

1457

#3 30-045-1006^F

#351 30-045-27649

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

Operator MERIDIAN OIL INC. Location: Unit P Sec. 34 Twp 31 Rng 8

Name of Well/Wells or Pipeline Serviced HALE #3, #351

cps 2170W

Elevation 6227' Completion Date 11/30/90 Total Depth 490' Land Type* P

Casing, Sizes, Types & Depths 20' OF 8" PVC CASING,

If Casing is cemented, show amounts & types used 5 EACH 90 LB BAGS OF

SACKRETE.

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. 70'

Depths gas encountered: N/A

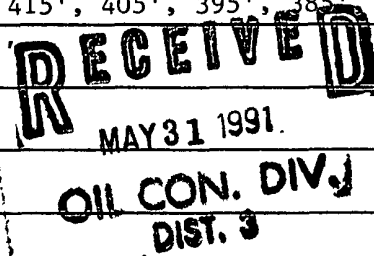
Type & amount of coke breeze used: 3900 lbs.

Depths anodes placed: 455', 445', 435', 425', 415', 405', 395', 385', 340', 330'

Depths vent pipes placed: 550'

Vent pipe perforations: 430'

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
CATHOLIC PROTECTION CONSTRUCTION REPORT
DAILY LOG

Exhibit A

Drilling Log (Attach Hereto) ☐Completion Date 11-30-90

CPS # <u>21700</u> <u>42950</u>	Well Name, Line or Plant: <u>Hale #351</u>	Work Order #	Static:	Ins. Union Check ☒ Good ☐ Bad																																																																																																				
Location: <u>R34-31-8</u>	Anode Size: <u>2" x 60"</u>	Anode Type: <u>ANOTEC</u>	Size Bit: <u>6 3/4</u>																																																																																																					
Depth Drilled <u>500'</u>	Depth Logged <u>490'</u>	Drilling Rig Time	Total Lbs. Cable Used <u>3900</u>	Less Circulation Mat'l Used																																																																																																				
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Remarks: SET 20' of 8" PVC CASING. DRILLER SAID WET AT 70', DRILLED
TO 80' NEXT AM WATER STANDING APPROXIMATELY 60'. GOT WATER
SAMPLE. RAN 500' of 1" PVC VENT PIPE. PERFORATED 430' of VENT
PIPE. LEFT COKE BREEZE APPROXIMATELY 300'.

Rectifier Size: V A
 Addn'l Depth
 Depth Credit:
 Extra Cable: 10'
 Ditch & 1 Cable: 20'
 25' Meter Pole:
 20' Meter Pole:
 10' Stub Pole:
 Junction Box: 1

All Construction Completed

GROUND BED LAYOUT SKETCH

G.B. #1

0

Hale #351



334

600

MO-TE DRILLING, INC.

DAY Friday

DRILLER <u>John Doe</u>	LEFT TOWN	ARRIVED FIELD
HELPER <u>John Doe</u>	LEFT FIELD	ARRIVED TOWN
HELPER	TOTAL FOOTAGE TODAY	

RIG NO. 601 DATE 7-30-70 CLIENT Mexican

BEGIN WORK ON HOLE NO. 4-6-35 AT FEET

BEGIN WORK ON HOLE NO. AT FEET

TIME		ACTIVITY
FROM	TO	
0	10	Sand & clay
10	50	Sandstone
50	70	Shale
70	140	Brown grey sandstone (water @ 70')
140	190	Grey shale
190	225	Brown sandstone
225	250	Grey shale
250	325	Grey sandstone
325	385	Grey shale
385	455	Grey sandstone
455	500	Red & grey hard shale
500		Hard grey sandstone

RECORD			
SIZE & MAKE	SERIAL NO.	FOOTAGE	
CIRCULATION MATERIAL			
QUAN.	UNIT	MATERIAL	

NO. OF LOADS OF WATER 1 SOURCE Bottom Pump

Meridian 011

CPS #:

WELL NAME: Hale #351

LOCATION: K34-31-8 DATE: 11-30-90

TOTAL VOLTS: 13.8

TOTAL AMPS: 16.0

OHMS RESISTANCE:

8.6

DEEP	LOG ANODE	ANODE NO.	DEEP	LOG ANODE	ANODE NO.	DEEP	LOG ANODE	ANODE NO.	DEEP	LOG ANODE	ANODE NO.	ANODE READINGS			
												NO.	DEPTH	NO COKE	WITH COKE
5			185	1.3		365	1.60		545			1	455	1.4	4.4
10			190	1.50		370	1.80		550			2	445	2.1	4.4
15			195	1.30		375	1.80		555			3	435	2.3	4.5
20			200	1.20		380	1.90		560			4	425	2.2	4.6
25			205	1.30		385	1.8	8	565			5	415	1.9	4.8
30			210	1.30		390	1.8		570			6	405	2.5	5.2
35			215	1.30		395	2.1	7	575			7	395	2.2	4.6
40			220	1.40		400	2.0		580			8	385	1.8	4.6
45			225	1.4		405	2.1	6	585			9	340	1.4	3.5
50			230	1.9		410	2.3		590			10	330	1.7	3.6
55			235	2.0		415	2.0	5	595						
60			240	1.8		420	1.8		600						
65			245	1.7		425	2.1	4	605						
70	1.0		250	1.7		430	2.2		610						
75	1.0		255	1.5		435	2.0	3	615						
80	1.20		260	1.7		440	2.4		620						
85	1.40		265	1.5		445	2.6	2	625						
90	1.60		270	1.6		450	2.0		630						
95	1.40		275	1.1		455	1.3	1	635						
100	1.20		280	1.6		460	1.6		640						
105	1.20		285	1.50		465	1.7		645						
110	1.20		290	1.40		470	1.70		650						
115	1.40		295	1.40		475	1.90		655						
120	1.20		300	1.30		480	1.90		660						
125	1.20		305	1.40		485	1.1		665						
130	1.20		310	1.40		490	1.90	TD	670						
135	1.80		315	1.50		495			675						
140	1.0		320	1.50		500			680						
145	1.60		325	1.40		505			685						
150	1.80		330	1.6	80	510			690						
155	1.80		335	1.6		515			695						
160	1.7		340	1.8	9	520			700						
165	1.2		345	1.0		525			705						
170	1.9		350	1.50		530			710						
175	1.6		355	1.70		535			715						
180	1.9		360	1.60		540			720						

REMARKS: Set 20' of 8" PVC casing. Driller said not
70'. Drilled to 80' Next A.M. water stand approx.
60'. Got water sample

39 Sarker coke

API WATER ANALYSIS REPORT FORM

EXHIBIT E

Laboratory No. 25-901203-1A

Company MERIDIAN OIL INC.		Sample No. 1		Date Sampled 11-30-90	
Field CEDAR HILL		Legal Description K34-31-8		County or Parish SAN JUAN	
Lease or Unit		Well HALE #351		Depth 70'	
Type of Water (Produced, Supply, etc.)		Sampling Point		Water, B/D	
				Sampled By W. KNIGHT JR.	

DISSOLVED SOLIDS

CATIONS

	mg/l	me/l
Sodium, Na (calc.)	32.7	1.42
Calcium, Ca	462	23.05
Magnesium, Mg	5.47	0.45
Barium, Ba	-	-

OTHER PROPERTIES

pH	12.05
Specific Gravity, 60/60 F.	1.0015
Resistivity (ohm-meters) 61 F.	3.8

Total Dissolved Solids (calc.)

1637

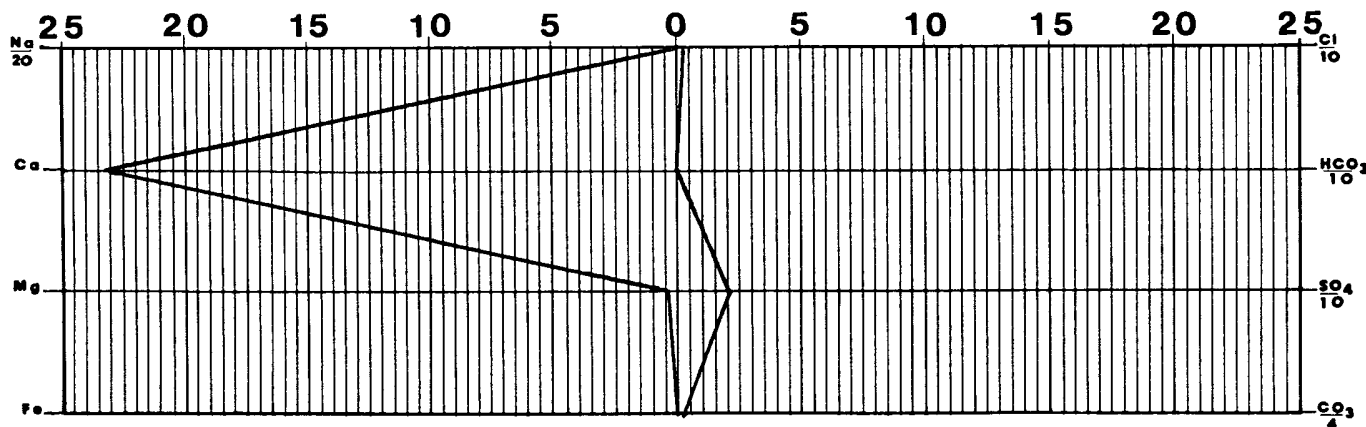
ANIONS

Chloride, Cl	121	3.42
Sulfate, So ₄	986	20.5
Carbonate, CO ₃	30	1
Bicarbonate, HCO ₃	-	-

Iron, Fe (total)	-
Sulfide, as H ₂ S	-

REMARKS & RECOMMENDATIONS:

ATTN: WARD ARNOLD



Date Received 3rd Dec, 1990.	Preserved	Date Analyzed 4th Dec, 1990.	Analyzed By R. H.
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New Mexico
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