

1393

77A- 30-039-21919  
514- 30-039-24334

E

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

Operator MERIDIAN OIL Location: Unit SE Sec. 33 Twp 29 Rng 7

Name of Well/Wells or Pipeline Serviced SAN JUAN 29-7 UNIT #77A, #514

cps 1620w

Elevation 6227' Completion Date 7/28/81 Total Depth 526' 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. 180' SAMPLE TAKEN

Depths gas encountered: N/A

Type & amount of coke breeze used: 5000 lbs.

Depths anodes placed: 500', 490', 480', 460', 450', 415', 405', 395', 350', 300'

Depths vent pipes placed: 520'

Vent pipe perforations: 380'

Remarks: gb #1

**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 7-28-81

|                                                  |                         |                                            |                             |                                          |                 |
|--------------------------------------------------|-------------------------|--------------------------------------------|-----------------------------|------------------------------------------|-----------------|
| Well Name<br><u>S.J. 29-7 #77A, #514</u>         |                         | Location<br><u>SE 33-29-7</u>              |                             | CPS No.<br><u>1620 W</u>                 |                 |
| Type & Size Bit Used<br><u>6 3/4" mill tooth</u> |                         | Anodes = <u>2" x 60" Duriron</u>           |                             | Work Order No.<br><u>57949-21-50-20-</u> |                 |
| Anode Hole Depth<br><u>526 Log 526</u>           | Total Drilling Rig Time | Total Lbs. Coke Used<br><u>Approx 5000</u> | Lost Circulation Mat'l Used | No. Sacks Mud Used                       |                 |
| Anode Depth                                      | # 1                     | # 2                                        | # 3                         | # 4                                      | # 5             |
| <u>500</u>                                       | <u>490</u>              | <u>480</u>                                 | <u>460</u>                  | <u>450</u>                               | <u>415</u>      |
| Anode Output (Amps)                              | # 1                     | # 2                                        | # 3                         | # 4                                      | # 5             |
| <u>1.8</u>                                       | <u>1.8</u>              | <u>1.8</u>                                 | <u>2.0</u>                  | <u>2.1</u>                               | <u>1.9</u>      |
| Anode Depth                                      | # 11                    | # 12                                       | # 13                        | # 14                                     | # 15            |
|                                                  |                         |                                            |                             |                                          |                 |
| Anode Output (Amps)                              | # 11                    | # 12                                       | # 13                        | # 14                                     | # 15            |
|                                                  |                         |                                            |                             |                                          |                 |
| Total Circuit Resistance                         | Volts <u>12.2</u>       |                                            | Amps <u>11.0</u>            |                                          | Ohms <u>1.1</u> |
| No. 8 C.P. Cable Used                            |                         | No. 2 C.P. Cable Used                      |                             |                                          |                 |

Remarks: STATIC 4s 600'E = .85 - 290 MA + UNION = OK

Damp 150 FT Drilled 165 WAITED NO WATER VERY DAMP 180' Drilled 185  
WAITED wet cuttings, caught water sample next AM. Picked  
up so much water by 400' cuttings samples were mixed. Drilled  
to 526' Logged 526' INST 520' vent pipe with 380 FT perf.  
Slurried Approx 5000 lbs bulk coke. Total water Approx 80 GPM.

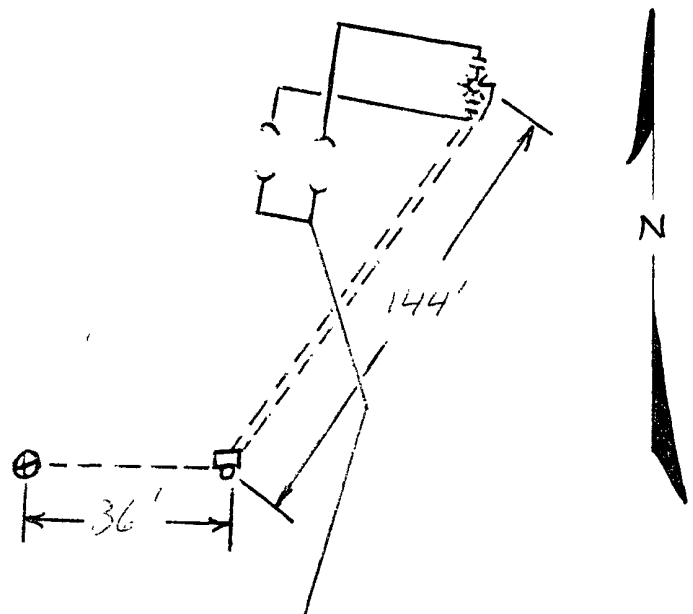
Hole depth = +26' ✓  
extra cable = 164' ✓  
ditch & cable = 180' ✓  
Stub Pole ✓  
400 16 A Rect ✓

All Construction Completed

*Rahm J. Bahman*  
(Signature)

GROUND BED LAYOUT SKETCH

|      | Reg. | C.T. |
|------|------|------|
| 7-28 | 8    | 3    |



DISTRIBUTION:

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

u227

1620W SE 33-29-7

SAN JUAN 29-7 #77A 57949-21-50-20

STATIC/GS 600' E = .85 20 MAT UNION = OK

7-28-81 11 hrs

| 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   |

Stub  
4076

| 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     |

180 .7 360 .6  
 .6 .6  
 90 .6 70 .6  
 .6 .6  
 200 1.0 80 .6  
 1.2 .6  
 10 .9 90 .7 .83  
 .9 .6 .8  
 20 .4 400 1.1 1.3  
 .3 .8 1.0 - 7  
 30 .4 10 .7 .94  
 .4 .8 .96 - 6  
 40 .5 20 .7 .91  
 .5 .7 .84  
 50 .5 30 .6 .76  
 .5 .6 .80  
 60 .6 40 .6 .79  
 .7 .7 .83  
 70 .6 50 .8 1.0 - 5  
 .5 .8 1.0  
 80 .6 20 .8 1.0 - 4  
 .6 .7 .85  
 90 .6 70 .7 .98  
 .7 .7 .90  
 200 .9 40 .8 .94 - 3  
 .7 .8 .99  
 .7 .3 .97 - 2  
 .7 .7 .97  
 20 .6 30 .7 1.0 - 1  
 .6 .7  
 30 .6 10 .7  
 .7 .8  
 40 .8 10 .8  
 1.0 - 9  
 50 1.3  
 .7

DAMP AT 150 FT DRILLED 165  
 WAITED NO WATER VERY DAMP  
 180' DRILLED 185' 2 FT IN SHALE  
 WATER SAMPLE NEXT AM  
 Picked up so much water  
 BY 400' cutting samples  
 became mixed 5 spaces  
 185 to 400' 8 400 - 525  
 INST 520 FT VENT PIPE  
 WITH 380 FT PERF.  
 SLURRIED & APPROX 5000  
 LBS COKE.

- ① 500 — 1.08 — 1.8
- ② 490 — 1.01 — 1.8
- ③ 480 — 1.00 — 1.8
- ④ 460 — 1.00 — 2.0
- ⑤ 450 — 1.12 — 2.1
- ⑥ 415 .92 — 1.7
- ⑦ 405 .94 — 1.9
- ⑧ 395 1.62 — 2.7
- ⑨ 350 — 1.33 — 2.6
- ⑩ 300 — 1.24 — 2.2

2.2 V @ 1.0 A = 1.1 ohms

EL PASO NATURAL GAS COMPANY  
SAN JUAN DIVISION  
FARMINGTON, NEW MEXICO  
PRODUCTION DEPARTMENT WATER ANALYSIS

Analysis No. 1-10314 Date 8-5-81

Operator EPNG Well Name S.J. 29-7 #77A CPS 1620 W

Location SE 33-29-7 County Rio Arriba State New Mexico

Field Blanco Formation

Sampled From 185'

Date Sampled 7-28-81 By Robert J. Babnick

Tbg. Press.  Csg.  Surface Csg. Press.

|        | ppm        | epm         |          | ppm       | epm        |
|--------|------------|-------------|----------|-----------|------------|
| Sodium | <u>432</u> | <u>18.8</u> | Chloride | <u>45</u> | <u>1.3</u> |

|         |            |             |             |            |            |
|---------|------------|-------------|-------------|------------|------------|
| Calcium | <u>328</u> | <u>16.4</u> | Bicarbonate | <u>162</u> | <u>2.7</u> |
|---------|------------|-------------|-------------|------------|------------|

|           |           |            |         |             |             |
|-----------|-----------|------------|---------|-------------|-------------|
| Magnesium | <u>25</u> | <u>2.1</u> | Sulfate | <u>1600</u> | <u>33.3</u> |
|-----------|-----------|------------|---------|-------------|-------------|

|      |               |  |           |          |          |
|------|---------------|--|-----------|----------|----------|
| Iron | <u>Absent</u> |  | Carbonate | <u>0</u> | <u>0</u> |
|------|---------------|--|-----------|----------|----------|

|                  |               |  |           |          |          |
|------------------|---------------|--|-----------|----------|----------|
| H <sub>2</sub> S | <u>Absent</u> |  | Hydroxide | <u>0</u> | <u>0</u> |
|------------------|---------------|--|-----------|----------|----------|

cc: R. A. Ullrich  
E. R. Paulek  
J. W. McCarthy  
J. D. Evans  
W. B. Shropshire  
D. C. Adams  
File

Total Solids Dissolved 2,592

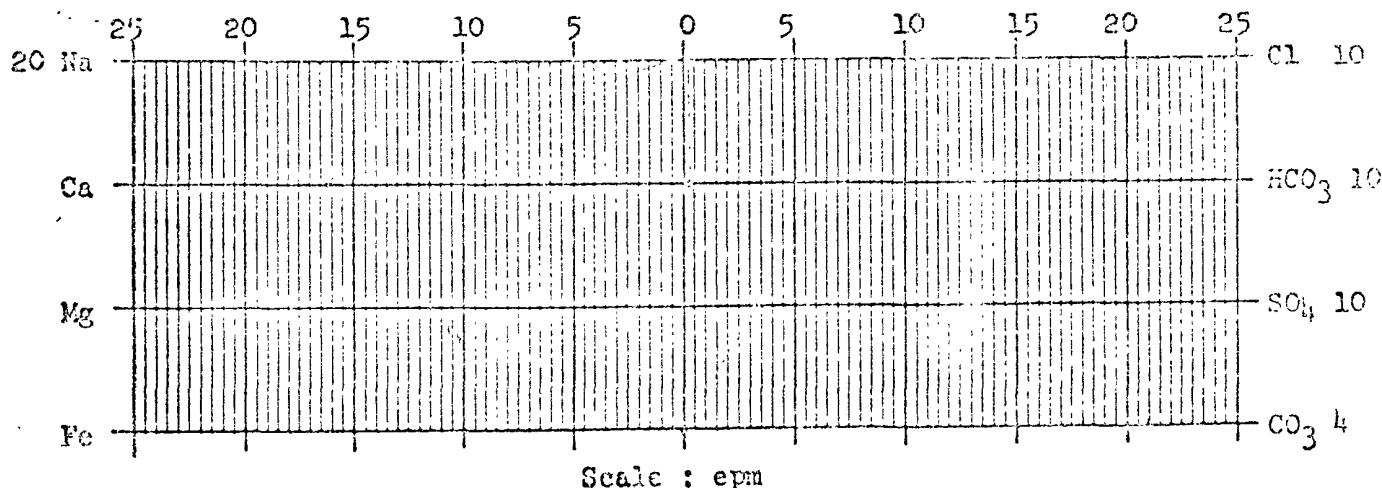
pH 7.85

Sp. Gr. 1.0044 At 60°F

Resistivity 286 ohm-cm at 74°F

*Robert J. Babnick*  
Chemist

RJL



DAILY DRILLING REPORT

LEASE LP5 1620 W 5529-7 #77 A WELL NO. 5529-7 CONTRACTOR Steady Drilling RIG NO. 5529-7 DATE 7-28-81 19

MORNING

EVENING

| 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. |    |  |  |  |  |
| 0                                      | 10   | OK        |        |                   | 205                                    | 215  | 55 w/sh   |         |        | 390                                    | 400  | 54                |        |        |    |  |  |  |  |
| 10                                     | 18.5 | 55 w/sh   |        |                   | 215                                    | 335  | 55        |         |        | 400                                    | 526  | med               |        |        |    |  |  |  |  |
| 18.5                                   | 19.5 | 55        |        |                   | 335                                    | 340  | 54        |         |        | 526                                    |      | with              |        |        |    |  |  |  |  |
| 19.5                                   | 20.5 | 54        |        |                   | 340                                    | 390  | 55        |         |        |                                        |      |                   |        |        |    |  |  |  |  |
| NO. DC _____ SIZE _____ LENG. _____    |      |           |        |                   | NO. DC _____ SIZE _____ LENG. _____    |      |           |         |        | NO. DC _____ SIZE _____ LENG. _____    |      |                   |        |        |    |  |  |  |  |
| STANDS _____                           |      |           |        |                   | STANDS _____                           |      |           |         |        | STANDS _____                           |      |                   |        |        |    |  |  |  |  |
| SINGLES _____                          |      |           |        |                   | SINGLES _____                          |      |           |         |        | SINGLES _____                          |      |                   |        |        |    |  |  |  |  |
| DOWN ON KELLY _____                    |      |           |        |                   | DOWN ON KELLY _____                    |      |           |         |        | DOWN ON KELLY _____                    |      |                   |        |        |    |  |  |  |  |
| TOTAL DEPTH _____                      |      |           |        |                   | TOTAL DEPTH _____                      |      |           |         |        | TOTAL DEPTH _____                      |      |                   |        |        |    |  |  |  |  |
| MUD, ADDITIVES USED AND RECEIVED _____ |      |           |        |                   | MUD, ADDITIVES USED AND RECEIVED _____ |      |           |         |        | MUD, ADDITIVES USED AND RECEIVED _____ |      |                   |        |        |    |  |  |  |  |
| Time                                   |      |           |        |                   | Time                                   |      |           |         |        | Time                                   |      |                   |        |        |    |  |  |  |  |
| WT.                                    | Vis. |           |        |                   | WT.                                    | Vis. |           |         |        | WT.                                    | Vis. |                   |        |        |    |  |  |  |  |
| FROM                                   |      |           |        |                   | TO                                     |      |           |         |        | FROM                                   |      |                   |        |        | TO |  |  |  |  |
| TIME BREAKDOWN                         |      |           |        |                   | TIME BREAKDOWN                         |      |           |         |        | TIME BREAKDOWN                         |      |                   |        |        |    |  |  |  |  |
| REMARKS -                              |      |           |        |                   | REMARKS -                              |      |           |         |        | REMARKS -                              |      |                   |        |        |    |  |  |  |  |
| Water at 180                           |      |           |        |                   |                                        |      |           |         |        |                                        |      |                   |        |        |    |  |  |  |  |
| Log good 526                           |      |           |        |                   |                                        |      |           |         |        |                                        |      |                   |        |        |    |  |  |  |  |
| TD 526                                 |      |           |        |                   |                                        |      |           |         |        |                                        |      |                   |        |        |    |  |  |  |  |
| Hole making 80 gal per min             |      |           |        |                   |                                        |      |           |         |        |                                        |      |                   |        |        |    |  |  |  |  |

SIGNED: Toolpusher

*[Signature]*

Company Supervisor