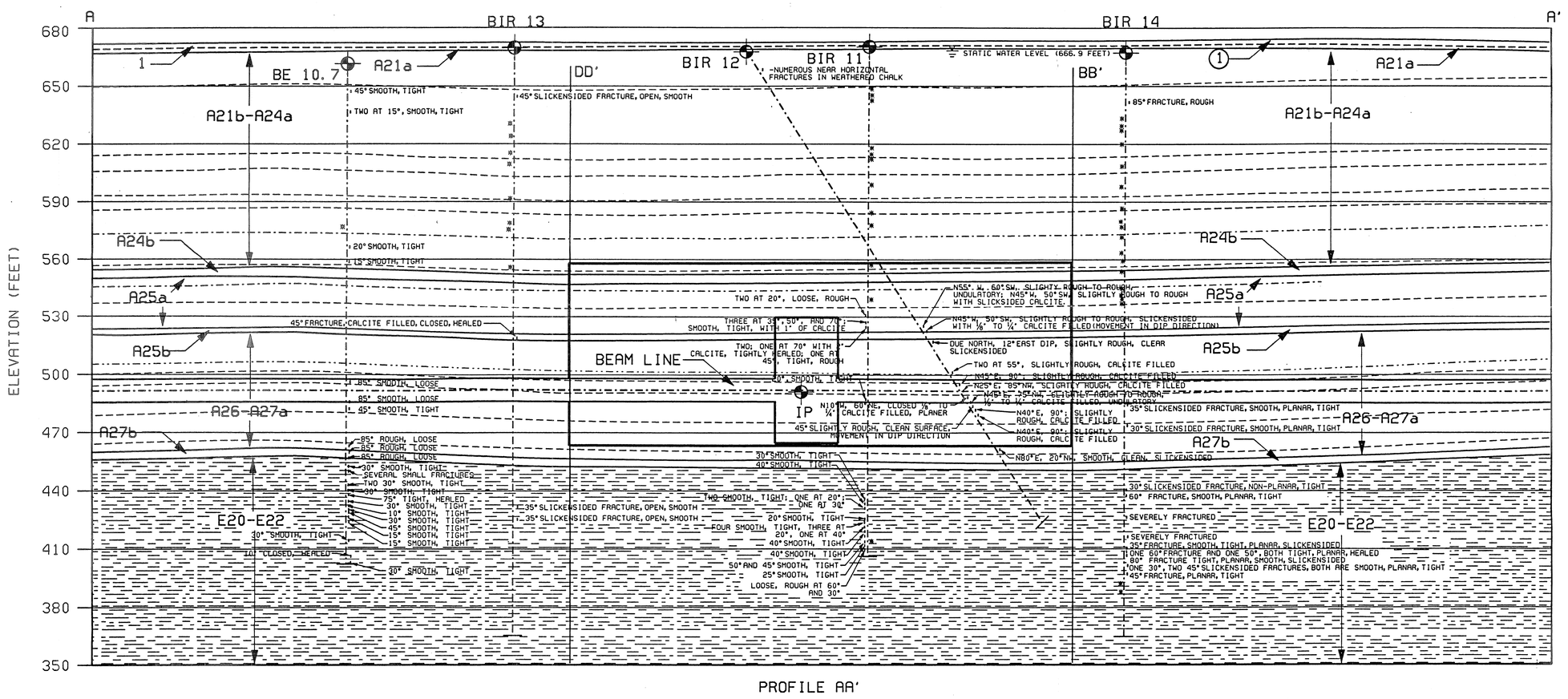
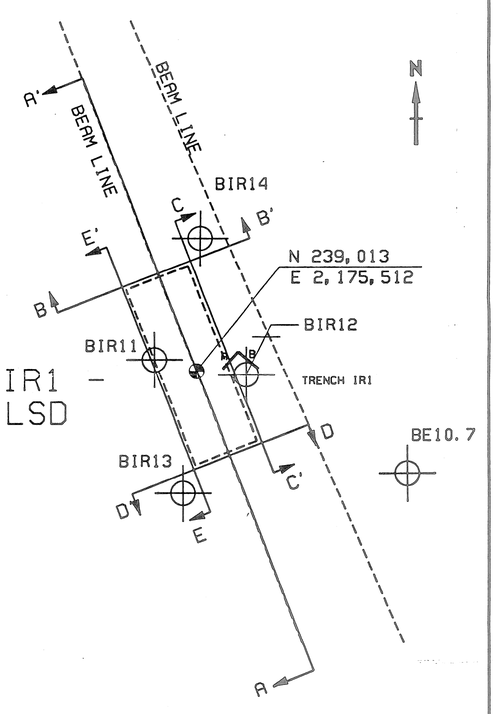


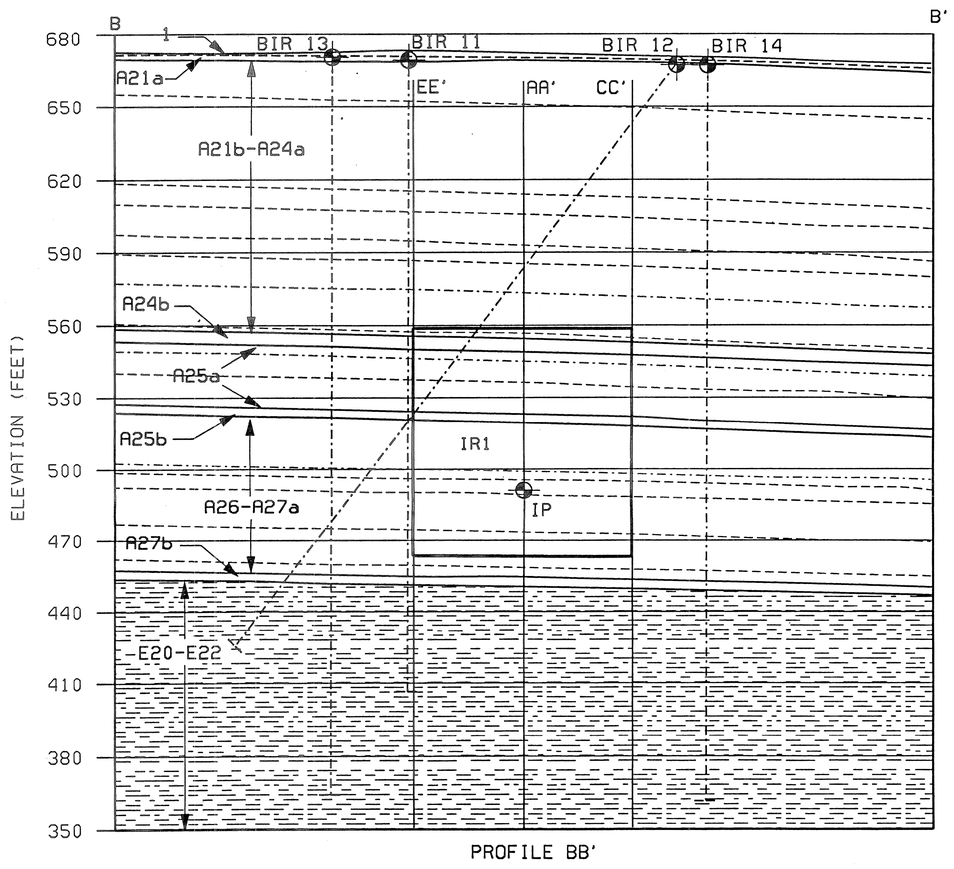
PROFILE AA'



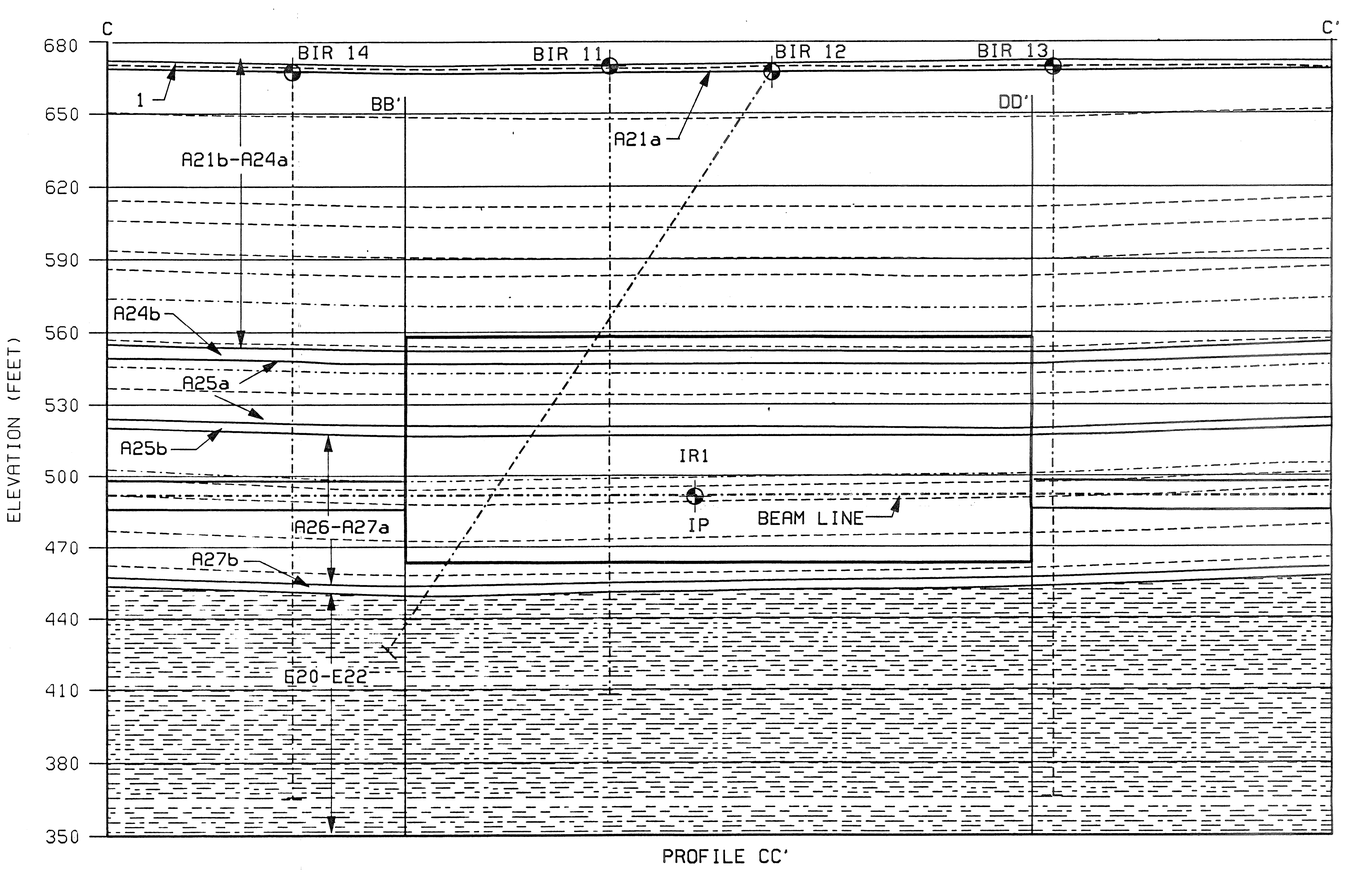
PROFILE LOCATION

GRAPHIC SCALE (FEET)

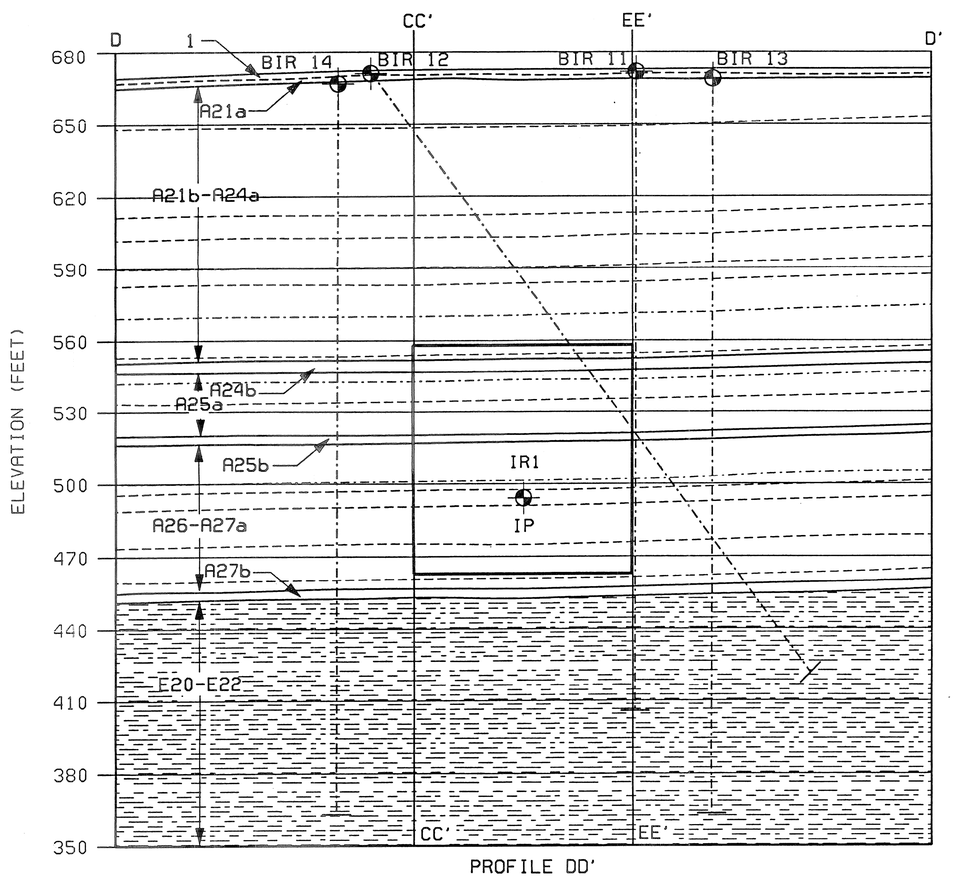
100 0 100 200 300 400



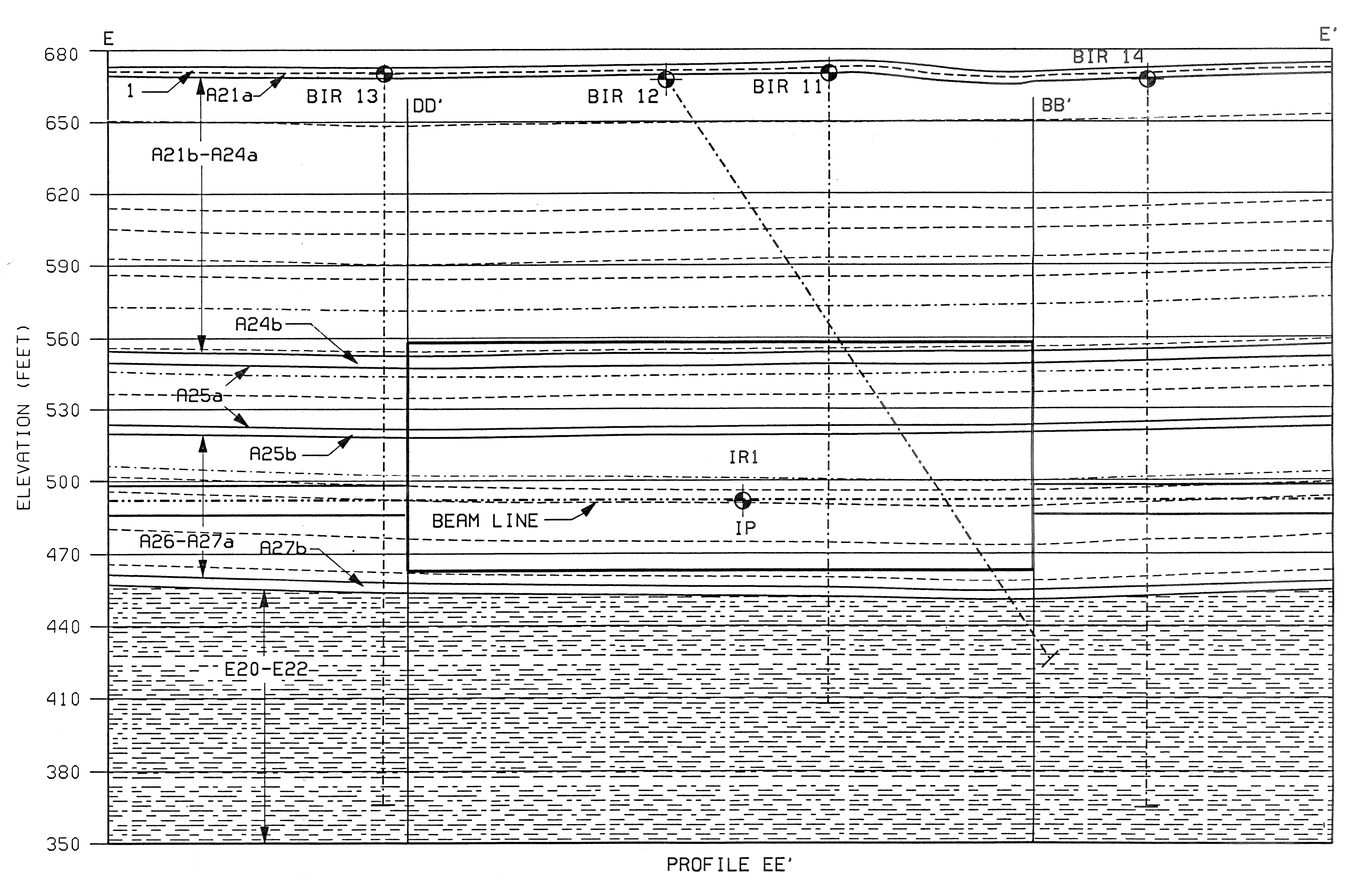
PROFILE BB'



PROFILE CC'



PROFILE DD'



PROFILE EE'

IR 1 PROFILE

SYMBOL	LITHOLOGY		GEOMECHANICAL CHARACTERISTICS: MOIST. CONT. %	DRY DEN. (PCF)	SPEC. GRAV.	ATTERBERG LIMITS LL	ATTERBERG LIMITS PI	$CaCO_3$ CONTENT	UNCONFINED COMP. STRENGTH (PSI)	TANGENT MODULUS E 50 (PSI)×10E5	POISSON'S RATIO	BRAZIL TENSILE STRENGTH (PSI)	SLAKE DURB. INDEX (%)	TABER ABRAS. HARD. INDEX	SWELL PRES. INDEX (PSI)
1	SOIL, DARK BROWN TO BLACK CLAYEY SAND TO SILTY CLAY, 0.8 TO 1.8 FEET THICK; FINE FRACTION HAS LOW TO MEDIUM PLASITICITY.	MINIMUM	22.8			42	24								
		AVERAGE	23.9			44	26								
		MAXIMUM	24.9			46	28								
A21a	WEATHERED LIMESTONE (AUSTIN CHALK), MODERATELY TO SEVERELY WEATHERED, WHITE TO DARK GRAY, SOFT TO MEDIUM HARD LIMESTONE WITH OCCASIONAL DARK GRAY TO LIGHT BLUISH-GRAY, THIN-BEDDED, HIGHLY ARGILLACEOUS LIMESTONE LAYERS. WEATHERED ZONE RANGES FROM 2.0 TO 5.1 FEET THICK. INCLUDES WIRE-LINE UNIT A21.		12.6	123.4					2364.0	8.33		205.0		0.464	
			12.9	123.4					2364.0	8.33		205.0		0.464	
			13.1	123.4					2364.0	8.33		205.0		0.464	
A21b-A24a	LIMESTONE (AUSTIN CHALK), MEDIUM HARD, SLIGHTLY FOSSILIFEROUS, LIGHT GRAY TO DARK GRAY, CHALK INTERBEDDED WITH MODRRATELY TO VERY ARGILLACEOUS LIMESTONE BEDS 0.2 TO 3.2 FEET THICK WITH THE MAJORITY OF THE BEDS APPROXIMATELY 0.8 FOOT THICK. CHALK BEDS RANGE FROM 0.3 TO 5.0 FEET THICK WITH THE MAJORITY OF THE BEDS SLIGHTLY GREATER THAN 1 FOOT THICK. THE ARGILLACEOUS LIMESTONE AND OCCASIONAL BENTONITE BEDS BECOME MORE COMMON AND THICKER (AVERAGE APPROXIMATELY 1.0 FOOT) TOWARD THE BASE. INCLUDES WIRELINE UNITS A21 TO A24.	MINIMUM	9.9	112.1	2.68				1095.0	1.50	0.09	146.0	96.9	0.402	
		AVERAGE	14.1	119.9	2.70				2007.0	4.29	0.13	226.0	96.9	0.609	
		MAXIMUM	17.6	129.3	2.71				2828.0	8.78	0.16	279.0	96.9	1.091	
A24b	SHALE (INTERBED OF AUSTIN CHALK), SOFT, SLIGHTLY FOSSILIFEROUS, DARK GRAY, 2.0 TO ABOUT 5.0 FEET THICK. INCLUDES WIRELINE UNIT A24.														
A25a	LIMESTONE (AUSTIN CHALK), MEDIUM HARD, SLIGHTLY FOSSILIFEROUS, LIGHT GRAY TO DARK GRAY CHALK INTERBEDDED WITH MODERATE TO VERY ARGILLACEOUS LIMESTONE BEDS 0.4 TO 4.1 FEET THICK AND AVERAGING APPROXIMATELY 1 FOOT THICK. IN GENERAL, THIS UNIT IS LESS ARGILLACEOUS THAN THE LIMESTONE UNITS ABOVE AND BELOW. INCLUDES WIRELINE UNIT A25.	MINIMUM	12.5	114.0	2.68				419.0	0.27		226.0		0.503	
		AVERAGE	14.0	116.3	2.68				1854.0	5.90		282.0		0.531	
		MAXIMUM	17.1	117.4	2.68				2978.0	14.00		339.0		0.559	
A25b	BENTONITE (MARKER BED IN AUSTIN CHALK); SOFT, LIGHT GRAY TO BLUISH GRAY, WAXY, NON-LAMINATED, 1.1 TO 1.7 FEET THICK. INCLUDES WIRELINE UNIT A25.	MINIMUM	18.0	81.3	2.32	106.0	56.0	4.9							10.0
		AVERAGE	36.0	88.6	2.50	121.0	79.0	7.7							10.0
		MAXIMUM	40.3	106.1	2.68	132.0	93.0	10.4							10.0
A26-A27a	LIMESTONE (AUSTIN CHALK), MEDIUM HARD, SLIGHTLY FOSSILIFEROUS, LIGHT GRAY TO DARK GRAY, CHALK WITH INTERBEDDED ARGILLACEOUS LIMESTONE BEDS 0.2 TO 2.3 FEET THICK WITH THE MAJORITY OF THE INTERBEDS APPROXIMATELY 0.9 FOOT THICK. CHALK BEDS RANGE FROM 0.4 TO GREATER THAN 5 FEET THICK WITH THE MAJORITY OF THE BEDS GREATER THAN 3 FEET THICK. THE ARGILLACEOUS LIMESTONE BEDS BECOME MORE COMMON TOWARD THE BASE. IN GENERAL, THIS UNIT IS MORE ARGILLACEOUS THAN UNIT 5. INCLUDES WIRELINE UNITS A26 AND A27.	MINIMUM	9.4	116.2					1317.0	1.70	0.12	197.0	97.3	0.39	
		AVERAGE	13.2	124.1					2377.0	5.14	0.14	240.0	97.3	0.48	
		MAXIMUM	16.3	132.8					2940.0	7.90	0.15	267.0	97.3	0.56	
A27b	TRANSITION ZONE (AUSTIN CHALK), VERY ARGILLACEOUS TO VERY ARENACEOUS LIMESTONE, MEDIUM HARD, HIGHLY FOSSILIFEROUS (FISH BONES, FISH TEETH, AND OTHER FOSSIL DEBRIS), MEDIUM TO DARK GRAY WITH OCCASIONAL PYRITE NODULES. THICKNESS RANGES FROM 0.8 TO 2.6 FEET. INCLUDES WIRELINE UNIT A27 (BASE).	MINIMUM	11.3	117.1					2474.0	0.05		238.0			
		AVERAGE	13.6	121.9					2565.0	0.05		254.0			
		MAXIMUM	16.3	125.8					2655.0	0.05		267.0			
E20-E22	SHALE (EAGLE FORD), SOFT TO MEDIUM HARD, SLIGHTLY CALCAREOUS, SLIGHTLY FOSSILIFEROUS, DARK GRAY TO BLACK, OCCASIONAL PYRITE NODULES AND CALCAREOUS CONCRETIONS. OCCASIONAL THIN LIMESTONE AND CALCAREOUS SILTSTONE BEDS 0.1 TO 0.6 FOOT THICK 25 TO 35 FEET BELOW THE AUSTIN CHALK/EAGLE FORD SHALE CONTACT. INCLUDES WIRE-LINE UNITS E20-E22	MINIMUM	9	112	2.73			5.0	114	0.11	0.33		13.6		22.0
	EFS	AVERAGE	16.4	118.0	2.75			5.7	362.0	1.45	0.42		37.2		47.8
		MAXIMUM	18	123	2.76			6.6	537	2.00	0.47		51.9		87.0
		MINIMUM	8.9	111.9	2.57	79.0	45.0	5.0	98.0	0.11	0.04		4.9		16.0
		AVERAGE	15.7	117.4	2.71	87.9	54.0	7.4	286.0	0.74	0.28		28.3		44.3
		MAXIMUM	17.7	130.3	2.76	106.0	71.0	12.1	537.0	2.00	0.47		51.9		87.0

LEGEND

- ARGILLACEOUS BEDS 0.1 TO 0.4 FEET THICK
- BENTONITE AND BENTONITIC SHALE BEDS 0.1 TO 0.2 FEET THICK, CONTINUOUS FROM ONE BORING TO ANOTHER.
- FOSSILIFEROUS ZONES IDENTIFIED IN INDIVIDUAL BORINGS
- SHEARS AND FRACTURES NOTED IN BORING LOGS. THESE ARE PROJECTED THROUGH TO CROSS SECTION ON THE BORING.

* : DOES NOT INCLUDE INCLINED BOREHOLES
■ ONLY ONE VALUE OBTAINED IN THIS INTERVAL

ASSUMED STATE PLANE CENTER COORDINATES (NAD 27):
Y(N) - 252,561.3010
X(E) - 2,213,072.3336
STRIKE: N 13.70° E (GRID NORTH)
TILT: 0.17°
OBLIQUITY: N 18°.77'W (GRID NORTH)

PRELIMINARY REVISION
4/2/90

GRAPHIC SCALE (FEET)
30 0 30 60 90 120

NO	DATE	REVISION	BY CHK	APP	APP	D'BASE UPDATE
1	2/27/90	GENERAL REVISION				

U.S. DEPARTMENT OF ENERGY
SUPERCONDUCTING SUPER COLLIDER

GEOLOGIC PROFILE
IR1 - LSD

RTK a joint venture — Kaiser Engineers Inc. Tudor Engineering Company Keller & Gannon-Knight

CONTRACT DE-AC02-85ER40230 | PROJECT 85122
DRAWING GS-3 | DATE 1/22/90 | REV 3 DATE 4/25/90 | SHEET

GEOPROIR1.DGN 4/2/90

SSCL-SR-1096(1)