER RRC;
9. * NAME-COUNTY ALPHA NAME;
10. * CNT1-CNT5 - CARD COUNTER;
11. *TPERT-TOTAL PERMITS;
12. *SDDPER-SPUDINS/PERMITS X 100;
13. *LTIME-LAG TIME;
14. *TSPD - TOTAL SPUDINS;
15. * CWSD- COMPLETION W'S/SPUDINS;
16. * DTIME- DRILLING TIME;
17. * TCW- TOTAL COMPLATION W'S;
18. * PRT77-85 -PERMITS ISSUED DURING THAT YEAR;
19. * SD77-85 -SPUDINS DURING THAT YEAR;
20. * RSW77-85 -RESV-W'S FOR THAT YEAR;
21. DATA BLUE.CPROD;
22.   INFILE GREEN;
23.   INPUT COUNTY 1-3 NAME $ 6-21 CNT1 23-24 TPERT 27-30 SDDPER 32-35
24.     LTIME 37-40 TSPD 42-45 CWSD 47-50 DTIME 52-55 TCW 57-60
25.   #2 CNT2 23-25 PRT77 28-30 SD77 32-35 RSW77 37-40 PRT78 43-45
26.     SD78 47-50 RSW78 52-55 PRT79 57-60 SD79 62-65 RSW79 67-70
27.   #3 CNT3 23-25 PRT80 28-30 SD80 32-35 RSW80 37-40 PRT81 43-45
28.     SD81 47-50 RSW81 52-55 PRT82 57-60 SD82 62-65 RSW82 67-70
29.   #4 CNT4 23-25 PRT83 28-30 SD83 32-35 RSW83 37-40 PRT84 43-45
30.     SD84 47-50 RSW84 52-55 PRT85 57-60 SD85 62-65 RSW85 67-70
31.   #5 CNT5 23-25 PRT86 28-30 SD86 32-35 RSW86 37-40;
32.   COUNTY=(COUNTY*2)-1;
33.   DROP CNT1 CNT2 CNT3 CNT4 CNT5 PRT77 PRT78
34.     PRT79 PRT80 PRT81 PRT82 PRT83 PRT84 PRT85 SD77 SD78
35.     SD79 SD80 SD81 SD82 SD83 SD84 SD85 RSW77 RSW78 RSW79
36.     RSW80 RSW81 RSW82 RSW83 RSW84 RSW85 PRT86 SD86 RSW86;
37.   YEAR=1977; PERMIT=PRT77; SPUDIN=SD77; RESV=RSW77; OUTPUT;
38.   YEAR=1978; PERMIT=PRT78; SPUDIN=SD78; RESV=RSW77; OUTPUT;
39.   YEAR=1979; PERMIT=PRT79; SPUDIN=SD79; RESV=RSW79; OUTPUT;
40.   YEAR=1980; PERMIT=PRT80; SPUDIN=SD80; RESV=RSW80; OUTPUT;
41.   YEAR=1981; PERMIT=PRT81; SPUDIN=SD81; RESV=RSW81; OUTPUT;
42.   YEAR=1982; PERMIT=PRT82; SPUDIN=SD82; RESV=RSW82; OUTPUT;
43.   YEAR=1983; PERMIT=PRT83; SPUDIN=SD83; RESV=RSW83; OUTPUT;
44.   YEAR=1984; PERMIT=PRT84; SPUDIN=SD84; RESV=RSW84; OUTPUT;
45.   YEAR=1985; PERMIT=PRT85; SPUDIN=SD85; RESV=RSW85; OUTPUT;
46. DATA FRAG;
47.   SET BLUE.CPROD;
48.   IF _N_ =50 THEN STOP;
49. PROC PRINT DATA=FRAG;
50. ID COUNTY;

```

```

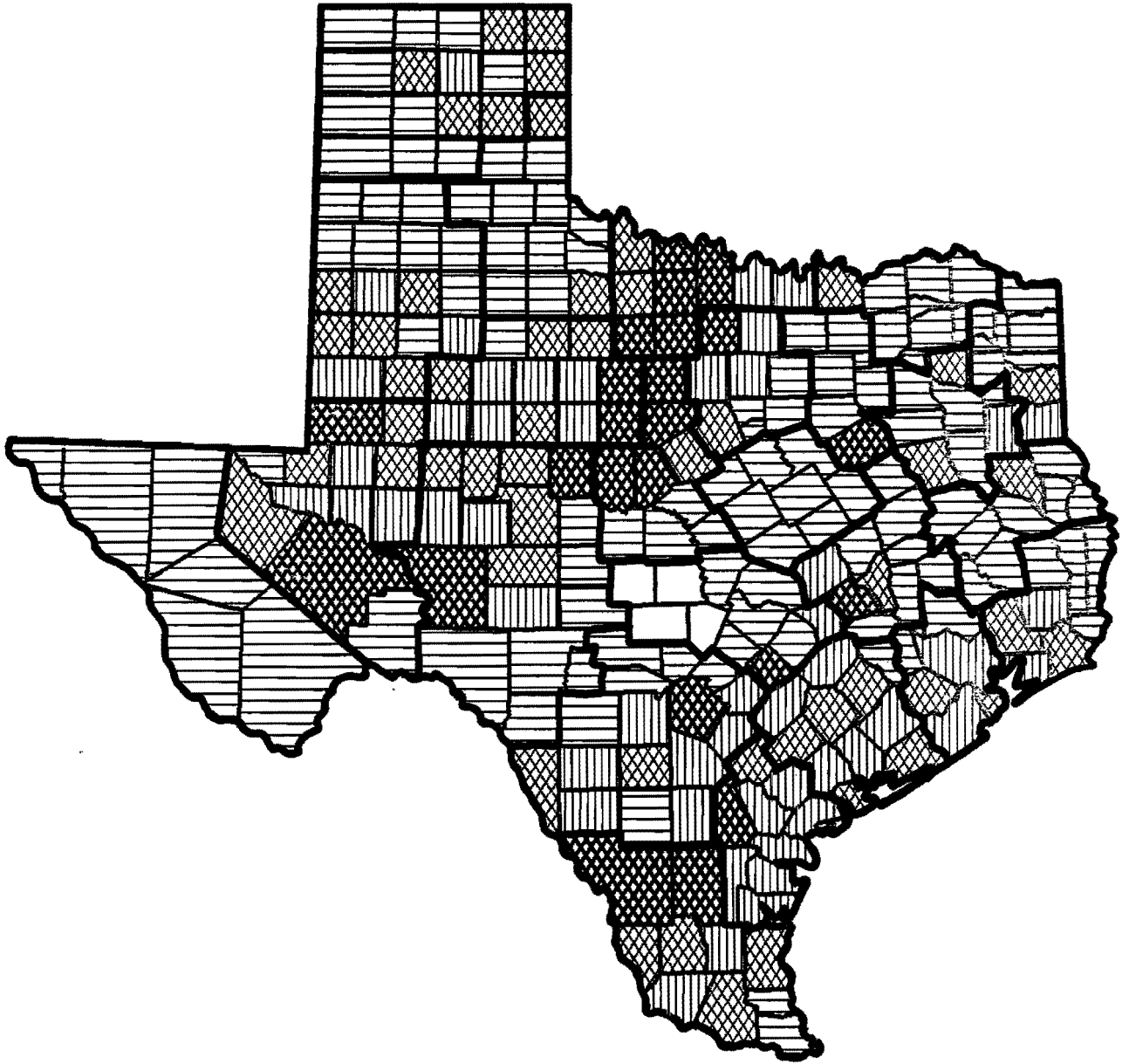
1. ██████████ JOB (W259,008D,S25,20,RB), 'BECKER'
2. //*TAMU PRTY=2
3. //STEP EXEC SASVTEC,REGION=350K
4. //PLOT Parm DD *
5. &PLOT XMAX=90 &END
6. //BLUE DD DSN=USR.W259.RB.CPROD,DISP=OLD
7. //SYSIN DD *
8. GOPTIONS DEVICE=SASVTEC COLORS=(C1 C2 C3 C4 C5)
9. HSIZE=8 VSIZE=10 BORDER;
10. * THIS PROGRAM WILL MAP THE STATE AND DISTRICT 11 WITH;
11. * RESPECT TO THEIR TOTAL PERMITS ISSUED;
12. DATA ROUND;
13. SET BLUE.CPROD;
14. IF YEAR=1977;
17. DATA NEW;
18. SET ROUND;
19. IF COUNTY=005 OR COUNTY=225 OR COUNTY=347 OR COUNTY=
20. 373 OR COUNTY=403 OR COUNTY=405 OR COUNTY=
21. 407 OR COUNTY=419 OR COUNTY=455;
22. DATA MISS;
23. SET MAP.COUNTIES;
24. IF STATE=48;
25. PROC GPROJECT DATA=MISS OUT=MISSS;
26. ID COUNTY;
27. DATA MILL;
28. SET MISSS;
29. IF COUNTY=005 OR COUNTY=225 OR COUNTY=347 OR COUNTY=
30. 373 OR COUNTY=403 OR COUNTY=405 OR COUNTY=
31. 407 OR COUNTY=419 OR COUNTY=455;
32. PROC FORMAT;
33. VALUE TOIL 0=0
34. 0.1-499.9=< 500
35. 500.0-999.9=< 1000
36. 1000.0-1999.9=< 2000
37. 2000.0-HIGH=> 2000;
39. PROC FORMAT;
40. VALUE DOIL LOW-99=< 100
41. 100-199=< 200
42. 200-499=< 500
43. 500-HIGH=> 500;
53. PROC GMAP DATA=ROUND MAP=MISSS GOUT=GOD1;
54. ID COUNTY;
55. CHORO TPert/DISCRETE COUTLINE=C5 CTEXT=C2;
56. PATTERN1 V=E C=C2;
57. PATTERN2 V=M2NO C=C2;
58. PATTERN3 V=M2X45 C=C2;
59. PATTERN4 V=M2N90 C=C2;
60. PATTERN5 V=M2X45 C=C5;
62. FORMAT TPert TOIL.;
63. TITLE .F=DUPLEX .C=C2 .H=2 STATE-TEXAS;
64. TITLE2 .F=DUPLEX .C=C2 .H=1 DATE 1977-1982;
65. FOOTNOTE .F=DUPLEX .C=C2 .H=2 TOTAL NUMBER OF PERMITS ISSUED;
66. PROC GMAP DATA=NEW MAP=MILL GOUT=GOD2;
67. ID COUNTY;
68. CHORO TPert/DISCRETE COUTLINE=C5 CTEXT=C2;
69. PATTERN1 V=E C=C2;
70. PATTERN2 V=M2NO C=C2;
71. PATTERN3 V=M2X45 C=C2;
72. PATTERN4 V=M2X90 C=C5;
75. FORMAT TPert DOIL.;

```

76. TITLE .F=DUPLEX .C=C2 .H=2 DISTRICT 11;
77. TITLE2 .F=DUPLEX .C=C2 .H=1 DATE 1977-1982;
78. FOOTNOTE .F=DUPLEX .C=C2 .H=2 TOTAL NUMBER OF PERMITS ISSUED;
105. DATA FLAT;
106. SET GOD1 GOD2;
107. PROC GREPLAY DATA=FLAT;

STATE-TEXAS

DATE 1977-1982



LEGEND: TPERT

0
< 2000

< 500
> 2000

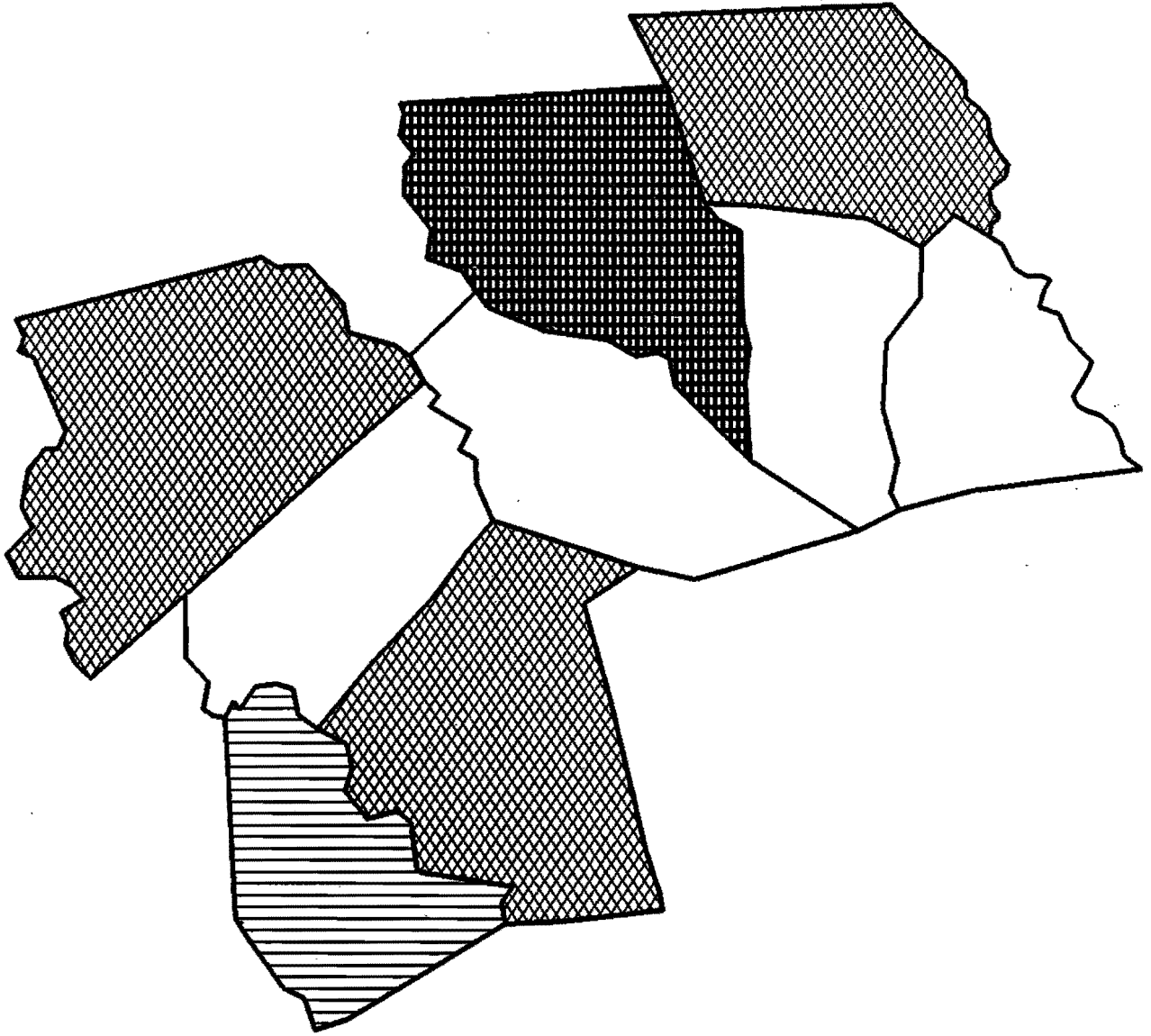
< 1000

TOTAL NUMBER OF PERMITS ISSUED

Figure L-1. Total Number of Permits Issued in Texas - 1977-1982.

DISTRICT 11

DATE 1977-1982



LEGEND: TPERT



TOTAL NUMBER OF PERMITS ISSUED

Figure L-2. Total Permits - District 11 Map.

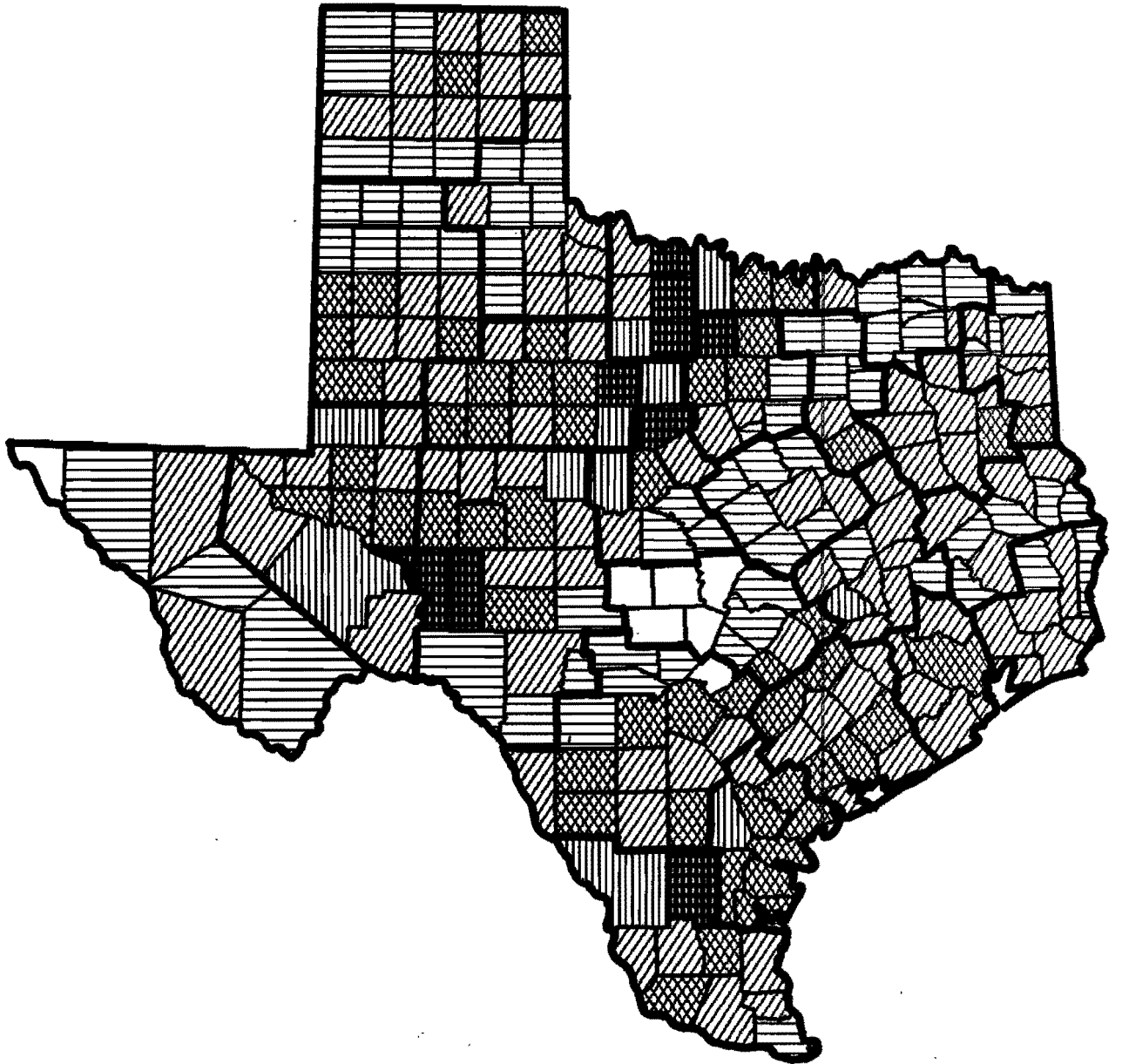

```

1. //TSPDIN JOB (W259,008D,S20,20,RB), 'BECKER'
2. // *LEVEL 0
3. //STEP EXEC SASVTEC,REGION=380K
4. //PLOT PARM DD *
5. &PLOT XMAX=90 &END
6. //BLUE DD DSN=USR.W259.RB.CPROD,DISP=OLD
7. //SYSIN DD *
8. GOPTIONS DEVICE=SASVTEC COLORS=(C1 C2 C3 C4 C5)
9. HSIZE=8 VSIZE=10 BORDER;
10. * THIS PROGRAM WILL MAP THE STATE AND DISTRICT 11 WITH;
11. * RESPECT TO TOTAL NUMBER OF SPUD-INS (1977-1982);
12. DATA ROUND;
13. SET BLUE.CPROD;
14. IF YEAR=1977;
17. DATA NEW;
18. SET ROUND;
19. IF COUNTY=005 OR COUNTY=225 OR COUNTY=347 OR COUNTY=
20. 373 OR COUNTY=403 OR COUNTY=405 OR COUNTY=
21. 407 OR COUNTY=419 OR COUNTY=455;
22. DATA MISS;
23. SET MAP.COUNTIES;
24. IF STATE=48;
25. PROC GPROJECT DATA=MISS OUT=MISSS;
26. ID COUNTY;
27. DATA MILL;
28. SET MISSS;
29. IF COUNTY=005 OR COUNTY=225 OR COUNTY=347 OR COUNTY=
30. 373 OR COUNTY=403 OR COUNTY=405 OR COUNTY=
31. 407 OR COUNTY=419 OR COUNTY=455;
32. PROC FORMAT;
33. VALUE SSPDN 0=0
34. 0.1-99.9=< 100
35. 100-249.9=< 250
36. 250-499.9=< 500
37. 500-749.9=< 750
38. 750-HIGH=> 750;
39. PROC FORMAT;
40. VALUE DSPDN LOW-19.9=< 20
41. 20-49.9=< 50
42. 50-99.9=< 100
43. 100-HIGH=> 100;
79. PROC GMAP DATA=ROUND MAP=MISSS GOUT=GOD3;
80. ID COUNTY;
81. CHORO TSPD/DISCRETE CDUTLINE=C4 CTEXT=C2;
82. PATTERN1 V=E C=C2;
83. PATTERN2 V=M2NO C=C2;
84. PATTERN3 V=M2N45 C=C2;
85. PATTERN4 V=M2X45 C=C2;
85.3 PATTERN5 V=M2N90 C=C2;
85.5 PATTERN6 V=M2X90 C=C5;
85.7 FORMAT TSPD SSPDN.;
89. TITLE .F=DUPLEX .C=C2 .H=2 STATE-TEXAS;
90. TITLE2 .F=DUPLEX .C=C2 .H=1 DATE 1977-1982;
91. FOOTNOTE .F=DUPLEX .C=C2 .H=2 TOTAL NUMBER OF SPUD-INS;
92. PROC GMAP DATA=NEW MAP=MILL GOUT=GOD4;
93. ID COUNTY;
94. CHORO TSPD/DISCRETE COUTLINE=C4 CTEXT=C2;
95. PATTERN1 V=E C=C2;
96. PATTERN2 V=M2NO C=C2;
97. PATTERN3 V=M2N45 C=C2;

```

98. PATTERN4 V=M2X90 C=C5;
99. FORMAT TSPD DSPDN.;
102. TITLE .F=DUPLEX .C=C2 .H=2 DISTRICT 11;
103. TITLE2 .F=DUPLEX .C=C2 .H=1 DATE 1977-1982;
104. FOOTNOTE .F=DUPLEX .C=C2 .H=2 TOTAL NUMBER OF SPUD-INS;
105. DATA FLAT;
106. SET GOD3 GOD4;
107. PROC GREPLAY DATA=FLAT;

STATE—TEXAS
DATE 1977—1982



LEGEND: TSPD

0
< 1500

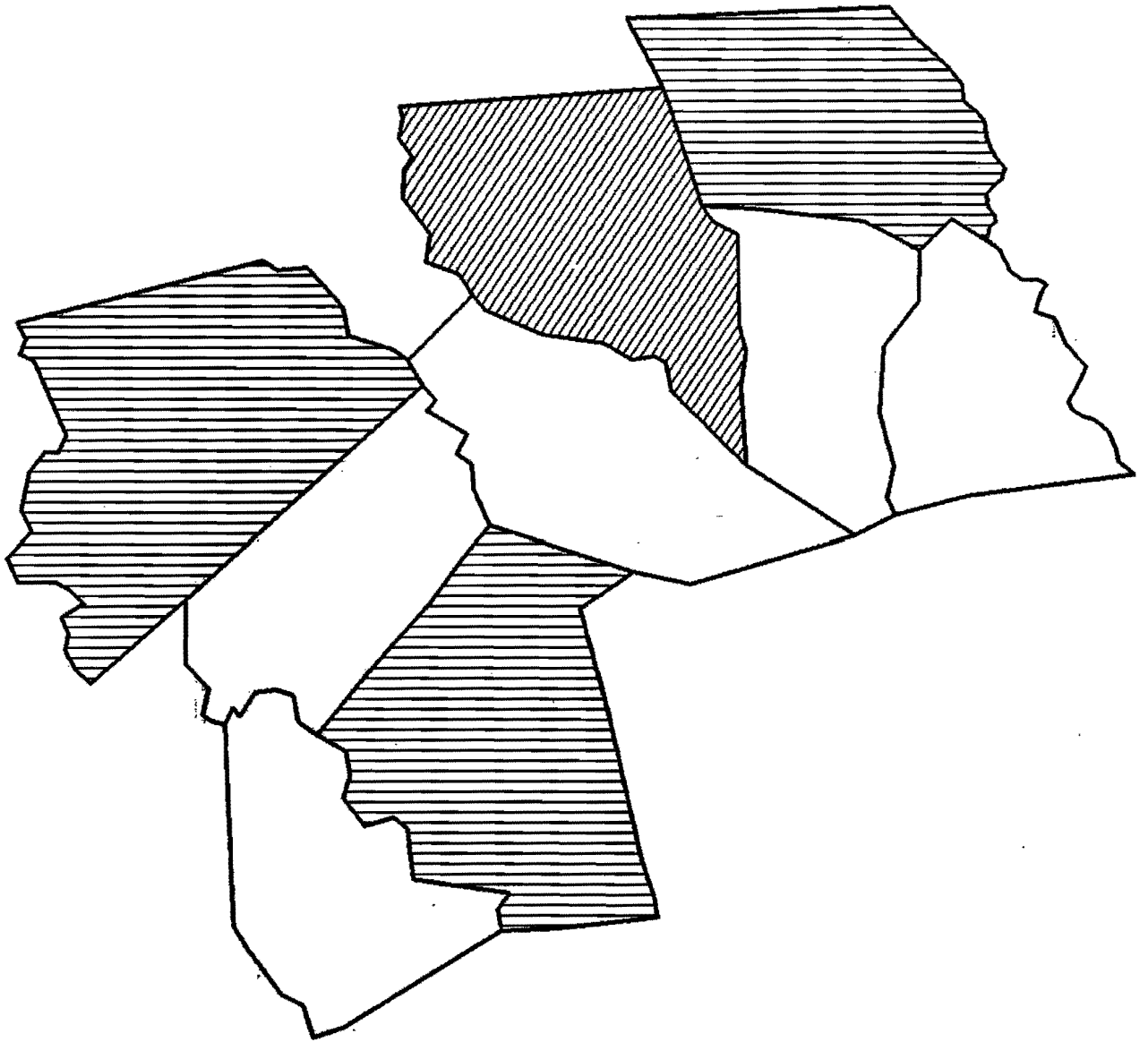
< 100
< 2000

< 750
> 2000

TOTAL NUMBER OF SPUD-INS

Figure L-3. Total Number of Spud-ins in Texas - 1977-1982.

DISTRICT 11
DATE 1977-1982



LEGEND: TSPD  < 100  < 200  > 200

TOTAL NUMBER OF SPUD-INS

Figure L-4. Total Spud-ins - District 11
Map.

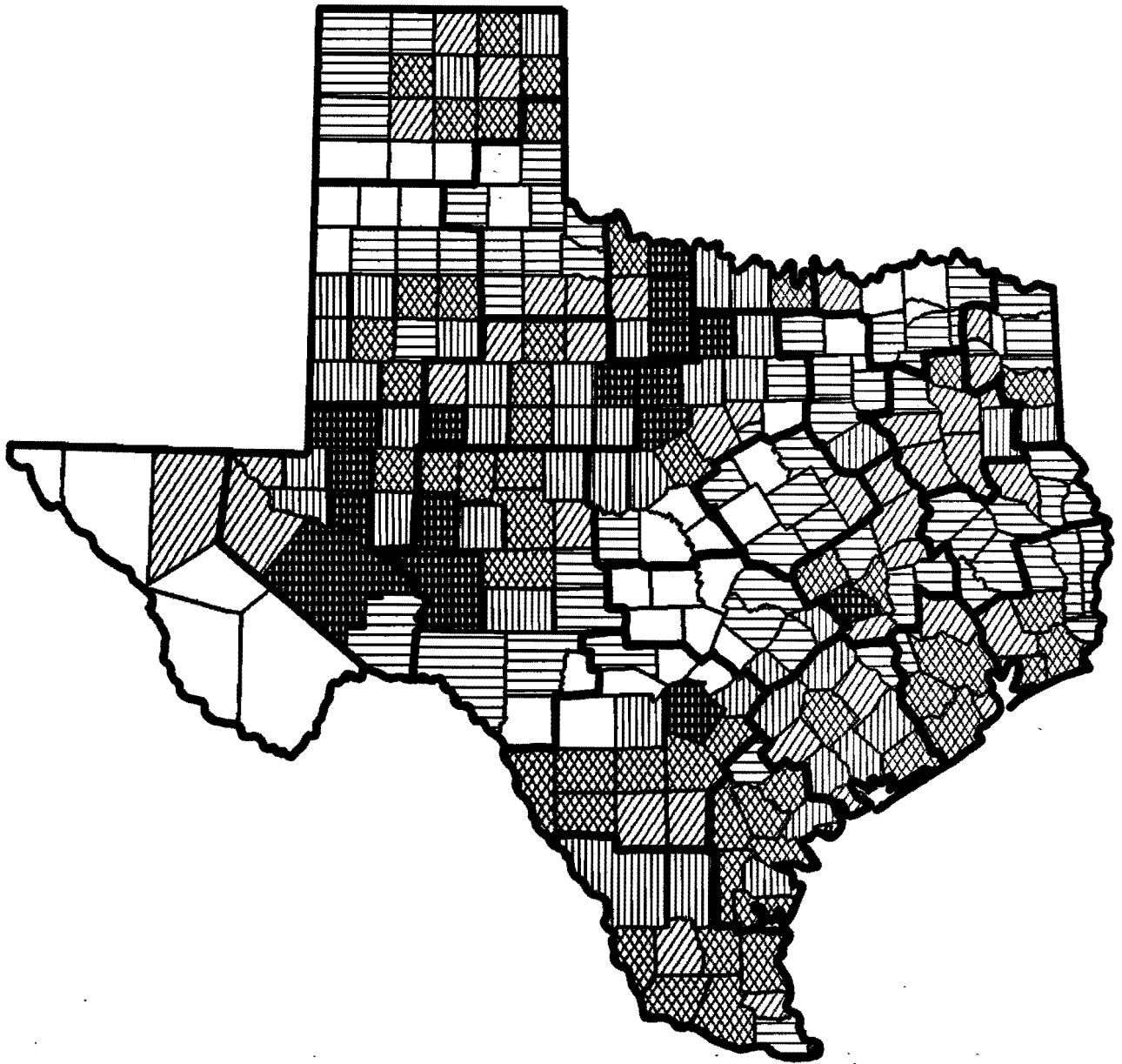
```

1.  █████ JOB (W259,008D,S20,20,RB), 'BECKER'
2.  //*TAMU PRTY=2
3.  //STEP EXEC SASVTEC,REGION=380K
4.  //PLOT PARM DD *
5.  &PLOT XMAX=90 &END
6.  //BLUE DD DSN=USR.W259.RB.CPROD,DISP=OLD
7.  //SYSIN DD *
8.  GOPTIONS DEVICE=SASVTEC COLORS=(C1 C2 C3 C4 C5)
9.  HSIZE=8 VSIZE=10 BORDER;
10. * THIS PROGRAM WILL MAP THE STATE AND DISTRICT 11 WITH;
11. * RESPECT TO TOTAL COMPLETION W;
12. DATA ROUND;
13.   SET BLUE.CPROD;
14.   IF YEAR=1977;
17. DATA NEW;
18.   SET ROUND;
19.   IF COUNTY=005 OR COUNTY=225 OR COUNTY=347 OR COUNTY=
20.     373 OR COUNTY=403 OR COUNTY=405 OR COUNTY=
21.     407 OR COUNTY=419 OR COUNTY=455;
22. DATA MISS;
23.   SET MAP.COUNTIES;
24.   IF STATE=48;
25. PROC GPROJECT DATA=MISS OUT=MISSS;
26.   ID COUNTY;
27. DATA MILL;
28.   SET MISSS;
29.   IF COUNTY=005 OR COUNTY=225 OR COUNTY=347 OR COUNTY=
30.     373 OR COUNTY=403 OR COUNTY=405 OR COUNTY=
31.     407 OR COUNTY=419 OR COUNTY=455;
32. PROC FORMAT;
33.   VALUE STCW 0=0
34.     0.1-99.9=< 100
35.     100-249.9=< 250
36.     250-499.9=< 500
37.     500-999.9=< 1000
38.     1000-HIGH=> 1000;
39. PROC FORMAT;
40.   VALUE DTCW LOW-19.9=< 20
41.     20-49.9=< 50
42.     50-99.9=< 100
43.     100-HIGH=> 100;
79. PROC GMAP DATA=ROUND MAP=MISSS GOUT=GOD3;
80.   ID COUNTY;
81.   CHORO TCW/DISCRETE COUTLINE=C4 CTEXT=C2;
82.   PATTERN1 V=E C=C2;
83.   PATTERN2 V=M2NO C=C2;
84.   PATTERN3 V=M2N45 C=C2;
85.   PATTERN4 V=M2X45 C=C2;
86.   PATTERN5 V=M2N90 C=C2;
87.   PATTERN6 V=M2X90 C=C5;
88.   FORMAT TCW STCW.;
89.   TITLE .F=DUPLEX .C=C2 .H=2 STATE-TEXAS;
90.   TITLE2 .F=DUPLEX .C=C2 .H=1 DATE 1977-1982;
91.   FOOTNOTE .F=DUPLEX .C=C2 .H=2 TOTAL NUMBER OF COMPLETION W;
92. PROC GMAP DATA=NEW MAP=MILL GOUT=GOD4;
93.   ID COUNTY;
94.   CHORO TCW/DISCRETE COUTLINE=C4 CTEXT=C2;
95.   PATTERN1 V=E C=C2;
96.   PATTERN2 V=M2NO C=C2;
97.   PATTERN3 V=M2N45 C=C2;

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98. PATTERN4 V=M2X90 C=C5;
99. FORMAT TCW DTCW.;
102. TITLE .F=DUPLEX .C=C2 .H=2 DISTRICT 11;
103. TITLE2 .F=DUPLEX .C=C2 .H=1 DATE 1977-1982;
104. FOOTNOTE .F=DUPLEX .C=C2 .H=2 TOTAL NUMBER OF COMPLETION W;
105. DATA FLAT;
106. SET GOD3 GOD4;
107. PROC GREPLAY DATA=FLAT;

STATE-TEXAS
DATE 1977-1982



LEGEND: TCH

0
< 500

< 100
< 1000

< 250
> 1000

TOTAL NUMBER OF COMPLETION W

Figure L-5. Total Number of Completion W's
in Texas - 1977-1982.

DISTRICT 11
DATE 1977-1982



LEGEND: TCW < 20 < 50 < 100 > 100

TOTAL NUMBER OF COMPLETION W

Figure L-6. Total Completion W's -
District 11 Map.


```

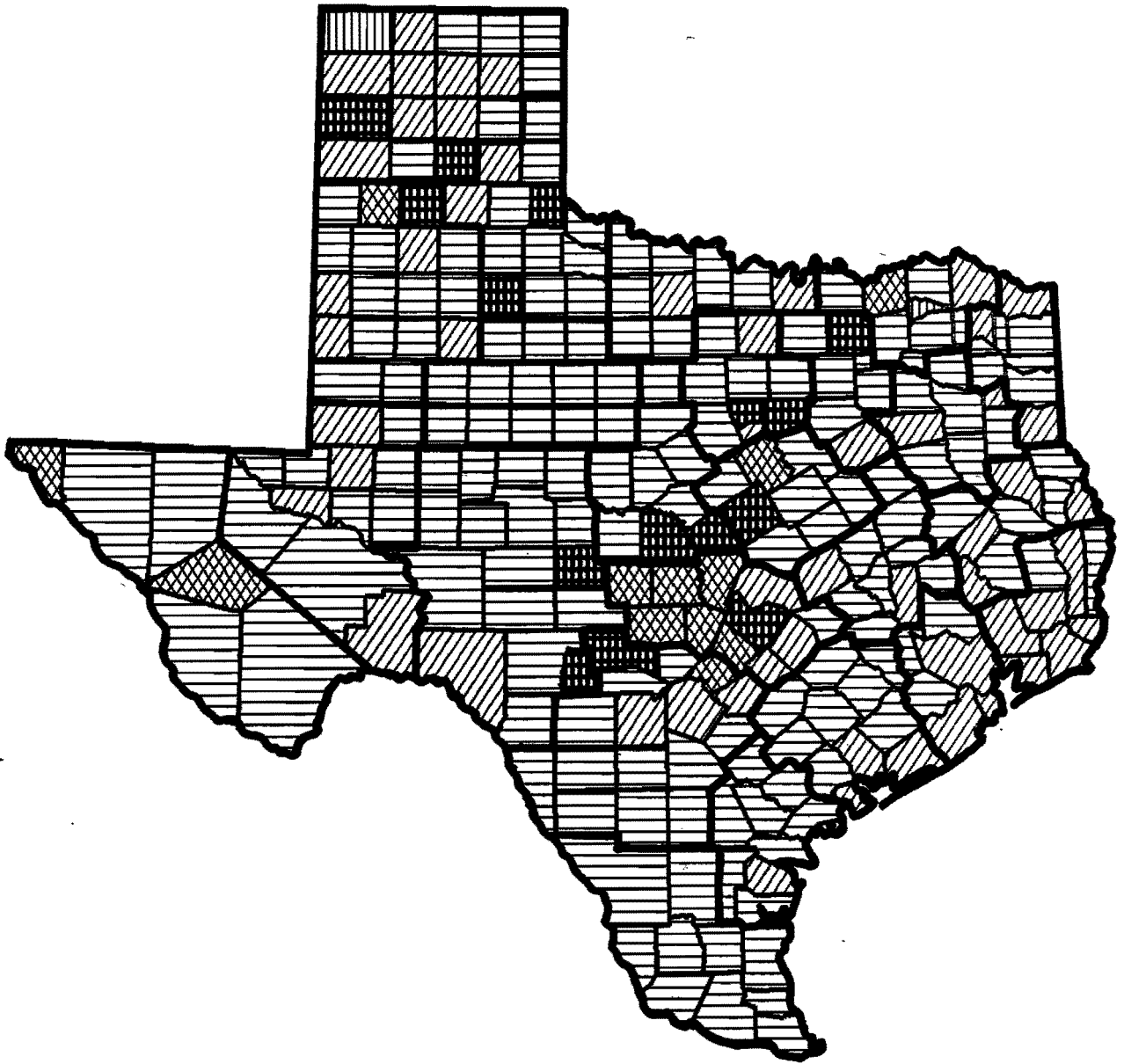
1.  //***** JOB (W259,008D,S20,20,RB), 'BECKER'
2.  // *TAMU PRTY=2
3.  //STEP EXEC SASVTEC,REGION=380K
4.  //PLOT PARM DD *
5.  &PLOT XMAX=90 &END
6.  //BLUE DD DSN=USR.W259.RB.CPROD,DISP=OLD
7.  //SYSIN DD *
8.  GOPTIONS DEVICE=SASVTEC COLORS=(C1 C2 C3 C4 C5)
9.  HSIZE=8 VSIZE=10 BORDER;
10. * THIS PROGRAM WILL MAP THE STATE AND DISTRICT 11 WITH;
11. * RESPECT TO THE AVERAGE LAG TIME IN DAYS;
12. DATA ROUND;
13.   SET BLUE.CPROD;
14.   IF YEAR=1977;
14.4 LLTIME=LTIME;
15.   IF LTIME=0 THEN LTIME=550;
17. DATA NEW;
18.   SET ROUND;
19.   IF COUNTY=005 OR COUNTY=225 OR COUNTY=347 OR COUNTY=
20.     373 OR COUNTY=403 OR COUNTY=405 OR COUNTY=
21.     407 OR COUNTY=419 OR COUNTY=455;
22. DATA MISS;
23.   SET MAP.COUNTIES;
24.   IF STATE=48;
25. PROC GPROJECT DATA=MISS OUT=MISSS;
26.   ID COUNTY;
27. DATA MILL;
28.   SET MISSS;
29.   IF COUNTY=005 OR COUNTY=225 OR COUNTY=347 OR COUNTY=
30.     373 OR COUNTY=403 OR COUNTY=405 OR COUNTY=
31.     407 OR COUNTY=419 OR COUNTY=455;
46. PROC FORMAT;
47.   VALUE NGAS LOW-29.9=< 30
48.     30-59.9=< 60
49.     60-89.9=< 90
49.5   90-119.9=< 120
50.     120-499.9=> 120
50.2   500-HIGH= NOTHING;
51. PROC FORMAT;
52.   VALUE OGAS LOW-49.9=< 50
53.     50-59.9=< 60
54.     60-69.9=< 70
55.     70-HIGH=> 70;
79. PROC GMAP DATA=ROUND MAP=MISSS GOUT=GOD3;
80.   ID COUNTY;
81.   CHORO LTIME/DISCRETE COUTLINE=C5 CTEXT=C2;
82.   PATTERN1 V=M2XO C=C5;
83.   PATTERN2 V=M2NO C=C2;
84.   PATTERN3 V=M2N45 C=C2;
84.5  PATTERN4 V=M2N90 C=C2;
85.   PATTERN5 V=M2X45 C=C2;
85.6  PATTERN6 V=E C=C2;
88.   FORMAT LTIME NGAS.;
89.   TITLE .F=DUPLEX .C=C2 .H=2 STATE-TEXAS;
90.   TITLE2 .F=DUPLEX .C=C2 .H=1 DATE 1977-1982;
91.   FOOTNOTE .F=DUPLEX .C=C2 .H=2 LAG TIME IN DAYS;
92. PROC GMAP DATA=NEW MAP=MILL GOUT=GOD4;
93.   ID COUNTY;
94.   CHORO LLTIME/DISCRETE COUTLINE=C5 CTEXT=C2;
96.   PATTERN1 V=M2XO C=C5;

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```
97.      PATTERN2 V=M2N45 C=C2;
97.5    PATTERN3 V=M2N90 C=C2;
98.      PATTERN4 V=M2X45 C=C2;
101.     FORMAT LLTIME DGAS.;
102.     TITLE .F=DUPLEX .C=C2 .H=2 DISTRICT 11;
103.     TITLE2 .F=DUPLEX .C=C2 .H=1 DATE 1977-1982;
104.     FOOTNOTE .F=DUPLEX .C=C2 .H=2 LAG TIME IN DAYS;
105.     DATA FLAT;
106.     SET GOD3 GOD4;
107.     PROC GREPLAY DATA=FLAT;
```

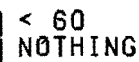
STATE-TEXAS

DATE 1977-1982



LEGEND: LTIME

 < 30
 < 120

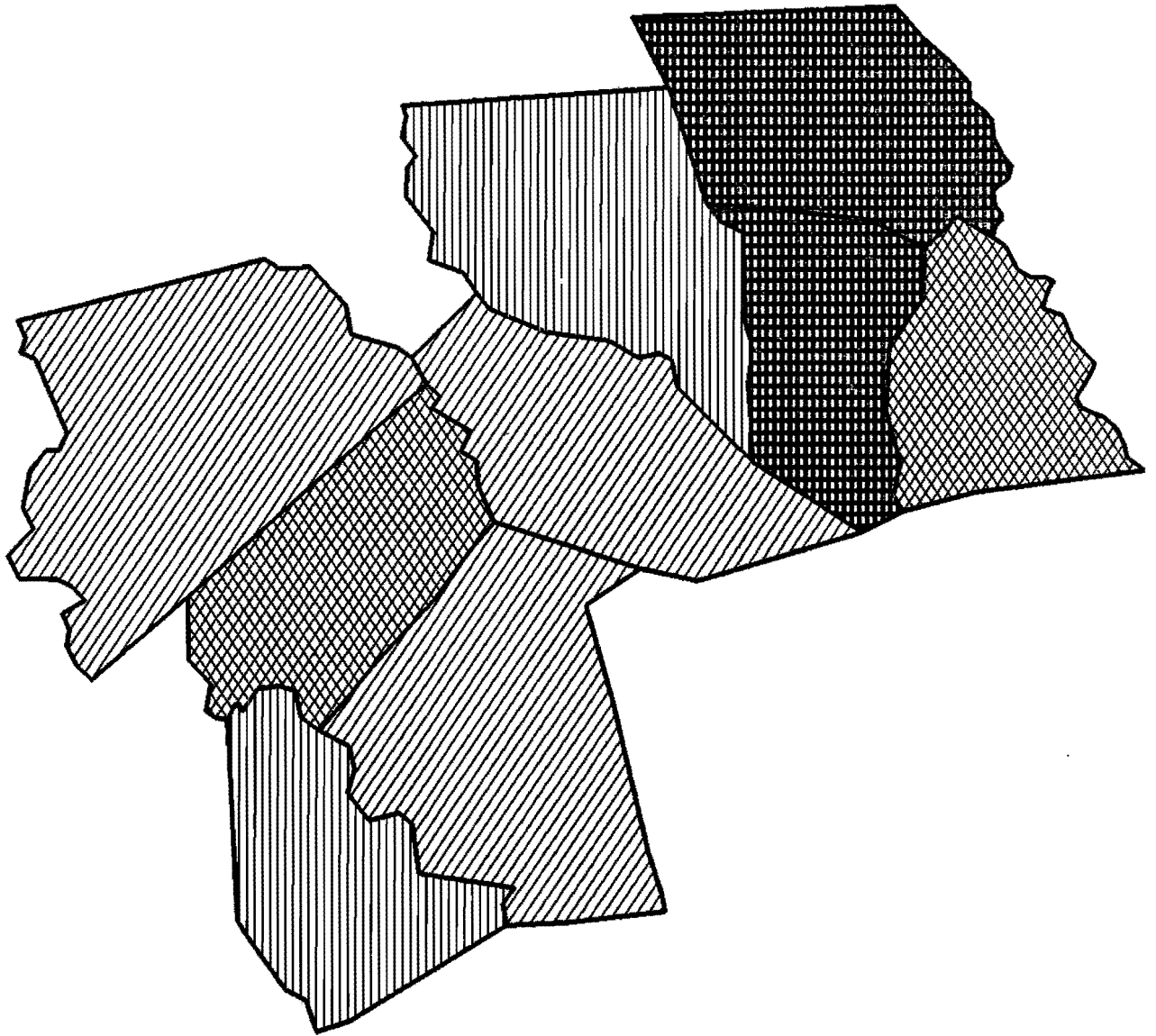
 < 60
 NOTHING

 < 90

LAG TIME IN DAYS

Figure L-7. Average Lag Time in Texas - 1977-1982.

DISTRICT 11
DATE 1977-1982



LEGEND: LLTIME

 < 50
 < 70

 < 60
 > 70

LAG TIME IN DAYS

Figure L-8. Average Lag Time - District 11 Map.

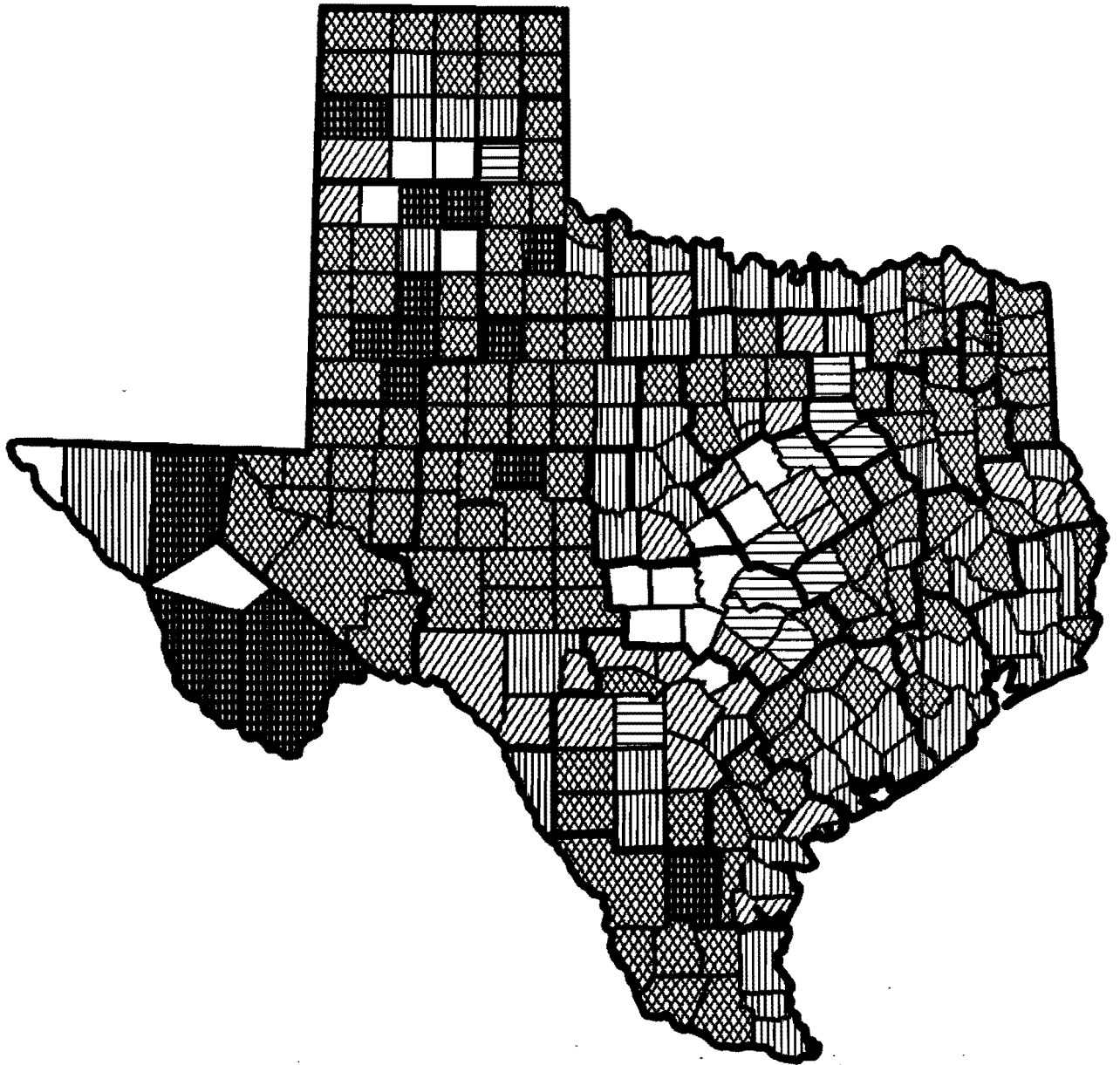
```

1.  ██████████ JOB (W259,502A,S25,20,RB), 'BECKER'
2.  //*TAMU PRTY=2
3.  //STEP EXEC SASVTEC,REGION=38OK
4.  //PLOT PARM DD *
5.  &PLOT XMAX=90 &END
6.  //BLUE DD DSN=USR.W259.RB.CPROD,DISP=OLD
7.  //SYSIN DD *
8.  GOPTIONS DEVICE=SASVTEC COLORS=(C1 C2 C3 C4 C5)
9.  HSIZE=8 VSIZE=10 BORDER;
10. * THIS PROGRAM WILL MAP THE STATE AND DISTRICT 11 WITH;
11. * RESPECT TO THE AVERAGE PERMITTED WELLS DRILLED IN PERCENT;
12. DATA ROUND;
13.   SET BLUE.CPROD;
14.   IF YEAR=1977;
17. DATA NEW;
18.   SET ROUND;
19.   IF COUNTY=005 OR COUNTY=225 OR COUNTY=347 OR COUNTY=
20.     373 OR COUNTY=403 OR COUNTY=405 OR COUNTY=
21.     407 OR COUNTY=419 OR COUNTY=455;
22. DATA MISS;
23.   SET MAP.COUNTIES;
24.   IF STATE=48;
25. PROC GPROJECT DATA=MISS OUT=MISSS;
26.   ID COUNTY;
27. DATA MILL;
28.   SET MISSS;
29.   IF COUNTY=005 OR COUNTY=225 OR COUNTY=347 OR COUNTY=
30.     373 OR COUNTY=403 OR COUNTY=405 OR COUNTY=
31.     407 OR COUNTY=419 OR COUNTY=455;
46. PROC FORMAT;
47.   VALUE NGAS 0=0 %
47.5     0.1-19.9=< 20 %
48.     20-39.9=< 40 %
48.5     40-59.9=< 60 %
49.     60-79.9=< 80 %
50.     80.0-HIGH=< 100 %;
51. PROC FORMAT;
52.   VALUE DSPIN 0=0 %
53.     0.1-19.9=< 20 %
54.     20.0-39.9=< 40 %
55.     40.0-79.9=< 80 %;
79. PROC GMAP DATA=ROUND MAP=MISSS GOUT=GOD3;
80.   ID COUNTY;
81.   CHORO SDDPER/DISCRETE COUTLINE=C5 CTEXT=C2;
82.   PATTERN1 V=E C=C2;
83.   PATTERN2 V=M2NO C=C2;
84.   PATTERN3 V=M2N45 C=C2;
84.4  PATTERN4 V=M2N90 C=C2;
84.6  PATTERN5 V=M2X45 C=C2;
85.   PATTERN6 V=M2X90 C=C5;
88.   FORMAT SDDPER NGAS.;
89.   TITLE .F=DUPLEX .C=C2 .H=2 STATE-TEXAS;
90.   TITLE2 .F=DUPLEX .C=C2 .H=1 DATE 1977-1982;
91.   FOOTNOTE .F=DUPLEX .C=C2 .H=2 PERMITTED WELLS DRILLED;
92. PROC GMAP DATA=NEW MAP=MILL GOUT=GOD4;
93.   ID COUNTY;
94.   CHORO SDDPER/DISCRETE COUTLINE=C5 CTEXT=C2;
95.   PATTERN1 V=E C=C2;
96.   PATTERN2 V=M2NO C=C2;
97.   PATTERN3 V=M2N45 C=C2;

```

98. PATTERN4 V=M2X90 C=C5;
101. FORMAT SDDPER DSPIN. ;
102. TITLE .F=DUPLEX .C=C2 .H=2 DISTRICT 11;
103. TITLE2 .F=DUPLEX .C=C2 .H=1 DATE 1977-1982;
104. FOOTNOTE .F=DUPLEX .C=C2 .H=2 PERMITTED WELLS DRILLED;
105. DATA FLAT;
106. SET GOD3 GOD4;
107. PROC GREPLAY DATA=FLAT;

STATE-Texas
DATE 1977-1982



LEGEND: SDDPER

0 %
< 70 %

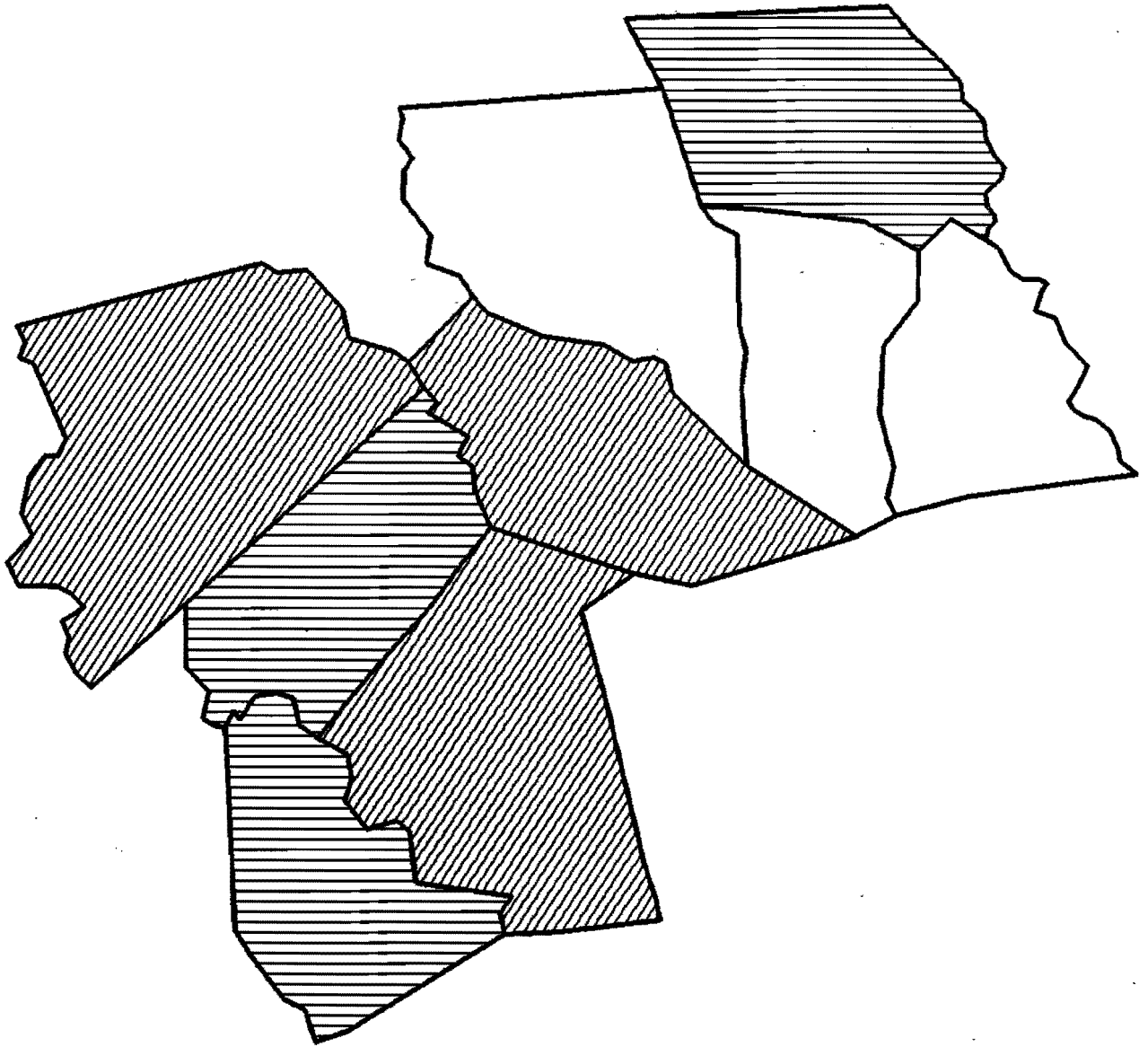
< 50 %
< 85 %

< 60 %
< 100 %

PERMITTED WELLS DRILLED

Figure L-9. Average Percent Drilled in Texas - 1977-1982.

DISTRICT 11
DATE 1977-1982



LEGEND: SDDPER  < 60 %  < 70 %  < 80 %

PERMITTED WELLS DRILLED

Figure L-10. Average Percent Drilled - District 11 Map.

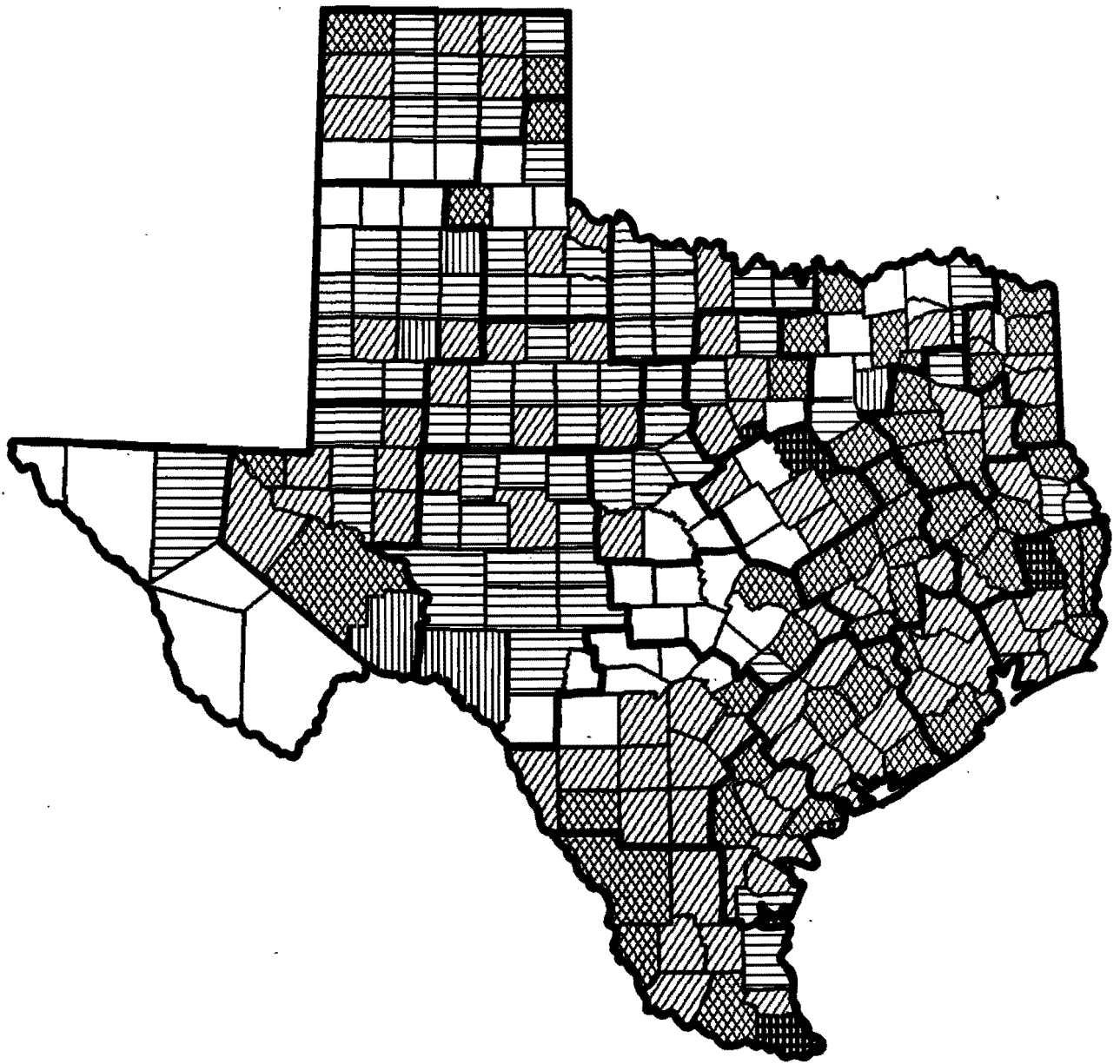

```

1. ██████████ JOB (W259,008D,S20,20,RB), 'BECKER'
2. // *TAMU PRTY=2
3. //STEP EXEC SASVTEC,REGION=38OK
4. //PLOT PARM DD *
5. &PLOT XMAX=90 &END
6. //BLUE DD DSN=USR.W259.RB.CPROD,DISP=OLD
7. //SYSIN DD *
8. GOPTIONS DEVICE=SASVTEC COLORS=(C1 C2 C3 C4 C5)
9. HSIZE=8 VSIZE=10 BORDER;
10. * THIS PROGRAM WILL MAP THE STATE AND DISTRICT 11 WITH;
11. * RESPECT TO AVERAGE DRILLING TIME IN DAYS;
12. DATA ROUND;
13. SET BLUE.CPROD;
14. IF YEAR=1977;
17. DATA NEW;
18. SET ROUND;
19. IF COUNTY=005 OR COUNTY=225 OR COUNTY=347 OR COUNTY=
20. 373 OR COUNTY=403 OR COUNTY=405 OR COUNTY=
21. 407 OR COUNTY=419 OR COUNTY=455;
22. DATA MISS;
23. SET MAP.COUNTIES;
24. IF STATE=48;
25. PROC GPROJECT DATA=MISS OUT=MISSS;
26. ID COUNTY;
27. DATA MILL;
28. SET MISSS;
29. IF COUNTY=005 OR COUNTY=225 OR COUNTY=347 OR COUNTY=
30. 373 OR COUNTY=403 OR COUNTY=405 OR COUNTY=
31. 407 OR COUNTY=419 OR COUNTY=455;
32. PROC FORMAT;
33. VALUE SDTME 0=0
34. 0.1-29.9=< 30
35. 30-59.9=< 60
36. 60-119.9=< 120
37. 120-239.9=< 240
38. 240-HIGH=> 240;
39. PROC FORMAT;
40. VALUE DDTME LOW-29.9=< 30
42. 30-59.9=< 60
43. 60-119.9=< 120
44. 120-HIGH=> 120;
79. PROC GMAP DATA=ROUND MAP=MISSS GOUT=GOD3;
80. ID COUNTY;
81. CHORO DTIME/DISCRETE COUTLINE=C4 CTEXT=C2;
82. PATTERN1 V=E C=C2;
83. PATTERN2 V=M2NO C=C2;
84. PATTERN3 V=M2N45 C=C2;
85. PATTERN4 V=M2X45 C=C2;
86. PATTERN5 V=M2N90 C=C2;
87. PATTERN6 V=M2X90 C=C5;
87.5 FORMAT DTIME SDTME.;
89. TITLE .F=DUPLEX .C=C2 .H=2 STATE-TEXAS;
90. TITLE2 .F=DUPLEX .C=C2 .H=1 DATE 1977-1982;
91. FOOTNOTE .F=DUPLEX .C=C2 .H=2 DRILLING TIME IN DAYS;
92. PROC GMAP DATA=NEW MAP=MILL GOUT=GOD4;
93. ID COUNTY;
94. CHORO DTIME/DISCRETE COUTLINE=C4 CTEXT=C2;
95. PATTERN1 V=E C=C2;
96. PATTERN2 V=M2NO C=C2;
97. PATTERN3 V=M2N45 C=C2;

```

```
98.      PATTERN4 V=M2X90 C=C5;
98.5    FORMAT DTIME DDTME.;
102.    TITLE .F=DUPLEX .C=C2 .H=2 DISTRICT 11;
103.    TITLE2 .F=DUPLEX .C=C2 .H=1 DATE 1977-1982;
104.    FOOTNOTE .F=DUPLEX .C=C2 .H=2 DRILLING TIME IN DAYS;
105.    DATA FLAT;
106.    SET GOD3 GOD4;
107.    PROC GREPLAY DATA=FLAT;
```

STATE-Texas
DATE 1977-1982



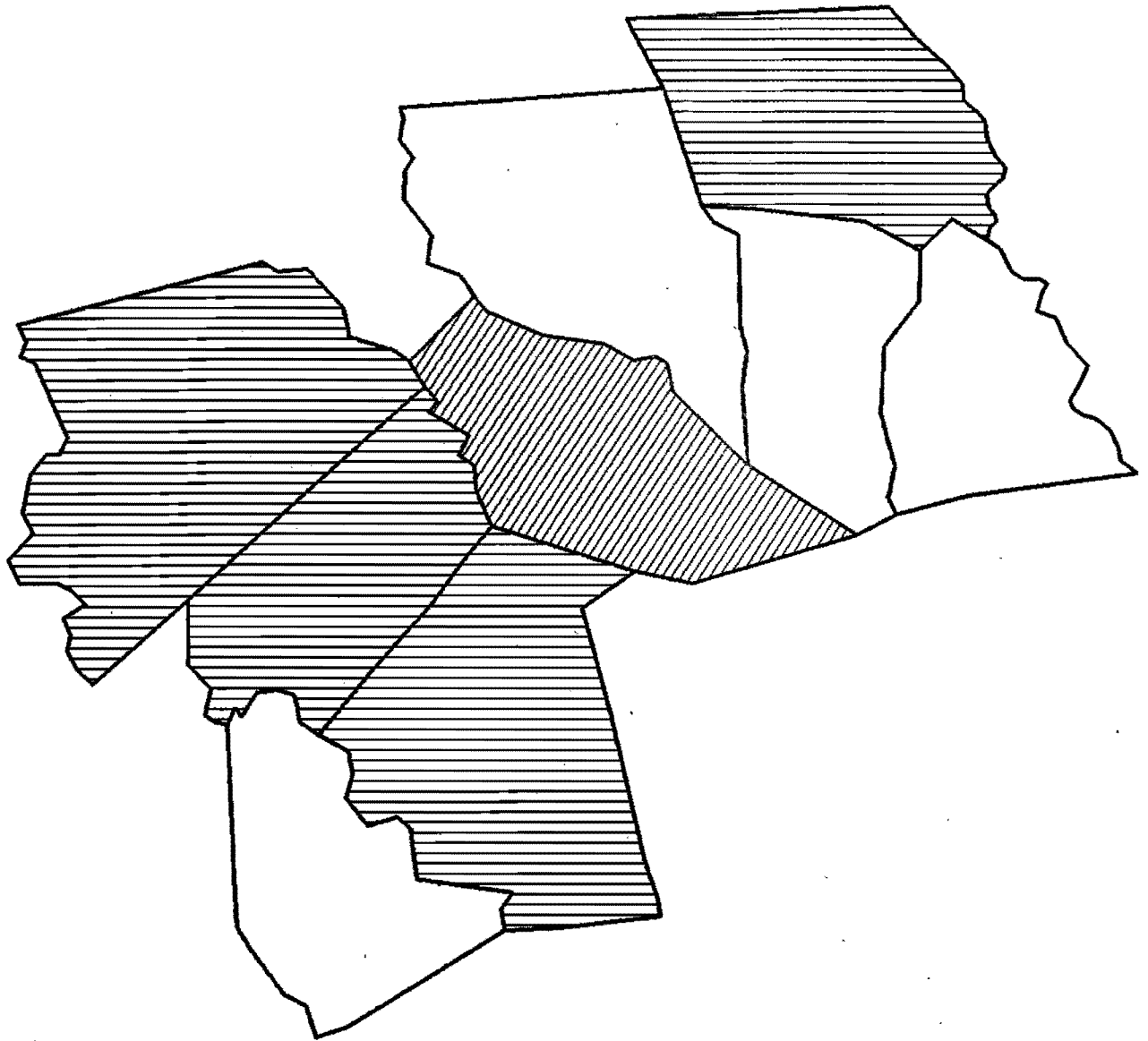
LEGEND: DTIME

 0 < 30	 < 90 < 120	 < 180	 < 60 > 180
--	---	--	--

DRILLING TIME IN DAYS

Figure L-11. Average Drill Time in Texas - 1977-1982.

DISTRICT 11
DATE 1977-1982



LEGEND: DTIME  < 60  < 90  < 120

DRILLING TIME IN DAYS

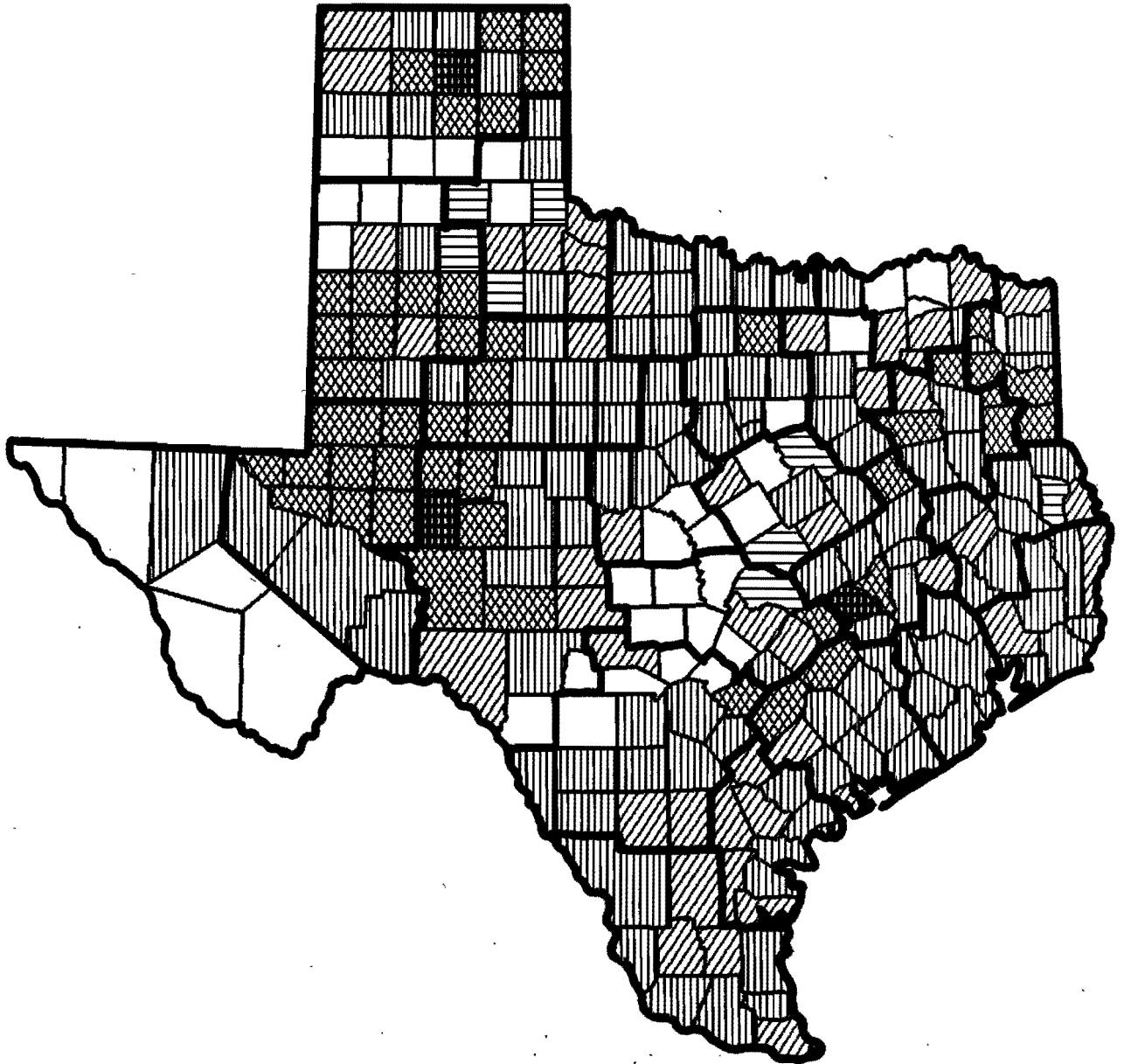
Figure L-12. Average Drill Time - District 11 Map.

```
1. ██████████ JOB (W259,008D,S20,20,RB), 'BECKER'
2. //*LEVEL O
3. //STEP EXEC SASVTEC,REGION=380K
4. //PLOT Parm DD *
5. &PLOT XMAX=90 &END
6. //BLUE DD DSN=USR.W259.RB.CPROD,DISP=OLD
7. //SYSIN DD *
8. GOPTIONS DEVICE=SASVTEC COLORS=(C1 C2 C3 C4 C5)
9. HSIZE=8 VSIZE=10 BORDER;
10. * THIS PROGRAM WILL MAP THE STATE AND DISTRICT 11 WITH;
11. * RESPECT TO AVERAGE COMPLETION W SUCCESS RATE (1977-1982);
12. DATA ROUND;
13. SET BLUE.CPROD;
14. IF YEAR=1977;
15. DATA NEW;
16. SET ROUND;
17. IF COUNTY=005 OR COUNTY=225 OR COUNTY=347 OR COUNTY=
18. 373 OR COUNTY=403 OR COUNTY=405 OR COUNTY=
19. 407 OR COUNTY=419 OR COUNTY=455;
20. DATA MISS;
21. SET MAP.COUNTIES;
22. IF STATE=48;
23. PROC GPROJECT DATA=MISS OUT=MISSS;
24. ID COUNTY;
25. DATA MILL;
26. SET MISSS;
27. IF COUNTY=005 OR COUNTY=225 OR COUNTY=347 OR COUNTY=
28. 373 OR COUNTY=403 OR COUNTY=405 OR COUNTY=
29. 407 OR COUNTY=419 OR COUNTY=455;
30. PROC FORMAT;
31. VALUE SCWDSO 0=0 %
32. 0.1-19.9=< 20 %
33. 20-39.9=< 40 %
34. 40-59.9=< 60 %
35. 60-79.9=< 80 %
36. 80-HIGH=> 80 %;
37. PROC FORMAT;
38. VALUE DCWDSO LOW-9.9=< 10 %
39. 10-24.9=< 25 %
40. 25-49.9=< 50 %
41. 50-HIGH=> 50 %;
42. PROC GMAP DATA=ROUND MAP=MISSS GOUT=GOD3;
43. ID COUNTY;
44. CHORO CWDSO/DISCRETE COUTLINE=C4 CTEXT=C2;
45. PATTERN1 V=E C=C2;
46. PATTERN2 V=M2NO C=C2;
47. PATTERN3 V=M2N45 C=C2;
48. PATTERN4 V=M2N90 C=C2;
49. PATTERN5 V=M2X45 C=C2;
50. PATTERN6 V=M2X90 C=C5;
51. FORMAT CWDSO SCWDSO.;
52. TITLE .F=DUPLEX .C=C2 .H=2 STATE-TEXAS;
53. TITLE2 .F=DUPLEX .C=C2 .H=1 DATE 1977-1982;
54. FOOTNOTE .F=DUPLEX .C=C2 .H=2 COMPLETION W SUCCESS RATE;
55. PROC GMAP DATA=NEW MAP=MILL GOUT=GOD4;
56. ID COUNTY;
57. CHORO CWDSO/DISCRETE COUTLINE=C4 CTEXT=C2;
58. PATTERN1 V=E C=C2;
59. PATTERN2 V=M2NO C=C2;
60. PATTERN3 V=M2N45 C=C2;
```

```
98.      PATTERN4 V=M2X90 C=C5;
99.      FORMAT CWDS DCWDS;
102.     TITLE .F=DUPLEX .C=C2 .H=2 DISTRICT 11;
103.     TITLE2 .F=DUPLEX .C=C2 .H=1 DATE 1977-1982;
104.     FOOTNOTE .F=DUPLEX .C=C2 .H=2 COMPLETION W SUCCESS RATE;
105.     DATA FLAT;
106.     SET GOD3 GOD4;
107.     PROC GREPLAY DATA=FLAT;
```

STATE-Texas

DATE 1977-1982



LEGEND: CWSD

0 %
< 50 %

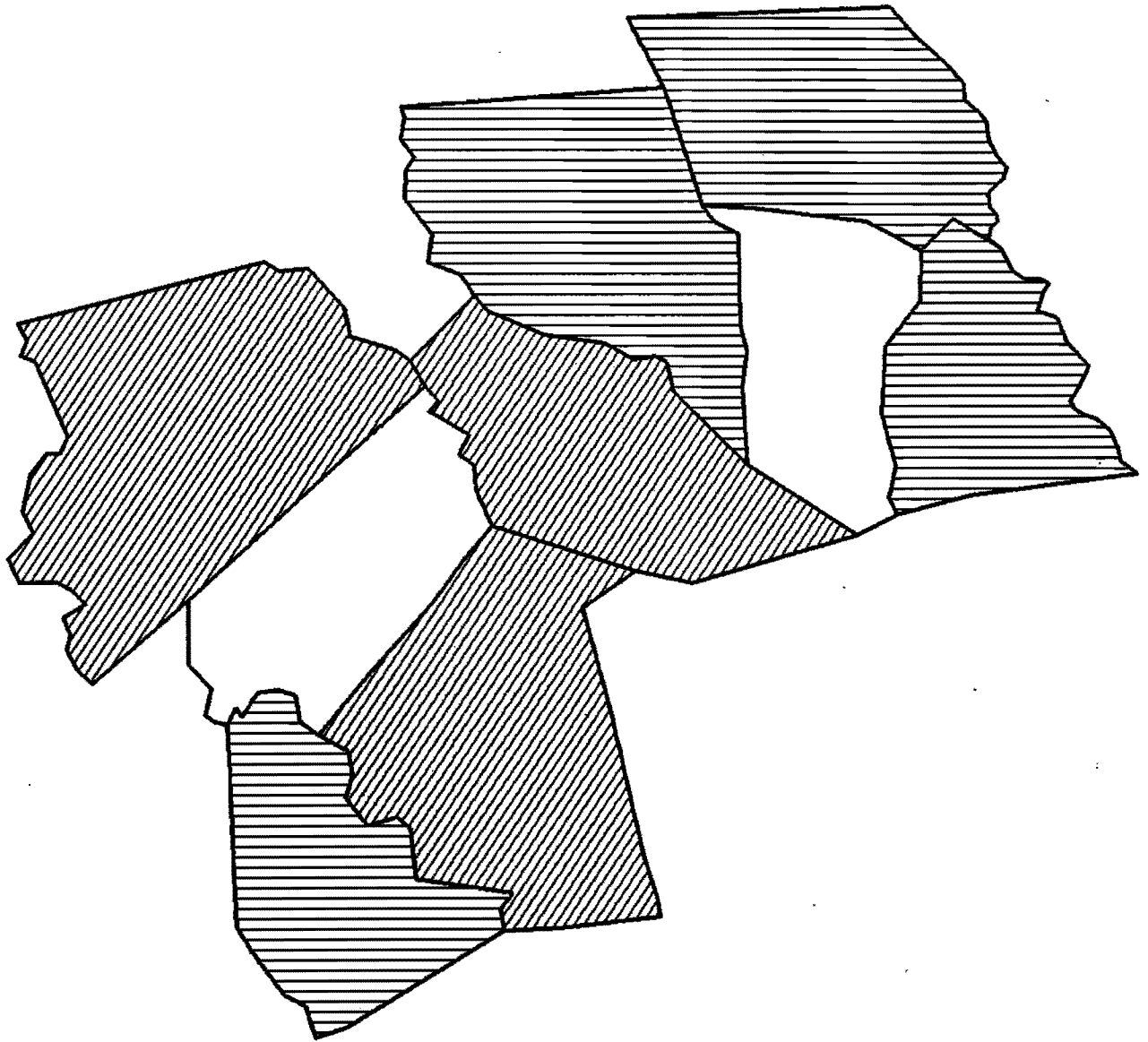
< 10 %
< 70 %

< 30 %
> 70 %

COMPLETION W SUCCESS RATE

Figure L-13. Average Completion W Success Rate in Texas - 1977-1982.

DISTRICT 11
DATE 1977-1982



LEGEND: CWSD  < 20 %  < 35 %  > 35 %

COMPLETION W SUCCESS RATE

Figure L-14. Average Completion W Success Rate -
District 11 Map.


```

1. ██████████ JOB (W259,008D,S25,20,RB), 'BECKER'
2. // *TAMU PRTY=2
3. //STEP EXEC SASVTEC,REGION=500K
4. //PLOT PARM DD *
5. &PLOT XMAX=90 &END
6. //BLUE DD DSN=USR.W259.RB.0GPRO,DISP=OLD
7. //SYSIN DD *
8. GOPTIONS DEVICE=SASVTEC COLORS=(C1 C2 C3 C4 C5)
9. HSIZE=8 VSIZE=10 BORDER;
10. * THIS PROGRAM WILL MAP THE STATE AND DISTRICT 11 WITH;
11. * RESPECT TO THEIR OIL AND GAS PRODUCTION FOR THE YEAR 1977;
12. DATA ROUND;
13. SET BLUE.0GPRO;
14. IF YEAR=1977;
15. GAS=GAS/1000000;
16. OIL=OIL/1000000;
17. DATA NEW;
18. SET ROUND;
19. IF COUNTY=005 OR COUNTY=225 OR COUNTY=347 OR COUNTY=
20. 373 OR COUNTY=403 OR COUNTY=405 OR COUNTY=
21. 407 OR COUNTY=419 OR COUNTY=455;
22. DATA MISS;
23. SET MAP.COUNTIES;
24. IF STATE=48;
25. PROC GPROJECT DATA=MISS OUT=MISSS;
26. ID COUNTY;
27. DATA MILL;
28. SET MISSS;
29. IF COUNTY=005 OR COUNTY=225 OR COUNTY=347 OR COUNTY=
30. 373 OR COUNTY=403 OR COUNTY=405 OR COUNTY=
31. 407 OR COUNTY=419 OR COUNTY=455;
32. PROC FORMAT;
33. VALUE OILS 0=0
34. 0.000001-0.999999=< 1.0
35. 1.0-9.999999=< 10.0
36. 10.0-19.999999=< 20.0
37. 20.0-39.999999=< 40.0
38. 40.0-HIGH=> 40.0;
39. PROC FORMAT;
40. VALUE OILD 0=0
41. 0.000001-0.499999=< 0.5
41.2 0.50-0.999999=<1.0
42. 1.0-9.999999=< 10.0
43. 10.0-19.999999=< 20.0
44. 20.0-39.999999=< 40.0
45. 40.0-HIGH=> 40.0;
46. PROC FORMAT;
47. VALUE GASS 0=0
48. 0.000001-49.999999=< 50.0
49. 50.0-99.999999=< 100
50. 100.0-199.999999=< 200.0
51. 200.0-299.999999=< 300.0
52. 300.0-HIGH=> 300.0;
52.1 PROC FORMAT;
52.2 VALUE GASD 0=0
52.3 0.000001-24.999999=< 25.0
52.31 25.0-49.999999=< 50.0
52.4 50.0-99.999999=< 100
52.5 100.0-199.999999=< 200.0
52.6 200.0-299.999999=< 300.0

```

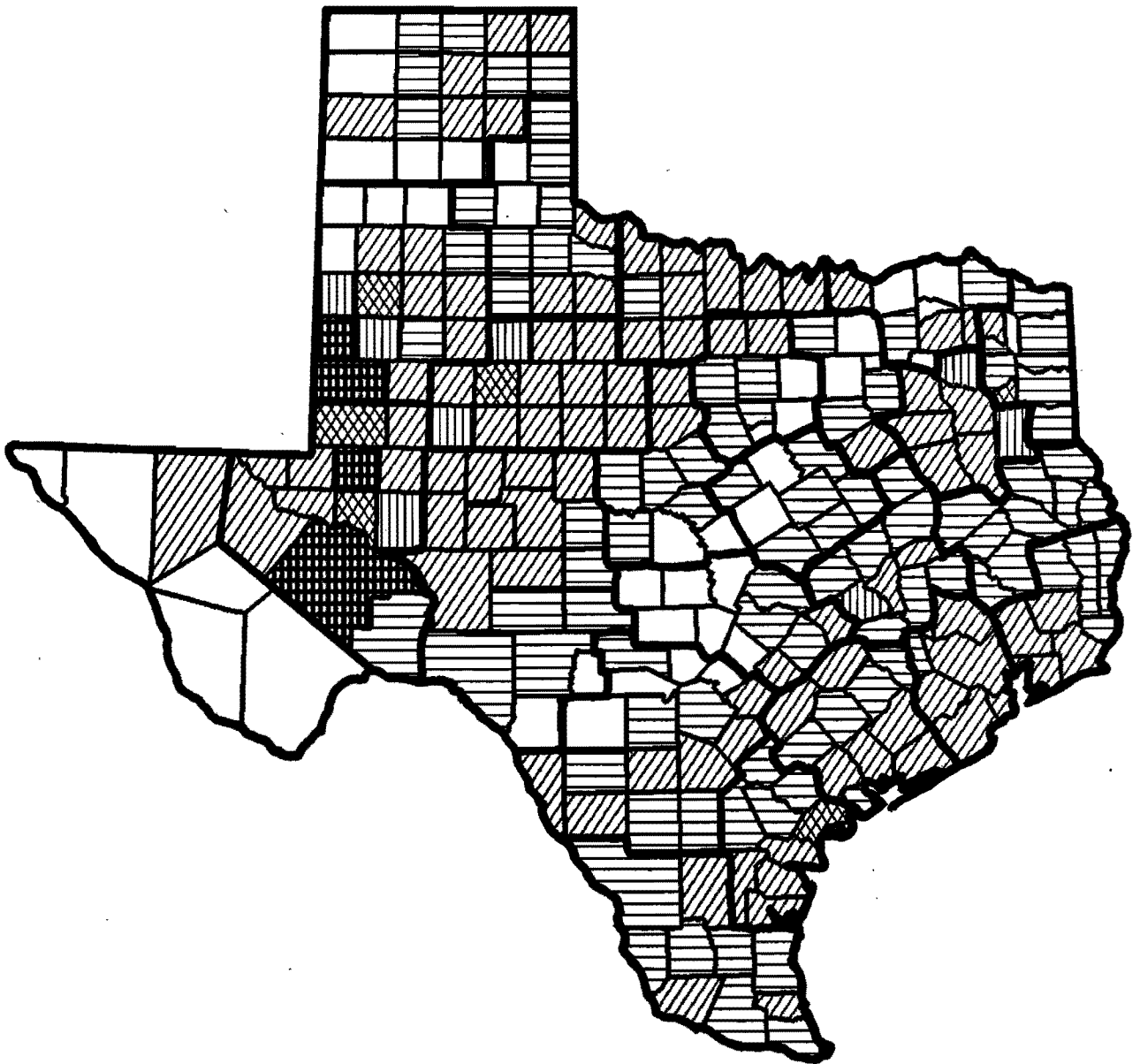
```

52.7          300.0-HIGH=> 300.0;
53.  PROC GMAP DATA=ROUND MAP=MISSS GOUT=GOD1;
54.  ID COUNTY;
55.  CHORO GAS/DISCRETE COUTLINE=C5 CTEXT=C2;
56.  PATTERN1 V=E C=C2;
57.  PATTERN2 V=M2NO C=C2;
58.  PATTERN3 V=M2N45 C=C2;
59.  PATTERN4 V=M2N90 C=C2;
60.  PATTERN5 V=M2X45 C=C2;
61.  PATTERN6 V=M2X90 C=C5;
62.  FORMAT GAS GASS.;
63.  TITLE .F=DUPLEX .C=C2 .H=2 STATE-TEXAS;
64.  TITLE2 .F=DUPLEX .C=C2 .H=1 DATE 1977;
65.  FOOTNOTE .F=DUPLEX .C=C2 .H=2 GAS PRODUCTION IN MILLION MCF;
66.  PROC GMAP DATA=NEW MAP=MILL GOUT=GOD2;
67.  ID COUNTY;
68.  CHORO GAS/DISCRETE COUTLINE=C5 CTEXT=C2;
69.  PATTERN1 V=E C=C2;
70.  PATTERN2 V=M2NO C=C2;
71.  PATTERN3 V=M2N45 C=C2;
72.  PATTERN4 V=M2N90 C=C2;
73.  PATTERN5 V=M2X45 C=C2;
74.  PATTERN6 V=M2X90 C=C5;
75.  FORMAT GAS GASD.;
76.  TITLE .F=DUPLEX .C=C2 .H=2 DISTRICT 11;
77.  TITLE2 .F=DUPLEX .C=C2 .H=1 DATE 1977;
78.  FOOTNOTE .F=DUPLEX .C=C2 .H=2 GAS PRODUCTION IN MILLION MCF;
79.  PROC GMAP DATA=ROUND MAP=MISSS GOUT=GOD3;
80.  ID COUNTY;
81.  CHORO OIL/DISCRETE COUTLINE=C5 CTEXT=C2;
82.  PATTERN1 V=E C=C2;
83.  PATTERN2 V=M2NO C=C2;
84.  PATTERN3 V=M2N45 C=C2;
85.  PATTERN4 V=M2N90 C=C2;
86.  PATTERN5 V=M2X45 C=C2;
87.  PATTERN6 V=M2X90 C=C5;
88.  FORMAT OIL OILS.;
89.  TITLE .F=DUPLEX .C=C2 .H=2 STATE-TEXAS;
90.  TITLE2 .F=DUPLEX .C=C2 .H=1 DATE 1977;
91.  FOOTNOTE .F=DUPLEX .C=C2 .H=2 OIL PRODUCTION IN MILLION BBL;
92.  PROC GMAP DATA=NEW MAP=MILL GOUT=GOD4;
93.  ID COUNTY;
94.  CHORO OIL/DISCRETE COUTLINE=C5 CTEXT=C2;
95.  PATTERN1 V=E C=C2;
96.  PATTERN2 V=M2NO C=C2;
97.  PATTERN3 V=M2N45 C=C2;
98.  PATTERN4 V=M2N90 C=C2;
99.  PATTERN5 V=M2X45 C=C2;
100. PATTERN6 V=M2X90 C=C5;
101. FORMAT OIL OILD.;
102. TITLE .F=DUPLEX .C=C2 .H=2 DISTRICT 11;
103. TITLE2 .F=DUPLEX .C=C2 .H=1 DATE 1977;
104. FOOTNOTE .F=DUPLEX .C=C2 .H=2 OIL PRODUCTION IN MILLION BBL;
105. DATA FLAT;
106. SET GOD1 GOD2 GOD3 GOD4;
107. PROC GREPLAY DATA=FLAT;

```

STATE-TEXAS

DATE 1982



LEGEND: OIL

0
< 20.0

< 1.0
< 40.0

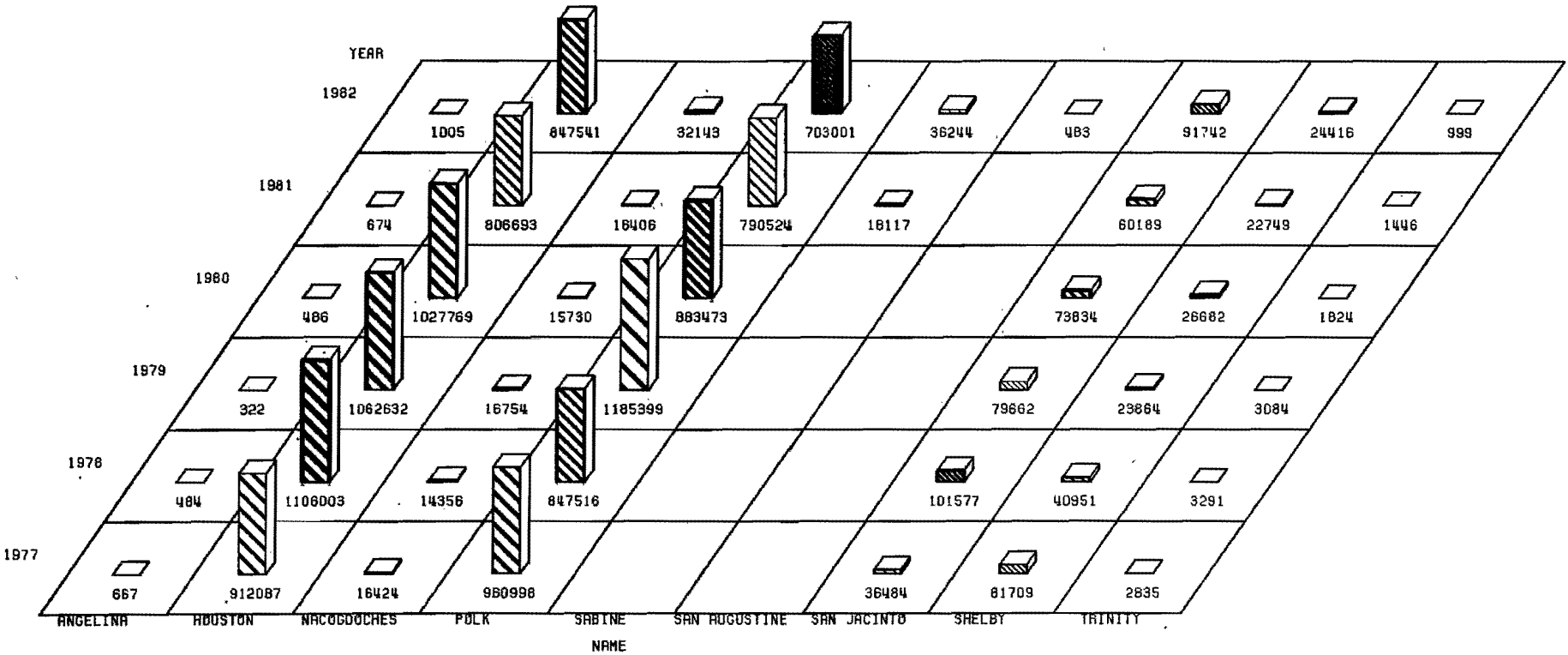
< 10.0
> 40.0

OIL PRODUCTION IN MILLION BBL

Figure L-15. Oil Production in Texas - 1982.

DISTRICT 11
DATE 1977-1982

FREQUENCY BLOCK CHART

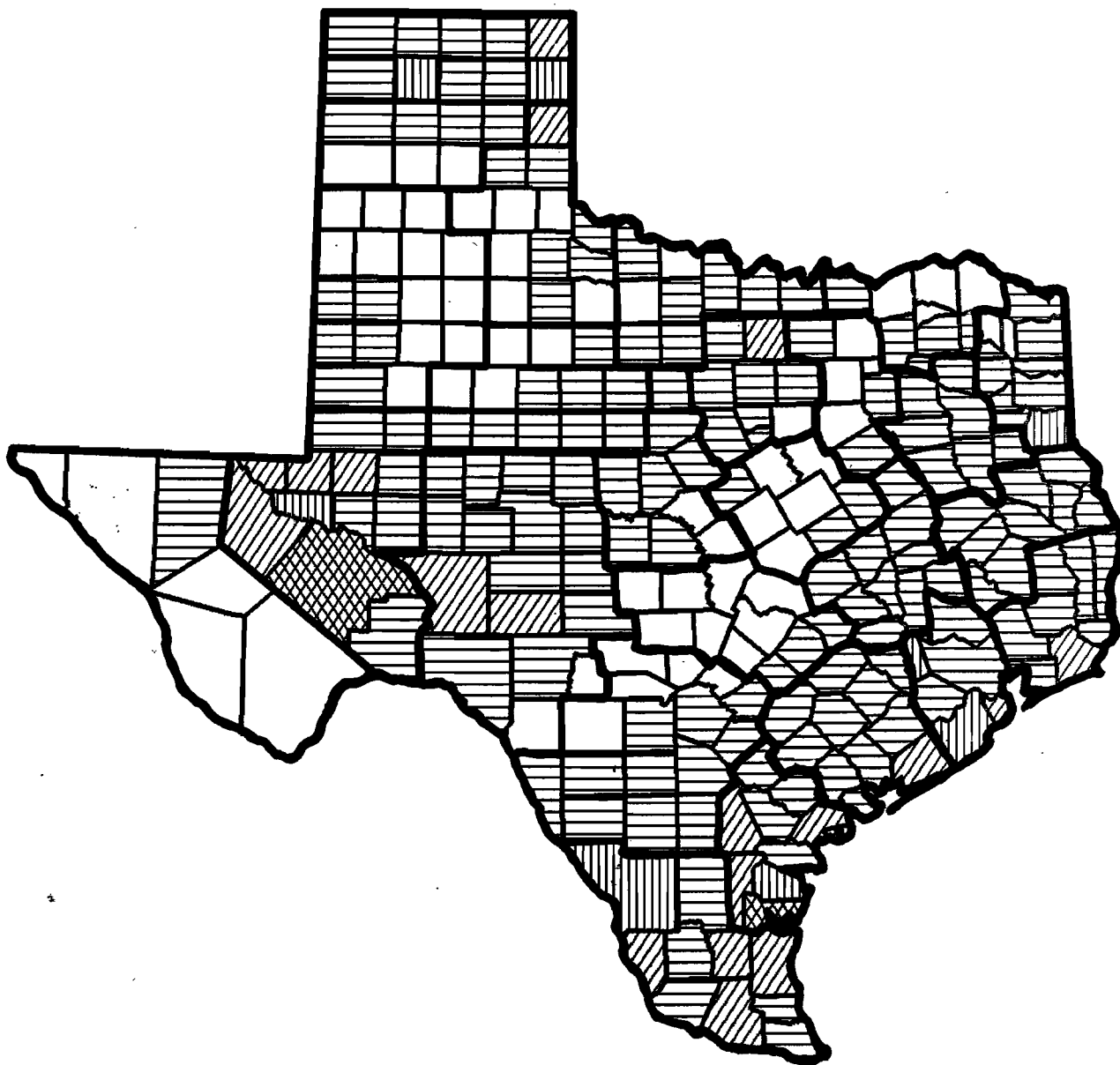


OIL PRODUCTION IN BBL

Figure L-16. District 11 Annual Oil Production (1977-1982).

STATE-TEXAS

DATE 1982



LEGEND: GAS

0
< 200.0

< 50.0
< 300.0

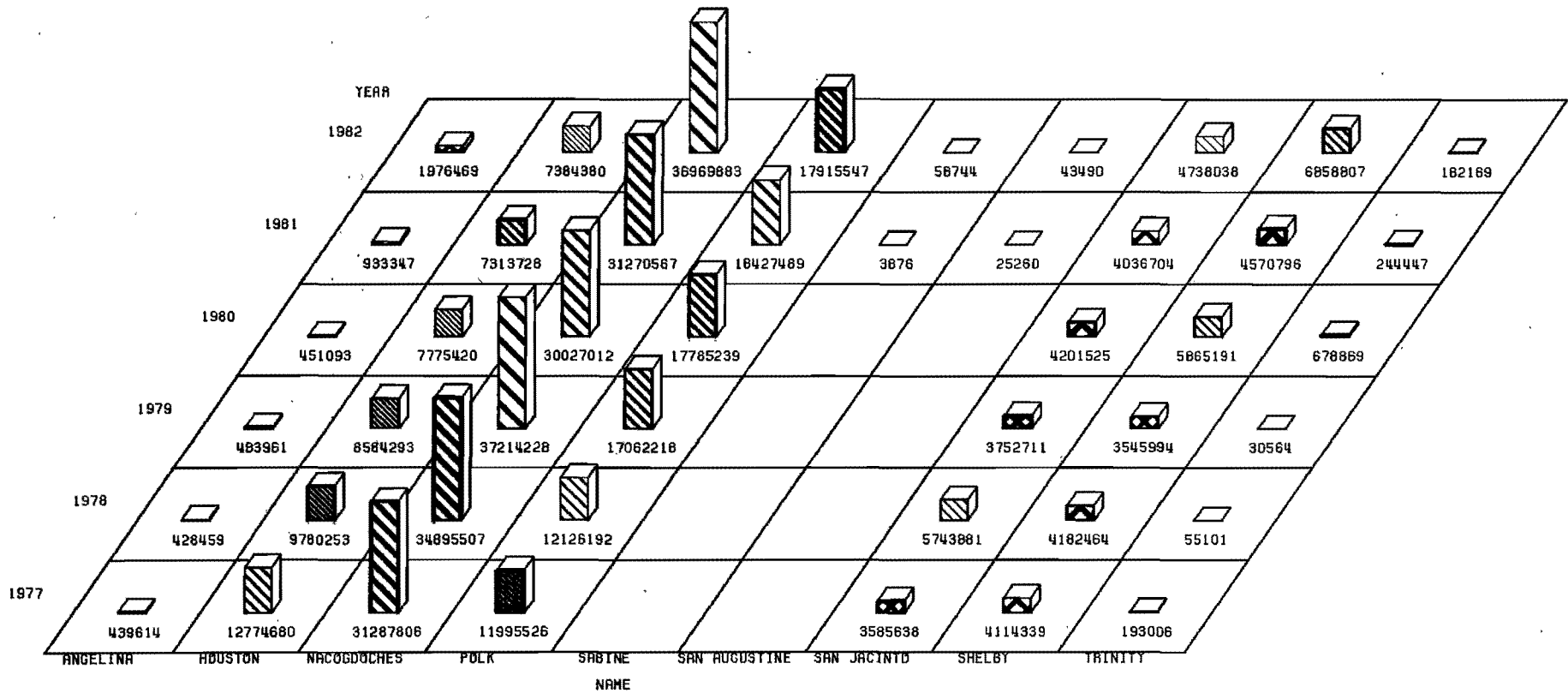
< 100

GAS PRODUCTION IN MILLION MCF

Figure L-17. Gas Production in Texas - 1982.

DISTRICT 11
DATE 1977-1982

FREQUENCY BLOCK CHART



GAS PRODUCTION IN MCF

Figure L-18. District 11 Annual Gas Production (1977-1982).

205

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1.      PROGRAM JOB (W259,008D,S90,80,DM), 'BECKER'
1.1     //*TAMU PRTY=2
2.      //STEP EXEC NEWSAS,REGION=700K
5.      //GREEN DD DSN=USR.W259.DM.PIT11,DISP=OLD
5.1     //BLUE DD DSN=USR.W259.DM.PIT17,DISP=OLD
6.      //SYSIN DD *
6.1     * THIS PROGRAM PLOT THE DRILL DEPTH AND TIME FOR;
6.2     * EACH COUNTY FOR DISTRICT 13 IN CUM. DISP. (RANKING);
9.      DATA ROUN;
10.     INFILE GREEN;
11.     INPUT COUNTY 1-3 SMO 5-6 SDY 7-8 SYR 9-10 DMO 12-13 DDY 14-15
12.     DYR 16-17 DEPTH 19-23;
13.     STIME=(SMO*30)+(SYR*365)+SDY;
14.     DTIME=(DMO*30)+(DYR*365)+DDY;
15.     TTIME=DTIME-STIME;
15.1    IF TTIME >=500 THEN DELETE;
16.     LABEL DEPTH=DEPTH OF WELL
17.     TTIME=DRILL TIME;
18.     DROP STIME DTIME SMO SYR SDY DMO DYR DDY;
19.     PROC SORT DATA=ROUN OUT=ROUND;
20.     BY COUNTY DEPTH;
21.     PROC UNIVARIATE DATE=ROUND;
22.     VAR DEPTH;
23.     BY COUNTY;
24.     OUTPUT OUT=ROU Q3=PSF MEDIAN=PFO Q1=PTF;
25.     PROC PRINT DATA=ROU;
25.1    TITLE DISTRICT 11;
29.     PROC SORT DATA=ROUN OUT=ROUND;
30.     BY COUNTY TTIME;
31.     PROC UNIVARIATE DATA=ROUND;
32.     VAR TTIME;
33.     BY COUNTY;
34.     OUTPUT OUT=FLAT Q3=PSF MEDIAN=PFO Q1=PTF;
35.     PROC PRINT DATA=FLAT;
36.     DATA ROUN;
37.     INFILE BLUE;
38.     INPUT COUNTY 1-3 SMO 5-6 SDY 7-8 SYR 9-10 DMO 12-13 DDY 14-15
39.     DYR 16-17 DEPTH 19-23;
40.     STIME=(SMO*30)+(SYR*365)+SDY;
41.     DTIME=(DMO*30)+(DYR*365)+DDY;
42.     TTIME=DTIME-STIME;
43.     IF TTIME >=500 THEN DELETE;
44.     LABEL DEPTH=DEPTH OF WELL
45.     TTIME=DRILL TIME;
46.     DROP STIME DTIME SMO SYR SDY DMO DYR DDY;
47.     PROC SORT DATA=ROUN OUT=ROUND;
48.     BY COUNTY DEPTH;
49.     PROC UNIVARIATE DATE=ROUND;
50.     VAR DEPTH;
51.     BY COUNTY;
52.     OUTPUT OUT=ROU Q3=PSF MEDIAN=PFO Q1=PTF;
53.     PROC PRINT DATA=ROU;
54.     TITLE DISTRICT 17;
55.     PROC SORT DATA=ROUN OUT=ROUND;
56.     BY COUNTY TTIME;
57.     PROC UNIVARIATE DATA=ROUND;
58.     VAR TTIME;
59.     BY COUNTY;
60.     OUTPUT OUT=FLAT Q3=PSF MEDIAN=PFO Q1=PTF;
61.     PROC PRINT DATA=FLAT;

```

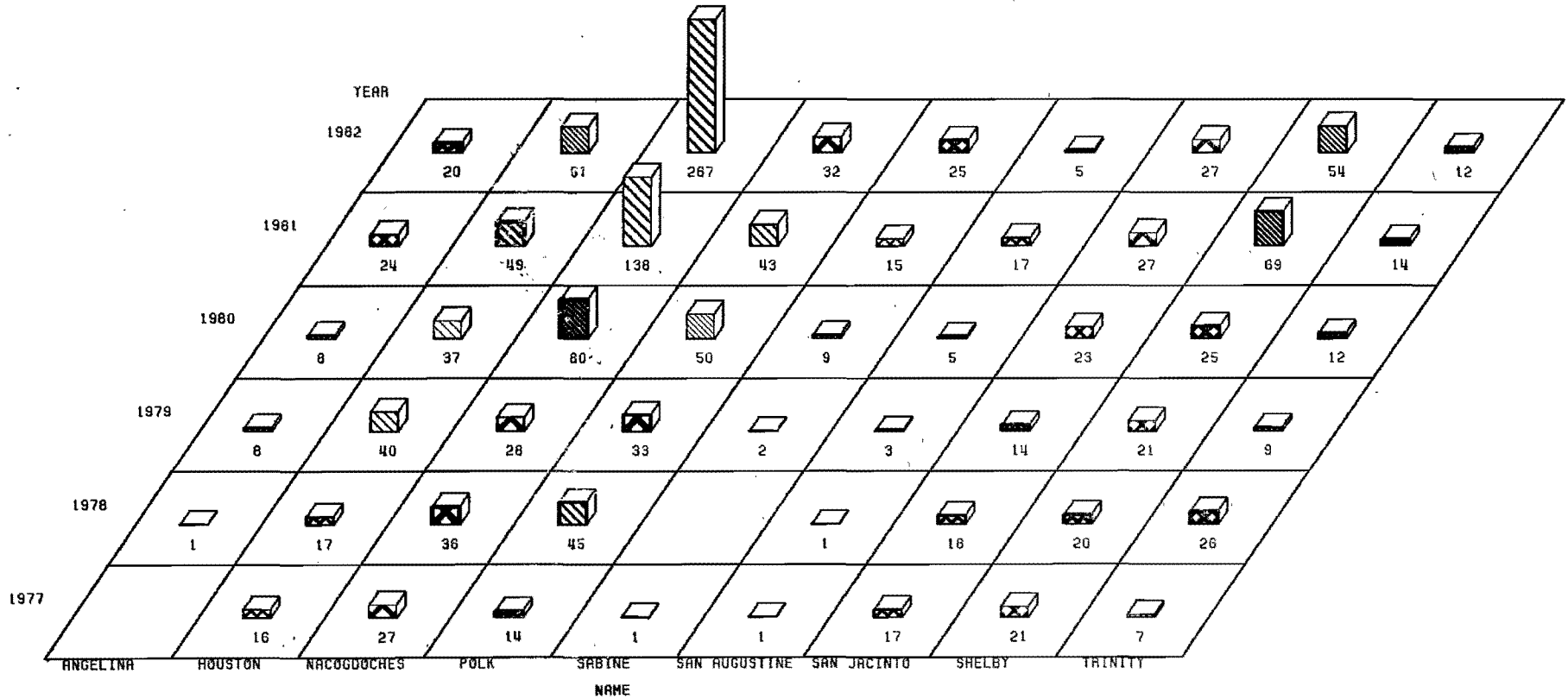
```

1. ██████████ JOB (W259,008D,S10,10,RB), 'BECKER'
2. // *TAMU PRTY=2
3. //STEP EXEC SASVTEC,REGION=450K
4. //PLOT PARM DD *
5. &PLOT XMAX=90 &END
6. //BLUE DD DSN=USR.W259.RB.CPROD,DISP=OLD
7. //SYSIN DD *
7.1 * THIS PROGRAM PRODUCES BLOCK CHARTS FOR THE NUMBER OF PERMITS;
7.2 * SPUD-INS,COMP. W FOR DISTRICT 11;
8. GOPTIONS DEVICE=SASVTEC COLORS=(C1 C2 C3 C4 C5)
9. HSIZE=12 VSIZE=10 VPOS=90 HPOS=190 BORDER;
10. DATA ROUND;
11. SET BLUE.CPROD;
12. IF (COUNTY=005 OR COUNTY=225 OR COUNTY=347 OR COUNTY=
13. 373 OR COUNTY=403 OR COUNTY=405 OR COUNTY=
14. 407 OR COUNTY=419 OR COUNTY=455) AND (YEAR=1977 OR YEAR=
14.1 1978 OR YEAR=1979 OR YEAR=1980 OR YEAR=1981 OR YEAR=1982);
15. TITLE .F=DUPLEX .H=2 .C=C2 DISTRICT 11;
16. TITLE2 .F=DUPLEX .H=2 .C=C2 DATE 1977-1982;
17. FOOTNOTE .F=DUPLEX .H=2 .C=C2 PERMITS;
18. PROC GCHART DATA=ROUND GOUT=GOD1;
19. BLOCK NAME/GROUP=YEAR SUBGROUP=PERMIT FREQ=PERMIT CAXIS=C2 CTEXT=C1
20. NOSYMBOL;
21. PATTERN1 V=M5X45 C=C5;
22. PATTERN2 V=M5X45 C=C5;
23. PATTERN3 V=M5X45 C=C5;
24. PATTERN4 V=M5X45 C=C5;
25. PATTERN5 V=M5X45 C=C5;
26. PATTERN6 V=M5X45 C=C5;
28. PROC GCHART DATA=ROUND GOUT=GOD2;
29. BLOCK NAME/GROUP=YEAR SUBGROUP=SPUDIN FREQ=SPUDIN CAXIS=C2 CTEXT=C1
30. NOSYMBOL;
31. PATTERN1 V=M5X45 C=C5;
32. PATTERN2 V=M5X45 C=C5;
33. PATTERN3 V=M5X45 C=C5;
34. PATTERN4 V=M5X45 C=C5;
35. PATTERN5 V=M5X45 C=C5;
36. PATTERN6 V=M5X45 C=C5;
36.01 FOOTNOTE .F=DUPLEX .H=2 .C=C2 SPUD-INS;
36.02 PROC GCHART DATA=ROUND GOUT=GOD3;
36.03 BLOCK NAME/GROUP=YEAR SUBGROUP=RESV FREQ=RESV CAXIS=C2 CTEXT=C1
36.04 NOSYMBOL;
36.05 PATTERN1 V=M5X45 C=C5;
36.06 PATTERN2 V=M5X45 C=C5;
36.07 PATTERN3 V=M5X45 C=C5;
36.08 PATTERN4 V=M5X45 C=C5;
36.09 PATTERN5 V=M5X45 C=C5;
36.1 PATTERN6 V=M5X45 C=C5;
37. FOOTNOTE .F=DUPLEX .H=2 .C=C2 COMPLETION W;
47. DATA FLAT;
48. SET GOD1 GOD2 GOD3;
49. PROC GREPLAY DATA=FLAT;

```


DISTRICT 11
DATE 1977-1982

FREQUENCY BLOCK CHART

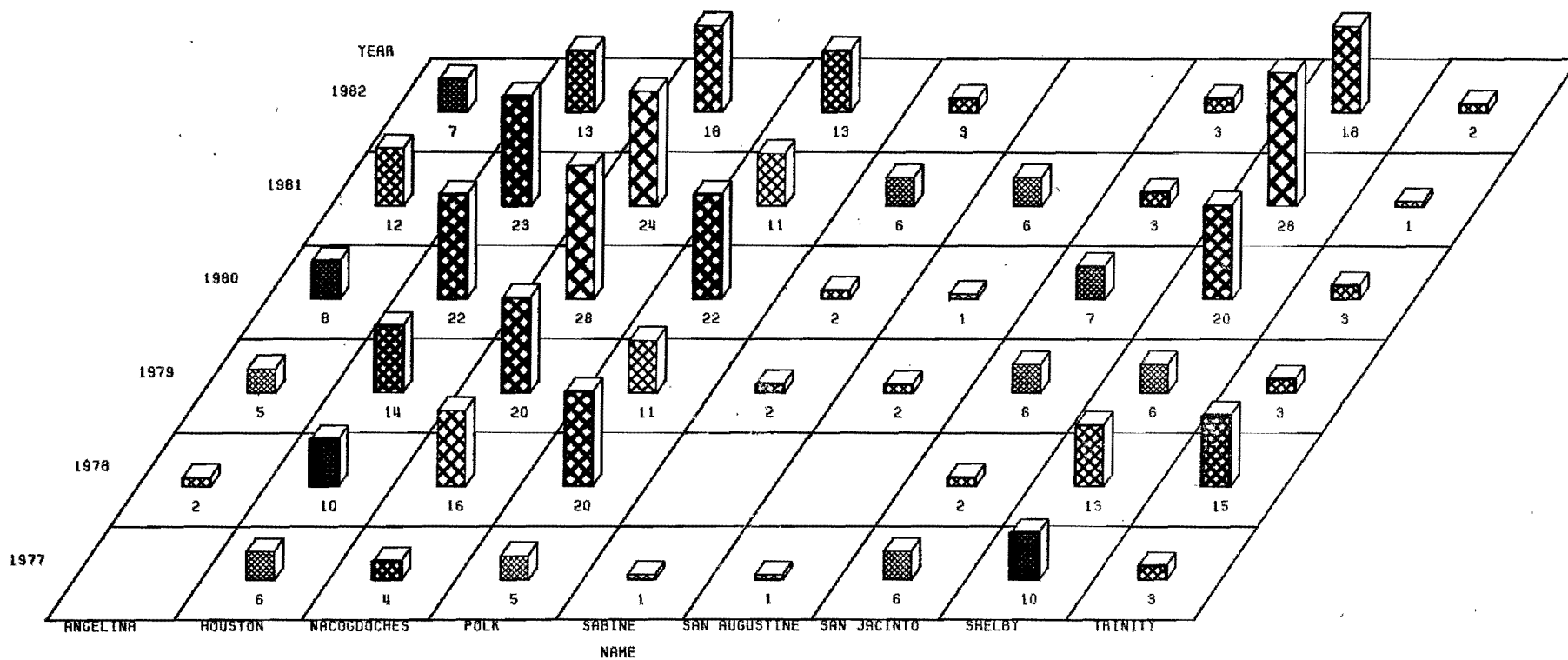


PERMITS

Figure L-19. Total Permits Issued - District 11.

DISTRICT 11
DATE 1977-1982

FREQUENCY BLOCK CHART

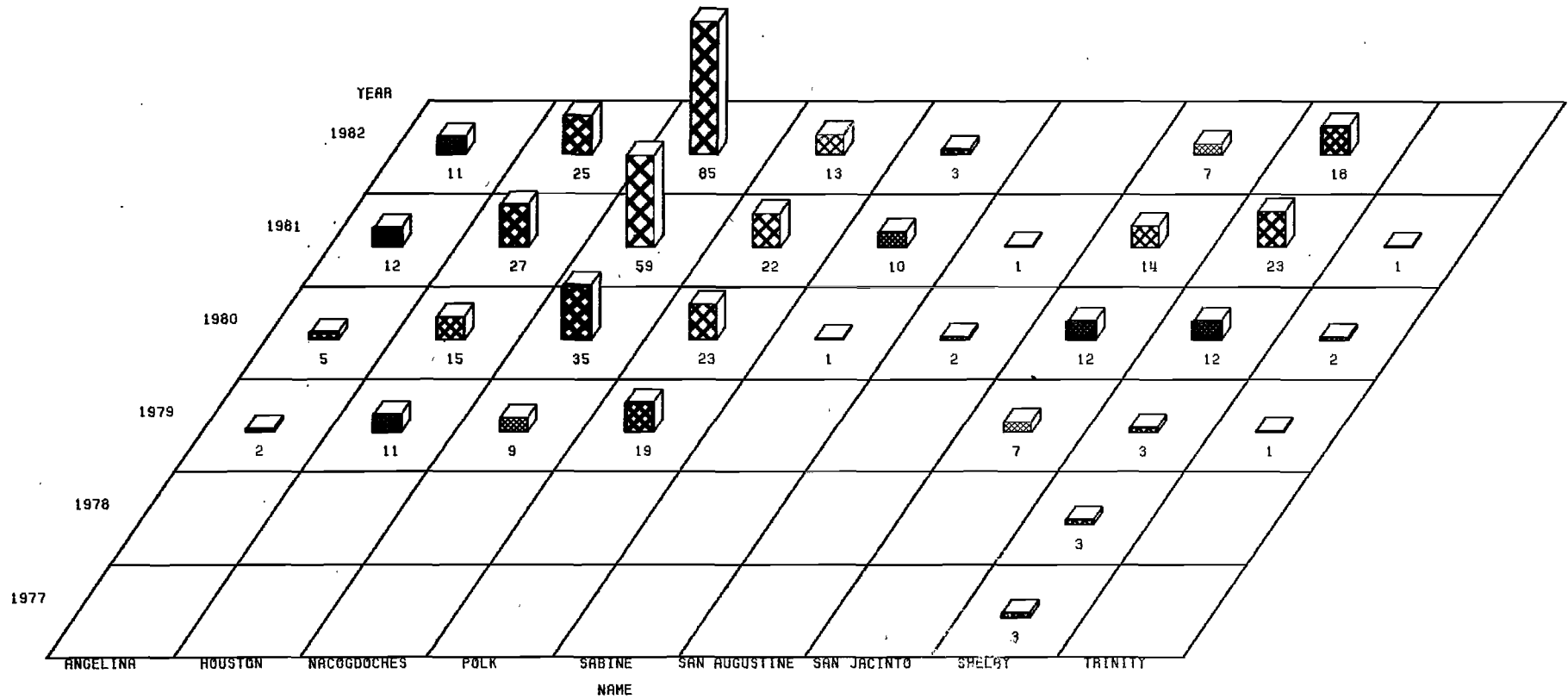


SPUD-INS

Figure L-20. Total Spud-ins - District 11.

DISTRICT 11
DATE 1977-1982

FREQUENCY BLOCK CHART



COMPLETION W

Figure L-21. Total Completion W's -
District 11.