

APPENDIX B

GEOLOGIC CORRELATIONS













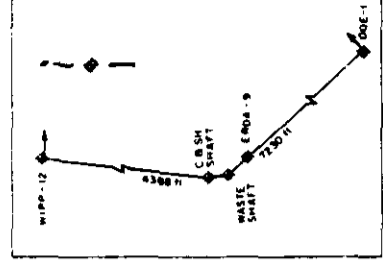
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EXPLANATION

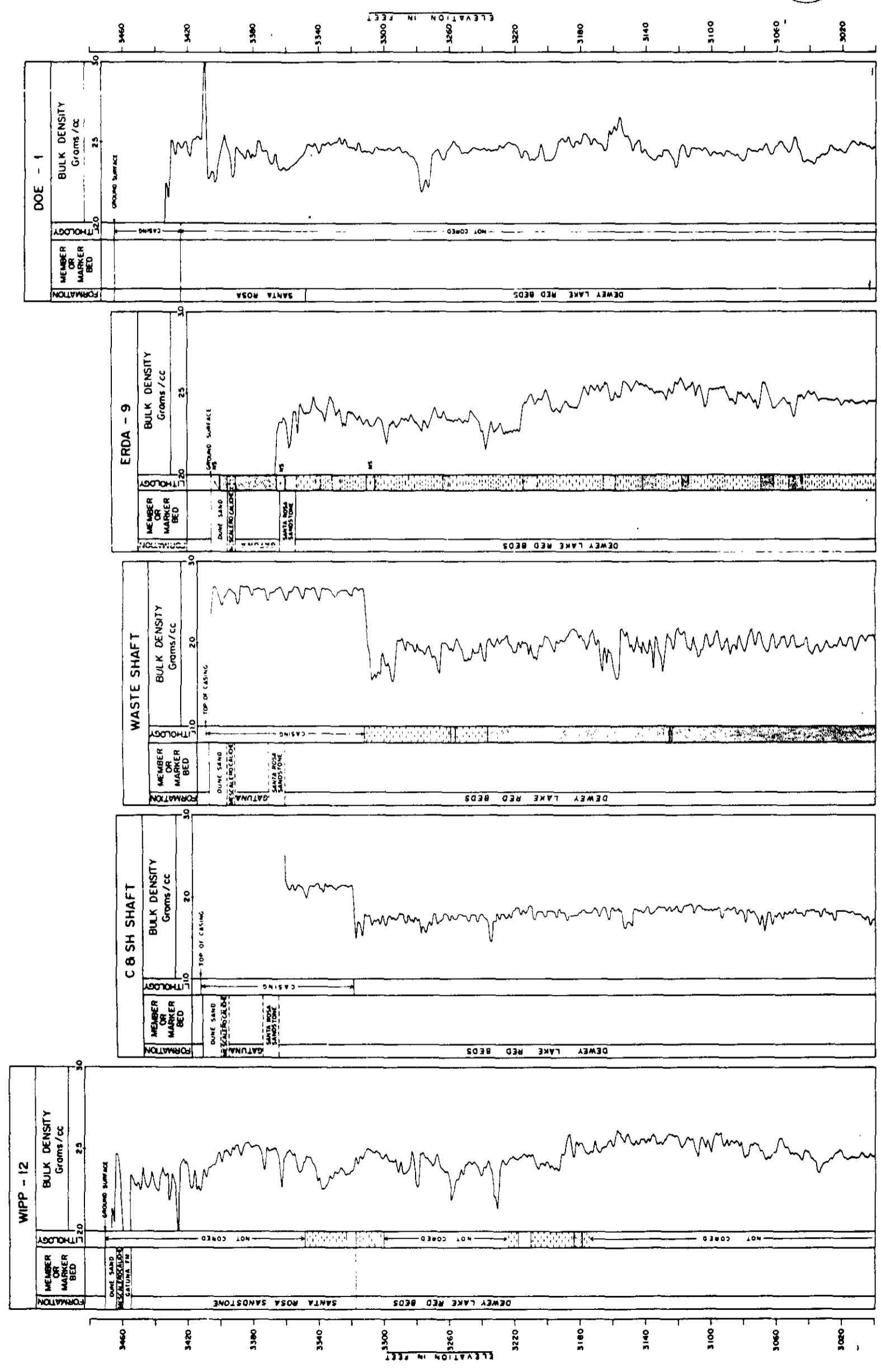
-  Sandstone
-  Caliche
-  Siltstone
-  Mudstone
-  Anhydrite
-  Gypsum
-  Dolomite
-  Halite
-  Argillaceous Halite
-  Polyhalite
- NC = Not Cored
- NR = No Recovery
- NS = No Sample
- MB = Marker Bed



KEY PLAN

FIGURE B-1

**GEOLOGIC CORRELATION
WIPP-12 TO DOE-1**



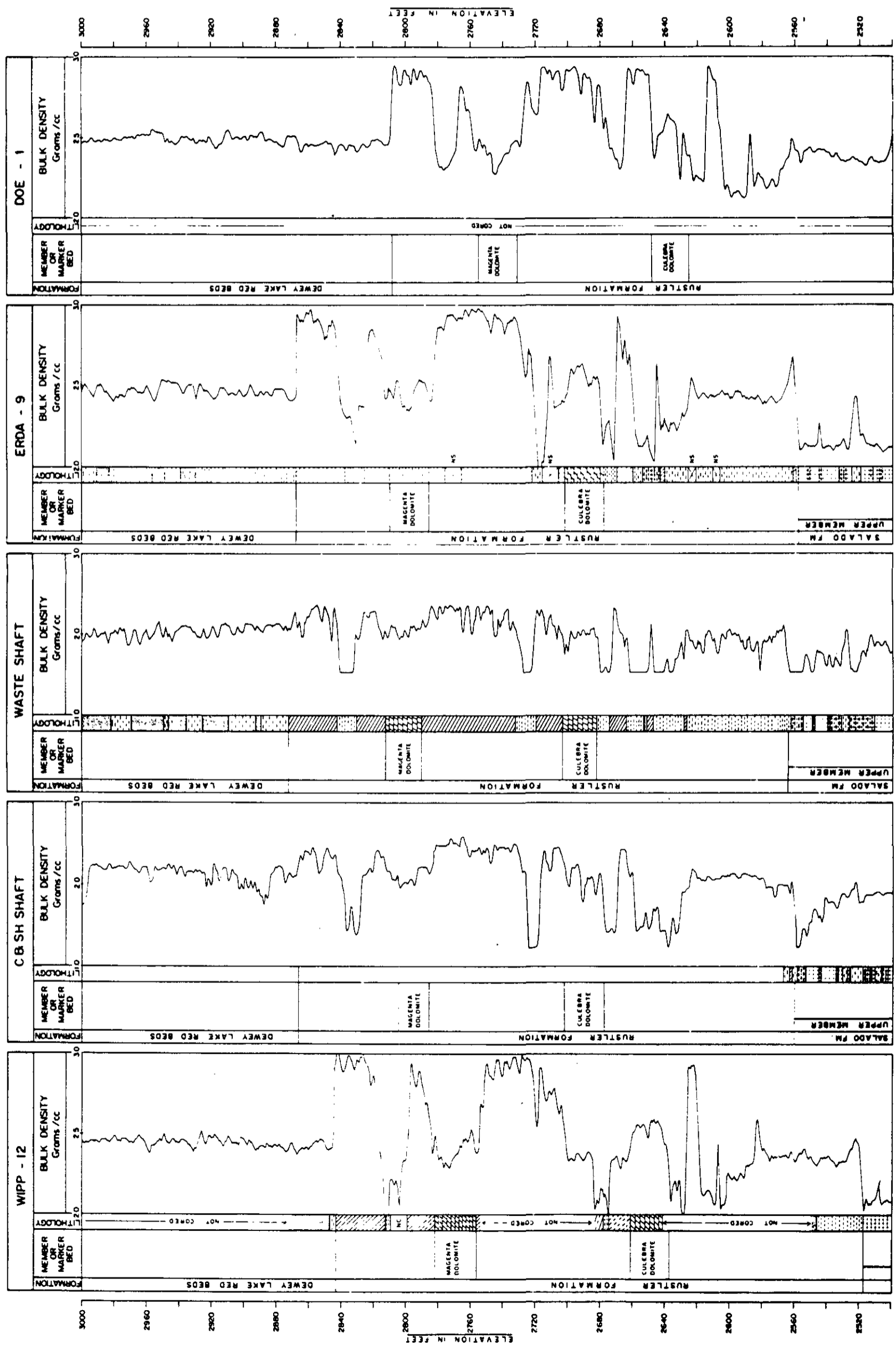
NOTE
See sheet 1 for explanation
and key plan

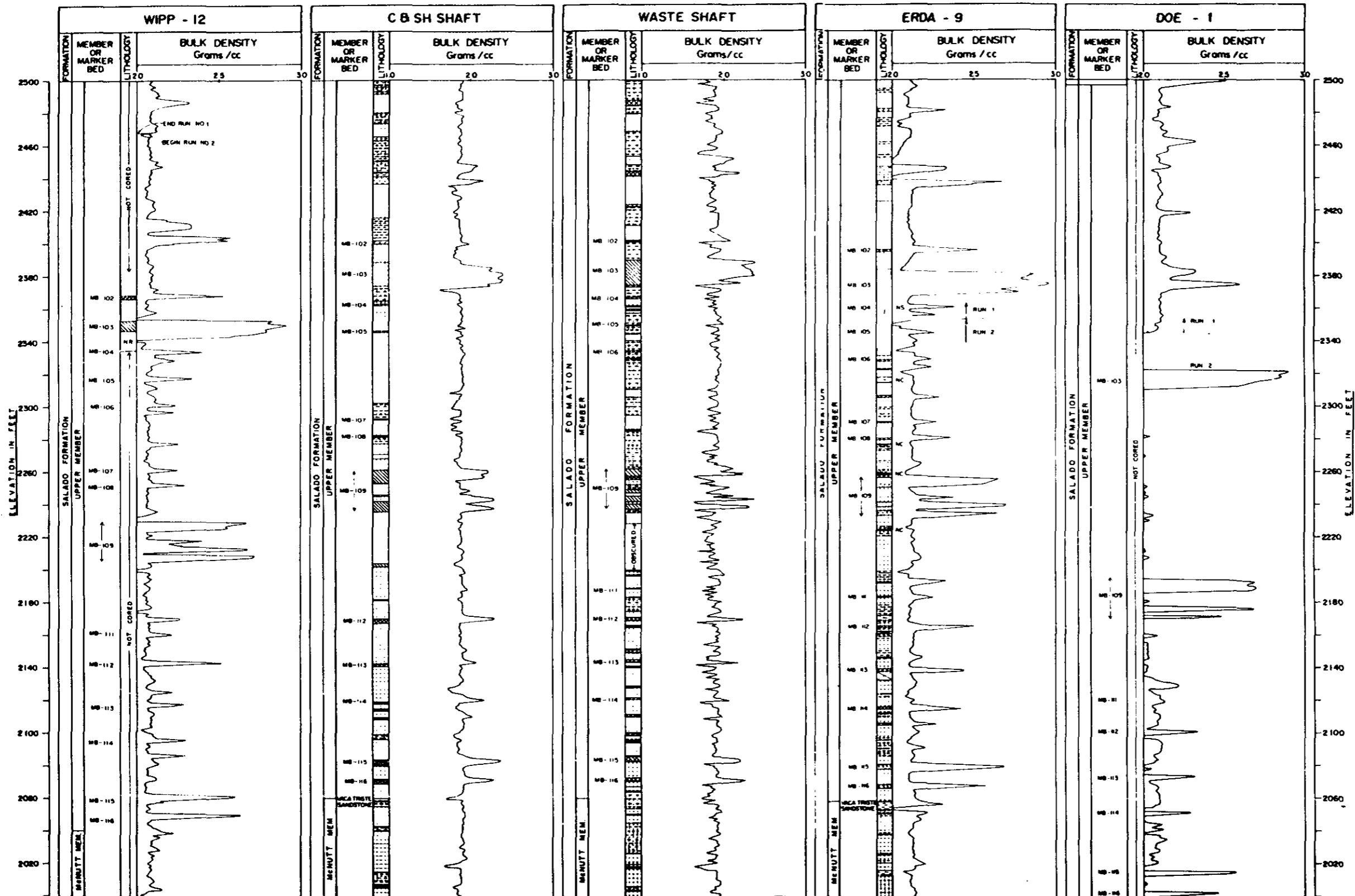


FIGURE B-1

GEOLOGIC CORRELATION
WIPP-12 TO DOE-1

SHEET 2 OF 5





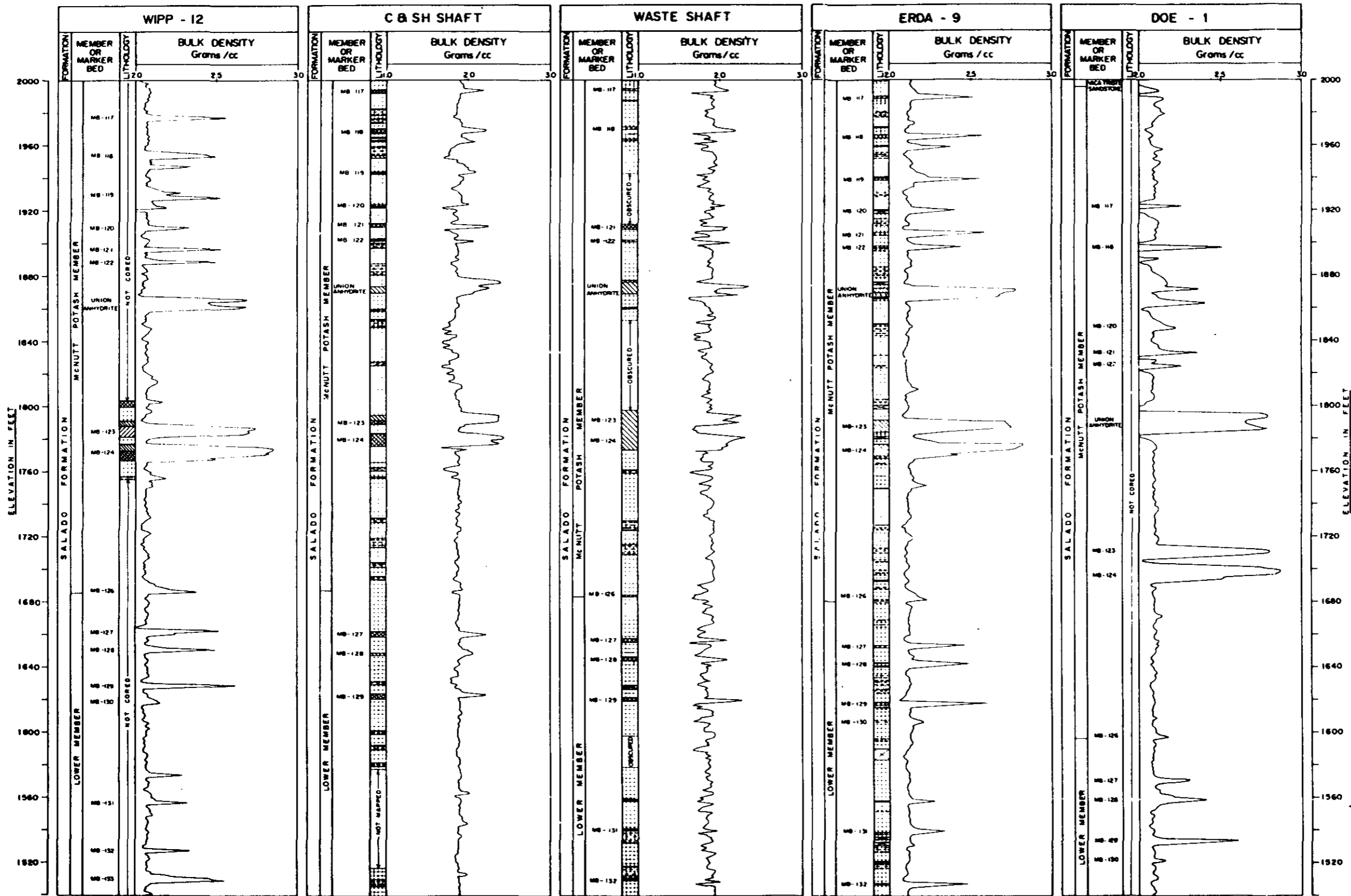
NOTE
See sheet 1 for explanation and key plan



FIGURE B-1

GEOLOGIC CORRELATION
WIPP-12 TO DOE-1



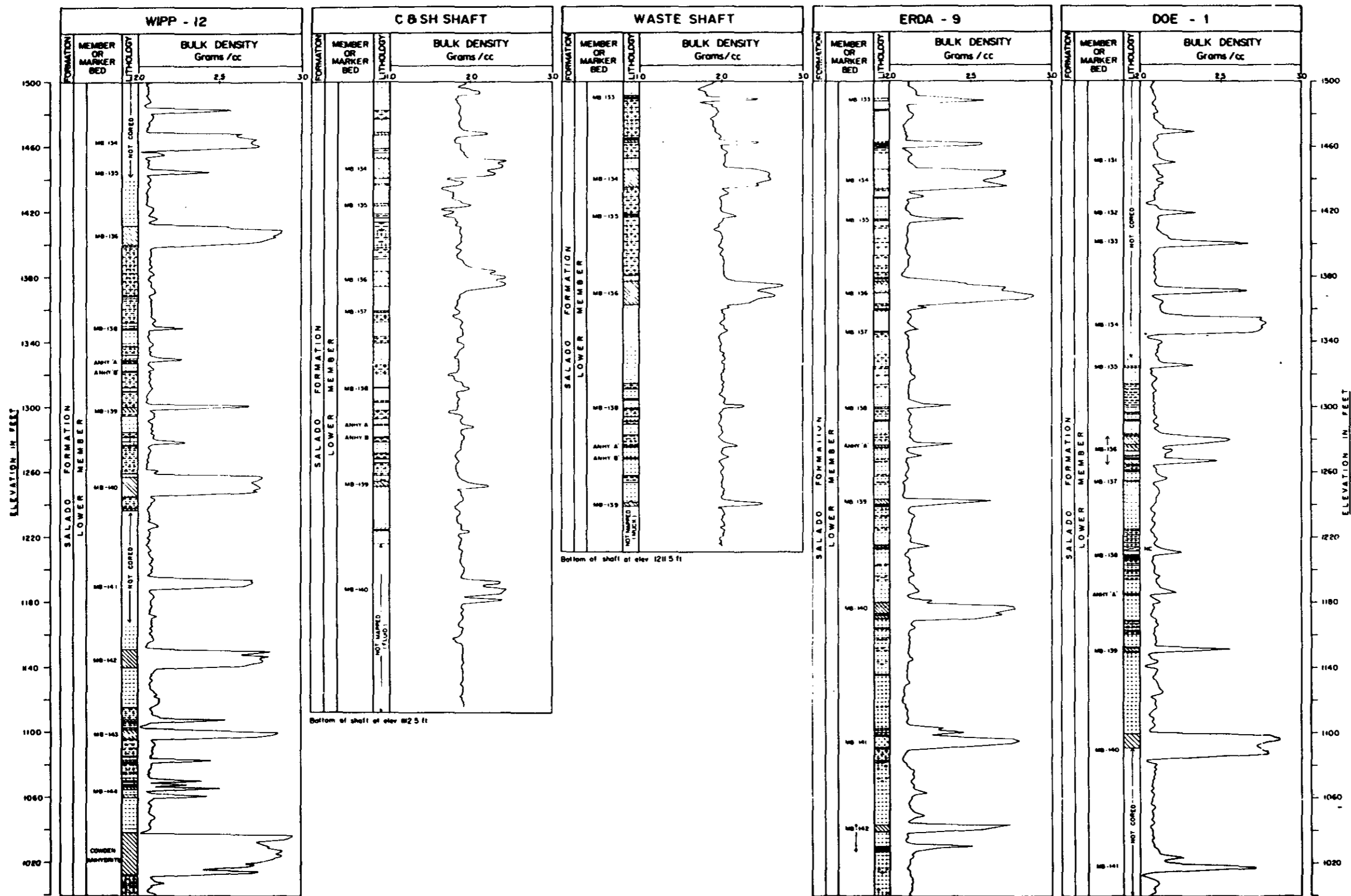


NOTE
See sheet 1 for explanation and key plan

FIGURE B-1

GEOLOGIC CORRELATION
WIPP-12 TO DOE-1

SHEET 4 OF 5

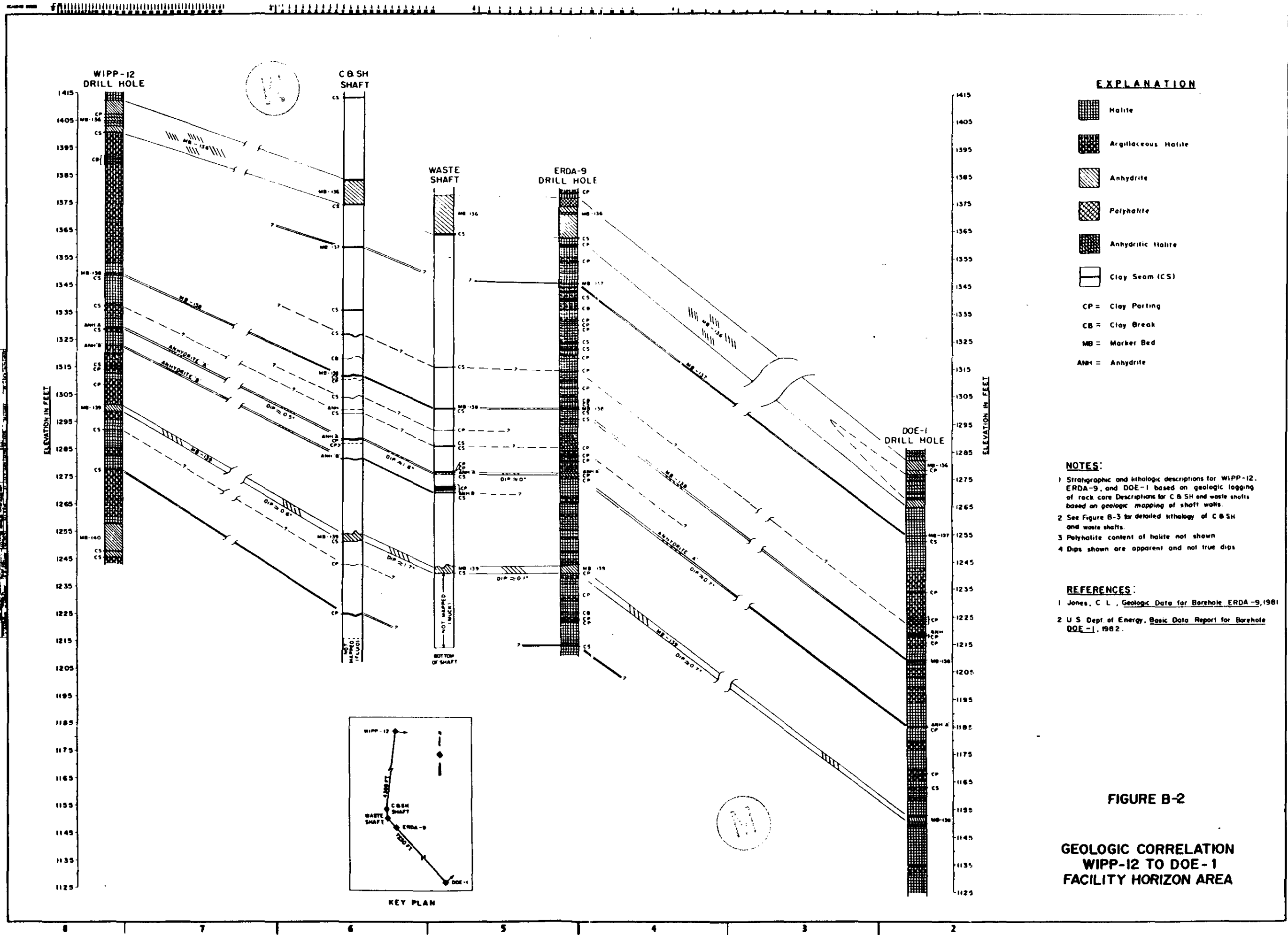


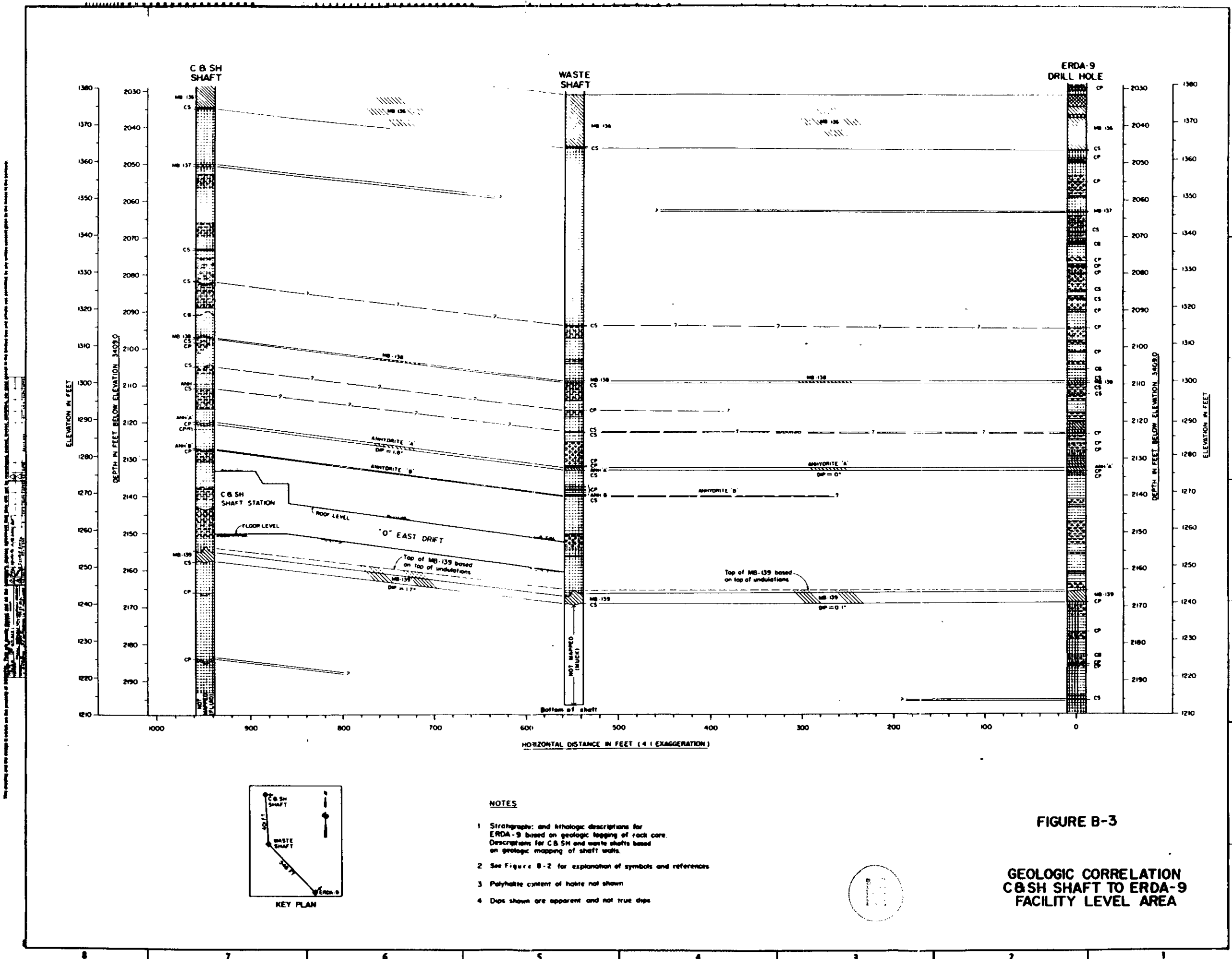
NOTE
See sheet 1 for explanation and key plan



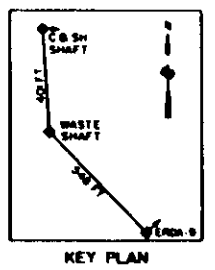
FIGURE B-1

GEOLOGIC CORRELATION
WIPP-12 TO DOE-1





M



- NOTES**
- 1 Stratigraphic and lithologic descriptions for ERDA-9 based on geologic logging of rock core. Descriptions for C & S and waste shafts based on geologic mapping of shaft walls.
 - 2 See Figure B-2 for explanation of symbols and references.
 - 3 Polyhalite content of holes not shown.
 - 4 Dips shown are apparent and not true dips.

M

FIGURE B-3

GEOLOGIC CORRELATION
C & S SHAFT TO ERDA-9
FACILITY LEVEL AREA

The following descriptions pertain to the geologic map units shown in the drifts on Figures B-4, B-5 and B-8:

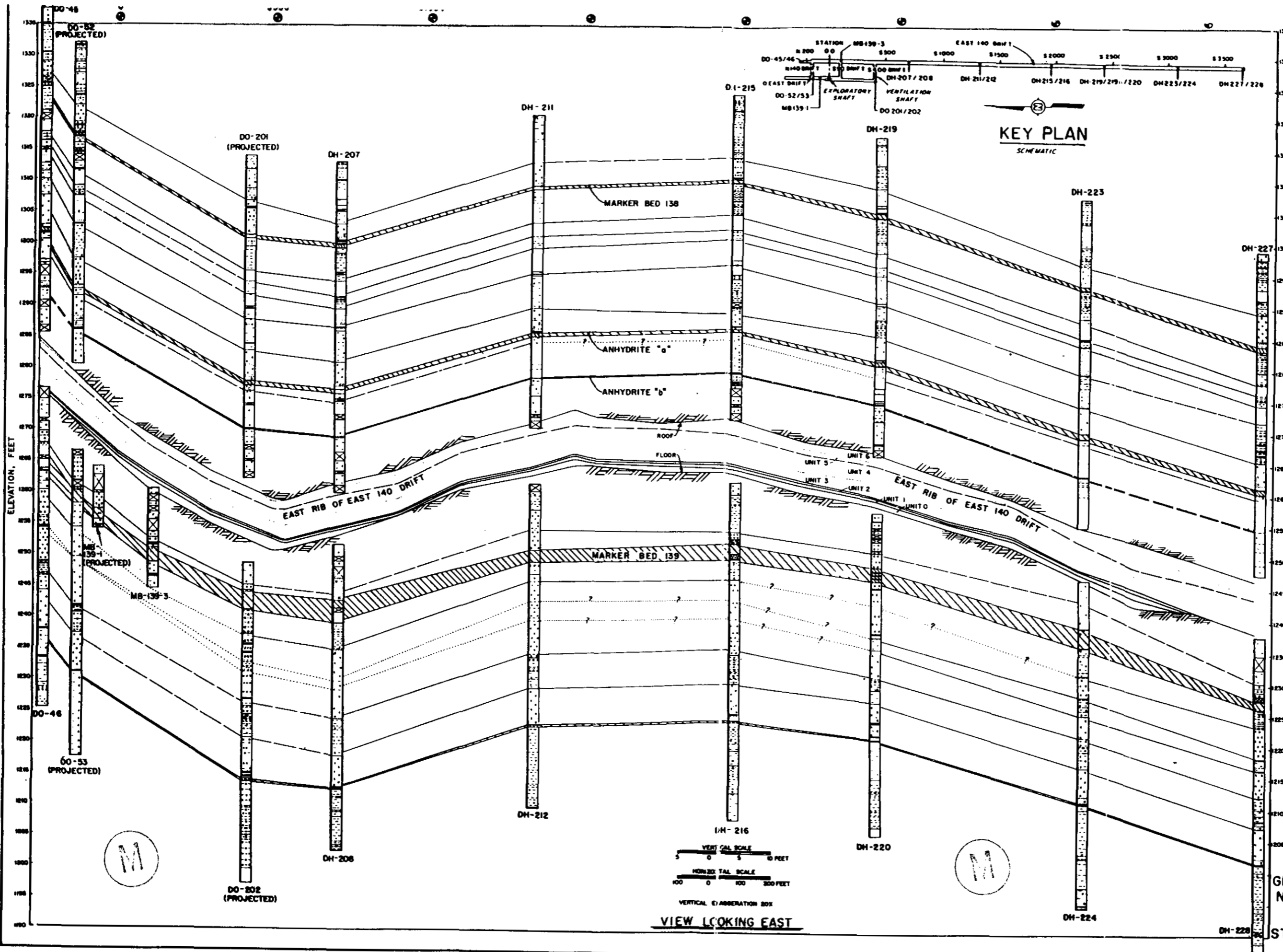
UNIT DESCRIPTIONS

- UNIT 6⁽¹⁾ Halite: colorless with grayish orange-pink (1 OR 8/2)⁽²⁾ tint; transparent to translucent; coarsely crystalline; trace of dispersed polyhalite; unit extends into the roof; lower contact with Unit 5 is gradational and/or diffuse.
- UNIT 5 Halite: colorless; transparent to translucent; coarsely crystalline; trace of bluish-white (SB 9/1) to light bluish-gray (SB 7/1) argillaceous material occurring as pods (1/2-inch diameter) and discontinuous laminations or filling interstices; lower contact with Unit 4 is generally sharp and based on prominent color change in argillaceous material (gray to red-brown) from Unit 5 to Unit 4.
- UNIT 4 Argillaceous halite: colorless to moderate reddish-brown (1 OR 4/6), less frequently light bluish-gray (SB 7/1); transparent; coarsely crystalline; trace of dispersed polyhalite; trace to abundant argillaceous material (decreasing downward) consisting of clay containing a trace of silt and fine crystals of halite, occurring as discontinuous laminations in upper half of unit and interstitially in lower half; lower contact with Unit 3 is gradational and based on absence of argillaceous material in Unit 3.
- UNIT 3 Halite: colorless to moderate reddish-orange (1 OR 6/6); transparent to translucent; coarsely crystalline; trace of dispersed polyhalite; polyhalite content commonly increases downward; lower contact with Unit 2 is sharp.
- UNIT 2 Argillaceous halite: moderate reddish-brown (1 OR 5/5), less frequently light bluish-gray (SB 7/1); medium to coarsely crystalline; argillaceous material primarily occurs interstitially or as discontinuous laminations; lower contact with Unit 1 is generally sharp, less frequently gradational.
- UNIT 1 Halite: light reddish-orange (1 OR 8/6) to moderate reddish-orange (1 OR 6/6), less frequently colorless; translucent to transparent; medium to coarsely crystalline; trace of dispersed polyhalite; lower contact with Unit 0 is sharp.
- UNIT 0 Argillaceous halite: colorless to moderate reddish-orange (1 OR 6/6) and moderate reddish-brown (1 OR 4/6); medium to coarsely crystalline; trace of dispersed polyhalite; some argillaceous material occurs as discontinuous laminations and blebs or fills interstices (decreasing downward); contains finely crystalline halite; unit extends into the floor.

NOTES:

- (1) Units listed in descending order from roof to floor.
(2) Alpha-numeric color designations are based on Geological Society of America Rock Color Chart.





EXPLANATION

HALITE	BRICK TILES	POLYMERITE
ANHYDRITE	ANHYDRITE	POLYMERITE

ACCOMMODATION CORRELATION

CONTACT	CONTOUR	CONTOUR
CONTACT	CONTOUR	CONTOUR
CONTACT	CONTOUR	CONTOUR
CONTACT	CONTOUR	CONTOUR

LAMINAR FEATURES

CLAY	CLAY	CLAY
CLAY	CLAY	CLAY
CLAY	CLAY	CLAY
CLAY	CLAY	CLAY

CONTACTS

CONTACT	CONTACT	CONTACT
CONTACT	CONTACT	CONTACT
CONTACT	CONTACT	CONTACT

CORRELATION BETWEEN DRILLS

CORRELATION	CORRELATION	CORRELATION
CORRELATION	CORRELATION	CORRELATION
CORRELATION	CORRELATION	CORRELATION

- NOTES**
1. COREHOLES DO-42, DO-53, MB-139-1, DO-201, AND DO-202 PROJECTED INTO EAST 140 DRIFT FROM 8 EAST DRIFT ALONG HORIZONTAL E-W LINES.
 2. LEFT SIDE OF EACH GEOLOGIC LOG COLUMN REPRESENTS LOCATION OF EACH COREHOLE. CORRELATION LINES SHOULD BE PROJECTED TO LEFT SIDE OF COLUMN.
 3. SYMBOLS IN THE GEOLOGIC LOG COLUMNS GRAPHICALLY REPRESENT THE GEOLOGIC LOG DESCRIPTIONS.
 4. STANDARD SYMBOL FOR HALITE IS NOT USED IN ORDER TO ENHANCE THE CLARITY OF THE LOG COLUMN.
 5. ROOF (BACK) AND FLOOR (INVERT) OF DRIFT FROM RIB MAPPING DO NOT ALWAYS COINCIDE EXACTLY WITH COREHOLE STARTING POINTS DUE TO IRREGULARITIES IN DRIFT SURFACES.

REFERENCE:
 GEOTECHNICAL FIELD DATA
 REPORT NO. 8 FEBRUARY 11,
 1963, TME 2177.

FIGURE B-4
GEOLOGIC CORRELATION
NORTH-SOUTH SECTION
E140 DRIFT
STATION N254 TO S3656

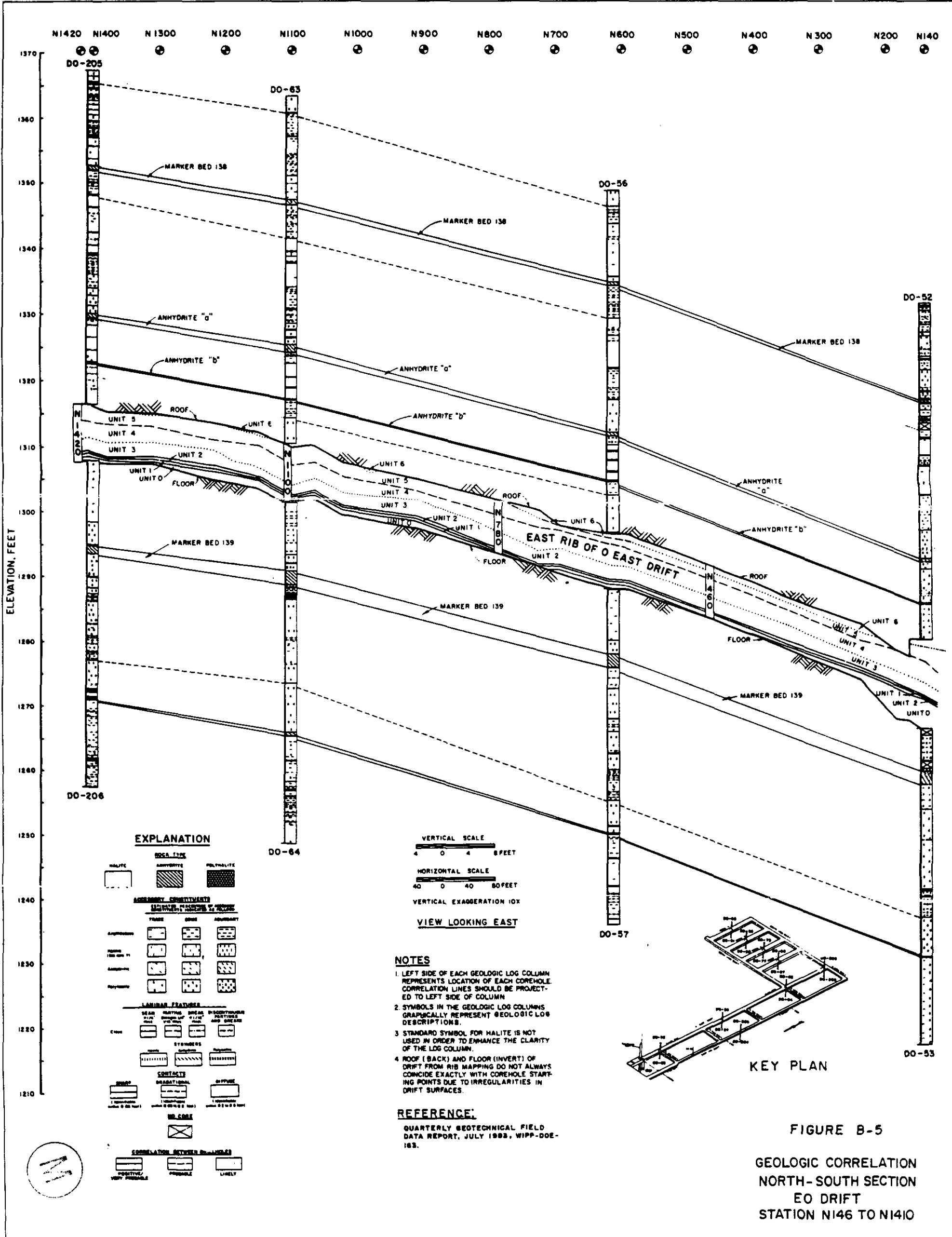
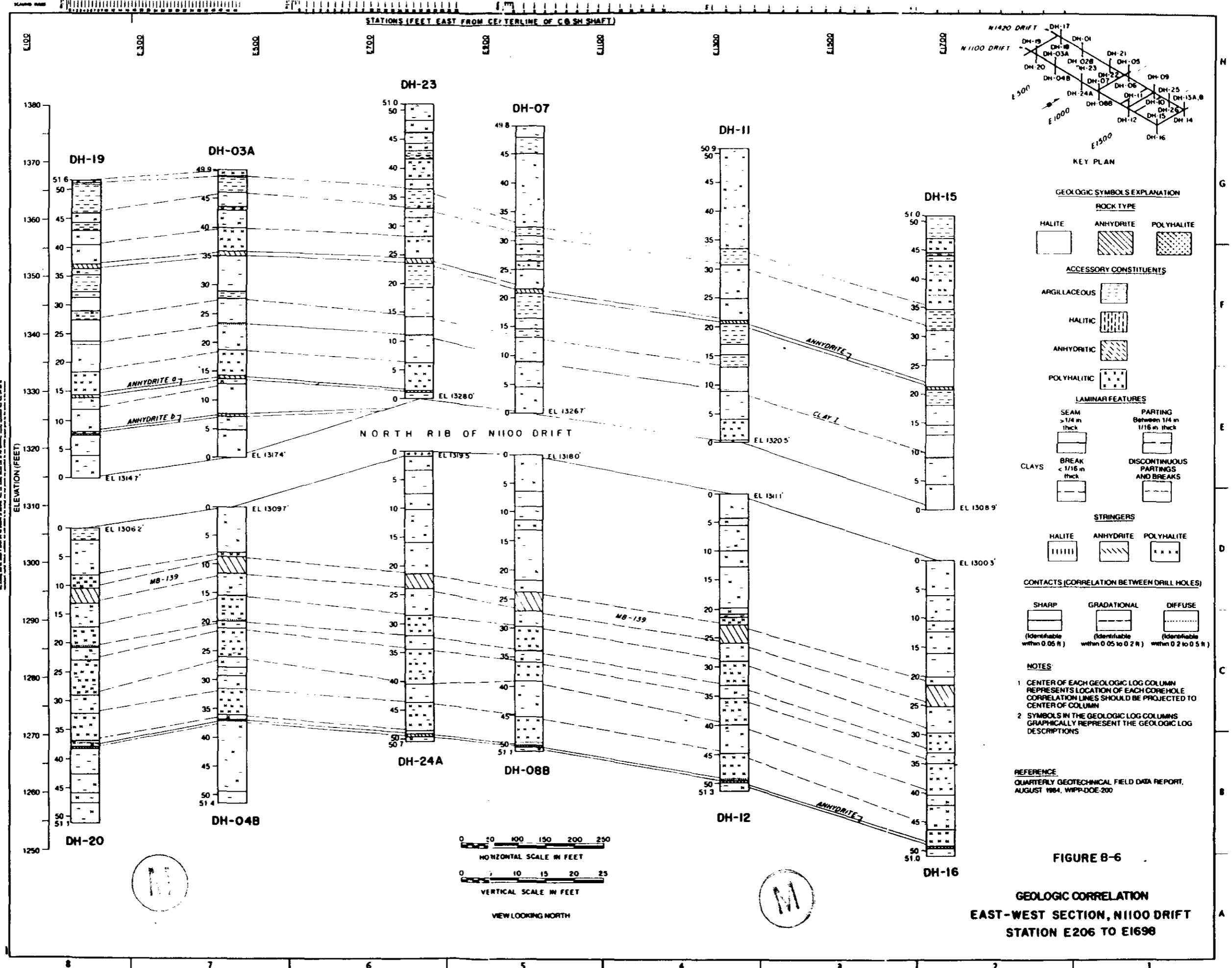


FIGURE B-5
 GEOLOGIC CORRELATION
 NORTH-SOUTH SECTION
 EO DRIFT
 STATION N146 TO N140



GEOLOGIC SYMBOLS EXPLANATION

ROCK TYPE

HALITE ANHYDRITE POLYHALITE

ACCESSORY CONSTITUENTS

ARGILLACEOUS

HALITIC

ANHYDRITIC

POLYHALITIC

LAMINAR FEATURES

SEAM > 1/4 in thick

PARTING Between 1/4 in and 1/16 in thick

BREAK < 1/16 in thick

DISCONTINUOUS PARTINGS AND BREAKS

STRINGERS

HALITE ANHYDRITE POLYHALITE

CONTACTS (CORRELATION BETWEEN DRILL HOLES)

SHARP (Identifiable within 0.05 ft)

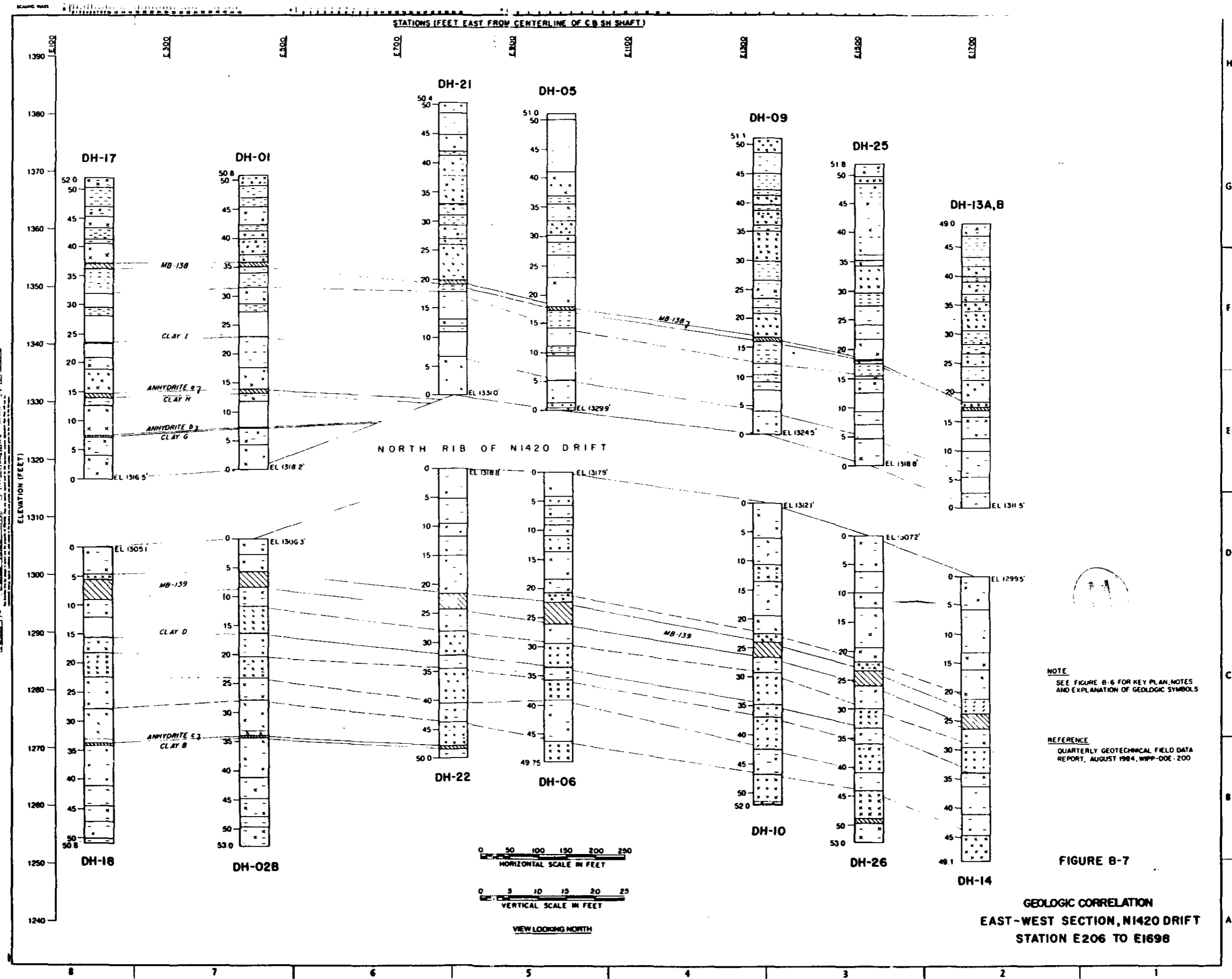
GRADATIONAL (Identifiable within 0.05 to 0.2 ft)

DIFFUSE (Identifiable within 0.2 to 0.5 ft)

- NOTES**
- CENTER OF EACH GEOLOGIC LOG COLUMN REPRESENTS LOCATION OF EACH COREHOLE. CORRELATION LINES SHOULD BE PROJECTED TO CENTER OF COLUMN.
 - SYMBOLS IN THE GEOLOGIC LOG COLUMNS GRAPHICALLY REPRESENT THE GEOLOGIC LOG DESCRIPTIONS.

REFERENCE
 QUARTERLY GEOTECHNICAL FIELD DATA REPORT,
 AUGUST 1984, WPP-DOE-200

FIGURE B-6
GEOLOGIC CORRELATION
EAST-WEST SECTION, N1100 DRIFT
STATION E206 TO E1698

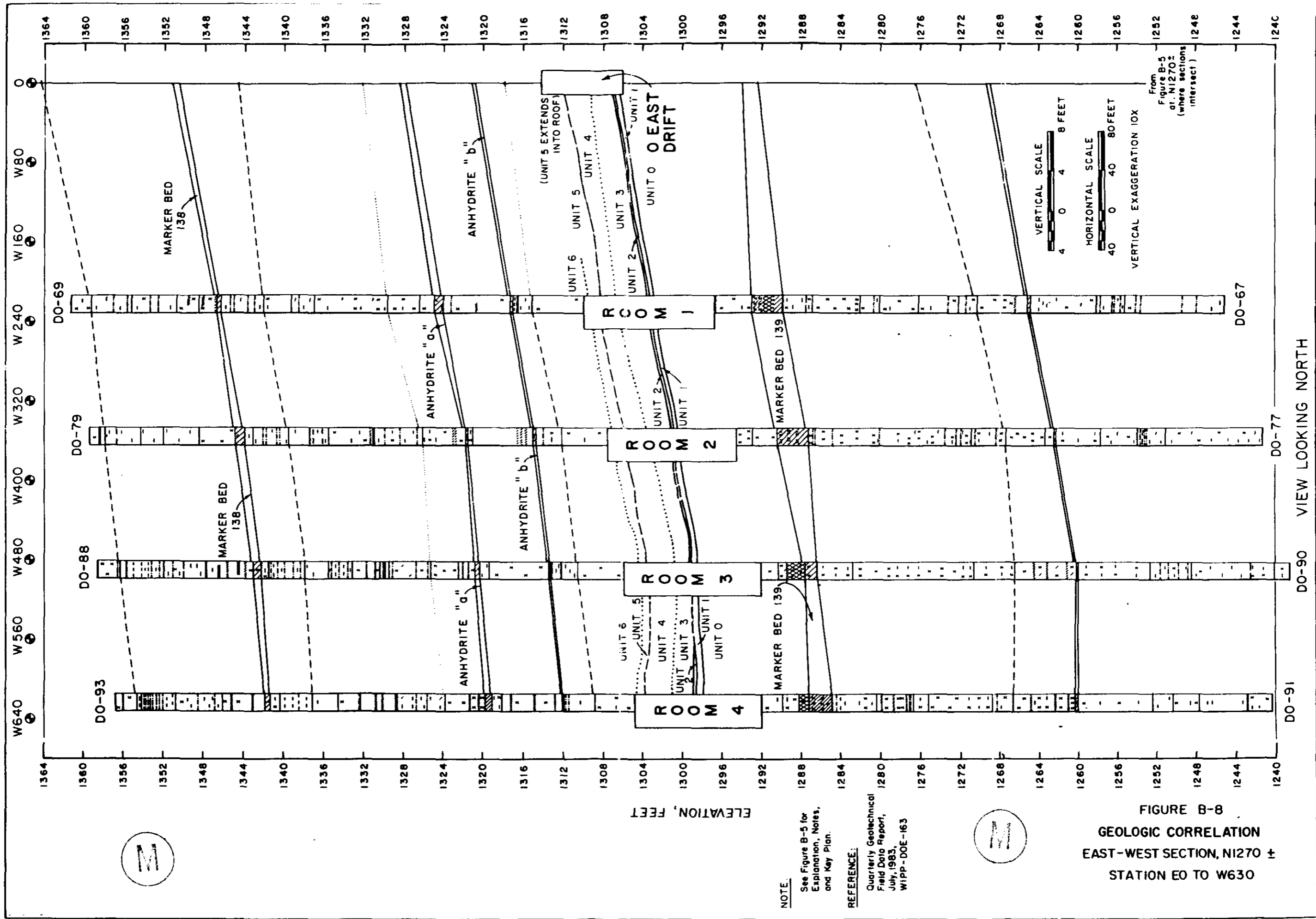


NOTE
SEE FIGURE B-6 FOR KEY PLAN, NOTES
AND EXPLANATION OF GEOLOGIC SYMBOLS

REFERENCE
QUARTERLY GEOTECHNICAL FIELD DATA
REPORT, AUGUST 1984, WPPP-006-200

FIGURE B-7
GEOLOGIC CORRELATION
EAST-WEST SECTION, N1420 DRIFT
STATION E206 TO E1698

M

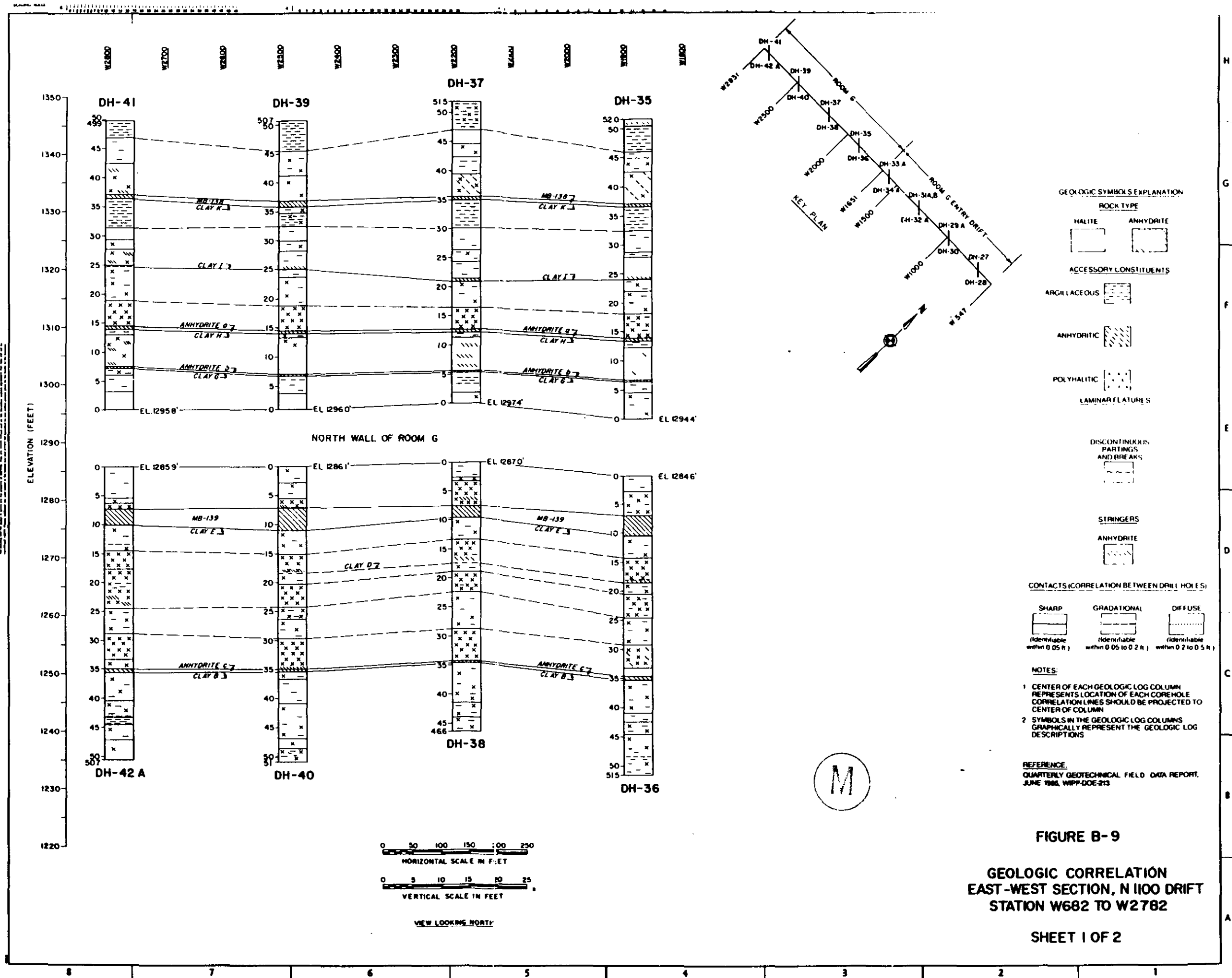


NOTE:
See Figure B-5 for Explanation, Notes, and Key Plan.

REFERENCE:
Quarterly Geotechnical Field Data Report, July, 1983, WIPP-DOE-163



FIGURE B-8
GEOLOGIC CORRELATION
EAST-WEST SECTION, N1270 ±
STATION E0 TO W630



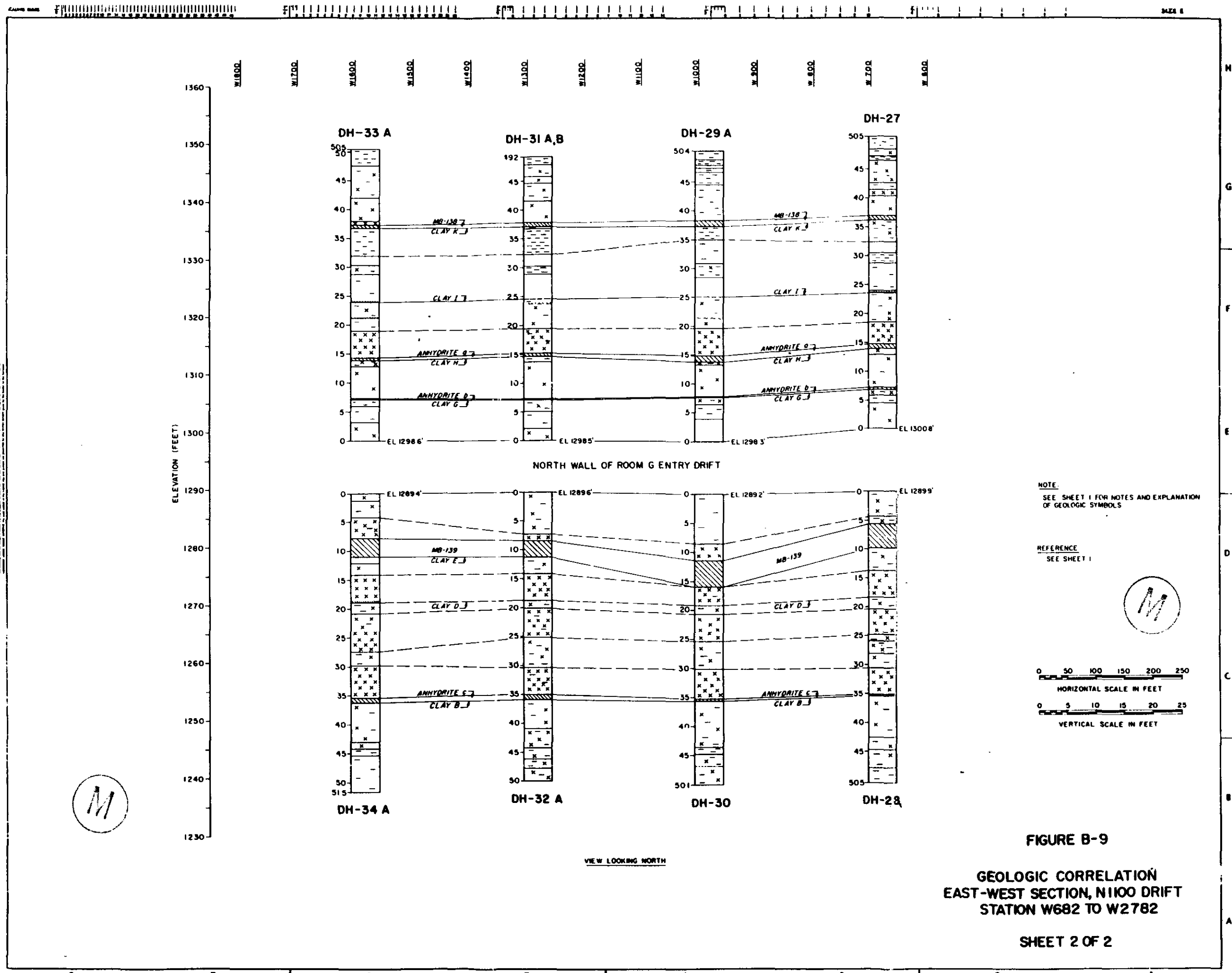


FIGURE B-9
GEOLOGIC CORRELATION
EAST-WEST SECTION, N100 DRIFT
STATION W682 TO W2782

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