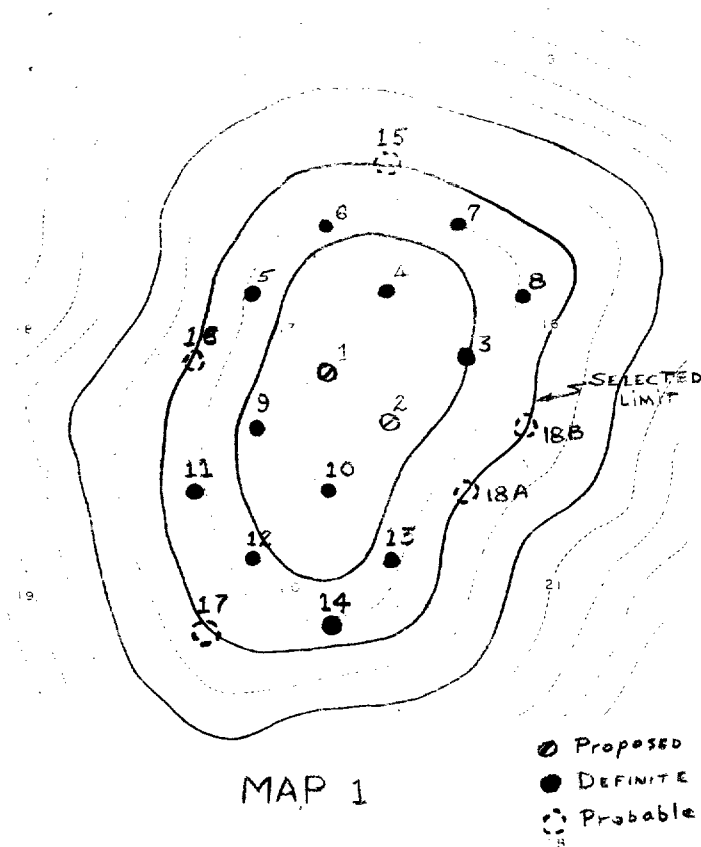
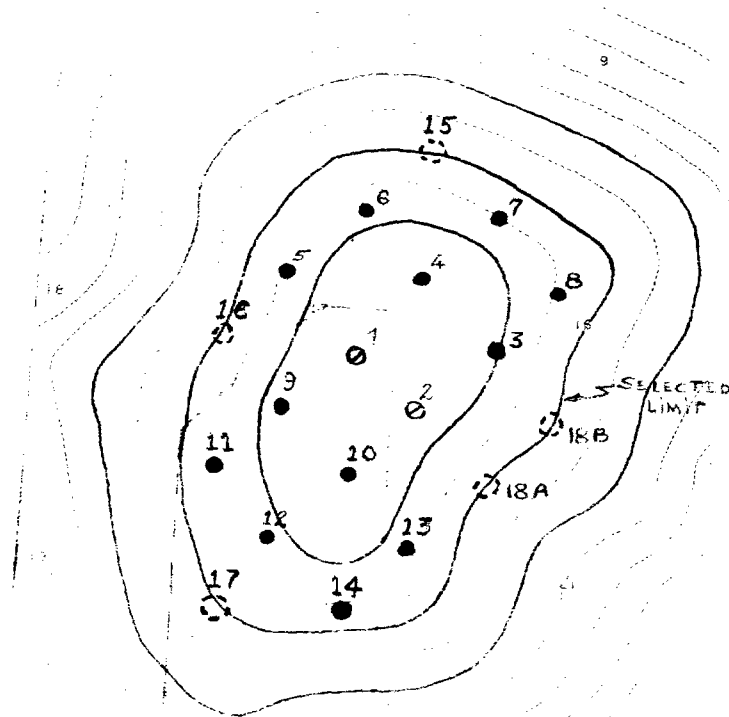




REPORT OF THE  
ENVIRONMENTAL CONSERVATION COMMISSION  
Santa Fe, New Mexico

Exhibit No. D-1

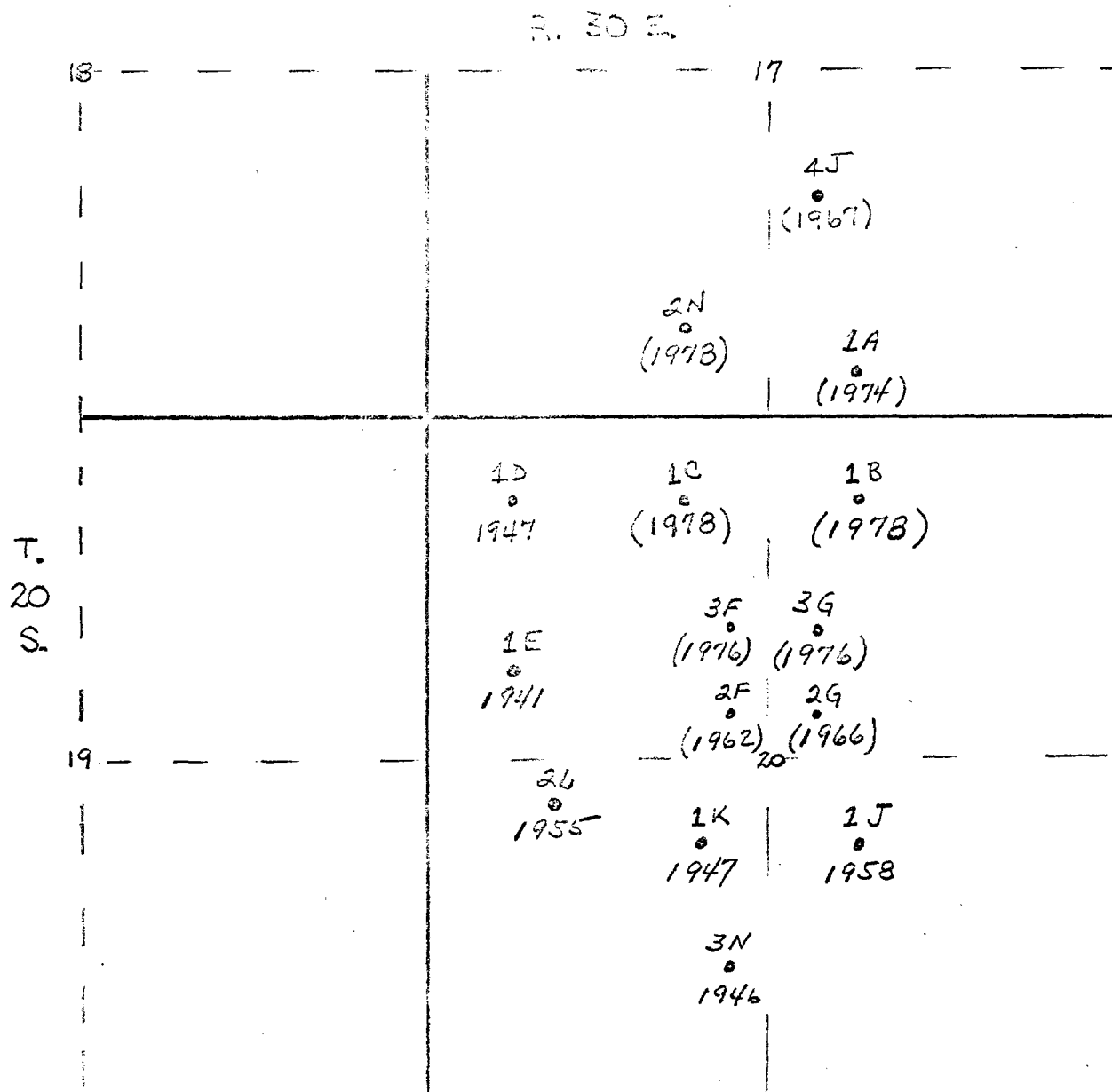
Case No. 3029



~~called TAP 2~~  
~~Red River area~~  
~~are to be except 14, 15, 16, 17~~  
~~which would have to~~  
~~be removed~~

- Proposed
- Existing
- ⊗ Probable

|                         |      |
|-------------------------|------|
| BEFORE THE              |      |
| CONSERVATION COMMISSION |      |
| Santa Fe, New Mexico    |      |
| Exhibit No.             | Q-2  |
| Case No.                | 3029 |



BEFORE THE  
 C. CONSERVATION COMMISSION  
 Santa Fe, New Mexico

Exhibit No. Q-3

Case No. 3029

BARBER FIELD  
 EDDY COUNTY, NEW MEXICO

ABANDONMENT SCHEDULE  
 (1970) -- Projected year  
 1950 -- Actual year.

TABLE I. OIL FIELDS HAVING PRODUCED 10 MILLION BARRELS OR MORE  
FROM FORMATIONS OF PENNSYLVANIAN AGE OR OLDER

-37-

| Field             | Formation       | Thick-<br>ness | Approx. Date<br>of<br>Disc. | Crude<br>Gravity | Cumulative<br>Production<br>to 1/1/62<br>MM Barrels. |    |
|-------------------|-----------------|----------------|-----------------------------|------------------|------------------------------------------------------|----|
| LEA COUNTY        |                 |                |                             |                  |                                                      |    |
| Bagley Sil-Dev.   | Siluro-Devonian | 175            | 40                          | 7-49             | 44                                                   | 15 |
| Brunson           | Ellenberger     | 70             | 40                          | 9-45             | 42                                                   | 27 |
| Caprock East Dev. | Devonian        | 30             | 40                          | 8-51             | 43                                                   | 14 |
| Crossroads Dev.   | Devonian        | 100            | 80                          | 5-48             | 42                                                   | 13 |
| Denton            | Devonian        | 200            | 40                          | 10-49            | 45                                                   | 61 |
| Gladlola          | Devonian        | 50             | 40                          | 11-50            | 47                                                   | 35 |
| Hare              | Simpson         | 50             | 40                          | 7-47             | 40                                                   | 14 |

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BEFORE THE  
OIL CONSERVATION COMMISSION

Santa Fe, New Mexico

Exhibit No.

Case No.

9-4  
2029

TABLE II. GAS FIELDS HAVING PRODUCED FIVE TRILLION CUBIC FEET OR MORE

| EDDY COUNTY      |                 |    |     |       |      |
|------------------|-----------------|----|-----|-------|------|
| Anderson Penn    | Bend            | 40 | 320 | 10-54 | 6.8  |
| Atoka Penn       | Penn            | 31 | 160 | 10-57 | 5.1  |
| Empire Penn      | Penn            | 30 | 320 | 9-53  | 9.1  |
| Shugart Sil-Dev. | Siluro-Devonian | 70 | 480 | 2-57  | 8.1  |
| LEA COUNTY       |                 |    |     |       |      |
| Bagley L Penn    | Penn            | 10 | 160 | 10-51 | 8.3  |
| Bagley U Penn    | Penn            |    | 320 | 11-55 | 13.1 |
| Crosby Dev.      | Devonian        | 95 | 160 | 1-55  | 41.7 |
| Monument McKee   | Simpson         | 40 | 160 | 11-48 | 5.6  |

1308

BEFORE THE  
OIL CONSERVATION COMMISSION  
Santa Fe, New Mexico  
Exhibit No. *9-5*  
Case No. *3029*

BEFORE THE  
OIL CONSERVATION COMMISSION

Santa Fe, New Mexico

PCA Exhibit No. 9-6

Case No. 3029

TABLE III. RANGE OF CONDITIONS FOR POTENTIAL OIL  
RESERVOIR IN PENNSYLVANIAN OR OLDER FORMATION

|                                | <u>Worst</u> | <u>Best</u> | <u>Average</u> |
|--------------------------------|--------------|-------------|----------------|
| PROPERTIES AND IN-PLACE VALUES |              |             |                |
| Porosity, o/o                  | 4            | 14          | 6              |
| Water Saturation, o/o          | 50           | 20          | 35             |
| Oil in Place<br>Bbls/AF        | 110          | 620         | 216            |
| Thickness, Ft.                 | 10           | 200         | 75             |
| Oil in Place<br>Bbls/Acre      | 1,100        | 124,000     | 16,200         |

RECOVERY

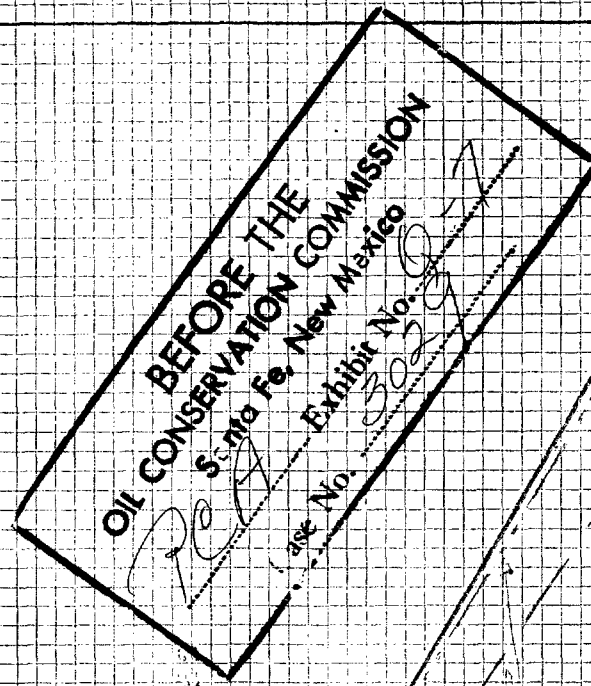
|                              | Solution<br>Gas | Water     | Solution<br>Gas | Water        | Solution<br>Gas | Water       |
|------------------------------|-----------------|-----------|-----------------|--------------|-----------------|-------------|
| Recovery<br>Bbls/Acre        | 180             | 450       | 25,000          | 50,000       | 2,916           | 6,480       |
| Recovery<br>Bbls/80 Acres    | 14,400          | 36,000    | 2,000,000       | 4,000,000    | 233,000         | 518,000     |
| Recovery<br>Dollars/80 Acres | \$43,200        | \$108,000 | \$6,000,000     | \$12,000,000 | \$700,000       | \$1,554,000 |

FIGURE 2

Gas Pressure Depreciation

with

Underground Losses



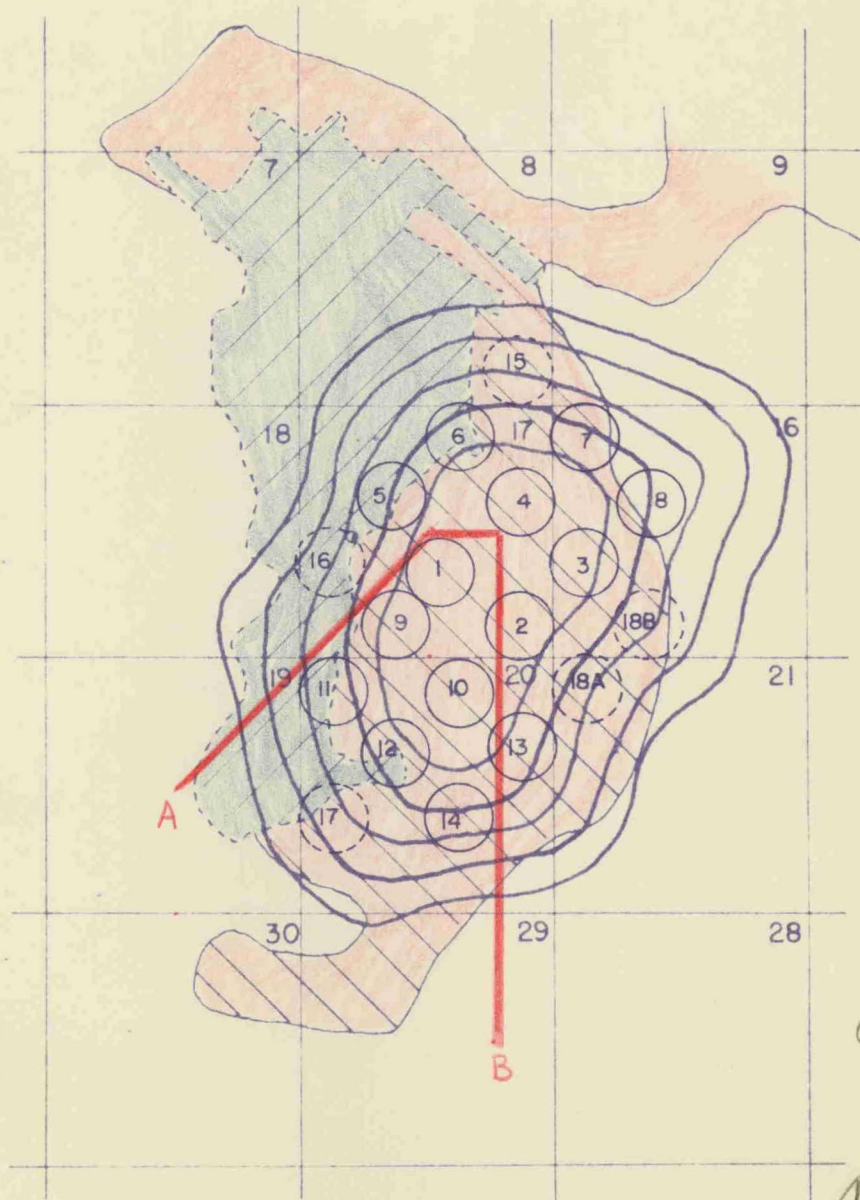
No. 10000

10-10  
4030

1.0%  
Loss

0 100 200 300 400 500 600 700 800 900 1000 1100 1200 1300 1400 1500 1600 1700 1800 1900 2000 2100 2200 2300 2400 2500 2600 2700 2800 2900 3000 3100 3200 3300 3400 3500 3600 3700 3800 3900 4000 4100 4200 4300 4400 4500 4600 4700 4800 4900 5000 5100 5200 5300 5400 5500 5600 5700 5800 5900 6000 6100 6200 6300 6400 6500 6600 6700 6800 6900 7000 7100 7200 7300 7400 7500 7600 7700 7800 7900 8000 8100 8200 8300 8400 8500 8600 8700 8800 8900 9000 9100 9200 9300 9400 9500 9600 9700 9800 9900 10000

Cumulative Gas Production, MMSCF



*Case  
3029  
P.C.A. S.*

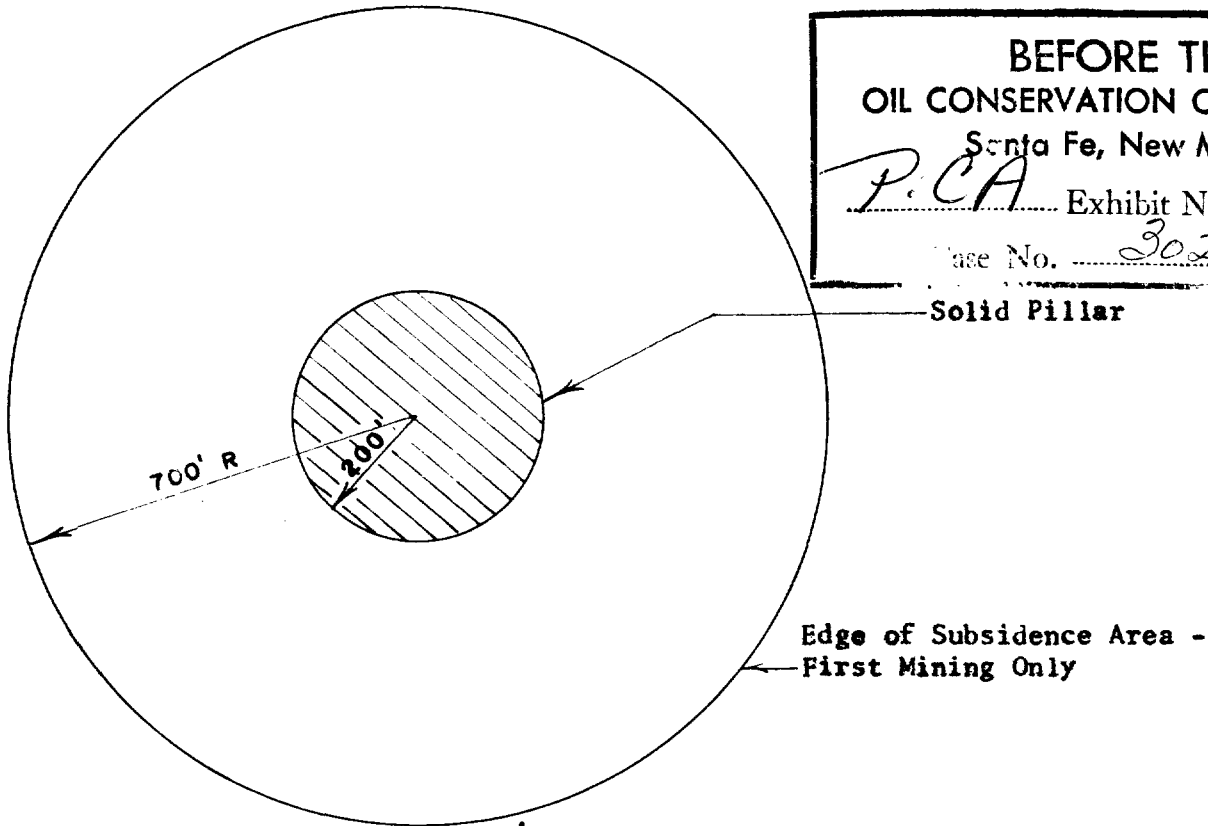
T 20 S , R 30 E  
EDDY CO., N.M.

N.M., O.C.C., CASE 3029

|             |                   |                 |                           |             |
|-------------|-------------------|-----------------|---------------------------|-------------|
| APPROVED BY |                   |                 | POTASH COMPANY OF AMERICA |             |
|             |                   |                 | CARLSBAD, NEW MEXICO      |             |
|             |                   |                 | DRAWN BY LPC              | DRAWING NO. |
|             |                   |                 | CHECKED BY                |             |
|             | SCALE- 1" = 4000' | DATE- MARCH '64 | DIRECTED BY JBC           |             |

T

LOSS OF POTASH - OIL OR GAS WELL - PAN AMERICAN AREA



**BEFORE THE  
OIL CONSERVATION COMMISSION**

Santa Fe, New Mexico

P.C.A. Exhibit No. T

Case No. 3029

Solid Pillar

Edge of Subsidence Area -  
First Mining Only

Factors:

(a) Thickness = 4.13'; (b) Ore Grade = 24.4% K<sub>2</sub>O; (c) Extraction - 1st. Mining = 65%  
2nd Mining = 25% - Total = 90%; (d) Tonnage Factor = 15.3 Cu. ft./ton; (e) Value =  
37.5¢/Sh. Ton Unit K<sub>2</sub>O; 90% Mill recovery; (f) Average depth to ore zone = 700';  
Draw or subsidence angle = 45 degrees.

Ore Lost      Area "A"

$$\frac{3.1416 \times (200')^2 \times 4.13' \times 0.90}{15.3} = 30,530 \text{ Tons}$$

$$30,530 \text{ T.} \times 24.4\% \text{ K}_2\text{O} \times 37.5\text{¢/Unit} \times .90 = \$251,700 \text{ Value}$$

Ore Lost      Area "B"

$$\frac{[3.1416 \times (700')^2 - 3.1416 \times (200')^2] \times 4.13' \times 0.25}{15.3} = 95,400 \text{ Tons}$$

$$95,400 \text{ T.} \times 24.4\% \text{ K}_2\text{O} \times 37.5\text{¢/Unit} \times .90 = \$785,630 \text{ Value}$$

Total Ore Lost, Areas "A" and "B"

|               | <u>Tons</u>    | <u>Value</u>       |
|---------------|----------------|--------------------|
| "A"           | 30,530         | \$ 251,400         |
| "B"           | 95,400         | 785,630            |
| <b>Totals</b> | <u>125,930</u> | <u>\$1,037,030</u> |