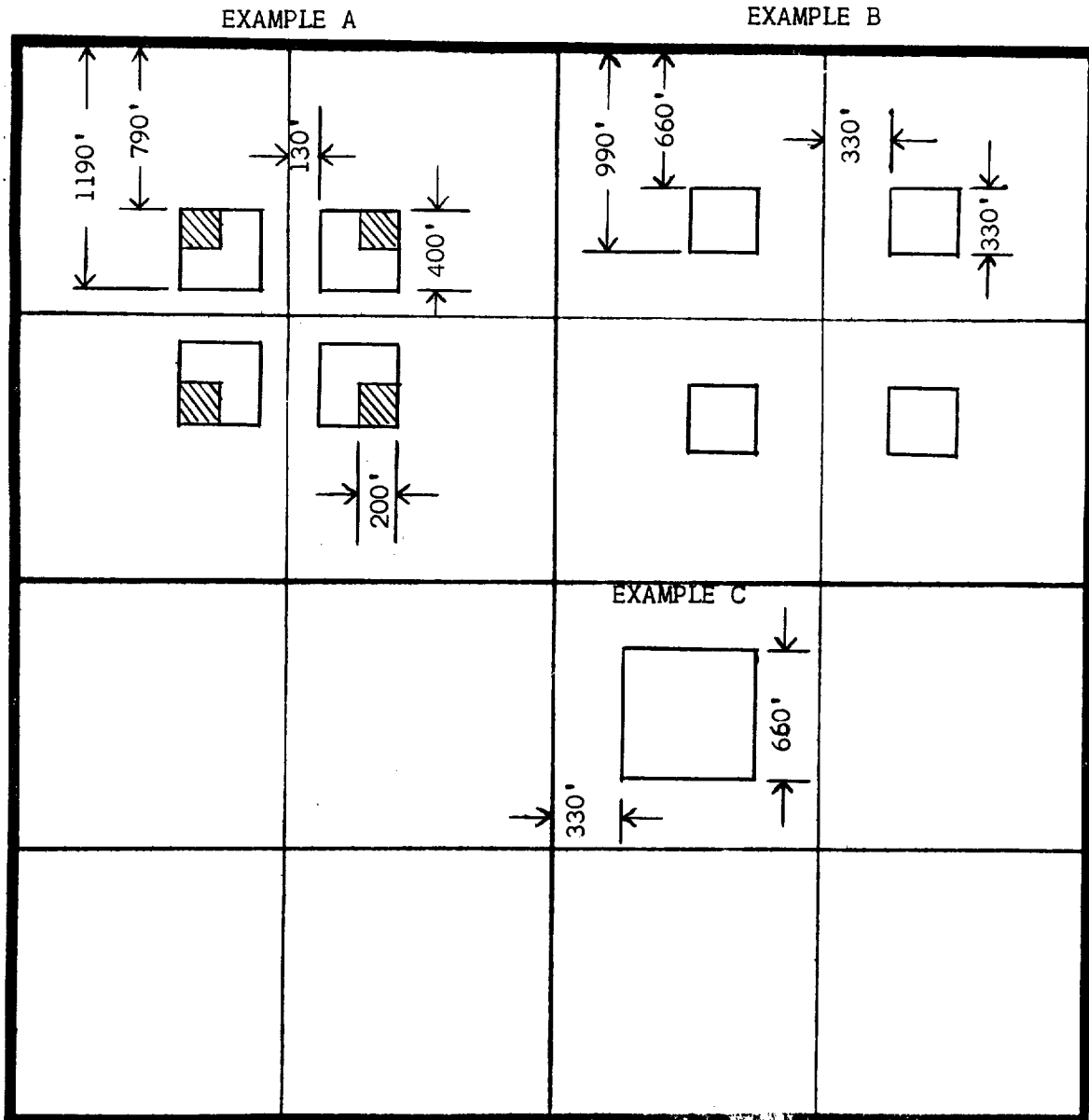


STANDARD OIL AND GAS WELL LOCATIONS IN NEW MEXICO ACCORDING TO RULE 104  
OF THE GENERAL RULES AND REGULATIONS

Sec. \_\_\_\_\_ Township No. \_\_\_\_\_ of Range No. \_\_\_\_\_



EXAMPLE A - Shows Standard Gas Well location in San Juan, Rio Arriba and Sandoval Counties. 200' crosshatched square shows portion of 400' square which is a standard location for oil or gas wells. These locations may be used in any quarter section.

EXAMPLE B - Shows standard gas well location for the State, except San Juan, Rio Arriba and Sandoval Counties. These locations may be used in any quarter section.

EXAMPLE C - Shows Standard Oil Well location for the State. This location may be used for a wildcat oil or gas well except in San Juan, Rio Arriba and Sandoval Counties. This location may be used in any quarter quarter section.

# Memo

From  
ELVIS A. UTZ  
Gas Engineer

To Rite.

I cannot see why  
we don't limit the  
NSL for oil by  
forbidding drilling  
less than 330 from  
40 ac. boundary within  
a 5 mile radius of a  
under. oil discovery.  
The way it is obhiding  
in designating a pool  
will cause more NSLs

EE

# GENERALIZED SECTION

PRODUCING FORMATIONS SAN JUAN BASIN NEW MEXICO

| AGE                      | FORMATION                                                  |                                              | FIELDS                                                                                               |
|--------------------------|------------------------------------------------------------|----------------------------------------------|------------------------------------------------------------------------------------------------------|
| EOCENE                   | MCDERMOTT                                                  |                                              | (3000'± NON-PRODUCING TERTIARY BEDS)<br>NOT INCLUDED                                                 |
| CETACEOUS age<br>UPPER   | KIRTLAND SHALE<br>INCLUDING FARMINGTON<br>SANDSTONE MEMBER |                                              | GAS - AZTEC<br>OIL AND GAS - BOWELL<br>OIL - WYPER                                                   |
|                          | FRUITLAND                                                  |                                              |                                                                                                      |
|                          | PICTURED<br>CLIFFS                                         |                                              | GAS - FULCHER RUTZ<br>AZTEC<br>SAVILAN<br>SOUTH RUTZ CANYON<br>WEST RUTZ CANYON                      |
|                          | LEWIS SHALE                                                |                                              |                                                                                                      |
|                          | MESSEVERDE<br>GROUP                                        | CLIFF HOUSE                                  | GAS - BLANCO                                                                                         |
|                          |                                                            | MENESEE                                      |                                                                                                      |
|                          |                                                            | POINT LOOKOUT<br>(HOSPAN IN<br>MCKINLEY CO.) | GAS - BLANCO, LA PLATA, SOUTH LA PLATA,<br>OIL - HOSPAN, RED MOUNTAIN, LARGO,<br>SEVEN LAKES*        |
|                          |                                                            | MANCOS                                       | OIL - STONY BUTTES*                                                                                  |
|                          |                                                            | DAKOTA >                                     | OIL - RATTLESNAKE<br>MOOSEBACK<br>TABLE MESA<br>LINDRETH, STONEY BUTTE<br>OIL AND GAS - ANGEL'S PEAK |
|                          |                                                            | MORRISON >                                   |                                                                                                      |
| JURASSIC<br><i>Lower</i> | SAN RAFAEL GROUP                                           |                                              |                                                                                                      |
|                          | GLEN CANYON GROUP                                          |                                              |                                                                                                      |
| TRIASSIC                 | CHINLE                                                     |                                              |                                                                                                      |
|                          | SHinarump<br>MOENKOPI                                      |                                              |                                                                                                      |
| PERMIAN                  | CUTLER                                                     |                                              |                                                                                                      |
|                          | RICO                                                       |                                              |                                                                                                      |
| PENNSYLVANIAN            | HERMOSA                                                    |                                              | OIL - RATTLESNAKE*                                                                                   |
|                          | PARADOX                                                    |                                              | GAS - BARKER CREEK<br>UTE DOME                                                                       |
|                          | MOLAS                                                      |                                              |                                                                                                      |
| MISSISSIPPIAN            | LEADVILLE                                                  |                                              |                                                                                                      |
| DEVONIAN                 | OURAY                                                      |                                              | HELIUM GAS - RATTLESNAKE                                                                             |
| ORDOVICIAN               | ELBERT                                                     |                                              |                                                                                                      |
| CAMBRIAN                 | WINACHO QUARTZITE                                          |                                              |                                                                                                      |
| PRE-CAMBRIAN             | GRANITE, GNEISS<br>AND SCHIST                              |                                              |                                                                                                      |

\*no longer producing or  
non-commercial production

PROPOSED POOL RULES IN CASE 1523

Effective as of the date of this order, the following special rules and regulations shall apply to wells hereafter drilled or completed or re-completed to the Dakota reservoir in the San Juan Basin Area.

*reason for latitude  
in necessity for  
drill comp. of new  
wells*

Rule 1. No well shall hereafter be projected to, drilled to, completed in or re-completed as a gas well in the Dakota reservoir, as defined in Rule 3, in San Juan and Rio Arriba Counties, New Mexico unless such well is located on a designated drilling unit of approximately 320 acres of land, more or less, according to legal subdivision of the United States Land Surveys consisting of two (2) contiguous governmental quarter sections in which unit all the interests are consolidated by pooling agreement or otherwise and on which no other gas well is completed or approved for completion to the same horizon. Such drilling unit shall be substantially in the shape of a rectangle except for normal variations in legal subdivisions of the United States Land Surveys and shall consist of the north half, south half, east half or west half of a regular section, or the nearest equivalent of an irregular section.

*change to  
be consistent with  
Rule 104*

Rule 2. Any such gas well shall be located a minimum of 990' from the boundary of any quarter section provided, however, that a tolerance of 200' will be permissible. The Secretary-Director of the Commission shall have authority to grant exceptions to this Rule 2 where application has been filed in due form and such exception is based on topographic conditions. Applicant shall furnish all operators of leases offsetting the lease containing subject gas well, a copy of the application to the Commission and applicant shall include with this application, a list of the names and addresses of all such operators together with a written statement that all such operators have been properly notified by registered mail. The Secretary-Director of the Commission shall wait at least twenty (20) days before

approving any such exceptions and shall approve such exceptions only in the absence of objection of any offset operators. In the event an operator objects to the exception, the Commission shall consider the matter only after proper notice and hearing.

Rule 3. The "Dakota reservoir" as used in these rules shall consist of the gas producing zones lying between the base of the Greenhorn Limestone of Cretaceous Age and the base of the upper productive portion of the Morrison Sandstone of Jurassic Age which will include undifferentiated Graneros-Dakota and undifferentiated Dakota-Morrison.

Rule 4. Rules and regulations of the Commission relating to drilling, abandonment, completion and production shall be applicable to gas wells drilled to or completed in the Dakota reservoir as defined in Rule 3 above.

CROSS SECTION NO. 1 EXHIBIT NO. 3

| Company               | Well          | Location   | Completed | T/Gran. | TD   | Potential           | Prod. Int.                    | Stimulation       | Remarks                                                                                                                                                                                                               |
|-----------------------|---------------|------------|-----------|---------|------|---------------------|-------------------------------|-------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| EPNG                  | Allison #1    | 17-32N-6W  | 8-30-54   | 7811    | 8660 | 2326 IPF            | 7930-8084                     | SOF<br>7930-8084  | DST 7942-8000 ggd 844 mcf.<br>DST 8099-8136 rec 20' mud.<br>DST 8091-8099 rec 20' mud.<br>DST 8122-8130 rec 250' mud.<br>DST 8463-8570 rec 90' Ø mud,<br>870' clear wtr.<br>DST 8510-8590 rec 1170' Ø mu<br>1730 wtr. |
| Blackwood-<br>Nichols | NE Blanco #1  | 27-31N-7W  | 10-24-52  | 7667    | 8095 | IPF 536<br>mcf      | 7860-7995                     | Shot<br>7860-7995 | DST 7748-7848 no gas.<br>DST 7901-7956 rec 33' gcm.<br>DST 8055-8095 gas and wtr.                                                                                                                                     |
| Delhi-Taylor          | Florance #26  | 25-29N-9W  | 4-17-56   | 6636    | 7033 | none in Kd          | none                          | none              | No DST's or Cores.                                                                                                                                                                                                    |
| McRae                 | Federal #1    | 28-28N-10W | 5-31-57   | 6406    | 6730 | 53 bopd<br>2936 mcf | 6528-92<br>6446-54<br>6464-74 | SOF               | DST 6541-6604 ggd 150 mcf.<br>DST 6590-6681 G. TSTM.<br>DST 6430-6496 ggd 632 mcf.                                                                                                                                    |
| EPNG Products         | Frontier #1-B | 9-27N-11W  | 7-25-58   | 6475    | 6770 | AOF 3002<br>mcf     | 6608-72<br>6553-89<br>6509-24 | SWF               | No DST's or Cores.                                                                                                                                                                                                    |

E.P. 34 8

CROSS SECTION NO. 2 EXHIBIT NO. 4

| Company          | Well               | Location   | Completed | T/Gran. | TD   | Potential        | Prod. Int.          | Stimulation                                                                          | Remarks                                                                                                                             |
|------------------|--------------------|------------|-----------|---------|------|------------------|---------------------|--------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------|
| British American | Scott #1-D         | 20-28N-13W | 9-1-57    | 6130    | 6426 | Dry              |                     |                                                                                      | DST 6265-96 rec sl gcm.<br>DST 6228-66 rec sl gcm.                                                                                  |
| Pan American     | Gallegos Canyon #8 | 22-28N-12W | 2-8-52    | 5915    | 6188 | 7 BO & 150 mcf   | 6026-6103           | Made 560 mcf & 6 BO after shot.<br>Shot 6026-6103 in 1952.<br>SOF 5845-6103 in 1954. | DST 5940-6006 20 mcf & o & gcm.<br>DST 6006-6094 G. TSTM & 60' gcm.                                                                 |
| McRae            | Federal #1         | 28-28N-10W | 5-31-57   | 6406    | 6730 | 2936 mcf & 53 BO | 6446-6672 Gran-Dak. | Perf & SOF 6608-20<br>6622-28<br>6666-72<br>6528-92<br>6446-54<br>6464-74            | DST 6541-6604 G 150 mcf & spray oil.<br>DST 6590-6681 G TSTM.<br>DST 6430-6496 632 mcf.                                             |
| Byrd-Frost       | Hughes #2          | 3-27N-9W   | 4-21-55   | 6624    | 6994 | 776 mcf          | 6740-56             | Perf & SOF & Ac 6740-56                                                              | DST 6550-6667 200 mcf.<br>DST 6670-6748 50 mcf.<br>DST 6751-6834 rec mud.<br>DST 6837-6877 rec mud.<br>DST 6880-6965 rec mud & wtr. |
| Southern Union   | Hodges #7          | 22-26N-8W  | 9-25-57   | 6963    | 7319 | Dry              |                     |                                                                                      | No DST's.                                                                                                                           |
| EPNG             | Canyon Largo #29   | 7-25N-6W   | 7-18-54   | 6973    | 8144 | Dry              |                     |                                                                                      | Little gas & wtr. in Dak.<br>DST 7119-7226 gas 25" TSTM.<br>DST 7219-7326 gcm.<br>DST 7223-7326 gcm.                                |
| Amerada          | Jicarilla #F-1     | 17-25N-5W  | 7-25-56   | 6901    | 7330 | Dry              |                     | SOF 7200-7210<br>7178-7189                                                           | Trace oil, gas & wtr. in Dak.                                                                                                       |

(Continued)

| Company  | Well            | Location  | Completed | T/Gran. | TD   | Potential                            | Prod. Int.       | Stimulation                        | Remarks                                                                                                                                   |
|----------|-----------------|-----------|-----------|---------|------|--------------------------------------|------------------|------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------|
| Amerada  | Jicarilla #A-3  | 23-25N-5W | 2-2-56    | 7110    | 7505 | 262 mcf &<br>20 BO                   | 7132-76<br>Gran. | Perf & SOF<br>7384-7468<br>7132-76 | DST 7105-84 732 mcf 12" rec<br>wtr. & dist.<br>DST 7275-7359 gas TSTM.<br>DST 6368-7505 3 mcf in 5",<br>rec gcm & fresh wtr.              |
| Conoco   | Jicarilla #30-1 | 30-25N-4W | 4-3-54    | 7395    | 8714 | Dry                                  |                  |                                    | DST 7405-80, little gas in 15",<br>DST 7545-87, n-s.<br>DST 7600-763, little gcm.<br>DST 7680-7718 rec wcm.<br>DST 7754-7797 n-s.         |
| Magnolia | Ingwerson #4    | 20-24N-2W | 3-13-54   | 7285    | 8464 | 20,744 BO<br>35,602 BW<br>17,349 mcf | 7680-7732        | ?                                  | DST 7465-7485 n-s.<br>DST 7565-7645 wcm.<br>DST 7688-7708 rec 150' free<br>oil & some gcxw.<br>DST 7697-7730 rec 180' free<br>oil & gcxw. |



CROSS SECTION NO. 3 EXHIBIT NO. 5

| Company        | Well                | Location   | Completed | T/Gran. | TD     | Potential                                        | Prod. Int.                                            | Stimulation                  | Remarks                                                                                                    |
|----------------|---------------------|------------|-----------|---------|--------|--------------------------------------------------|-------------------------------------------------------|------------------------------|------------------------------------------------------------------------------------------------------------|
| Southern Union | Culpepper-Martin #2 | 30-32N-12W | 10-19-51  | 6705    | 7015   |                                                  |                                                       | Shot 6770-6970               | DST 6738-61 failed G TSTM, gcm.<br>DST 6744-66 failed.<br>DST 6898-6953 gcm.                               |
|                |                     |            |           |         |        |                                                  |                                                       |                              |                                                                                                            |
| EPNG           | Mudge #3            | 9-31N-11W  | 2-25-53   | 7191    | 7552   | Ggd 255 mcf                                      |                                                       | Shot 7309-7552               |                                                                                                            |
| Delhi-Taylor   | Florance #26        | 25-29N-9W  | 4-17-56   | 6636    | 7033   |                                                  |                                                       |                              |                                                                                                            |
| EPNG           | S. J. 28-7 #12      | 17-28N-7W  | 7-29-54   | 7596    | 7957   | Ggd 329 mcf @ 7623. duced.<br>Ggd 450 mcf @ 7712 |                                                       | SOE 7639-7691 Ret. failed    |                                                                                                            |
| EPNG           | S. J. 27-5 #1       | 4-27N-5W   | 5-21-52   | 7570    | 7881   | IP 4380 mcf                                      | 7754-7881                                             | Shot 7754-7881 with 370 qts. | DST 7743-82 G TSTM, gcm.<br>DST 7710-7816 G TSTM, hi gcm.<br>DST 7814-7847 G TSTM.                         |
| EPNG           | S. J. 27-4 #14-X    | 18-27N-4W  | 12-4-57   | 7625    | 7964   | IP 963 mcf                                       | 7651-82<br>7834-40<br>7845-50<br>7856-64<br>7897-7931 | SWF 7651-7931                |                                                                                                            |
| Conoco         | South Dulce #1      | 6-28N-2W   | 7-16-52   | 8084    | 13,248 | none                                             | none                                                  |                              | DST 8273-8335 - failed.<br>DST 8274-8335 G TSTM, gcm.<br>DST 8363-8423 gcm.<br>DST 8455-8517 drilling mud. |

DAKOTA CROSS SECTION NO. 4 EXHIBIT NO. 6

| Company       | Well            | Location   | Completed | T/Gran. | TD   | Potential                    | Prod. Int.                                 | Stimulation      | Remarks                                                                                                                                                  |
|---------------|-----------------|------------|-----------|---------|------|------------------------------|--------------------------------------------|------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------|
| Pan American  | Davies #1       | 27-28N-13W | 3-15-57   | 6140    | 6400 | IP<br>5400 mcf &<br>3 BOPD   | 6204-26<br>6252-60<br>6268-78<br>6293-6319 | Ac SOF           | DST 6160-6211 rec Ø mud.<br>DST 6211-95 G ggd 62 mcf.<br>DST 6280-6370 G TSTM, gcm.<br>DST 6375-6400 wcm.                                                |
| O. J. Lilly   | O. J. Riddle #1 | 7-27N-12W  | 9-12-53   | 5775    | 5912 | IP<br>584 mcf                | 5810-5912                                  | SOF<br>5810-5912 | DST 5635-5728, failed.                                                                                                                                   |
| EPNG          | Hill #1         | 20-26N-12W | 9-5-52    | 5645    | 5895 |                              |                                            |                  | DST 5879-85, rec sl gcm.                                                                                                                                 |
| Shell         | Carson #1       | 25-25N-12W | 10-1-56   | 5660    | 5983 |                              |                                            |                  |                                                                                                                                                          |
| Skelly        | H. Bolack #1    | 5-24N-11W  | 8-12-56   | 5408    | 5776 |                              |                                            |                  |                                                                                                                                                          |
| Deep Rock Oil | Edgar #1        | 35-24N-10W | 11-28-52  | 5630    | 5924 |                              |                                            |                  | DST 5810-45 rec xw.                                                                                                                                      |
| EPNG          | English #1      | 1-23N-9W   | 10-18-52  | 6039    | 6378 |                              |                                            |                  | DST 6068-99 rec wcm.<br>DST 6102-63 rec xw.<br>DST 6162-6213 rec Ø mud.<br>DST 6213-78 rec Ø mud.<br>DST 6278-6328 rec xw.                               |
| Great Western | Chaco Canyon #2 | 16-23N-8W  | 10-19-55  | 5788    | 6098 |                              |                                            |                  | DST 5780-6098 rec xw.                                                                                                                                    |
| Humble        | South Chaco #4  | 10-22N-8W  | 9-16-57   | 5429    | 5855 | Pump 10<br>BOPD & 4<br>BXWPD | 5637-44                                    | Nat.             | DST 5252-5350 rec o&gcm.<br>DST 5442-5510 rec gcm.<br>DST 5636-75 G TSTM, rec<br>o&gcm.<br>DST 5637-44 G TSTM, rec<br>o&gcm.<br>DST 5689-5725 rec o&gcm. |

DAKOTA CROSS SECTION NO. 5 EXHIBIT NO. 7

| Company      | Well                      | Location                              | Completed | T/Gran. | TD   | Potential                       | Prod. Int.                                            | Stimulation                         | Remarks                                                                                                                                                                |
|--------------|---------------------------|---------------------------------------|-----------|---------|------|---------------------------------|-------------------------------------------------------|-------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| PNW          | Ig. 33-8 #4-13            | 13-33N-8W<br>La Plata Co.<br>Colorado | 9-24-55   | 7245    | 7930 | IP 2496<br>mcf                  | 7510-7930                                             | SOF<br>Open hole                    |                                                                                                                                                                        |
| EPNG         | Allison #1                | 17-32N-6W                             | 8-30-54   | 7811    | 8660 | IP 2326                         | 7930-8084                                             | SOF<br>7930-8084                    | DST 9942-8000 G ggd 844 mcf.<br>DST 8099-8136 rec Ø mud.<br>DST 8091-99 rec Ø mud.<br>DST 8022-30 rec Ø mud.<br>DST 8463-8510 Ø mud & wtr.<br>DST 8510-90 Ø mud & wtr. |
| Pan American | Rosa Unit #1              | 11-31N-6W                             | 11-22-51  | 7737    | 8087 | Ggd 1730<br>mcf not<br>produced | 7866-8056                                             | Shot 7866-<br>8056 with<br>480 qts. | DST 7686-7912 G TSTM, gcm.<br>DST 7886-7938 G TSTM, failed<br>DST 7859-8087 G 480 mcf.                                                                                 |
| Phillips     | Dakota Unit<br>30-5 #6-19 | 19-30N-5W                             | 12-30-53  | 7463    | 7976 | none                            |                                                       |                                     |                                                                                                                                                                        |
| EPNG         | S. J. 27-5 #1             | 4-27N-5W                              | 5-21-52   | 7570    | 7881 | IP 4380<br>mcf show<br>oil      | 7754-7881                                             | Shot 7754-<br>7881 with<br>370 qts. | DST 7743-82 misrun.<br>DST 7743-82 G TSTM, gcm.<br>DST 7710-7816 G TSTM, gcm.<br>DST 7814-47, G TSTM, tools<br>in hole.                                                |
| EPNG         | S. J. 27-4 No. 14-X       | 18-27N-4W                             | 12-4-57   | 7625    | 7964 | IP 963 mcf                      | 7651-82<br>7834-40<br>7845-50<br>7856-64<br>7897-7931 | S WF<br>7651-7931                   |                                                                                                                                                                        |

(Continued)

| Company | Well               | Location | Completed | T/Gran. | TD   | Potential   | Prod. Int. | Stimulation   | Remarks |
|---------|--------------------|----------|-----------|---------|------|-------------|------------|---------------|---------|
| NWP     | Jicarilla "N" #8-8 | 8-26N-4W | 6-3-57    | 6760    | 7910 | IP 1048 mcf | 7798-7804  | SWF 7798-7880 |         |
|         |                    |          |           |         |      |             | 7828-58    | SWF 7696-7782 |         |
|         |                    |          |           |         |      |             | 7864-70    | SWF 7610-66   |         |
|         |                    |          |           |         |      |             | 7874-80    |               |         |
|         |                    |          |           |         |      |             | 7696-7734  |               |         |
|         |                    |          |           |         |      |             | 7744-58    |               |         |
|         |                    |          |           |         |      |             | 7774-82    |               |         |
|         |                    |          |           |         |      |             | 7610-24    |               |         |
|         |                    |          |           |         |      |             | 7630-36    |               |         |
|         |                    |          |           |         |      |             | 7642-66    |               |         |