

629

422-30-029-25018

E.

DATA SHEET FOR DEEP GROUND BED CATHODIC PROTECTION WELLS
NORTHWESTERN NEW MEXICO

22536

Operator MERIDIAN Location: Unit K Sec. 10 Twp 27 Rng 6Name of Well/Wells or Pipeline Serviced S. J. 28-6 #422Elevation Completion Date 9-4-91 Total Depth 358 Land Type FCasing Strings, Sizes, Types & Depths 8" PVC SURFACE CASING100' DEEPIf Casing Strings are cemented, show amounts & types used Yes with22 SACKS NEAT CEMENT

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

NODepths & thickness of water zones with description of water: Fresh, Clear,
Salty, Sulphur, Etc. 120' FRESHDepths gas encountered: NOGround bed depth with type & amount of coke breeze used: 358' with98 BAGS Asbury 4518 Flo CokeDepths anodes placed: 340, 255, 245, 235, 225, 215, 205, 195, 185, 175, 165, 155,Depths vent pipes placed: 358Vent pipe perforations: bottom 240'Remarks:

RECEIVED

FEB 24 1992

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.

CPS GROUND BED CONSTRUCTION WORKSHEET

CPS# 2253w	P/L NAME (S), NUMBER (S) S. J 28-6 # 422					
*M589	TOTAL	VOLTS 12.2	AMPS 24.1	- OHMS .51	DATE 9-4-91	NAME MRW
REMARKS (notes for construction log) 100' 8" CASING 22 SACKS CEMENT						
K10-27-6 WATER 120' CAUGHT SAMPLE						
98 bags Asbury 4518 perforated bottom						
Drilled 360 TO 358 240						

DEPTH	LOG ANODE	ANODE #	DEPTH	LOG ANODE	ANODE #	DEPTH	LOG ANODE	ANODE #	DEPTH	LOG ANODE	ANODE #	
100	.9		295	1.1		490			685			
105	.9		300	1.7		495			690			
110	.9		305	1.5		500			695			
115	.9		310	1.2		505			700			
120	2.3		315	1.1		510			ANODE	DEPTH	NO	FULLY
125	2.1		320	1.1		515			*		COKE	COK'D
130	1.9		325	1.3		520			1	340	2.2	3.0
135	1.8		330	1.2		525			2	255	3.3	5.9
140	2.0		335	1.9		530			3	245	2.9	5.3
145	2.7		340	2.3		535			4	235	2.5	5.4
150	2.8		345	1.5		540			5	225	2.6	5.1
155	2.9		350	.9		545			6	215	2.9	5.3
160	3.1		355	.9		550			7	205	2.5	4.6
165	3.4		360	TD		555			8	195	2.8	4.9
170	2.9		365			560			9	185	2.9	5.3
175	2.8		370			565			10	175	2.8	5.5
180	2.7		375			570			11	165	3.4	6.3
185	2.8		380			575			12	155	2.9	5.3
190	2.5		385			580			13	145	2.6	4.5
195	2.8		390			585			14			
200	2.7		395			590			15			
205	2.5		400			595			16			
210	2.8		405			600			17			
215	2.9		410			605			18			
220	2.6		415			610			19			
225	2.6		420			615			20			
230	2.6		425			620			21			
235	2.5		430			625			22			
240	2.5		435			630			23			
245	2.9		440			635			24			
250	2.8		445			640			25			
255	3.2		450			645			26			
260	2.3		455			650			27			
265	1.8		460			655			28			
270	.9		465			660			29			
275	.9		470			665			30			
280	1.0		475			670						
285	1.2		480			675						
290	1.0		485			680						

DISTRIBUTION - original - permanent CPS FILE

copy - Division Corrosion Supervisor

copy - Region Corrosion Specialist

API WATER ANALYSIS REPORT FORM

2253W

Laboratory No. 25910916-2C

Company <i>MERIDIAN OIL</i>		Sample No.		Date Sampled <i>9-4-91</i>	
Field		Legal Description <i>K10-27-4</i>		County or Parish <i>RIO ARriba</i>	
State <i>N.M.</i>		Lease or Unit <i>SJ 28-6 # 422</i>		Depth	
Formation <i>FC</i>		Water, B/D		Type of Water (Produced, Supply, etc.)	
Sampling Point <i>GROUND BED 120'</i>		Sampled By <i>MRW</i>			

DISSOLVED SOLIDS

CATIONS

	mg/l	me/l
Sodium, Na (calc.)	<i>350</i>	<i>15</i>
Calcium, Ca	<i>24</i>	<i>1.2</i>
Magnesium, Mg	<i>2.4</i>	<i>0.2</i>
Barium, Ba		

OTHER PROPERTIES

pH

Specific Gravity, 60/60 F.

Resistivity (ohm-meters) *600* F.

Total Dissolved Solids (calc.)

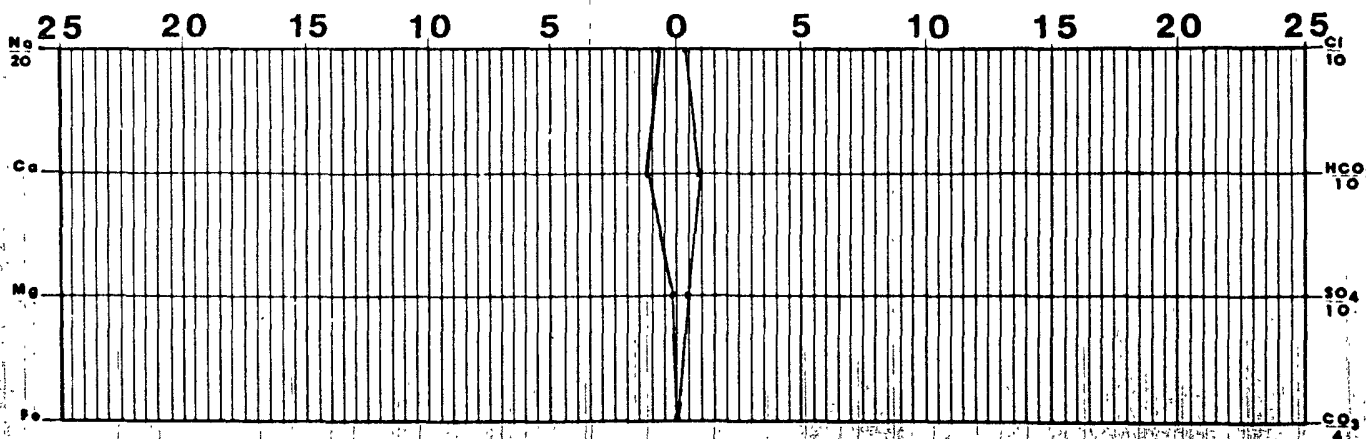
ANIONS

Chloride, Cl	<i>110</i>	<i>3.0</i>
Sulfate, SO_4	<i>210</i>	<i>4.3</i>
Carbonate, CO_3	<i>0</i>	<i>0</i>
Bicarbonate, HCO_3	<i>570</i>	<i>9.4</i>

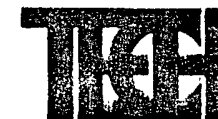
Iron, Fe (total)

Sulfide, as H_2S

REMARKS & RECOMMENDATIONS:



Date Received <i>9/16/91</i>	Preserved <i>No</i>	Date Analyzed <i>9/16-17/91</i>	Analyzed By <i>ES</i>
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TECH, Inc.
333 East Main
Farmington
New Mexico
87401
505/327-3311

DATA SHEET FOR DEEP GROUND BED CATHODIC PROTECTION WELLS
NORTHWESTERN NEW MEXICO

22530

Operator MEDIDIAN Location: Unit K Sec. 10 Twp 27 Rng 6

Name of Well/Wells or Pipeline Serviced S. J. 28-6 #422

Elevation _____ Completion Date 9-4-91 Total Depth 358 Land Type F

Casing Strings, Sizes, Types & Depths 8" PVC SURFACE CASING
100' DEEP

If Casing Strings are cemented, show amounts & types used yes with
22 SACKS NEAT CEMENT

If Cement or Bentonite Plugs have been placed, show depths & amounts used
NO

Depths & thickness of water zones with description of water: Fresh, Clear,
Salty, Sulphur, Etc. 120' FRESH

Depths gas encountered: NO

Ground bed depth with type & amount of coke breeze used: 358' with
98 BAGS Asbury 4518 Flo COKE

Depths anodes placed: 340, 255, 245, 235, 225, 215, 205, 195, 185, 175, 165, 155, 1

Depths vent pipes placed: 358

Vent pipe perforations: bottom 240'

Remarks: _____

RECEIVED

FEB 24 1992

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.

CPS GROUND BED CONSTRUCTION WORKSHEET

CPS# 2253w		P/L NAME(s), NUMBER(s) S. J 28-6 # 422					
*M589	TOTAL	VOLTS 12.2	AMPS 24.1	- OHMS .51	DATE 9-4-91	NAME MRW	
REMARKS (notes for construction log) 100' 8" CASING 22 SACKS CEMENT							
K10-27-6 WATER 120' CAUGHT SAMPLE							
98 bags Asbury 4518 perforated bottom							
Drilled 360 TO 358 240							

DEPTH	LOG ANODE	ANODE #	DEPTH	LOG ANODE	ANODE #	DEPTH	LOG ANODE	ANODE #	DEPTH	LOG ANODE	ANODE #	
100	.9		295	1.1		490			685			
105	.9		300	1.7		495			690			
110	.9		305	1.5		500			695			
115	.9		310	1.2		505			700			
120	2.3		315	1.1		510			ANODE	DEPTH	NO	FULLY
125	2.1		320	1.1		515			*		COKE	COK'D
130	1.9		325	1.3		520			1	340	2.2	3.0
135	1.8		330	1.2		525			2	255	3.3	5.9
140	2.0		335	1.9		530			3	245	2.9	5.3
145	2.7		340	2.3		535			4	235	2.5	5.4
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170	2.9		365			560			9	185	2.9	5.3
175	2.8		370			565			10	175	2.8	5.5
180	2.7		375			570			11	165	3.4	6.3
185	2.8		380			575			12	155	2.9	5.3
190	2.5		385			580			13	145	2.6	4.5
195	2.8		390			585			14			
200	2.7		395			590			15			
205	2.5		400			595			16			
210	2.8		405			600			17			
215	2.9		410			605			18			
220	2.6		415			610			19			
225	2.6		420			615			20			
230	2.6		425			620			21			
235	2.5		430			625			22			
240	2.5		435			630			23			
245	2.9		440			635			24			
250	2.8		445			640			25			
255	3.2		450			645			26			
260	2.3		455			650			27			
265	1.8		460			655			28			
270	.9		465			660			29			
275	.9		470			665			30			
280	1.0		475			670						
285	1.2		480			675						
290	1.0		485			680						

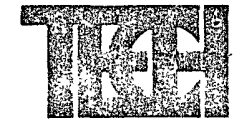
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API WATER ANALYSIS REPORT FORM

2253 W



TECH, Inc.
333 East Main
Farmington
New Mexico
87401
505/327-3311

Laboratory No. <u>25910916-2C</u>		Sample No.		Date Sampled <u>9-4-91</u>	
Company <u>MERIDIAN OIL</u>		Legal Description <u>K10-27-6</u>		County or Parish <u>RIO ARKIBA</u> State <u>N.M.</u>	
Lease or Unit		Well <u>ST28-6 #422</u>	Depth	Formation <u>FC</u>	Water, B/D
Type of Water (Produced, Supply, etc.)			Sampling Point <u>GROUND BED 120'</u>		Sampled By <u>MRW</u>

DISSOLVED SOLIDS

CATIONS	mg/l	me/l
Sodium, Na (calc)	<u>350</u>	<u>15</u>
Calcium, Ca	<u>24</u>	<u>1.2</u>
Magnesium, Mg	<u>2.4</u>	<u>0.2</u>
Barium, Ba		

OTHER PROPERTIES

pH	<u>7.8</u>
Specific Gravity, 60/60 F.	<u>1.0021</u>
Resistivity (ohm-meters) <u>60</u> F.	<u>9.30</u>

Total Dissolved Solids (calc.)

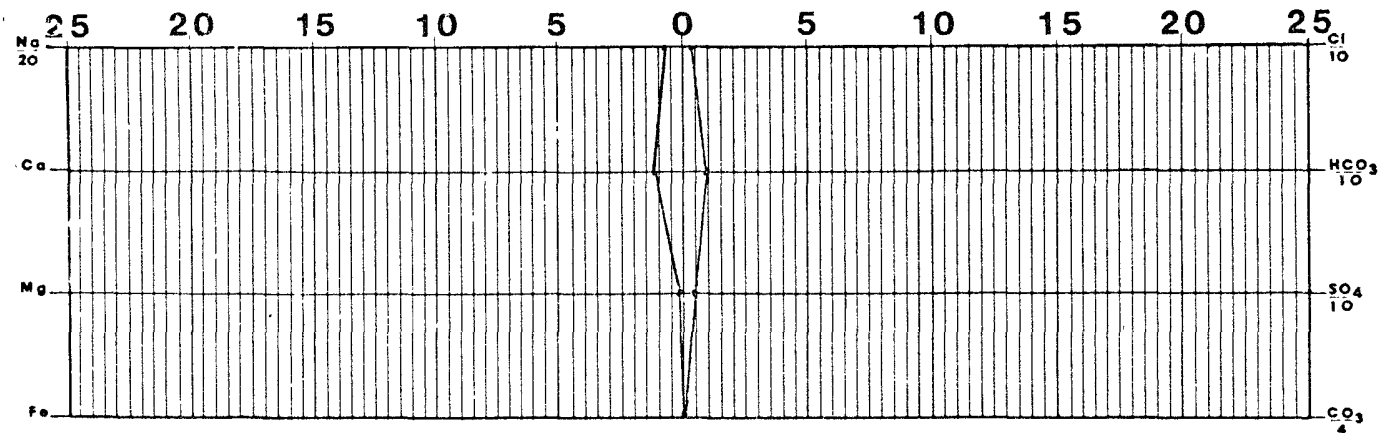
1300

ANIONS

Chloride, Cl	<u>110</u>	<u>3.0</u>
Sulfate, SO_4	<u>210</u>	<u>4.3</u>
Carbonate, CO_3	<u>0</u>	<u>0</u>
Bicarbonate, HCO_3	<u>570</u>	<u>9.4</u>

Iron, Fe (total)	
Sulfide, as H_2S	

REMARKS & RECOMMENDATIONS:



Date Received <u>9/16/91</u>	Preserved <u>No</u>	Date Analyzed <u>9/16-17/91</u>	Analyzed By <u>ES</u>
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1052

E

117- 30-029-20221

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. 22 Twp 27 Rng 5

Name of Well/Wells or Pipeline Serviced SAN JUAN 27-5 UNIT #117

cps 1712w

Elevation 6593' Completion Date 9/23/83 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. 120' SAMPLE TAKEN

Depths gas encountered: N/A

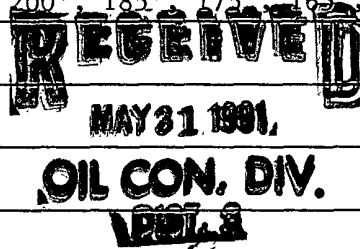
Type & amount of coke breeze used: 4500 lbs.

Depths anodes placed: 360', 310', 225', 215', 200', 185', 175', 165', 155', 145'

Depths vent pipes placed: 380'

Vent pipe perforations: 280'

Remarks: gb #1



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

CATHODIC PROTECTION CONSTRUCTION REPORT
DAILY LOGDrilling Log (Attach Hereto): ☒Completion Date 9-23-83

CPS #	Well Name, Line or Plant:	Work Order #	Static:	Ins. Union Check
1712W	SAN JUAN 27-5 # 117	NE 22-27-5 54697-19-50-20-64	600' NE-75	☒ Good ☐ Bad
Location	Anode Size	Anode Type	Size Bit	
NE 22-27-5	2" x 60"	Duriron	4 3/4" mill bath	
Depth Drilled	Depth Logged	Drilling Rig Time	Total Lbs. Goke Used	Lost Circulation Mat'l Used
380'	380'		4500	
Anode Depth				
# 1 360	# 2 310	# 3 225	# 4 215	# 5 200
# 6 185	# 7 175	# 8 165	# 9 155	# 10 145
Anode Output (Amps)				
# 1 3.2	# 2 2.3	# 3 3.5	# 4 4.6	# 5 5.1
# 6 3.5	# 7 4.5	# 8 3.0	# 9 2.9	# 10 2.8
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				
Volts 11.3	Amps 14.4	Ohms .78	No. 8 C.P. Cable Used	No. 2 C.P. Cable Used

Remarks: Driller said water at 120' Drilled to 240' caught water sample next AM. Drilled to 380' & logged 380'. Installed 380' of vent pipe with 280' perforated. Slurried approx 45 sacks of coke.

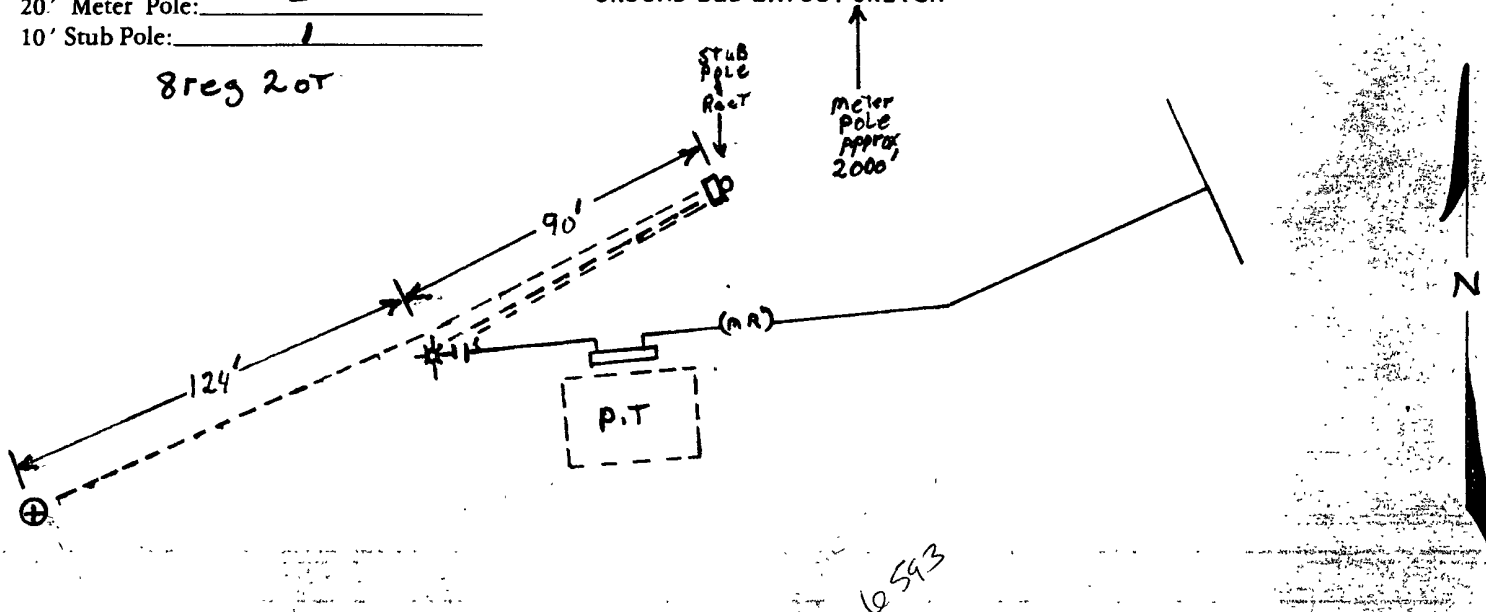
Rectifier Size: 40 V 16 A
 Addn'l Depth: _____
 Depth Credit: _____
 Extra Cable: 210 ✓
 Ditch & 1 Cable: 214' ✓
 25' Meter Pole: 1
 20' Meter Pole: _____
 10' Stub Pole: 1

8 reg 20'

All Construction Completed:

Robert J. Balnick
 (Signature)

GROUND BED LAYOUT SKETCH



6543

CPS 1712 W N22-27-5
 SAND 27-5
 ST C/S 600 NE 73 790 MH +
 117-5497-19-50-20-64

Page 1
 Date 9-23-83
 BY RJB

U = OK

Driller said water at 120" Drilled 240'
 caught water sample next am. Drilled
 380' Logged 380' 380' vent 280' ref
 45 sacks coke

230	1.15	350	1.82	1
40	1.18	70	1.68	
50	.88	80	1.57	

28	1.00			
26				
24	1.0	1.73	2.53	
22	2.0	1.81		
20	3.0	2.81	2.80	
18	4.0	1.79		
16	5.0	1.59		
14	6.0	1.47		
12	7.0	1.43		
10	8.0	1.43		
8	9.0	1.40		
6	10.0	1.28		
4	11.0	1.25		
2	12.0	1.20		
1	13.0	1.15		

- ① 360 - 1.79 - 3.2
- ② 310 - 1.25 - 2.3
- ③ 225 - 2.15 - 3.5
- ④ 215 - 2.76 - 4.1
- ⑤ 208 - 2.80 - 5.1
- ⑥ 185 - 2.80 - 3.5
- ⑦ 175 - 2.29 - 4.5
- ⑧ 165 - 1.21 - 3.0
- ⑨ 155 - 1.29 - 2.9
- ⑩ 145 - 1.29 - 2.8

$$11.3 \text{ V } 14.4 = .78 \text{ ohms}$$

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

Analysis No. 1-10868 Date September 30, 1983

Operator El Paso Natural Gas Well Name San Juan 27-5 #117 CPS 1712W

Location NE 22-27-5 County Rio Arriba State New Mexico

Field Blanco Formation

Sampled From 120 feet CPS 1712W

Date Sampled September 23, 1983 By Robert J. Babnick

Tbg. Press. Gasg. Surface Csg. Press.

Sodium 661 ppm Chloride 20 ppm

Calcium 16 Bicarbonate 415

Magnesium 2 Sulfate 1,050

Iron Carbonate 14

H₂S Hydroxide 0

cc: R. A. Ulrich Total Solids Dissolved 1.746

E. R. Paulek pH 8.1

J. W. McCarthy Sp. Gr. 0.9614 At 60°F

W. B. Shropshire Resistivity 308 ohm-cm at 74°F

D. C. Adams File

Joe P. Barnett Chemist GCK

