

1204 #1 A 30-045-23165
#3 30-045-20782

E

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

Operator MERIDIAN OIL Location: UniSE Sec. 9 Twp 30 Rng 10

Name of Well/Wells or Pipeline Serviced SUNRAY E #1A, #3

cps 1470w

Elevation 6502 Completion Date 9/10/80 Total Depth 380' 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. 30' SAMPLE TAKEN

Depths gas encountered: N/A

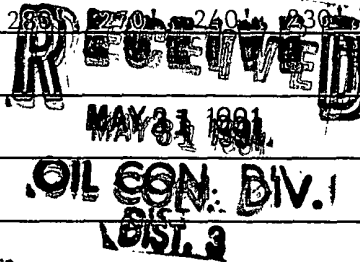
Type & amount of coke breeze used: N/A

Depths anodes placed: 320', 310', 300', 290', 285', 270', 240', 230', 220', 210'

Depths vent pipes placed: 375'

Vent pipe perforations: 360'

Remarks: gb #1



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). ☐

(2" X 60" Durion)

Completion Date 9/10/80

Well Name <u>SUNRAY E #1-A</u>		Location <u>SE 9-30-10</u>		CPS No. <u>1470 W</u>	
Type & Size Bit Used <u>6 3/4"</u>				Work Order No. <u>57471-21</u> <u>54843-19</u>	
Anode Hole Depth <u>380' T.D. 375'</u>	Total Drilling Rig Time	Total Lbs. Coke Used	Lost Circulation Mat'l Used	No. Sacks Mud Used	
Anode Depth					
# 1 <u>320'</u>	# 2 <u>310'</u>	# 3 <u>300'</u>	# 4 <u>290'</u>	# 5 <u>280'</u>	# 6 <u>270'</u>
# 7 <u>240'</u>	# 8 <u>230'</u>	# 9 <u>220'</u>	# 10 <u>210'</u>		
Anode Output (Amps)					
# 1 <u>2.4</u>	# 2 <u>2.4</u>	# 3 <u>3.0</u>	# 4 <u>3.1</u>	# 5 <u>3.3</u>	# 6 <u>2.4</u>
# 7 <u>3.4</u>	# 8 <u>3.4</u>	# 9 <u>2.7</u>	# 10 <u>2.4</u>		
Anode Depth					
# 11	# 12	# 13	# 14	# 15	# 16
# 17	# 18	# 19	# 20		
Anode Output (Amps)					
# 11	# 12	# 13	# 14	# 15	# 16
# 17	# 18	# 19	# 20		
Total Circuit Resistance			No. 8 C.P. Cable Used		
Volts <u>12.2</u>	Amps <u>13.7</u>	Ohms <u>.89</u>	No. 2 C.P. Cable Used		

Remarks: STATIC ON SUNRAY E #1-A 600' W = .78V INSULATED UNIONS OK
SUNRAY E #3 HAS BOND BOX #40-B INSULATED UNION OK
DRILLER SAID WATER AT 30' APPROX. 3 GAL./MIN. TOOK WATER SAMPLE. DRILLED
TO 380'. LOGGED 375'. INSTALLED 375' OF 1" P.V.C. VENT PIPE, PERFORATED
360'.

20' meter Loop pole
10' stub pole
60V 30A RECT.
Hole Depth -125'

All Construction Completed

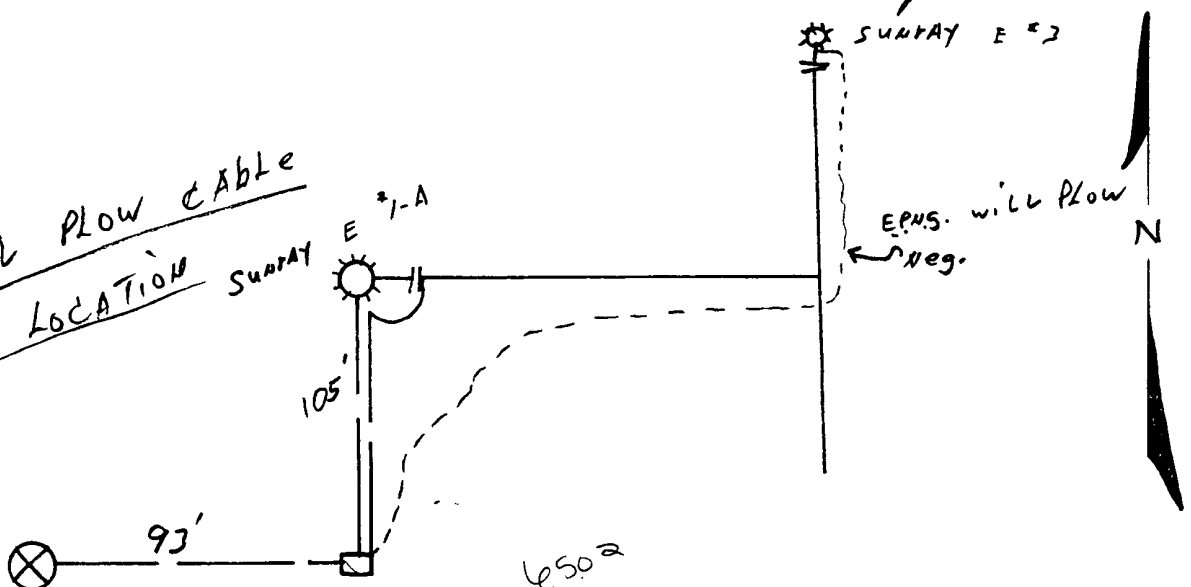
GROUND BED LAYOUT SKETCH

J.E. Stoltz
(Signature)
E #1A 4 Sta. Reg. 1 Sta. O.T.
E #3 4 Sta. Reg. 1 Sta. O.T.

SUNRAY E #3

EPNS. will flow
← Neg.

E.P.N.G. will flow cable
ON THIS LOCATION



CPS# 14⁷⁰~~14~~W

Sunday $E^{\#} 1-A \neq A^{\#} 3$

W.O.# 57471-21 & 54843-19

DAILY DRILLING REPORT

LEASE

WELL NO.

CONTRACTOR 3-C Drilling

RIG NO. ~~2~~ 1

REPORT NO.

DATE SEPT. 10 1980

[illegible]

	NO. DC _____ SIZE _____ LENG. _____		NO. DC _____ SIZE _____ LENG. _____		NO. DC _____ SIZE _____ LENG. _____
BIT NO. _____	NO. DC _____ SIZE <u>4 1/2</u> LENG. <u>30'</u>	BIT NO. _____	NO. DC _____ SIZE _____ LENG. _____	BIT NO. _____	NO. DC _____ SIZE _____ LENG. _____
SEF. NO. _____	STANDS _____	SERIAL NO. _____	STANDS _____	SERIAL NO. _____	STANDS _____
SIZE <u>6 3/4</u>	SINGLES <u>19</u>	SIZE _____	SINGLES _____	SIZE _____	SINGLES _____
TYPE <u>rock</u>	DOWN ON KELLY _____	TYPE _____	DOWN ON KELLY _____	TYPE _____	DOWN ON KELLY _____
MAKE _____	TOTAL DEPTH <u>380' I.D. 375'</u>	MAKE _____	TOTAL DEPTH _____	MAKE _____	TOTAL DEPTH _____

[illegible]

TIME BREAKDOWN		FROM	TO	TIME BREAKDOWN	FROM	TO	TIME BREAKDOWN
0	40	sandstone - water 30' 3gpm	280	320	shale		
40	120	sandstone	320	320	sand & shale		
120	200	clentonite & shale					
200	220	sand & shale					
220	260	shale					
260	280	clentonite & shale					

REMARKS -

REMARKS - Drilled to 40' on the 9th
had water standing next A.M.
at approx 30'. Rate producing
approx 3 gallons per minute
Good water sample.

Total hole depth 380'
Total log depth 375'

REMARKS -

SIGNED: Toolpusher

SIGNED: Toolpusher Brian Buge

____ Company Supervisor

El Paso Natural Gas Company
ENGINEERING CALCULATION

Sheet: _____ of _____

Date: _____

By: _____

File: _____

SUNRAY E # 1-A
SUNRAY E # 3

C.P.S. 1470 W
SE 9-30-10

W.O. 57471-21
54843-19

MW	gals/mol
16.04	C ₁ 6.4
30.07	C ₂ 10.12
44.10	C ₃ 10.42
58.12	iC ₄ 12.38
58.12	nC ₄ 11.93
72.15	iC ₅ 13.85
72.15	nC ₅ 13.71
86.18	iC ₆ 15.50
86.18	C ₆ 15.57
100.21	iC ₇ 17.2
100.21	C ₇ 17.46
114.23	C ₈ 19.39
28.05	C ₂ 9.64
42.08	C ₃ 9.67

MW	MISC.	gals/mol
32.00	O ₂	3.37
28.01	CO	4.19
44.01	CO ₂	6.38
64.06	SO ₂	5.50
34.08	H ₂ S	5.17
28.01	N ₂	4.16
2.02	H ₂	3.38

40-	210-	1.5 - ⑩	DRILLER SAID WATER AT 30'
		1.6	Approx. 3 GAL/MIN. TOOK WATER
50-	20-	1.8 - ⑨	SAMPLE. DRILLED TO 380'
		2.1	Logged 375'. INSTALLED 375'
60-	30-	2.1 - ⑧	OF 1" P.V.C. VENT PIPE.
.6		2.1	Perforated 360'.
70-.9	40-	2.2 - ⑦	
		1.8	
80-.6	50-	1.2	
.5		1.2	
90-.6	60-	1.2	12.2 V. 13.7 A. = .89 Ω
.6		1.4	9/10/80
100-.6	70-	1.8 - ⑥	<i>JS</i>
.6		1.9	
10-.7	80-	2.2 - ⑤	
1.7		2.0	
20-.9	90-	1.9 - ④	
.6		1.9	
30-.6	300-	1.9 - ③	
.6		1.5	
40-.5	10-	1.3 - ②	
.5		1.5	
50-.5	20-	1.5 - ①	
.6		.8	
60-.6	30-	.4	1-320'- 1.8 - 2.4
.6		.5	2-310'- 1.8 - 2.4
70-.8	40-	.7	3-300'- 2.3 - 3.0
1.0		.6	4-290'- 2.5 - 3.1
80-1.1	50-	.6	5-280'- 2.4 - 3.3
1.1		.4	6-270'- 1.9 - 2.4
90-.9	60-	2.0	7-240'- 2.5 - 3.4
.8		2.3	8-230'- 2.5 - 3.4
200-.8	70-	2.0	9-220'- 2.0 - 2.7
1.0		375' T.D.	10-210'- 1.7 - 2.4
	80-	Drilled To	

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

Analysis No. 1-10039 Date 11-12-80
Operator El Paso Natural Gas Well Name Sun Ray E #1A
Location SE 9-30-10 County San Juan State New Mexico
Field Kutz Formation _____
Sampled From CPS-1470 W. 020 ft

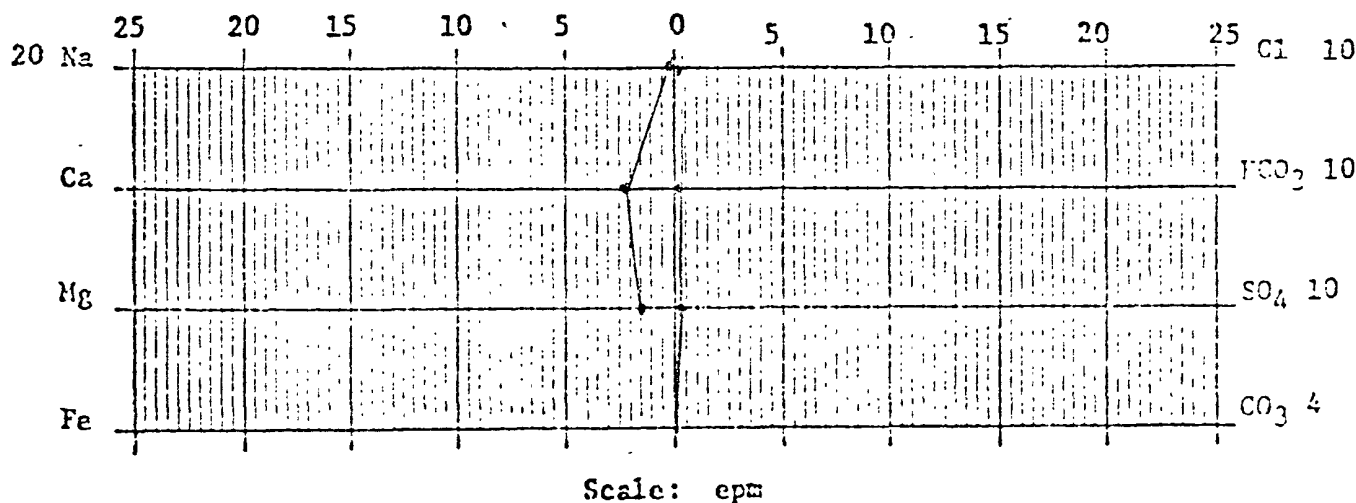
Date Sampled 9-10-80 By _____

Tbg. Press. _____	Csg. _____	Surface Csg. Press. _____
Sodium <u>35</u> ppm	<u>1.5</u> epm	Chloride <u>34</u> ppm
Calcium <u>41</u>	<u>2.1</u>	Bicarbonate <u>76</u>
Magnesium <u>16</u>	<u>1.3</u>	Sulfate <u>130</u>
Iron <u>No test</u>		Carbonate <u>0</u>
H ₂ S <u>No test</u>		Hydroxide <u>0</u>

cc: C.B. O'Nan
R.A. Ullrich
E.R. Paulek
J.W. McCarthy
A.M. Smith
W.B. Shropshire
D.C. Adams
File

Total Solids Dissolved 658
pH 7.1
Sp. Gr. 1.0013 At 60°F
Resistivity 1961 ohm-cm at 77°F

Joe Barnett
Chemist



CPS #1470u

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

Analysis No. 1-10097 Date 1-19-81

Operator El Paso Natural Gas Well Name Sunray E #1-A

Location SE 9-30-10 County San Juan State New Mexico

Field Kutz Formation Mesa Verde

Sampled From Separator

Date Sampled 12-11-80 By Noel Rogers

Tbg. Press. _____ Csg. _____ Surface Csg. Press. _____
ppm epm ppm epm

Sodium _____ Chloride _____

Calcium _____ Bicarbonate _____

Magnesium _____ Sulfate _____

Iron 150 5.4 Carbonate _____

H₂S _____ Hydroxide _____

cc: C.B. O'Nan Total Solids Dissolved _____

R.A. Ullrich

E.R. Paulek

J.W. McCarthy

A.M. Smith

W.B. Shropshire

D.C. Adams

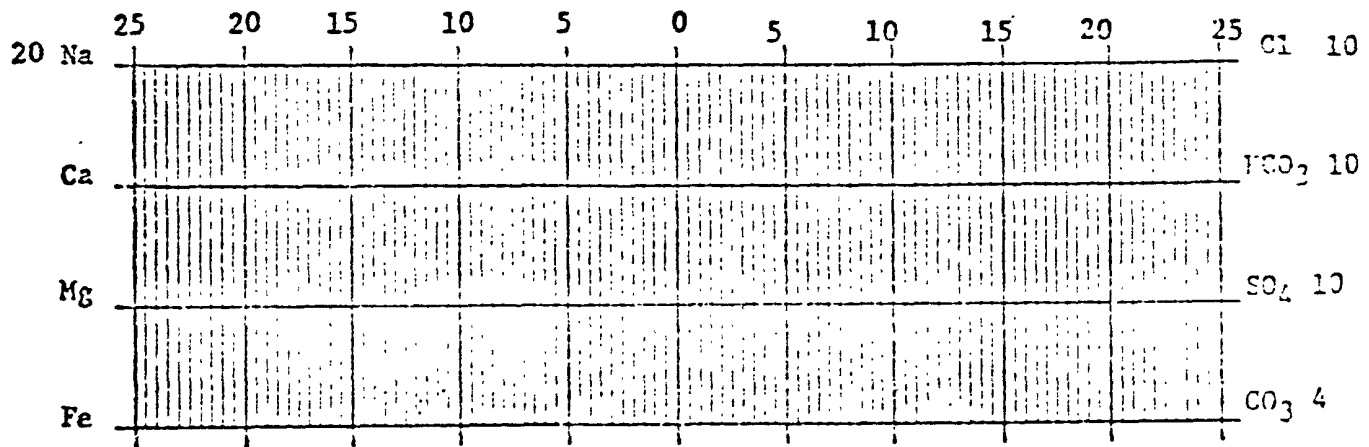
File

pH _____

Sp. Gr. _____ At _____ 60°F

Resistivity _____ ohm-cm at _____ °F

Dennie P. Bick
Chemist



Scale: ppm