COMPOSITE COLUMNAR SECTION

SYSTEM	SERIES	FORMATION	MEMBER	COAL BED NAME		LITHOLOGIC DESCRIPTION
TERTIARY	EOCENE	SAN JOSE FM	UNDIFFERENTIATED		1	1. Surface exposures are predominately San Jose Formation except in the extreme southwestern portion of the quadrangle where the Nacimiento Formation crops out.
					2	2. Sandstone, buff to yellow, fine- to coarse-grained, arkosic, locally conglomeratic; interbedded shale and siltstone, gray to brown
					3	3. Unconformity
	PALEOCENE	NACIMIENTO FM			4	4. Shale, light gray to black; claystone, gray, brown; silty sandstone, white to yellow brown, fine-grained to conglomeratic, argillaceous, locally calcareous
						5. Sandstone, white to light gray, poorly indurated, slightly conglomeratic; interbedded siltstone, gray, brown
						6. Unconformity
						7. Shale, brown, dark gray, plant fossils; interbedded sandstone, white to light gray, poorly indurated; interbedded siltstone, gray
						8. Shale, brown, dark gray, plant fossils, carbonaceous; interbedded sandstone, white to light gray, poorly indurated; interbedded siltstone, green, gray
						9. Coal, Fruitland zone
						10. Coal, Fruitland 1 bed
						11. Sandstone, white to cream, friable, arkosic grains, calcareous, argillaceous; interbedded thin shale near the base
						12. Coal, Local bed. Minor coal beds often occur in the upper portion of the Pictured Cliffs sandstone due to intertonguing with the Fruitland Fm.
		OJO ALAMO SS			5	
					6	
					7	
CRETACEOUS	UPPER CRETACEOUS	KIRTLAND SHALE	UNDIFFERENTIATED			
		FRUITLAND FORMATION		Fruitland zone	8	
					9	
				Fruitland 1	10	
		PICTURED CLIFFS SS		Local	11	
					12	

Meters 0, 40, 80, 120 — Feet 0, 100, 200, 300, 400, 500 — Vertical Scale

CORRELATION OF COAL BEDS IN DRILL HOLES

T. 22 N. R. 6 W. | T. 23 N. R. 6 W. | T. 23 N., R. 5 W.

④	⑮	*⑩	*⑪	*⑨	*⑧
SUN OIL CO. #1, EL PASO FEDERAL SW¼ SW¼ Sec.10	SINCLAIR OIL & GAS CO. #1, TEXAS NATIONAL NE¼ NE¼ Sec.25	HUMBLE OIL & REFINING CO. #2-G, JICARILLA TRIBE SW¼ NE¼ NE¼ Sec.7	HUMBLE OIL & REFINING CO. #1-G, JICARILLA SW¼ NE¼ NE¼ Sec.8	CONTINENTAL OIL CO. #12, AXI APACHE "H" NW¼ SE¼ SE¼ Sec.5	ARIZONA EXPLORATION CO. #8-H, JICARILLA NE¼ SW¼ SW¼ Sec.5
7125'	6804'	6749'	6605'	6585'	6611'
300	300	300	300	300	300
1212	1257	1457	1337	1344	1348
3	Fr zone	2	2	3	2
	3	2	2	5	3
Fr zone		3	3	4	3
1.5		2.5	2	3	1
		Fr zone	5	2	2
3		2	Fr zone	Fr zone	Fr zone
		Fr zone	4	4	3
		4	3	3	2
		2	3	2	3
		3	2	2	3
		2	3	2	1
		3	3	4	2
		3	Fr 1	Fr 1	3
Fr 1	Fr 1	Fr 1	Fr 1	Fr 1	Fr 1
3	3	3	3	4	3
TD 12,306	TD 6600	TD 2271	TD 2093	TD 2115	TD 2152

DATUM — Fruitland Fm / Pictured Cliffs Ss — DATUM

T. 23 N. R. 6 W. | T. 22 N., R. 5 W.

⑬	⑰	*①	*②	*③
TEXACO #1-B, YARBOROUGH FEDERAL "B" LEASE NW¼ NW¼ Sec.10	BRINKERHOFF DRILLING #1, WARNER-GOV'T NE¼ NE¼ Sec.35	APACHE CORP. #1-7 JAIR SE¼ NE¼ Sec.7	WARREN DRILLING CO. #1, LITTLETON NW¼ NW¼ Sec.8	APACHE CORP. #1-8 JAIR NW¼ SW¼ Sec.8
6737'	6863'	6959'	6981'	7026'
300	300	300	300	300
1322	1134	1186	1243	1246
3	3	Fr zone	3	2
Fr zone	Fr zone	3	Fr zone	3/1
3	3		3	5/2
			2	Fr zone
	L			2
	3		Fr 1	Fr 1
			2	2
TD 5539	TD 5472.5	TD 5488	TD 6612	TD 4263

DATUM — Fruitland Fm / Pictured Cliffs Ss — DATUM

T. 23 N. R. 6 W. | T. 22 N., R. 6 W.

⑭	⑥	⑤
S.D. JOHNSON #1, O.L. CHAPMAN SE¼ SW¼ Sec.20	PLYMOUTH OIL CO. #1, SILVER SE¼ NW¼ NE¼ Sec.14	TESORO PETROLEUM #1, DOUBLE OUGHT NW¼ SE¼ SW¼ Sec.12
7096'	7082'	7090'
300	300	300
1371	1150	1235
Fr zone	2	2
2	2	Fr zone
2	2	2
2	Fr zone	2
2	2	
Fr 1	2	Fr 1
2	L	2
	3	
TD 5689	TD 5493	TD 6592

EXPLANATION

*① — Index number
APACHE CORP. #1-7 JAIR SE¼ NE¼ Sec.7 — Well name, Well location
6959' — Altitude of drillhole at surface
300 — No record of lithology in cased interval. Cased interval not plotted to scale**
1186 — Break in rock interval. Thickness of interval shown in feet
Fr zone / 3 — Coal bed, showing thickness in feet
Rock interval
Coal bed and coal zone symbols and names: Fr zone - Fruitland zone; Fr 1 - Fruitland 1 bed; L - Local bed
Column shown closed if well is plotted to total depth
TD 5488 — Total depth of well, in feet
3/1 — Coal interbedded with rock, total coal thickness/total rock thickness

Meters 0, 25, 50, 75, 100 — Feet 0, 100, 200, 300, 400 — Vertical Scale

* Drillhole outside KRCRA, within 3-mile study limit.

**An average depth of casing of 300 ft (91 m) was used. Actual depth of casing not shown.

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

OPEN-FILE REPORT 79-109
PLATE 3 OF 6

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COAL RESOURCE OCCURRENCE MAP OF THE COUNSELOR QUADRANGLE, SANDOVAL AND RIO ARRIBA COUNTIES, NEW MEXICO

BY
DAMES & MOORE

1979

PLATE 3
COAL DATA SHEET

Compiled in 1979