WELL REPORT
TESORO PETROLEUM CORPORATION
STATE "B" #86
MCKINLEY COUNTY, NEW MEXICO

Sec 36-18-9

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May 8, 1974



WELL REPORT TESORO PETROLEUM CORPORATION: STATE "B" #86 MCKINLEY COUNTY, NEW MEXICO

LOCATION

2970' from the south line and 1650' from the east line of Section 36. Township 18 North, Range 9 West, NMPM.

ELEVATION

7144' Gr.: 7155' KB

CONTRACTOR

Aztec Well Servicing Company, Rig #50: Toolpusher - Don Lockhart

SPUD AND COMPLETION DATA

Well Commenced: May 1, 1974

Date Drilling Completed: May 6, 1974

Total Depth - 2925' Driller: 2918' Logger

CASING

8 5/8" @ 146' w/100 sacks

ELECTRICAL SURVEYS

Schlumberger - Induction Electrical Log: 152' to 2917' Schlumberger - Sonic Log: 450' to 900': 1700' to 2908'

Schlumberger - Formation Density Log: 500' to 900': 1700' to 2917'

FORMATION TOPS

Menefee Surface +7155 568' Point Lookout 568' +6587 320' Upper Mancos 888" +6267 264' Hosta 1152' +6003 502' Gallup 1654' +5501 161' Hospah Gallup 1815' +5340 58' Massive Gallup 1873" +5282 109' Lower Mancos 1982" +5173 304'	Cretaceous	Depth	Sea LevelDatum	Thickness					
Sanastee 2286	Point Lookout Upper Mancos Hosta Gallup Hospah Gallup Massive Gallup Lower Mancos Sanastee Greenhorn	568' 888" 1152' 1654' 1815' 1873' 1982'' 2286' 2642''	+6587 +6267 +6003 +5501 +5340 +5282 +5173 +4869 +4513	320' 264' 502' 161' 58' 109' 304' 356'					

FORMATION TOPS - CONTINUED

Cretaceous	Depth	Sea Level <u>Datum</u>		<u>Thickness</u>			
Dakota "A" Dakota "B"	2734' 2809'	+4421 +4346	Danakwakad	75' 51' 58'			
Dakota "D" TD Logger	2860 ' 2918 '	+4295 I +4237	Penetrated	, 50,			

WELL CUTTINGS

- 30' samples 150' to 1700'
- 10' samples 1700' to 2000'
- 30' samples 2000' to 2600'
- 10' samples 2700' to 2925' Driller TD

Samples described below from 1700' to 2000': 2700' to 2925' Driller TD

SAMPLE DESCRIPTION

1700-10	100% ss, lt gy, v-f-f-g, SR, sl/arkosic, carb inclus, clay filled, calc, tite, $\underline{N-S}$: Tr sh, lt gy, v/sl/carb
1710-40	70% ss, as above: 30% sh, as above
1740-60	90% ss, as above, bcm silty in part: 10% sh, as above
1760-80	50% ss, as above: 50% sh, as above
1780-1820	90% ss, as above: 10% sh, as above
1820-60	90% ss, wht-tan, cons-uncons, f-g, SA-SR, por, friable, oil stn, (20% gold fluor, strmg cut fluor): 10% sh, med gy: Tr diss pyrite
1860-80	50% ss, as above: Tr fluor: 50% sh, as above
1880-90	90% sh, as above: 10% ss, as above
1890-1900	100% coal: Tr sh, as above
1900-10	100% ss, wht-tan, cons-uncons, domin uncons, f-m-g, domin f-g, SR, por, friable, 10% blu gold fluor stn, strmg cut fluor: Tr coal: Tr sh, as above
1910-2000	70% sh, med gy-gy brn: 30% ss, uncons, f-m-g, $\underline{N-S}$

^{2700-10 100%} sh, med gy-gy brn, carb in part: Tr sltstn, gy, calc: Tr ss, gy, v-f-g, shy, glauc, N-S

^{2710-50 100%} sh, med gy, fiss: Tr ss, as above: Tr sltstn, as above: Tr ls, gy brn, argill, sdy

SAMPLE DESCRIPTION - CONTINUED

- 2750-60 80% sh, as above: 20% ss, wht, v-f-g, SR, v/s1/arkosic, por, friable, N-S: Tr sltstn, gy, hd, calc
- 2760-70 90% sh, as above: 10% ss, as above, bcm shy in part: Tr sltstn, as above
- 2770-90 No samples
- 2790-2840 100% sh, as above: Tr ss, as above, N-S: Tr sltstn, as above: Tr bentonite
- 2840-60 90% sh, as above: 10% ss, buff, v-f-f-g, SA-SR, arkosic, clay filled, por, friable, N-S: Tr sltstn
- 2860-80 100% sh, as above: Tr ss, as above: Tr sltstn, as above: Tr bentonite
- 2880-2910 100% sh, as above: Tr ss, lt gy, v-f-g, Sr, por & friable, N-S
- 2910-25 100% sh, as above: Tr sltstn, as above

TD driller 2925

DRILLING TIME

Five foot drilling time from 1700' to 2000': 2700' to 2925' Driller TD is listed below.

05-10-15-20-25-30-35-40-45-50-55-60-65-70-75-80-85-90-95-00

1700-1800	8-	8-	9-:	10-	8-	9-	8-	9-:	16-	8-	8-	8-	8-	8-	8-	6-	7-	6-	6-	5
1800-1900	6-	6 -	7-	6-	3~	2-	2-	3-	3-	4_	5-	7-	5-	6-	6-	7-	4_	3-	4_	4
1900-2000	3-	4-	3 -	3 -	3~	3 -	3-	4_	4_	3-	3-	4_	4_	4_	4_	4_	5-	8 –	8-	9

 $(e_1,e_2,\dots,e_n) \in (e_1,e_2,\dots,e_n) \times (e_1,e_2,\dots$

2700-2800 11-15-13-12- 7-18-11-13-10- 8-10-13-17-17-17-39-17-17-14-16 2800-2900 20-19-17-18- 6- 7-10-12-16-13-18-19-20-18- 8-11-19- 8-10-10 2900-3000 15-16-19-21-28

TD Driller - 2925'