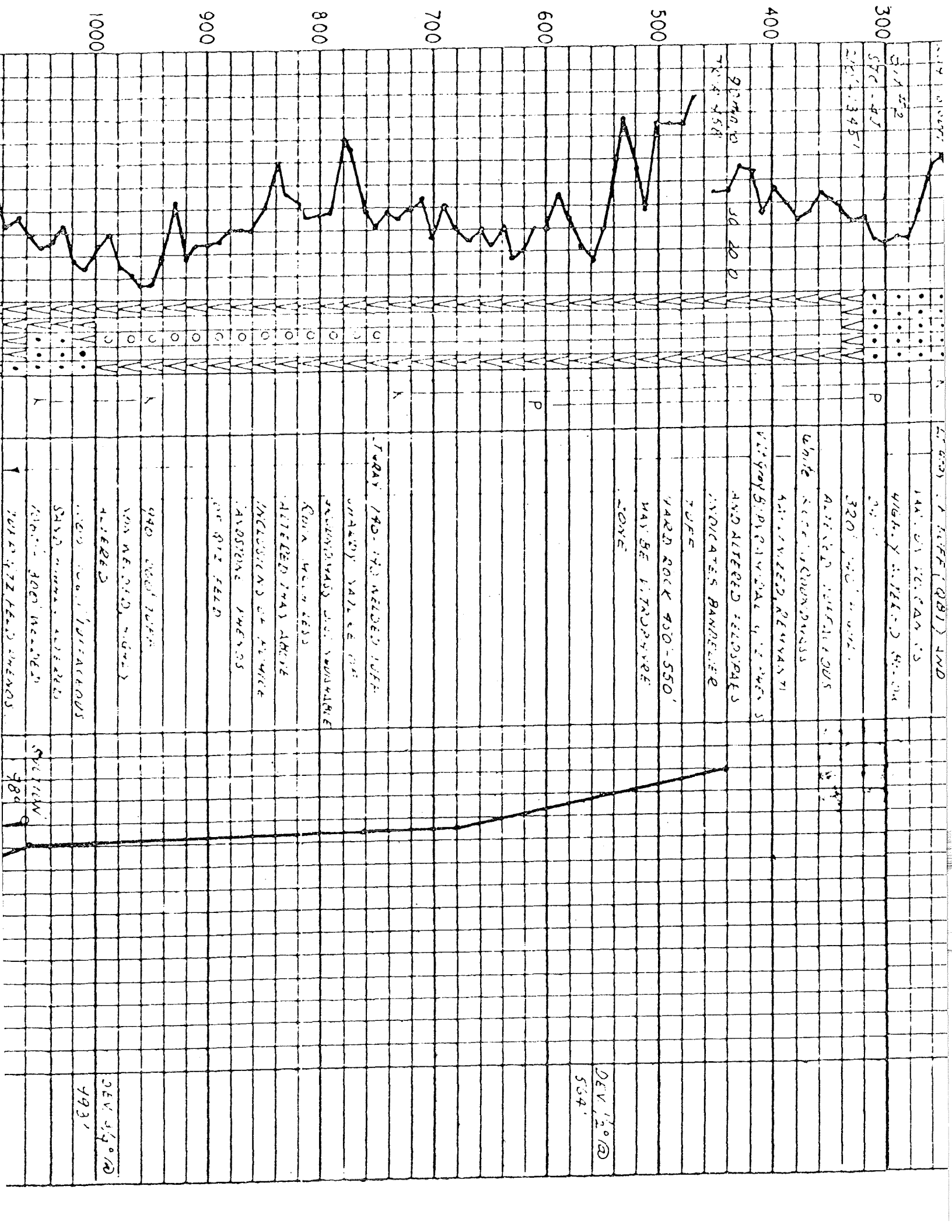


COMPANY <u>UNION OIL CO of CALIF.</u> FIELD <u>BACA</u> WELL <u>#11</u> COUNTY <u>SANDOVAL</u> STATE <u>NEW MEXICO</u> LOCATION <u>LAT: 35° 89' 50" N, LONG 106° - 57' 60" W</u> <u>EL. 9064.9'</u>	TOTAL DEPTH <u>6924</u> SPUD DATE <u>SEP 4, 1977</u> COMPLETION DATE _____ DRILLING CONTRACTOR <u>CALVERT-WESTERN</u> ENGINEER <u>TONES - NYMAN</u> GEOLOGIST <u>DONDANVILLE</u>	CASING RECORD <u>20" - 204' TO SURFACE, CEMENTED</u> <u>13 3/8" - 1365' TO SURFACE, CEMENTED</u> <u>9 5/8" - 3380' TO 1220', CEMENTED</u> <u>7" (SLOTS) - 6424 - 3321, 4000</u>
---	---	--

EXPLANATION

DRILLING	ROCK	MINERALS	PHYSICAL - CHEMICAL
NB - NEW BIT	<input checked="" type="checkbox"/> SHALE	<input checked="" type="checkbox"/> CHERT	D.H. - DOWN HOLE
RRB - RERUN BIT	<input type="checkbox"/> SILTSTONE	<input checked="" type="checkbox"/> VOLCANICS	B.H. - BOTTOM HOLE
CB - CORZ BIT	<input type="checkbox"/> SANDSTONE	<input checked="" type="checkbox"/> INTRUSIVE	F.L. - FLOW LINE
LC - LOST CIRCULATION	<input checked="" type="checkbox"/> CONGLOMERATE	<input checked="" type="checkbox"/> TUFF	T. - TEMPERATURE
DEV - DEVIATION	<input type="checkbox"/> LIMESTONE	<input checked="" type="checkbox"/> METAMORPHIC	P. - PRESSURE
DST - DRILL STEM TEST	<input type="checkbox"/> DOLOMITE	<input type="checkbox"/> _____	T.C. - TIME SINCE CIRCULATION
	<input checked="" type="checkbox"/> GYP. ANHYD.	<input type="checkbox"/> _____	W.H. - WELL HEAD
		<input type="checkbox"/> F - FELDSPAR	
			PPM - PARTS PER MILLION

DEPTH	PENETRATION DATA		LITHOLOGY		PHYSICAL - CHEMICAL DATA				MISC.		
	FT./HR.		PRIMARY LITH	SECONDARY MINERALS	BULK COLOR	DESCRIPTION	MUD FLOWLINE TEMPERATURE				
	90 min	50 30 20 0	100 % 0				75°	100°	150°	200°	
0	Drilling 12 1/2"		•••••			Med Gray SAND (GALERA FILL)					
100	100 - 1400		•••••			OF BROWN CLAY (GALERA FILL)					
150	A - 141		NO								
200	ST - 455		•••••			RED BROWN SAND (GALERA FILL)					
250	3 - 201		•••••			COARSE GRAINS COARSE					
300			•••••			BROWNISH SEMI-ROUNDED QTZ & FELD.					
350			•••••			GRAY AND B. PYRAMIDAL QTZ.					
400			•••••	C		REDDISH AND RED ARKOSE.					
450			•••••			BROWN WHITE QTZITE FRAGMENTS					
500			•••••			LT GRAY TUFF (QB1) AND					
550			•••••			MASSIVE VOLCANIC					
600			•••••			HIGHLY ALTERED SAND					



DEPTH (QBI) AND

141' OF LIGNITE

WHITE SILTSTONE

INDICATES BANDING

MAY BE LIGNITIFEROUS

900

720

P

K

L

K

TODAY 140' WAS NEEDED DIFF.

CHANGING SATELLE OF

PROBABLY WAS NOT

ALIGNED THIS AREA

INDICATIONS OF

INDICATE THIS

940 900' 700'

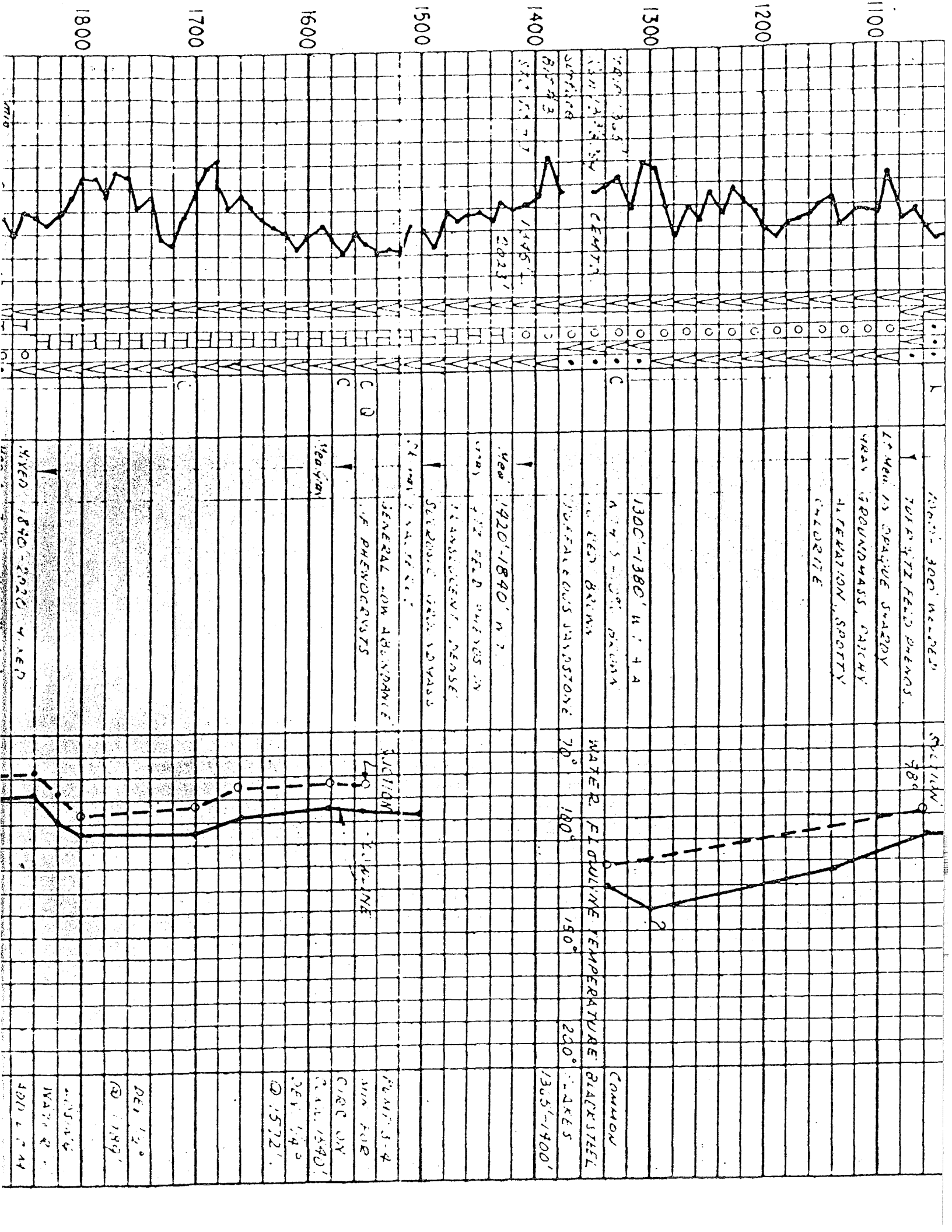
900 800' 700'

1000 900' 800'

DEV 120' @ 554'

DEV 140' @ 493'

SPITZKEID



1300'-1380' H. 4 A

1420'-1840' H. 3

1840-2020' H. 4 A

1st Member is massive sandy
massive sandstone, sandy
concretion, sandy
concretion

GENERAL - ON ABUNDANCE
OF PHENOCRYSTS

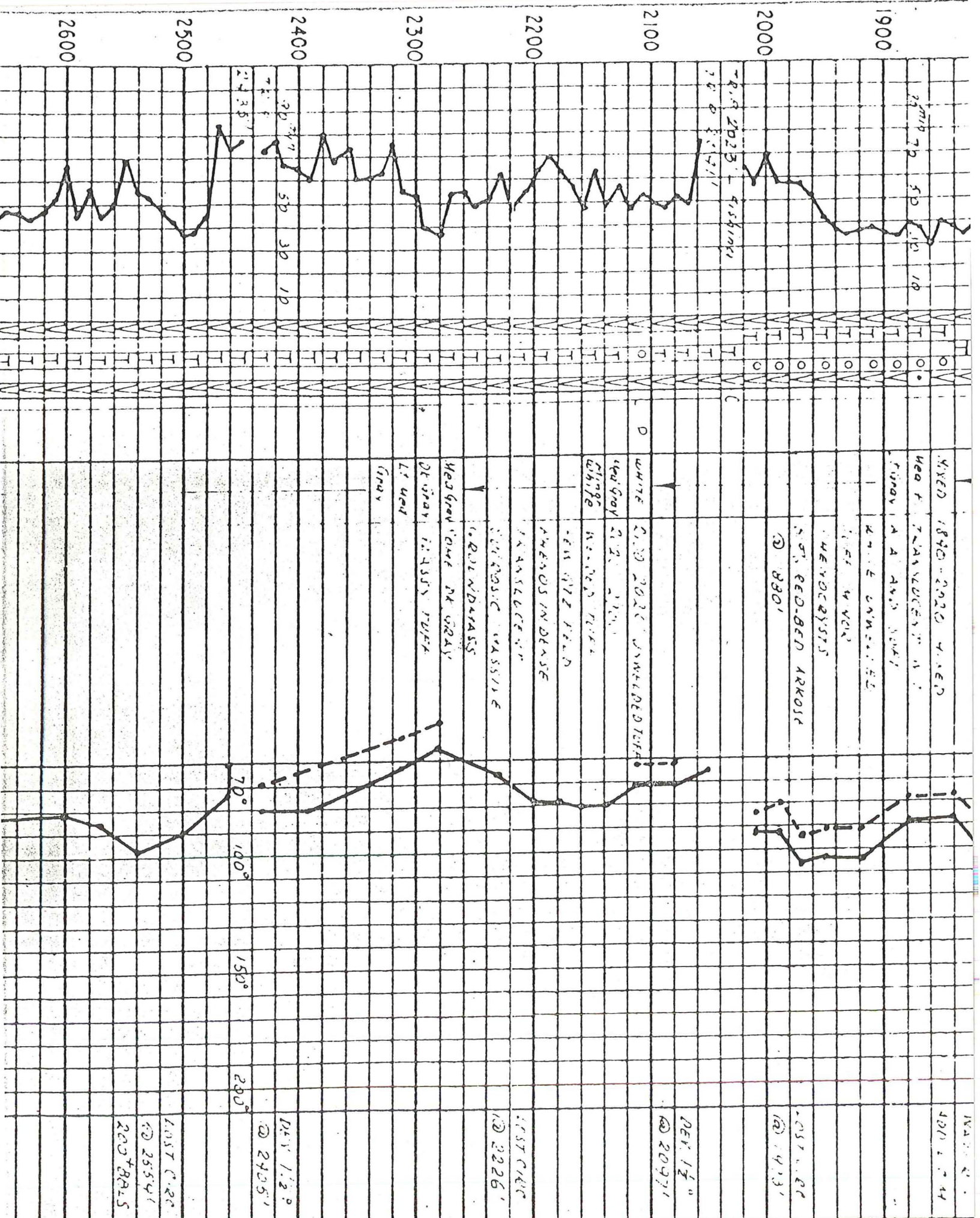
SEVERAL SANDS IN
TRANSVERSE DIRECTION

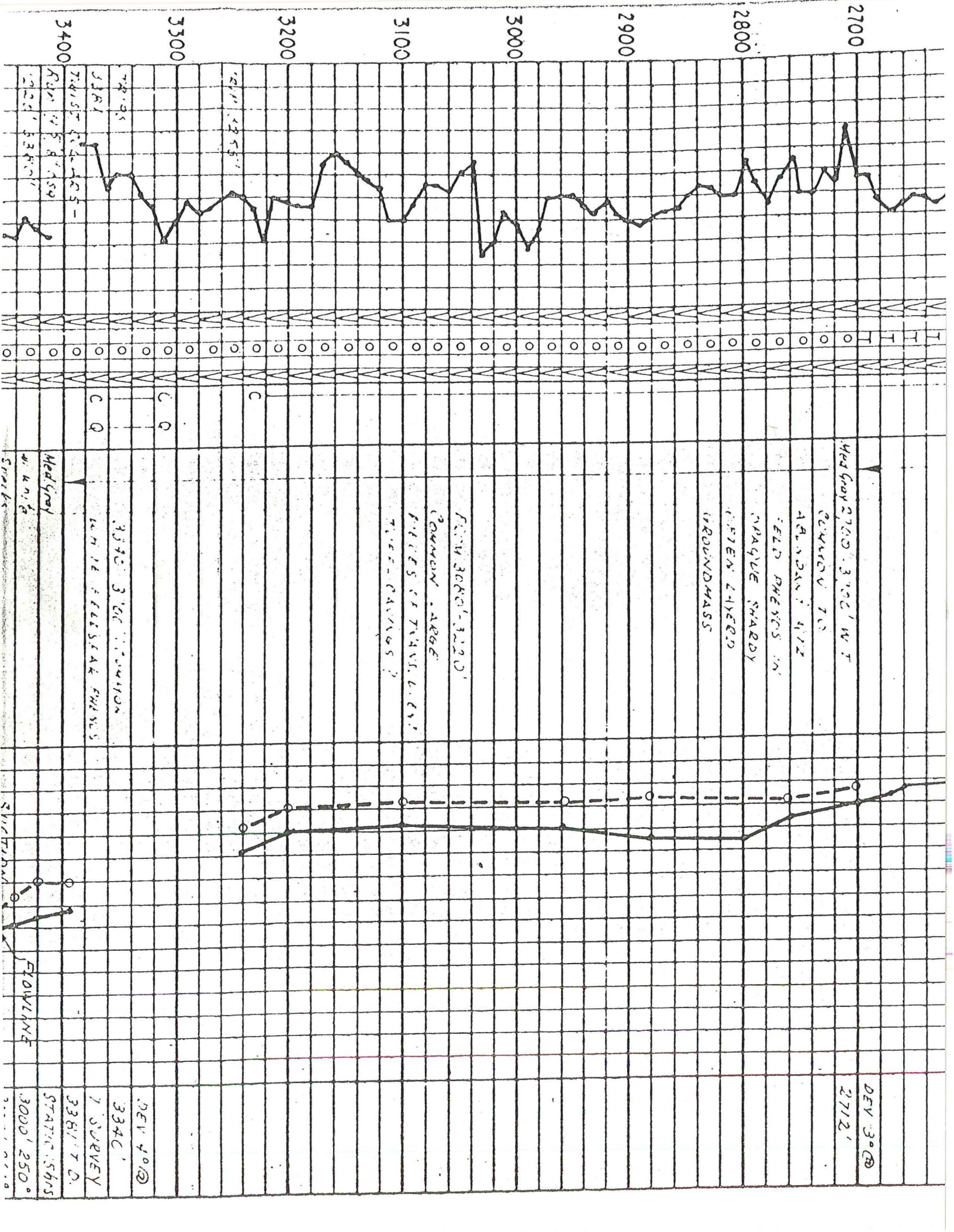
WATER FLOWLINE TEMPERATURE

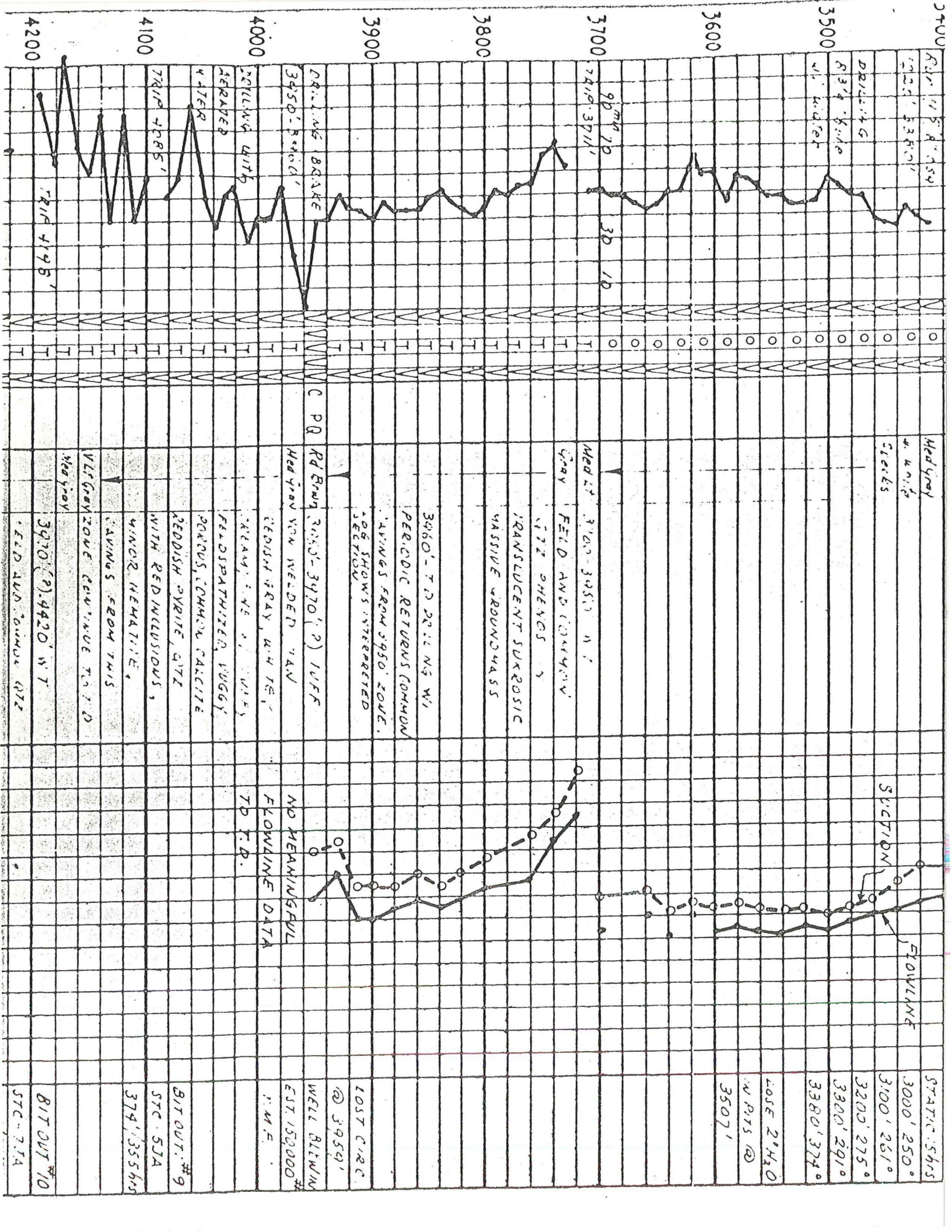
COMMON
BLACK STEEL

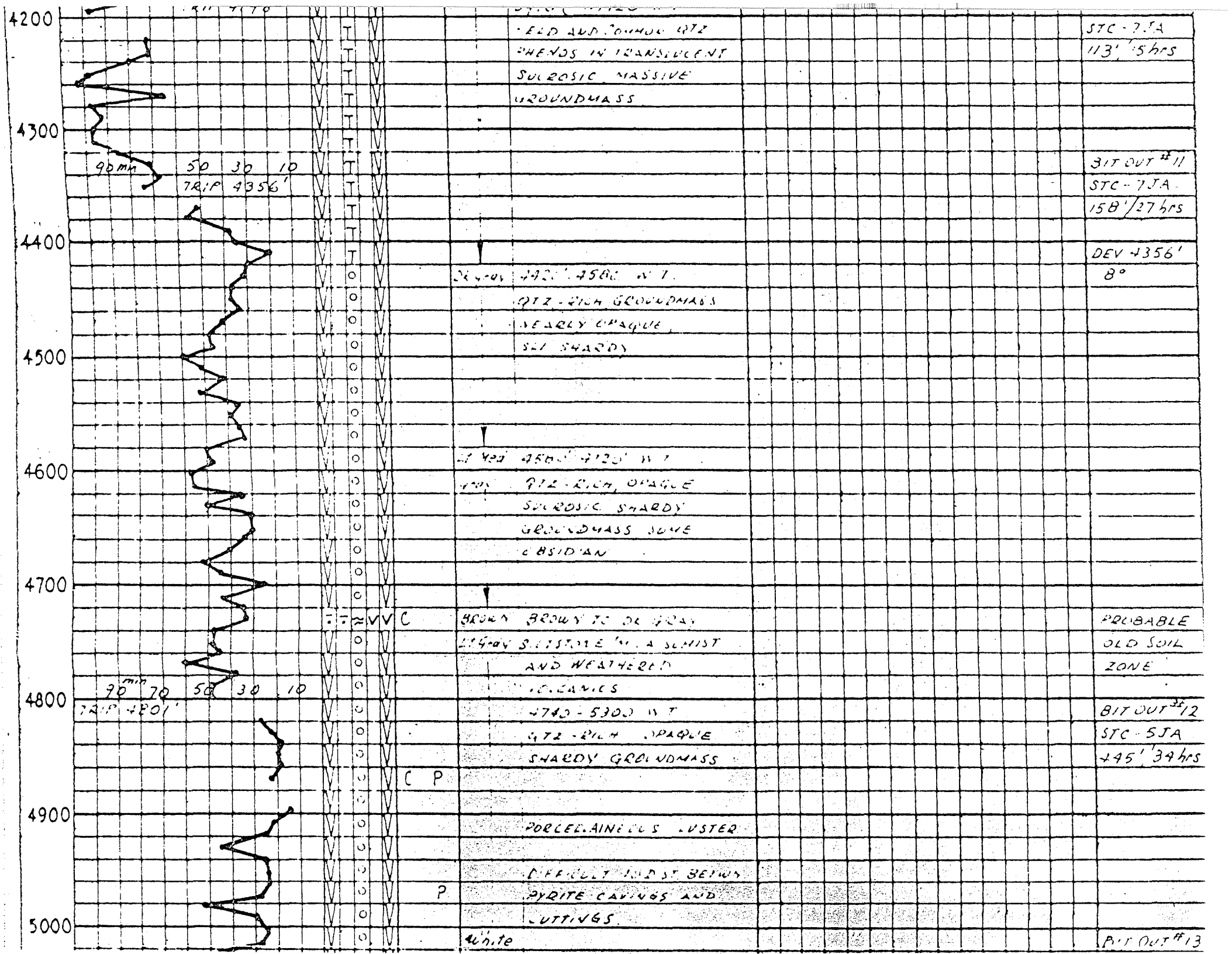
DEP 120'
@ 1890'

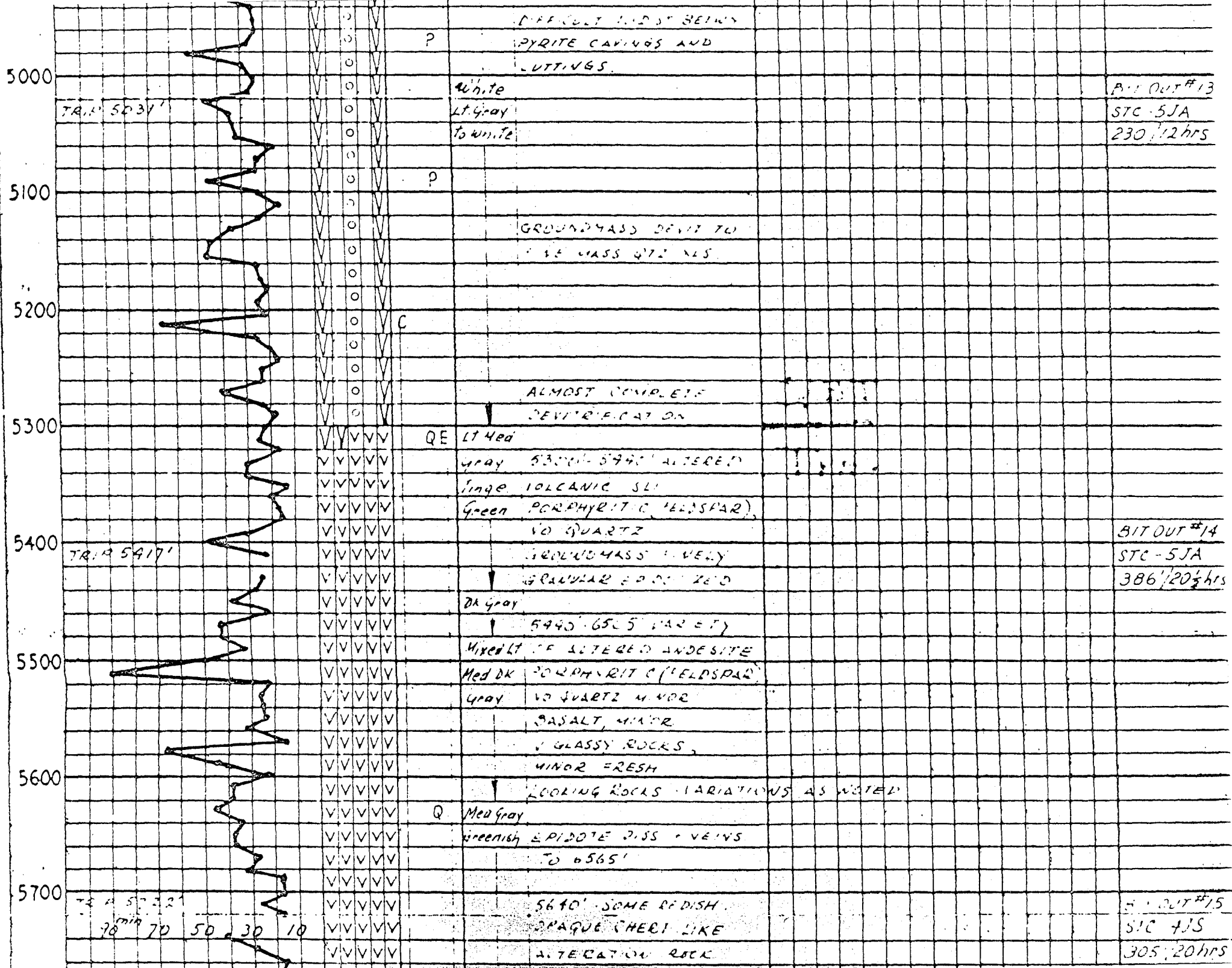
WATER 2'
100' - 104'











P DIFFICULT AND ST BEING
 PYRITE CAVINGS AND
 LUTTINGS.

5000 TRIP 5034' White
 Lt Gray
 To white
 BIT OUT #13
 STC-5JA
 230 12 hrs

P
 GROUNDMASS DEVIT TO
 MASS QTZ VLS

5100
 5200
 5300 C
 ALMOST COMPLETE
 DEVITIFICATION

QE LT Med
 Gray 5300-5440 ALTERED
 Fine VOLCANIC SLT
 Green PORPHYRITIC (FELDSPAR)
 NO QUARTZ

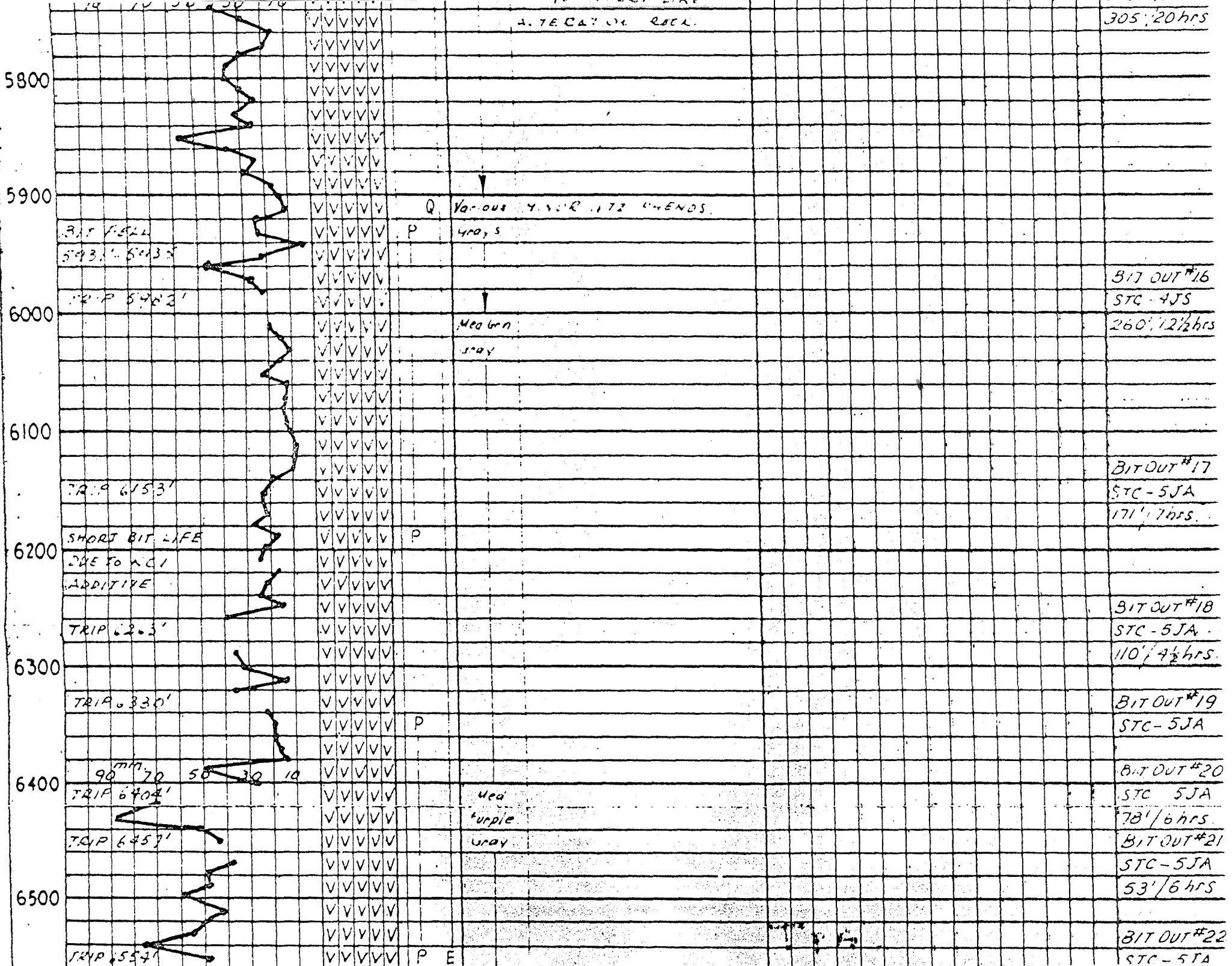
5400 TRIP 5417' GROUNDMASS FINELY
 GRANULAR EPIDOTED
 BIT OUT #14
 STC-5JA
 386 20 1/2 hrs

DK Gray
 5440-6565 (ALTY)
 Mixed LT OF ALTERED ANDESITE
 Med DK PORPHYRITIC (FELDSPAR)
 Gray NO QUARTZ MINOR

5500
 5600 BASALT, MINOR
 GLASSY ROCKS,
 MINOR FRESH
 LOOKING ROCKS - VARIATIONS AS NOTED

Q Med Gray
 greenish EPIDOTE P.I.S.S. VEINS
 TO 6565'

5700 TRIP 5732' 70 50 30 10
 5640' SOME REDISH
 OPAQUE CHEST LIKE
 ALTERATION ROCK
 BIT OUT #15
 STC-4JS
 305 20 hrs



305:20 hrs

BIT OUT #16

STC-4JS

260' / 2 1/2 hrs

BIT OUT #17

STC-5JA

171' / 7 hrs

BIT OUT #18

STC-5JA

110' / 4 1/2 hrs

BIT OUT #19

STC-5JA

BIT OUT #20

STC 5JA

78' / 6 hrs

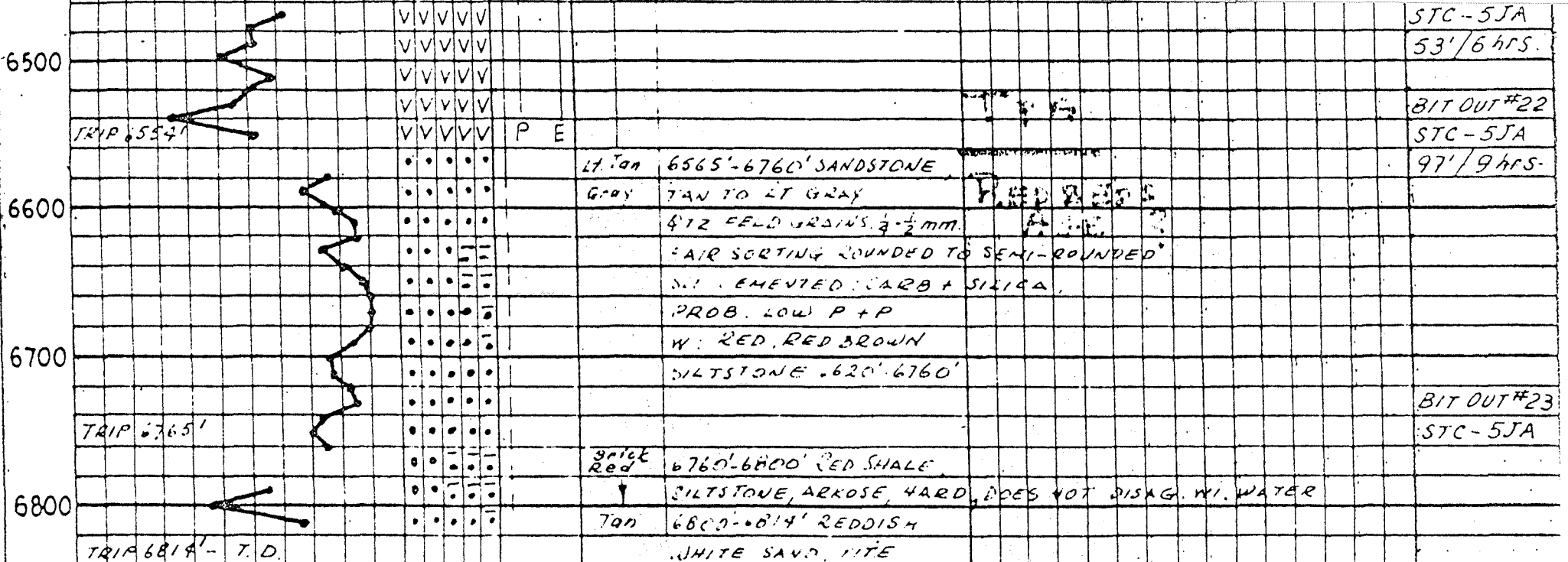
BIT OUT #21

STC-5JA

53' / 6 hrs

BIT OUT #22

STC-5JA



LT. Tan 6565'-6760' SANDSTONE

GRAY TAN TO LT GRAY

4/2 FELD GRAINS 3-2 MM.

FAIR SORTING ROUNDED TO SEMI-ROUNDED

NOT CEMENTED: CARB + SILICA

PROB. LOW P + P

W: RED, RED BROWN

SILTSTONE 6620'-6760'

Red 6760-6800' RED SHALE

SILTSTONE, ARKOSE, HARD, DOES NOT DISAG. WI. WATER

Tan 6800-6814' REDDISH

WHITE SAND, MITE

TRUE DEPTH: 6924'
 ERROR DUE TO
 PIPE EXPANSION
 FROM HEATING DURING
 SURGING

RUN 7" SLOTTED
 LINER

STC-5JA

53' / 6 hrs.

BIT OUT #22

STC-5JA

97' / 9 hrs.

BIT OUT #23

STC-5JA