

#1A 30-045-225276

#4 30-045-20781

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. 15 Twp 30 Rng 10

Name of Well/Wells or Pipeline Serviced SUNRAY A #1A, #4

cps 1263w

Elevation 6402 Completion Date 6/28/78 Total Depth 440' 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. 80'

Depths gas encountered: N/A

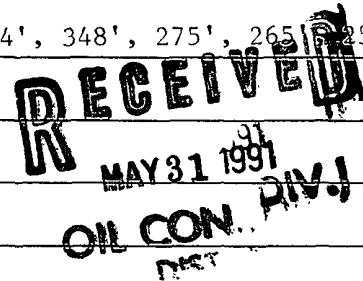
Type & amount of coke breeze used: N/A

Depths anodes placed: 402', 396', 390', 360', 354', 348', 275', 265', 255', 245'

Depths vent pipes placed: 402'

Vent pipe perforations: 320'

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). ☐ #4

Completion Date 6-28-78

Well Name SUNRAY A #1-A		Location SE 15-30-10		CPS No. 1263 W	
Type & Size Bit Used 6 3/4"				Work Order No. 57205-21	
Anode Hole Depth 440	Total Drilling Rig Time	Total Lbs. Coke Used	Lost Circulation Mat'l Used	No. Sacks Mud Used	
Anode Depth					
# 1 402	# 2 396	# 3 390	# 4 360	# 5 354	# 6 348
# 7 275	# 8 265	# 9 255	# 10 245		
Anode Output (Amps)					
# 1 2.7	# 2 3.2	# 3 3.1	# 4 1.9	# 5 2.1	# 6 2.0
# 7 3.1	# 8 3.4	# 9 2.7	# 10 2.9		
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		No. 2 C.P. Cable Used	
Volts 12.0	Amps 13.4	Ohms 0.90			

Remarks: Static 600's = 0.82. Installed 10-2"x4" Graphite Anodes
DRILLER SAID MAKING WATER @ 80', DRILLED TO 100' next A.M. WATER
STANDING @ 80'. 10 GALS PER MIN. Anodes #1 thru #6 set @ 6' spacing. Anodes
#7 thru #10 set @ 10' spacing. PERFORATED 320' O.S. 1" PVC vent pipe. Installed 402'
O.S. 1" PVC vent pipe.

HOV 16A Rectifier
Stub Pole

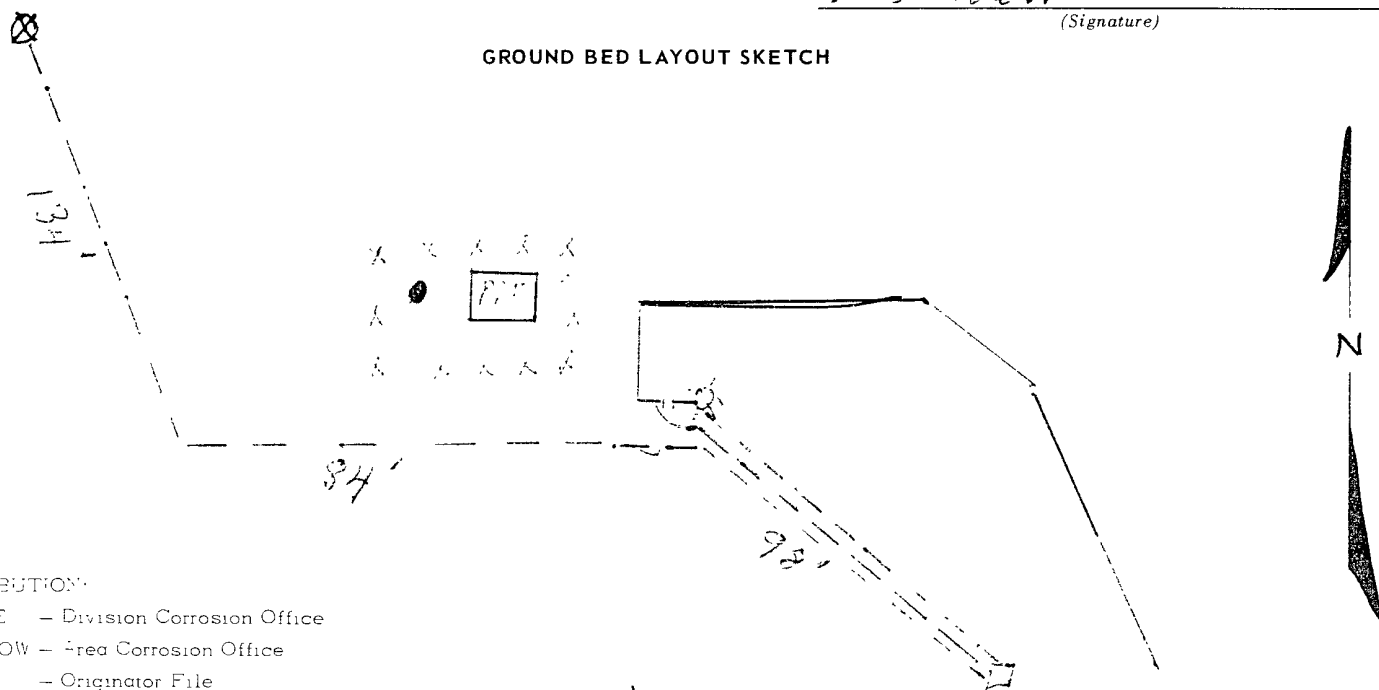
Ditch #1 Cable = 316
 Extra Cable = 196
 Hole Depth = -60

All Construction Completed

W I Lott

(Signature)

GROUND BED LAYOUT SKETCH



DISTRIBUTION:

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

6402

1263W
 LEASE _____ WELL NO. 1263W CONTRACTOR O'Brien RIG NO. 1 REPORT NO. 31 DATE 6-28 1978

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.	Time	Wt.	Vis.	Time	Wt.	Vis.	Time	Wt.	Vis.

FROM	TO	TIME BREAKDOWN	FROM	TO	TIME BREAKDOWN	FROM	TO	TIME BREAKDOWN
0	80	Sandstone 109pm	135	153	Sandstone			
80	90	Shale	153	158	Shale			
90	105	Sandstone	158	240	Sandstone			
105	120	Sandy Shale	240	280	Shale			
120	124	Sandstone	280	420	Shale - Sandy			
124	135	Shale	420	440	Sandstone			

REMARKS -			REMARKS -			REMARKS -		
						6:34 To 440		
						Logged To 440		
						Water 109pm @ 80		

SIGNED: Toolpusher

Tom O'Brien

Company Supervisor

759

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

Operator MERIDIAN OIL Location: Unit I Sec. 15 Twp 30 Rng 10
Name of Well/Wells or Pipeline Serviced SUNRAY A #4, #1A
cps 126
Elevation 6402' Completion Date 8/29/88 Total Depth 500' 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. 50'
Depths gas encountered: N/A
Type & amount of coke breeze used: N/A
Depths anodes placed: 430', 395', 385', 265', 255', 245', 235', 120', 110', 75'
Depths vent pipes placed: 500'
Vent pipe perforations: BOTTOM 460'
Remarks: gb #2

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

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

comp 9-1-88 *Presbitt*
25

Drilling Log (Attach Hereto) ☒Completion Date 8-29-88

CPS #	Well Name, Line or Plant	Work Order #	Static	Ins Union Check
63 1236 W	<i>Sunray A#4</i> " #1A	0 I	52399 A ✓ 48556 A ✓	☒ Good ☐ Bad
Location	Anode Size	Anode Type	Size Bit	
<i>IK-30-10</i>	<i>2" x 10"</i>	<i>Duriron</i>	<i>63/4</i>	
Depth Drilled	Depth Logged	Drilling Rig Time	Total Lbs. Coke Used	Lost Circulation Mat'l Used
<i>500'</i>	<i>500'</i>			
Anode Depth				
# 1 <i>430</i>	# 2 <i>395</i>	# 3 <i>385</i>	# 4 <i>265</i>	# 5 <i>255</i>
# 6 <i>245</i>	# 7 <i>235</i>	# 8 <i>120</i>	# 9 <i>110</i>	# 10 <i>75</i>
Anode Output (Amps)				
# 1 <i>3.3</i>	# 2 <i>2.7</i>	# 3 <i>2.2</i>	# 4 <i>3.3</i>	# 5 <i>2.8</i>
# 6 <i>3.0</i>	# 7 <i>2.5</i>	# 8 <i>3.3</i>	# 9 <i>3.3</i>	# 10 <i>1.7</i>
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 <i>12.32</i>	Amps <i>16.0</i>	Ohms <i>.77</i>	No. 2 C.P. Cable Used	

Remarks: *Water at 50'; water sample taken. Installed 500' of 1 PVC vent pipe, bottom 460' perforated*

GB 4074.00

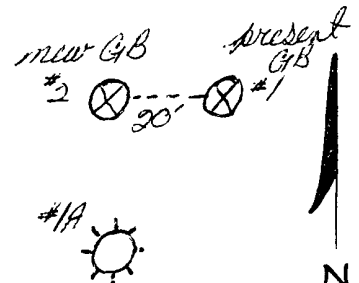
Rectifier Size: _____ V _____ A *2*
 Addn'l Depth: *0*
 Depth Credit: *0*
 Extra Cable: *10' @ .24* *2.40 ✓*
 Ditch & 1 Cable: *20' @ .70* *14.00 ✓*
 25' Meter Pole: *0*
 20' Meter Pole: *0*
 10' Stub Pole: *0*

GROUND BED LAYOUT SKETCH

1 junction box *225.00 -*
4315.40
tax 215.77
4531.17 orig

All Construction Completed

Cahn Radman
(Signature)



☐ rect

6462

CPS # 13366

D. CRASS DRILLING CO.Drill No. 3

DRILLER'S WELL LOG

S P. No. SUNRAY A #1A Date 8-29-88Client Meridian Oil Co. Prospect _____County SAN JUAN State New Mex.If hole is a redrill or if moved from original staked position show distance
and direction moved: _____

FROM	TO	FORMATION — COLOR — HARDNESS
0	40	SANDstone
40	80	SAND
80	95	Shale'
95	110	SANDstone
110	130	SANDy Shale
130	235	SANDstone
235	270	Shale'
270	335	SANDstone
335	350	Shale'
350	380	SANDstone
380	400	Shale'
400	465	SANDstone
465	500	Shale'

Mud _____ Bran _____ Lime _____

Rock Bit Number _____ Make _____

Remarks: Water @ 50'Driller Ronnie Brown

SUNRAY A #1-A SE15-30-10 1263W 57205-21

Static 600'S = 0.82

HOU 16A Rectifier

Stub Pole

Ditch #1 Cable =

EXTRA CABLE =

Hole Depth = ~ 60

10-2"X48" GRAPHITE ANODES

DRILLER SAID MAKING WATER @ 80' DRILLED
TO 100' NEXT A.M. WATER STANDING @ 80'

10 GALS PER MIN

PERFORATED 320' O.S.I. PVC VENT PIPE

INSTALLED 402' O.S.I. PVC VENT PIPE

ANODES #1 THROUGH 6 SPACED @ 6' INSTEAD OF 10'

ANODES #7 THROUGH 10 SPACED 10'. ~~HOLE WAS CLOSING~~
WHILE INSTALLING #1 ANODE.

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

80	.5	40	.7	10	.9
10	1.0		1.3		.8
90	.9	50	1.3	20	.3
10	.6		1.3		.7
100	.5	60	1.3	30	.6
4	.3		1.6		.7
10	.4	70	1.7	40	1.2 DRILLED
10	.6		1.4		
20	.7	80	.7		
10	1.1		.3		
30	1.0	90	.4		
10	.7		.4		
40	.3	300	.5		
10	.3		.6		
50	.3	10	.8		
	.7		.7		
60	.7	20	.8		
	.3		.6		
70	.3	30	.6		
	.3		.5		
80	.3	40	.7		
	.4		1.2		
90	.4	50	1.2		
	.4		1.3		
200	.3	60	1.1		
	.3		.7		
10	.3	40	.6		
	.3		.5		
20	.2	80	.7		
	.2		.8		
30	.3	90	1.6		
	.5		1.6		
		400	1.6		
			1.3		

①	402	1.5	2.7
②	396	1.7	3.2
③	390	1.7	3.1
④	360	1.3	1.9
⑤	354	1.3	2.1
⑥	348	1.3	2.0
⑦	275	1.5	3.1
⑧	265	1.8	3.4
⑨	255	1.5	2.7
⑩	245	1.5	2.9

VOLTS = 12.0

AMPS = 13.4

OHMS = 0.90

SAN JUAN DIVISION LABORATORY

ANALYSIS NO. 1-9230

DATE COMPLETED 7-6-78

WELL NAME	LOCATION S T R	DATE SECURED	GAL./ DAY	PPM T.D.S.	pH	PPM CHLORIDES	PF SULF
Jones A #1A MV	10-28-8	6-20	24	7452	7.0	4320	7840
Jones A #1A PC	10-28-8	6-20	1	39	6.8	13	1000
Lughes #4A	20-29-8	6-20	54	6858	7.2	4830	1280
Day A #5A	18-29-8	6-20	38	7632	7.1	6320	2500
Day #1A	17-29-8	6-20	80	6670	7.4	6390	500
Day A #1A	17-29-8	6-20	106	7527	7.4	7170	1000
Day #3A	18-29-8	6-20	42	6913	6.7	7170	1000
Day A #2A	7-29-8	6-20	96	5887	7.6	6320	64
1 Paso #1A	20-29-9	6-17	8	9493	6.8	6745	7080
Lansfield #2A 1241-V ✓	19-30-9	6-19		1019	7.3	24	1520
Wigley #1A 1275W	6-30-9	6-19		430	7.1	20	600
Lorance #2A 1220W ✓	21-30-9	6-19		1373	7.3	16	2520
San Juan #11A 1252W ✓	11-30-10	6-19		636	6.4	24	800
San Ray A #1A 1263W	15-30-10	6-19		210	6.2	8	600
Atlantic D Com #5A 1209W ✓	12-30-10	6-19		1493	6.6	16	3000
Bernaghan #4A 1237W	30-31-8	6-19		432	7.3	12	600
Bernaghan #2A 1235W	28-31-8	6-19		190	7.2	16	680
Bernaghan #1A 1234W	33-31-8	6-19		571	6.9	32	800
Saker 1A 1271W	31-31-9	6-19		1064	7.0	32	3520
Atlantic A #8A 1199W ✓	29-31-10	6-19		2637	7.1	152	5560
Atlantic "C" 4A 1200W ✓	31-31-10	6-19		6720	7.7	504	9800
Cott #4A 1258W	17-31-10	6-19		4506	7.0	186	7760
Brookhaven Com A-1 1212W ✓	16-31-10	6-19		3979	6.7	270	6920