

Howell C #4A 30-045-21964
C #6 30-045-21223

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

Operator MERIDIAN OIL Location: Unit NW Sec. 18 Twp 30 Rng 8

Name of Well/Wells or Pipeline Serviced HOWELL C #4A, #6, BAKER (ORRI) #1-12

cps 1378w

Elevation 6328' Completion Date 10/1/79 Total Depth 410' 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. 90' SAMPLE TAKEN

Depths gas encountered: N/A

Type & amount of coke breeze used: 4500 lbs.

Depths anodes placed: 375', 325', 315', 305', 295', 285', 275', 265', 255', 245'

Depths vent pipes placed: 400'

Vent pipe perforations: 320'

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

CONTRACT 2

Drilling Log (Attach Hereto). ☐

Baker (Carr) #1-12
(Tennessee)

Completion Date 10-1-79

Well Name Howell c #4A & #6		Location NW 18-30-8		CPS No. 1378 W	
Type & Size Bit Used 6 3/4"		2" X 60" DUBIRON		Work Order No. 57297.21 + 57379.21	
Anode Hole Depth 410 - 410 TD	Total Drilling Rig Time	Total Lbs. Coke Used 4500	Lost Circulation Mat'l Used	No. Sacks Mud Used	
Anode Depth	# 1	# 2	# 3	# 4	# 5
	375	325	315	305	295
Anode Output (Amps)	# 6	# 7	# 8	# 9	# 10
	2.0	2.0	2.2	2.0	3.0
Anode Depth	# 11	# 12	# 13	# 14	# 15
Anode Output (Amps)	# 16	# 17	# 18	# 19	# 20
Total Circuit Resistance	No. 8 C.P. Cable Used		No. 2 C.P. Cable Used		
Volts 12.0	Amps 10.2	Ohms 1.2			

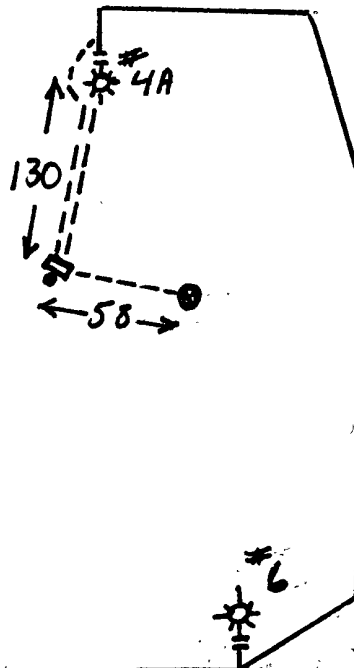
Remarks: ST % #4A = .78 #6 = NONE (67B) Water at 90 FT
Approx. 3 GPM. Drilled 410' Logged 410' INSTALLED
400 FT OF vent pipe with 320 FT OF PERFORATIONS
SLURRIED 45 SACKS OF COKE.

Hole depth = -90
meter pole
40V 16A Rect
Ditch + cable = 188
EXTRA cable = 155

All Construction Completed

Robert J. Baker
(Signature)

GROUND BED LAYOUT SKETCH



DISTRIBUTION:

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

u328

CRS# 1378W

Contract #2

LEASE

WELL NO.

CONTRACTOR

RIG NO.

REPORT NO.

DATE

1979

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.	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.
0	90		261	265		360	370										
90	92		265	268		370	379										
92	150		268	272		379	410										
150	157		272	290													

FROM	TO	TIME BREAKDOWN	FROM	TO	TIME BREAKDOWN	FROM	TO	TIME BREAKDOWN
157	190	Sandstone	290	292	Sandstone			
190	210	Shale	292	295	Shale			
210	230	Sandstone	295	298	Sandstone			
230	234	Shale	298	317	Shale			
234	259	Sandstone	317	355	Sandstone			
259	261	Shale	355	360	Shale			

REMARKS -	REMARKS -	REMARKS -
	Drilled To 410 ft w/ 6 3/4	
	Logged To 410 ft	
	Water @ 90 ft	
	estimate 39 pm	

SIGNED: Toolpusher

Tom O'Brian

Company Supervisor

Robert J. Balmick EPNG

El Paso Natural Gas Company
ENGINEERING CALCULATION

Sheet: 1 of 1
Date: 10-1-79
By: RYB
File: 1378W

1378W NW18-30-8

Howell C #4A

57297.21

ST % S = .78 UNION = OK

10-1-79 = 11 hr:

Howell C #6

55379.21

ST % S = .78 UNION = OK

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

130
58

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

100	.5	325	1.3 - 2	WATER AT 90 FT APPROX 36 PM DRILLED 410 LOG 410 INST. 400 FT VENT pipe 320 FT PORT SLURRIED 45 SACKS OF FLOKE
5	.5	30	1.0	
10	.5	5	.8	
5	.4	40	.7	
20	.3	5	.5	
5	.3	50	.4	
30	.5	5	.9	
5	.5	60	.8	
40	.4	5	.4	
5	.5	70	.8	
50	.5	5	1.3 - 1	Hole depth = - 90 meter pole 400 IBA ROCT Ditch + cable = 188 extra cable = 185
5	.4	80	.8	
60	.4	5	.7	
5	.5	90	.6	
70	1.3	5	.7	
5	2.0	400	.5	
80	1.5	5	.7	
5	1.4 -	10		
90	.5	5		
5	.4	20		
200	.5			① 375 - 1.3 - 2.0 ② 325 - 1.3 - 2.0 ③ 315 - 1.4 - 2.2 ④ 305 - 1.4 - 2.0 ⑤ 295 - 2.0 - 3.0 ⑥ 285 - 2.0 - 2.9 ⑦ 275 - 2.0 - 2.9 ⑧ 265 - 1.8 - 2.4 ⑨ 255 - 2.3 - 3.3 ⑩ 245 - 1.3 - 2.2
5	.7			
10	1.1			
5	.7			
20	.7			
5	.7			
30	.8			
5	1.0			
90	1.1			
5	1.1 - 10			
50	1.1			12.0V 10.2A = 1.2 ohms
5	1.6 - 9			
60	2.0			
5	1.8 - 8			
70	1.4			
5	1.2 - 7			
20	1.7			
5	1.8 - 6			
90	1.7			
5	1.9 - 5			
300	1.7			
5	1.5 - 4			
10	1.2			
5	1.1 - 3			
20	1.3			

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

Analysis No. 1-9788 Date 12-18-79

Operator El Paso Natural Gas Well Name Howell C #4A

Location NW 18-30-8 County San Juan State New Mexico

Field _____ Formation _____

Sampled From C.P.S. 13782W

Date Sampled _____ By _____

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

Sodium <u>15</u>	.6	Chloride <u>4</u>	.1
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Calcium <u>40</u>	2	Bicarbonate <u>161</u>	3
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Magnesium <u>6</u>	.5	Sulfate <u>18</u>	.4
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Iron _____	_____	Carbonate <u>0</u>	0
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H ₂ S <u>Absent</u>	_____	Hydroxide <u>0</u>	0
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cc: D.C.Adams
R.A.Ullrich
E.R.Paulek
J.W.McCarthy
A.M.Smith
W.B.Shropshire
File
C. B. O'Nan
Water at 90'

Total Solids Dissolved 202

pH 7.5

Sp. Gr. 0.9958 at 60°F

Resistivity 3333 ohm-cm at 70°F

Joe Barnett GCK
Chemist

