

E

910 27 - 30 - 039 - 07442  
93 - 30 - 039 - 20876  
201 - 30 - 039 - 24474

DATA SHEET FOR DEEP GROUND BED CATHODIC PROTECTION WELLS  
NORTHWESTERN NEW MEXICO  
(Submit 3 copies to OCD Aztec Office)

Operator MERIDIAN OIL Location: Unit NE Sec. 15 Twp 28 Rng 5

Name of Well/Wells or Pipeline Serviced SAN JUAN 28-5 UNIT #27, #93, #201

cps 1115w

Elevation 6681' Completion Date 10/21/77 Total Depth 220' Land Type\* N/A

Casing, Sizes, Types & Depths N/A

If Casing is cemented, show amounts & types used N/A

If Cement or Bentonite Plugs have been placed, show depths & amounts used  
N/A

Depths & thickness of water zones with description of water when possible:  
Fresh, Clear, Salty, Sulphur, Etc. 107' - 119'

Depths gas encountered: N/A

Type & amount of coke breeze used: 40 SACKS

Depths anodes placed: 185', 145', 125'

Depths vent pipes placed: 220' OF 1" PVC VENT PIPE

Vent pipe perforations: 120'

Remarks: gb #2

RECEIVED  
MAY 31 1991  
OIL CON. DIV.  
DIST. 3

If any of the above data is unavailable, please indicate so. Copies of all logs, including Drillers Log, Water Analyses & Well Bore Schematics should be submitted when available. Unplugged abandoned wells are to be included.

\*Land Type may be shown: F-Federal; I-Indian; S-State; P-Fee.  
If Federal or Indian, add Lease Number.

WELL CASING  
CATHODIC PROTECTION CONSTRUCTION REPORT  
DAILY LOG

Drilling Log (Attach Hereto) ☐

Completion Date 10-21-77

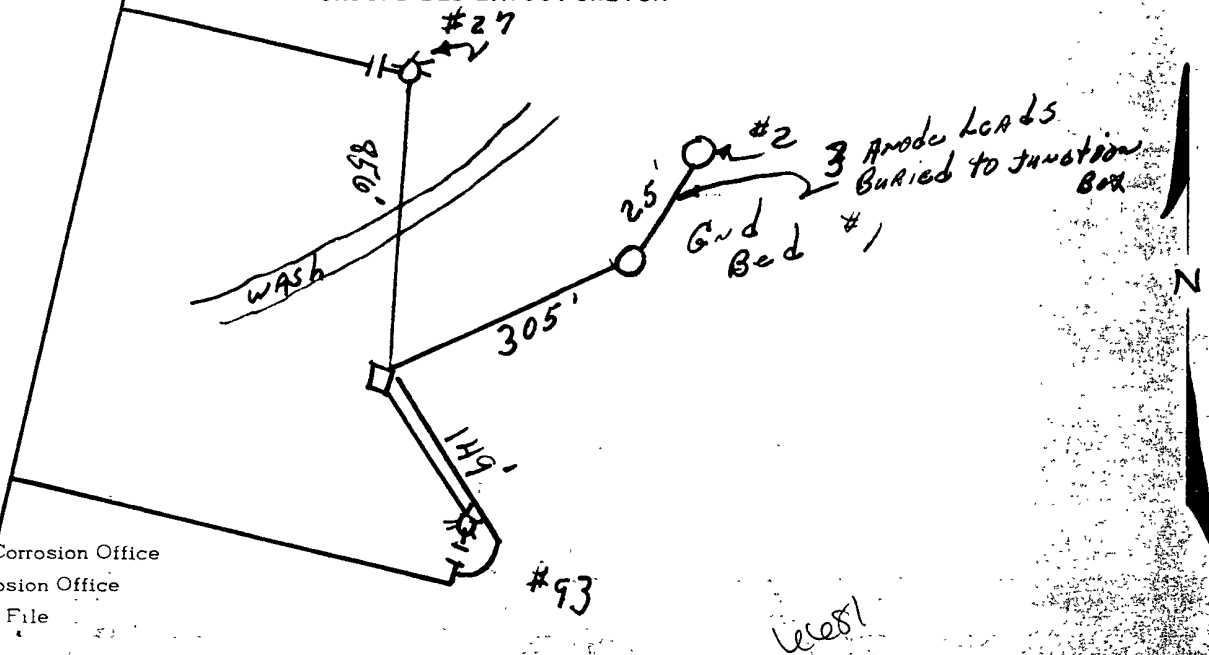
|                                                     |                         |                                   |                             |                                                           |                       |
|-----------------------------------------------------|-------------------------|-----------------------------------|-----------------------------|-----------------------------------------------------------|-----------------------|
| Well Name <u>5</u><br><u>SAN JUAN 28-8 UNIT #27</u> |                         | Location<br><u>NE 15-28-5</u>     |                             | CPS No.<br><u>1115W</u>                                   |                       |
| Type & Size Bit Used<br><u>6 3/4"</u>               |                         |                                   |                             | Work Order No. <u>#27=53463.19</u><br><u>#93=55635.21</u> |                       |
| Anode Hole Depth <u>320</u><br><u>Logged - 308</u>  | Total Drilling Rig Time | Total Lbs. Coke Used<br><u>56</u> | Lost Circulation Mat'l Used | No. Sacks Mud Used                                        |                       |
| Anode Depth                                         |                         |                                   |                             |                                                           |                       |
| #1 <u>285</u>                                       | #2 <u>275</u>           | #3 <u>265</u>                     | #4 <u>255</u>               | #5 <u>240</u>                                             | #6 <u>215</u>         |
| #7 <u>205</u>                                       | #8 <u>195</u>           | #9 <u>185</u>                     | #10 <u>185</u>              |                                                           |                       |
| Anode Output (Amps)                                 |                         |                                   |                             |                                                           |                       |
| #1 <u>4.1</u>                                       | #2 <u>4.9</u>           | #3 <u>4.6</u>                     | #4 <u>3.6</u>               | #5 <u>2.6</u>                                             | #6 <u>2.6</u>         |
| #7 <u>4.2</u>                                       | #8                      | #9                                | #10 <u>2.8</u>              |                                                           |                       |
| Anode Depth                                         |                         |                                   |                             |                                                           |                       |
| #11 <u>145</u>                                      | #12 <u>125</u>          | #13                               | #14                         | #15                                                       | #16                   |
| #17                                                 | #18                     | #19                               | #20                         |                                                           |                       |
| Anode Output (Amps)                                 |                         |                                   |                             |                                                           |                       |
| #11 <u>2.2</u>                                      | #12 <u>2.5</u>          | #13                               | #14                         | #15                                                       | #16                   |
| #17                                                 | #18                     | #19                               | #20                         |                                                           |                       |
| Total Circuit Resistance                            |                         |                                   |                             | No. 8 C.P. Cable Used                                     | No. 2 C.P. Cable Used |
| Volts <u>11.5</u>                                   | Amps <u>13.4</u>        | Ohms <u>0.86</u>                  |                             |                                                           |                       |

Remarks: Static #27 600'N = 0.72, Static #93 600'S = 0.75  
Installed 10-2"x2"x48" Graphite Anodes. Driller said Making Water @ 115'. Installed 300' of 1" PVC Vent Pipe. Perforated 200' of 1" PVC Vent Pipe. Hole Bridged Above Anode #8 & #9. Drilled Hole #2. Installed Anodes #10, #11, #12. Installed 220' of 1" PVC Vent Pipe & Perforated 120' of Vent Pipe in Hole #2. Slurried 56 sacks of coke in Hole #1 & 40 sacks of coke in Hole #2. Installed 60V 30 A Rectifier & Stub Pole

All Construction Completed

W J Luth  
(Signature)

GROUND BED LAYOUT SKETCH



DISTRIBUTION:

WHITE - Division Corrosion Office  
 YELLOW - Area Corrosion Office  
 PINK - Originator File

El Paso Natural Gas Company  
ENGINEERING CALCULATION

Sheet: \_\_\_\_\_ of \_\_\_\_\_  
Date: \_\_\_\_\_  
By: \_\_\_\_\_  
File: \_\_\_\_\_

Hole #1  
7-ANVACS

SAN JUAN 28-5 UNIT #27

53463.19

SAN JUAN 28-5 UNIT #93

NE 15-28-5

11154

55635.21

Static 600' W = 0.72 # 93  
Static 600' S = 0.75 # 27

DRILLER SAID MAKING WATER @ 115'  
Started Trj @  
Perforated 200' of 1" PVC Vent Pipe  
Installed 300' of 1" PVC Vent Pipe  
Slurried 56 SACKS OF COKE

60V 30A Rectifier  
Stub Pole

| MW     | gals/mol  |
|--------|-----------|
| 16.04  | C1 6.4    |
| 30.07  | C2 10.12  |
| 44.10  | C3 10.42  |
| 58.12  | iC4 12.38 |
| 58.12  | nC4 11.93 |
| 72.15  | iC5 13.85 |
| 72.15  | nC5 13.71 |
| 86.18  | iC6 15.50 |
| 86.18  | C6 15.57  |
| 100.21 | iC7 17.2  |
| 100.21 | C7 17.46  |
| 114.23 | C8 19.39  |
| 28.05  | C2 9.64   |
| 42.08  | C3 9.67   |

115' .4  
20' 1.0  
30' .9  
30' .3

60' 1.5  
1.6 (3)  
70' 1.6  
1.7 (2)  
80' 1.6

.4  
40' 1.2 - (10)  
.9 ?  
50' .7  
.4

1.4 (1)  
90' 1.4  
1.3  
300' .9  
.2

60' .4  
.4  
70' .5  
.4  
80' .5

300' + D  
20

1.0 - (9)  
90' 1.4  
1.6 - (8)  
200' 1.8  
1.7 - (7)

1.4  
1.3  
1.2  
1.1  
1.0  
0.9  
0.8  
0.7  
0.6  
0.5  
0.4  
0.3  
0.2  
0.1

10' 1.4  
1.2 - (6)  
20' 1.0  
.9  
30' .9

1.4  
1.3  
1.2  
1.1  
1.0  
0.9  
0.8  
0.7  
0.6  
0.5  
0.4  
0.3  
0.2  
0.1

.8  
40' 1.1 (5)  
1.0  
50' .8  
1.1 (4)

1.4  
1.3  
1.2  
1.1  
1.0  
0.9  
0.8  
0.7  
0.6  
0.5  
0.4  
0.3  
0.2  
0.1

BRIDGED  
① 285 1.8 3.6 4.1  
② 275 2.2 4.2 4.9  
③ 265 2.1 4.3 4.6  
④ 255 1.8 3.4 3.6  
⑤ 240 1.4 2.5 2.6  
⑥ 215 1.4 2.6 2.6  
⑦ 205 2.2 4.2 4.2  
⑧ 195 2.1 2.7  
⑨ 185 1.9 2.7  
⑩ 140

Hole #2  
⑪ 185 1.6 2.8  
⑫ 145 1.1 2.2  
⑬ 125 1.4 2.5

11.5 Volts  
13.4 Amps  
0.86 OHMS

| MW    | MISC. | gals/mol |
|-------|-------|----------|
| 32.00 | O2    | 3.37     |
| 28.01 | CO    | 4.19     |
| 44.01 | CO2   | 6.38     |
| 64.06 | SO2   | 5.50     |
| 34.08 | H2S   | 5.17     |
| 28.01 | N2    | 4.16     |
| 2.02  | H2    | 3.38     |

El Paso Natural Gas Company  
ENGINEERING CALCULATION

Sheet: \_\_\_\_\_ of \_\_\_\_\_

Date: \_\_\_\_\_

By: \_\_\_\_\_

File: \_\_\_\_\_

Hole # 2

32 nodes

SAN JUAN 28-5 UNIT #27

53463.19

SAN JUAN 28-5 UNIT #93

NE 15-28-5

N15W

55635.21

MW gals/mol

16.04 C<sub>1</sub> 6.430.07 C<sub>2</sub> 10.1244.10 C<sub>3</sub> 10.4258.12 iC<sub>4</sub> 12.3858.12 nC<sub>4</sub> 11.9372.15 iC<sub>5</sub> 13.8572.15 nC<sub>5</sub> 13.7186.18 iC<sub>6</sub> 15.5086.18 C<sub>6</sub> 15.57100.21 iC<sub>7</sub> 17.2100.21 C<sub>7</sub> 17.46114.23 C<sub>8</sub> 19.3928.05 C<sub>2</sub> 9.6442.08 C<sub>3</sub> 9.67

120 1.2

1.1 -

(12)

30 .2

.2

40 .9

.9

(11)

50 .5

.5

60 .4

.4

70 .3

.3

80 .4

.4

90 .4

.4

100 1.2

1.2

(10)

200 1.6

1.6

10211 +10

1.6

20

(12) 185 1.6

(11) 145 1.1

(13) 125 1.4

MW MISC.

gals/mol

32.00 O<sub>2</sub> 3.37

28.01 CO 4.19

44.01 CO<sub>2</sub> 6.3864.06 SO<sub>2</sub> 5.5034.08 H<sub>2</sub>S 5.1728.01 N<sub>2</sub> 4.162.02 H<sub>2</sub> 3.38

DAILY DRILLING REPORT

| LEASE      |     |                   | WELL NO. 11156                   |        |       | CONTRACTOR Posey Drilling Co                                                 |           |                   | RIG NO.                          |      |       | REPORT NO. |        |                   | DATE 10-21                       |      |       | 19 77 |  |  |
|------------|-----|-------------------|----------------------------------|--------|-------|------------------------------------------------------------------------------|-----------|-------------------|----------------------------------|------|-------|------------|--------|-------------------|----------------------------------|------|-------|-------|--|--|
| MORNING    |     |                   |                                  |        |       | DAYLIGHT                                                                     |           |                   |                                  |      |       | EVENING    |        |                   |                                  |      |       |       |  |  |
| Driller    |     | Total Men In Crew |                                  |        |       | Driller                                                                      |           | Total Men In Crew |                                  |      |       | Driller    |        | Total Men In Crew |                                  |      |       |       |  |  |
| FROM       | TO  | FORMATION         | WT-BIT                           | R.P.M. | FROM  | TO                                                                           | FORMATION | WT-BIT            | R.P.M.                           | FROM | TO    | FORMATION  | WT-BIT | R.P.M.            |                                  |      |       |       |  |  |
|            |     |                   |                                  |        |       |                                                                              |           |                   |                                  |      |       |            |        |                   |                                  |      |       |       |  |  |
|            |     |                   |                                  |        |       |                                                                              |           |                   |                                  |      |       |            |        |                   |                                  |      |       |       |  |  |
|            |     |                   |                                  |        |       |                                                                              |           |                   |                                  |      |       |            |        |                   |                                  |      |       |       |  |  |
|            |     |                   |                                  |        |       |                                                                              |           |                   |                                  |      |       |            |        |                   |                                  |      |       |       |  |  |
| BIT NO.    |     | NO. DC            |                                  | SIZE   | LENG. | BIT NO.                                                                      |           | NO. DC            |                                  | SIZE | LENG. | BIT NO.    |        | NO. DC            |                                  | SIZE | LENG. |       |  |  |
| SERIAL NO. |     | STANDS            |                                  |        |       | SERIAL NO.                                                                   |           | STANDS            |                                  |      |       | SERIAL NO. |        | STANDS            |                                  |      |       |       |  |  |
| SIZE       |     | SINGLES           |                                  |        |       | SIZE                                                                         |           | SINGLES           |                                  |      |       | SIZE       |        | SINGLES           |                                  |      |       |       |  |  |
| TYPE       |     | DOWN ON KELLY     |                                  |        |       | TYPE                                                                         |           | DOWN ON KELLY     |                                  |      |       | TYPE       |        | DOWN ON KELLY     |                                  |      |       |       |  |  |
| MAKE       |     | TOTAL DEPTH       |                                  |        |       | MAKE                                                                         |           | TOTAL DEPTH       |                                  |      |       | MAKE       |        | TOTAL DEPTH       |                                  |      |       |       |  |  |
| MUD RECORD |     |                   | MUD, ADDITIVES USED AND RECEIVED |        |       | MUD RECORD                                                                   |           |                   | MUD, ADDITIVES USED AND RECEIVED |      |       | MUD RECORD |        |                   | MUD, ADDITIVES USED AND RECEIVED |      |       |       |  |  |
| Time       | Wt. | Vis.              |                                  |        |       | Time                                                                         | Wt.       | Vis.              |                                  |      |       | Time       | Wt.    | Vis.              |                                  |      |       |       |  |  |
|            |     |                   |                                  |        |       |                                                                              |           |                   |                                  |      |       |            |        |                   |                                  |      |       |       |  |  |
|            |     |                   |                                  |        |       |                                                                              |           |                   |                                  |      |       |            |        |                   |                                  |      |       |       |  |  |
|            |     |                   |                                  |        |       |                                                                              |           |                   |                                  |      |       |            |        |                   |                                  |      |       |       |  |  |
| FROM       | TO  | TIME BREAKDOWN    |                                  |        |       | FROM                                                                         | TO        | TIME BREAKDOWN    |                                  |      |       | FROM       | TO     | TIME BREAKDOWN    |                                  |      |       |       |  |  |
| 0          | 15  | Surface           |                                  |        |       | 107                                                                          | 119       | Sand Wet MW       |                                  |      |       | 178        | 181    | Sandy Shale       |                                  |      |       |       |  |  |
| 15         | 55  | Shale             |                                  |        |       | 119                                                                          | 130       | Shale             |                                  |      |       | 181        | 186    | Sandstone         |                                  |      |       |       |  |  |
| 55         | 62  | Sandy Shale       |                                  |        |       | 130                                                                          | 135       | Red shale         |                                  |      |       | 186        | 189    | Shale             |                                  |      |       |       |  |  |
| 62         | 65  | Shale             |                                  |        |       | 135                                                                          | 155       | Blue Shale        |                                  |      |       | 189        | 203    | Sandy stone       |                                  |      |       |       |  |  |
| 65         | 75  | Sand stone        |                                  |        |       | 155                                                                          | 162       | Sandy shale       |                                  |      |       | 203        | 220    | Shale             |                                  |      |       |       |  |  |
| 75         | 107 | Shale             |                                  |        |       | 162                                                                          | 178       | Shale             |                                  |      |       |            |        |                   |                                  |      |       |       |  |  |
| REMARKS -  |     |                   |                                  |        |       | REMARKS -                                                                    |           |                   |                                  |      |       | REMARKS -  |        |                   |                                  |      |       |       |  |  |
|            |     |                   |                                  |        |       | Drilled 220 ft<br>Logged 211 ft<br>making water 107'-119'<br>injected 120 ft |           |                   |                                  |      |       |            |        |                   |                                  |      |       |       |  |  |

SIGNED: Toolpusher

\_\_\_\_ Company Supervisor

Hole #1  
EL PASO NATURAL GAS COMPANY  
DRILLING DEPARTMENT

## DAILY DRILLING REPORT

LEASE \_\_\_\_\_ WELL NO. 1115 W CONTRACTOR POSEY DRILLING Co. RIG NO. \_\_\_\_\_ REPORT NO. \_\_\_\_\_ DATE Oct. 3 1977

## MORNING

## DAYLIGHT

## EVENING

| Driller _____ Total Men In Crew _____ |    |           |        |        | Driller <u>ALBERT L. POSEY</u> Total Men In Crew _____ |    |           |        |        | Driller _____ Total Men In Crew _____ |    |           |        |        |
|---------------------------------------|----|-----------|--------|--------|--------------------------------------------------------|----|-----------|--------|--------|---------------------------------------|----|-----------|--------|--------|
| FROM                                  | TO | FORMATION | WT-BIT | R.P.M. | FROM                                                   | TO | FORMATION | WT-BIT | R.P.M. | FROM                                  | TO | FORMATION | WT-BIT | R.P.M. |
|                                       |    |           |        |        |                                                        |    |           |        |        |                                       |    |           |        |        |
|                                       |    |           |        |        |                                                        |    |           |        |        |                                       |    |           |        |        |
|                                       |    |           |        |        |                                                        |    |           |        |        |                                       |    |           |        |        |
|                                       |    |           |        |        |                                                        |    |           |        |        |                                       |    |           |        |        |
|                                       |    |           |        |        |                                                        |    |           |        |        |                                       |    |           |        |        |

TD. 314 ft

|                  |  |                                     |                  |  |                                     |                  |  |                                     |
|------------------|--|-------------------------------------|------------------|--|-------------------------------------|------------------|--|-------------------------------------|
| BIT NO. _____    |  | NO. DC _____ SIZE _____ LENG. _____ | BIT NO. _____    |  | NO. DC _____ SIZE _____ LENG. _____ | BIT NO. _____    |  | NO. DC _____ SIZE _____ LENG. _____ |
| SERIAL NO. _____ |  | STANDS _____                        | SERIAL NO. _____ |  | STANDS _____                        | SERIAL NO. _____ |  | STANDS _____                        |
| SIZE _____       |  | SINGLES _____                       | SIZE _____       |  | SINGLES _____                       | SIZE _____       |  | SINGLES _____                       |
| TYPE _____       |  | DOWN ON KELLY _____                 | TYPE _____       |  | DOWN ON KELLY _____                 | TYPE _____       |  | DOWN ON KELLY _____                 |
| MAKE _____       |  | TOTAL DEPTH _____                   | MAKE _____       |  | TOTAL DEPTH _____                   | MAKE _____       |  | TOTAL DEPTH _____                   |

| MUD RECORD |     |      | MUD, ADDITIVES USED AND RECEIVED |  |  | MUD RECORD |     |      | MUD, ADDITIVES USED AND RECEIVED |  |  | MUD RECORD |     |      | MUD, ADDITIVES USED AND RECEIVED |  |  |
|------------|-----|------|----------------------------------|--|--|------------|-----|------|----------------------------------|--|--|------------|-----|------|----------------------------------|--|--|
| Time       | Wt. | Vis. |                                  |  |  | Time       | Wt. | Vis. |                                  |  |  | Time       | Wt. | Vis. |                                  |  |  |
|            |     |      |                                  |  |  |            |     |      |                                  |  |  |            |     |      |                                  |  |  |
|            |     |      |                                  |  |  |            |     |      |                                  |  |  |            |     |      |                                  |  |  |
|            |     |      |                                  |  |  |            |     |      |                                  |  |  |            |     |      |                                  |  |  |
|            |     |      |                                  |  |  |            |     |      |                                  |  |  |            |     |      |                                  |  |  |

| FROM | TO  | TIME BREAKDOWN | FROM | TO  | TIME BREAKDOWN | FROM | TO  | TIME BREAKDOWN |
|------|-----|----------------|------|-----|----------------|------|-----|----------------|
| 0    | 20  | Surface        | 115  | 130 | Sand Wet MW    | 210  | 255 | Shale          |
| 20   | 35  | Shale          | 130  | 135 | Red shale      | 255  | 265 | Sandy shale    |
| 35   | 54  | Sandstone      | 135  | 150 | Sandstone      | 265  | 290 | Shale          |
| 54   | 72  | Shale          | 150  | 170 | Shale          | 290  | 308 | Red shale      |
| 72   | 98  | Sandstone      | 170  | 190 | Sandstone      | 308  | 320 | Blue           |
| 98   | 115 | Shale          | 190  | 210 | Red shale      |      |     |                |

| REMARKS - | REMARKS -                 | REMARKS - |
|-----------|---------------------------|-----------|
|           | Drilled — 320 ft          |           |
|           | Logged — 308 ft           |           |
|           | Making Water — 115-130 ft |           |
|           | Ungrated — 120 ft         |           |

SIGNED: Toolpusher \_\_\_\_\_

Company Supervisor \_\_\_\_\_