

1221
4-R 30-045-10935
9 30-045-22728

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. 10 Twp 31 Rng 10

Name of Well/Wells or Pipeline Serviced LUCERNE A #4R, #9

cps 1472w

Elevation 6119' Completion Date 8/21/80 Total Depth 240' 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' SAMPLE TAKEN

Depths gas encountered: N/A

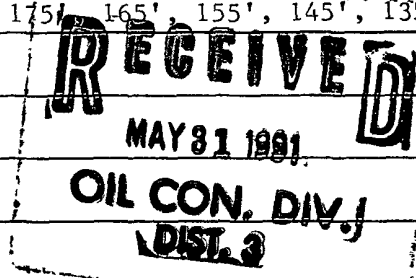
Type & amount of coke breeze used: 24 SACKS

Depths anodes placed: 215', 205', 195', 185', 175', 165', 155', 145', 135', 115'

Depths vent pipes placed: 235'

Vent pipe perforations: 200'

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

6 hrs

Drilling Log (Attach Hereto). ☐

Completion Date 8-21-80

Well Name <u>LUCERNE A #4R</u> <u>LUCERNE A #9</u>		Location <u>2 X 60 ANODES</u> <u>NE 10-31-10</u>		CPS No. <u>1472-W</u>	
Type & Size Bit Used <u>6 3/4</u>				Work Order No. <u>54332-19</u> <u>57275-21</u>	
Anode Hole Depth <u>240</u> <u>1099ed 235</u>	Total Drilling Rig Time	Total Lbs. Coke Used <u>24 SACKS</u>	Lost Circulation Mat'l Used	No. Sacks Mud Used	
Anode Depth					
# 1 <u>215</u>	# 2 <u>205</u>	# 3 <u>195</u>	# 4 <u>185</u>	# 5 <u>175</u>	# 6 <u>165</u>
# 7 <u>155</u>	# 8 <u>145</u>	# 9 <u>135</u>	# 10 <u>115</u>		
Anode Output (Amps)					
# 1 <u>3.4</u>	# 2 <u>3.7</u>	# 3 <u>4.4</u>	# 4 <u>3.6</u>	# 5 <u>3.8</u>	# 6 <u>4.1</u>
# 7 <u>4.3</u>	# 8 <u>4.8</u>	# 9 <u>4.9</u>	# 10 <u>4.4</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		No. 2 C.P. Cable Used	
Volts <u>12.2</u>	Amps <u>18.0</u>	Ohms <u>.67</u>			

Remarks: UNION - OK

DRILLER SAID HIT WATER AT 50'. NEXT A.M. BLEW WATER, G.
WATER SAMPLE, MAKING APPROX. 5 GPM. INSTALLED
235' OF 1" VENT PIPE, PERFORATED 200' OF VENT PIPE

1 60V 30A RECT ✓

All Construction Completed

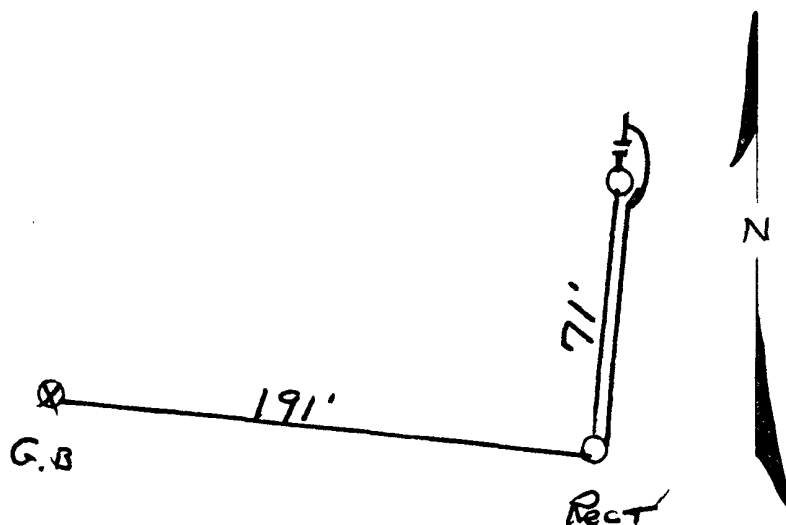
DITCH + 1 Cable - 262' ✓

EXTRA cable - 101' ✓

Hole Depth - 265' ✓

GROUND BED LAYOUT SKETCH

Willis Knight Jr.
(Signature)



DISTRIBUTION:

WHITE - Division Corrosion Office

YELLOW - Area Corrosion Office

PINK - Originator File

649

El Paso Natural Gas Company
ENGINEERING CALCULATION

Sheet of
Date 8-21-82
By. WK
File.

LUCERNE A #4R W/D 54332-19
LUCERNE A #9 W/D 57275-21
NE 10-31-10 UNION - OK
CPS 1472-W

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

1 60V 30A Rect
Ditch + 1 cable
EXTRA cable
Hole Depth

DRILLER Said hit water at
50'; Next A.M. Blew water
Got water sample. Install
240' of 1" VENT PIPE, PERFOR
200' of VENT PIPE. STURRY
SACKS of COKE BREEZE
APPROX 5 GPM WATER

50	1.4	200	3.0
55	3.0	05	2.6 ②
60	4.0	10	2.8
65	3.9	15	2.5 ①
70	3.3	20	2.4
75	3.3	25	2.1
80	3.2	30	1.8
85	3.8	35	1.8
90	3.9	40	
95	3.6		
100	3.2		
05	2.9		
10	3.2		
15	3.2 ⑩		
20	2.8		
25	2.3		
30	2.9		
35	3.4 ⑨		
40	3.2		
45	3.3 ⑧		
50	3.2		
55	3.3 ⑦		
60	3.3		
65	3.1 ⑥		
70	3.0		
75	2.9 ⑤		
80	2.9		
85	2.6 ④		
90	2.7		
95	3.3 ③		

① 215	2.5	3.4
② 205	2.6	3.7
③ 195	3.3	4.4
④ 185	2.6	3.6
⑤ 175	2.9	3.8
⑥ 165	3.1	4.1
⑦ 155	3.3	4.3
⑧ 145	3.3	4.8
⑨ 135	3.4	4.9
⑩ 115	3.2	4.4

122V 18.0A .67 Ω

DAILY DRILLING REPORT

CPS# 1472 W

Lucerne #1 A4R & A9

W.O.#'s 54332-19 & 57275-21

LEASE

WELL NO.

CONTRACTOR *3-C Drilling*

RIG NO. ~~22~~ 1

REPORT NO.

DATE August 21st 1980

MORNING

DAYLIGHT

EVENING

Driller Bryan

Total Men In Crew 3

Driller

Total Men In Crew

Driller

Total Men In Crew

[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>20'</u>	BIT NO. _____	NO. DC _____ SIZE _____ LENG. _____	BIT NO. _____	NO. DC _____ SIZE _____ LENG. _____
SERIAL NO. _____	STANDS _____	SERIAL NO. _____	STANDS _____	SERIAL NO. _____	STANDS _____
SIZE <u>6 3/4</u>	SINGLES _____	SIZE _____	SINGLES _____	SIZE _____	SINGLES _____
TYPE <u>rock</u>	DOWN ON KELLY _____	TYPE _____	DOWN ON KELLY _____	TYPE _____	DOWN ON KELLY _____
MAKE _____	TOTAL DEPTH _____	MAKE _____	TOTAL DEPTH _____	MAKE _____	TOTAL DEPTH _____

[illegible]

FROM	TO	TIME BREAKDOWN	FROM	TO	TIME BREAKDOWN	FROM	TO	TIME BREAKDOWN
0	20	sand & bentonite	190	200	bentonite			
20	40	shale-sand-water Sgpm	200	220	shale			
40	60	bentonite	220	240	bentonite			
?	120	shale						
120	140	bentonite & shale						
140	190	shale						

REMARKS -	REMARKS - drilled to 40' on the 20 th but water sand at 30'. water standing at 30' next morning. Hole making about 5 gall./p/m Got a good water sample. Total hole depth 240' Total log depth 235'	REMARKS -
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SIGNED: Toolpusher

Quinn Burger

____ Company Supervisor

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

Analysis No. 1-10048 Date 11-12-80

Operator El Paso Natural Gas Well Name Lucerne A #4R

Location NE 10-31-10 County San Juan State New Mexico

Field Kutz Formation _____

Sampled From CPS 1472 @ 50 ft.

Date Sampled 8-21-80 By Willis Knight

Tbg. Press. _____ Csg. _____ Surface Csg. Press. _____

Sodium <u>627</u> ppm	epm	Chloride <u>52</u> ppm	epm
	27.3		1.5

Calcium <u>484</u>	24.2	Bicarbonate <u>222</u>	3.6
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Magnesium <u>56</u>	4.6	Sulfate <u>2450</u>	51.0
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Iron _____		Carbonate <u>0</u>	0
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H ₂ S _____		Hydroxide <u>0</u>	0
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cc: C.B. O'Nan Total Solids Dissolved 4272

R.A. Ullrich

E.R. Paulek pH 6.9

J.W. McCarthy

A.M. Smith Sp. Gr. 923 At _____ 60°F

W.B. Shropshire

D.C. Adams Resistivity 200 ohm-cm at _____ 77°F

File

Joe Barnett
Chemist

