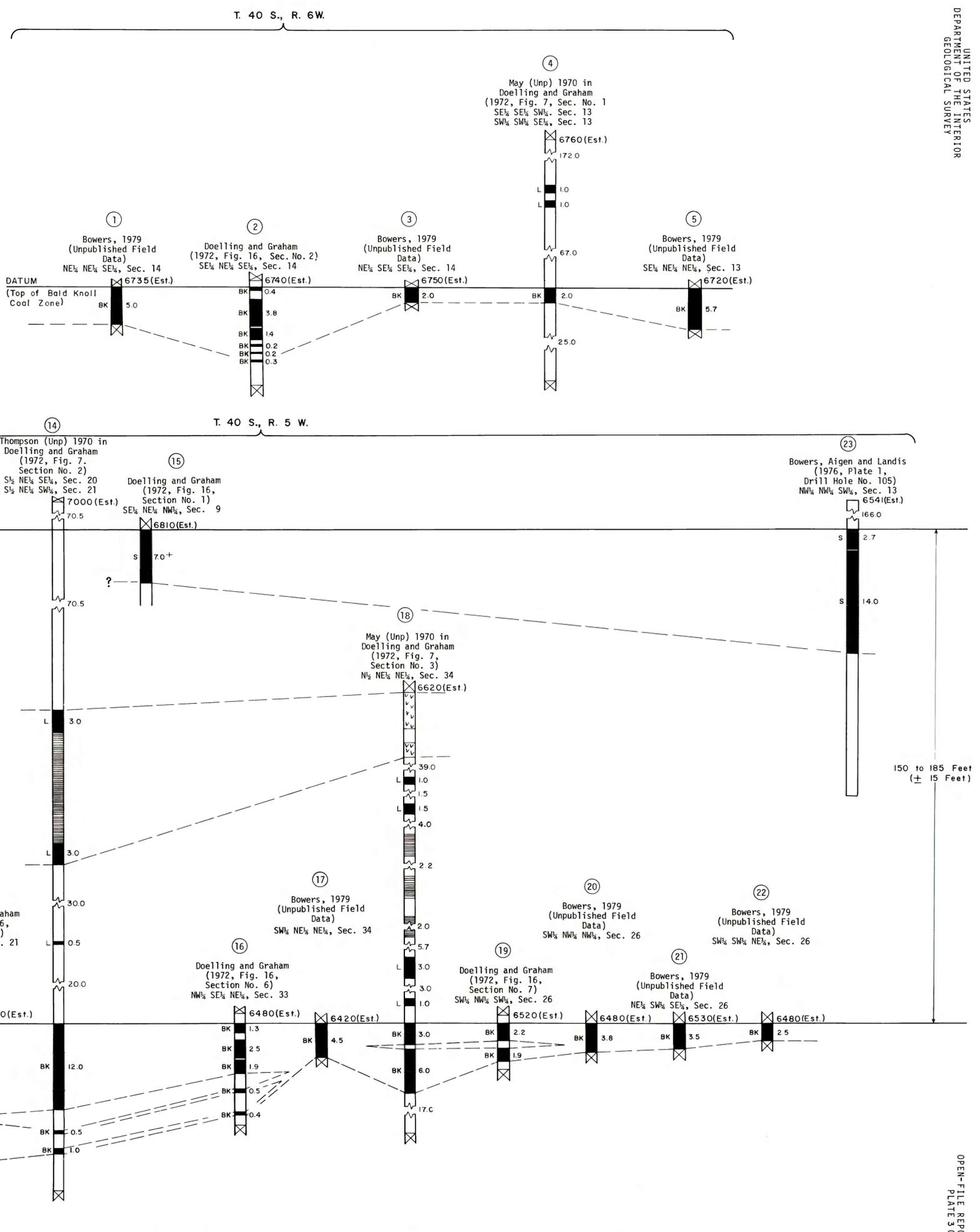


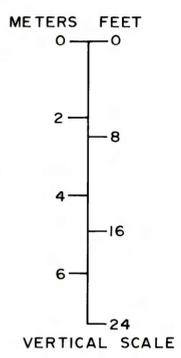
**COMPOSITE COLUMNAR SECTION**

SYSTEM	SERIES	FORMATION	MEMBER	COAL ZONE NAME	LITHOLOGIC DESCRIPTION
CRETACEOUS	UPPER	DAKOTA	TROPIC SHALE		1. Basalt plug - olivine basalt.
					2. Shale, drab gray, up to 750 feet thick.
					3. Bentonite bed, approximately 2 feet thick.
					4. Shale, drab gray, approximately 36 feet thick.
					5. Bentonite bed, approximately 1 foot thick.
					6. Shale, drab gray, approximately 6 feet thick.
					7. Shale, sandy, approximately 8 feet thick.
					8. Shale, sandy with shell fragments, approximately 4 feet thick.
					9. Sandstone with basal shell bed, approximately 3 feet thick.
					10. Coal Zone. 1 to 17 feet thick. Locally may change to bony shale or ash. May change into a zone up to 21 feet thick with 3 to 4 feet of coal at top and bottom with thin layers of coal and shale inbetween.
JURASSIC	UPPER	CARMEL	WINSOR	Smirl Zone	11. Shale and sandy shale from 50 to 85 feet thick. Locally carbonaceous and may contain up to seven coal beds or coaly zones which range from 1 to 4 feet thick.
				Local	12. Coal, 2 to 12 feet thick. Locally with shale partings up to 3 feet thick.
				Local	13. Shale, gray to dark gray, 0.5 to 17 feet thick.
				Bald Knoll Zone	14. Sandstone, yellow-gray, 0.5 to 12 feet thick. Locally with thin coal layers. Commonly thin beds of conglomerate.
				Local	15. Angular unconformity.
				Local	16. Sandstone, buff white, yellow, pink or brown, fine-grained.



**EXPLANATION**

- INDEX NUMBER
- NAME AND IDENTIFICATION NUMBER OF MEASURED SECTION.
- LOCATION OF MEASURED SECTION.
- NO RECORD OF LITHOLOGY. ALTITUDE OF TOP OF MEASURED SECTION. (Est.) ESTIMATED FROM TOPOGRAPHIC BASE.
- ROCK INTERVAL.
- ZONE OF THIN COAL BEDS AND SHALE PARTINGS.
- ASH AND CLINKER INTERVAL.
- BREAK IN SECTION SHOWING THICKNESS IN FEET NOT PLOTTED.
- ROCK INTERVAL.
- COAL BED SHOWING THICKNESS IN FEET.
- COAL BED SYMBOLS AND NAMES:  
S = SMIRL ZONE  
BK = BALD KNOLL ZONE  
L = LOCAL
- COLUMN SHOWN CLOSED IF AT TOTAL DEPTH.



Doelling and Graham (1972, Fig. 16, Section No. 4) NE 1/4 SE 1/4 SW 1/4, Sec. 30

Bowers, 1979 (Unpublished Field Data) SW 1/4 SE 1/4 NE 1/4, Sec. 30

Doelling and Graham (1972, Fig. 16, Section No. 3) SE 1/4 SE 1/4 SE 1/4, Sec. 7

Bowers, 1979 (Unpublished Field Data) SE 1/4 NE 1/4 SE 1/4, Sec. 18

Bowers, 1979 (Unpublished Field Data) SW 1/4 SW 1/4 SW 1/4, Sec. 17

Bowers, 1979 (Unpublished Field Data) SE 1/4 NW 1/4 SW 1/4, Sec. 28

Doelling and Graham (1972, Fig. 16, Section No. 5) NW 1/4 SW 1/4 SW 1/4, Sec. 21

Bowers, 1979 (Unpublished Field Data) SW 1/4 NE 1/4 NE 1/4, Sec. 34

Doelling and Graham (1972, Fig. 16, Section No. 6) NW 1/4 SE 1/4 NE 1/4, Sec. 33

Bowers, 1979 (Unpublished Field Data) SW 1/4 NE 1/4 NE 1/4, Sec. 26

Doelling and Graham (1972, Fig. 16, Section No. 7) SW 1/4 NW 1/4 SW 1/4, Sec. 26

Bowers, 1979 (Unpublished Field Data) NE 1/4 SW 1/4 SE 1/4, Sec. 26

Bowers, 1979 (Unpublished Field Data) SW 1/4 SW 1/4 NE 1/4, Sec. 26

Doelling and Graham (1972, Fig. 16, Section No. 2) S 1/2 NE 1/4 SE 1/4, Sec. 20  
S 1/2 NE 1/4 SW 1/4, Sec. 21

Thompson (Unp) 1970 in Doelling and Graham (1972, Fig. 7, Section No. 2) S 1/2 NE 1/4 SE 1/4, Sec. 20  
S 1/2 NE 1/4 SW 1/4, Sec. 21

Doelling and Graham (1972, Fig. 16, Section No. 1) SE 1/4 NE 1/4 NW 1/4, Sec. 9

Bowers, Aigen and Landis (1976, Plate 1, Drill Hole No. 105) NW 1/4 NW 1/4 SW 1/4, Sec. 13

May (Unp) 1970 in Doelling and Graham (1972, Fig. 7, Section No. 3) N 1/2 NE 1/4 NE 1/4, Sec. 34

Bowers, 1979 (Unpublished Field Data) NE 1/4 SE 1/4 SE 1/4, Sec. 14

Doelling and Graham (1972, Fig. 16, Section No. 2) SE 1/4 NE 1/4 SE 1/4, Sec. 14

Bowers, 1979 (Unpublished Field Data) NE 1/4 SE 1/4 SE 1/4, Sec. 14

Bowers, 1979 (Unpublished Field Data) SE 1/4 NE 1/4 NE 1/4, Sec. 13

**COAL RESOURCE OCCURRENCE MAP OF THE BALD KNOLL QUADRANGLE KANE COUNTY UTAH**  
BY  
**MEIJI RESOURCE CONSULTANTS**  
1979