

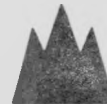
DO NOT MICROFILM
COVER

AERIAL RADIOMETRIC AND MAGNETIC SURVEY
WHITE SULPHUR SPRINGS
NATIONAL TOPOGRAPHIC MAP
MONTANA

PREPARED FOR THE U.S. DEPARTMENT OF ENERGY
GRAND JUNCTION OFFICE
GRAND JUNCTION, COLORADO
UNDER SMALL BUSINESS ADMINISTRATION SUBCONTRACT NO. 78-178-M

HIGH LIFE HELICOPTERS, INC.
PUYALLUP, WASHINGTON
AND
GEODATA INTERNATIONAL, INC.
DALLAS, TEXAS

DO NOT MICROFILM
COVER



Geodata International, Inc.
7035 JOHN W. CARPENTER FRWY.
DALLAS, TEXAS 75247

VOL. 2

DO NOT MICROFILM
COVER

LEGAL NOTICE

This report was prepared as an account of work sponsored by the United States Government. Neither the United States nor the United States Department of Energy, nor any of their employees, nor any of their contractors, subcontractors, or their employees, makes any warranty, express or implied, or assumes any legal liability or responsibility for the accuracy, completeness or usefulness of any information, apparatus, product or process disclosed, or represents that its use would not infringe privately owned rights.

GJBX-96 '79

**AERIAL RADIOMETRIC AND MAGNETIC SURVEY
WHITE SULPHUR SPRINGS
NATIONAL TOPOGRAPHIC MAP
MONTANA**

PREPARED FOR THE U.S. DEPARTMENT OF ENERGY
GRAND JUNCTION OFFICE
GRAND JUNCTION, COLORADO
UNDER SMALL BUSINESS ADMINISTRATION SUBCONTRACT NO. 78-178-M

HIGH LIFE HELICOPTERS, INC.
PUYALLUP, WASHINGTON
AND
GEODATA INTERNATIONAL, INC.
DALLAS, TEXAS



Geodata International, Inc.

7035 JOHN W. CARPENTER FRWY.
DALLAS, TEXAS 75247

VOL. 2



DISCLAIMER

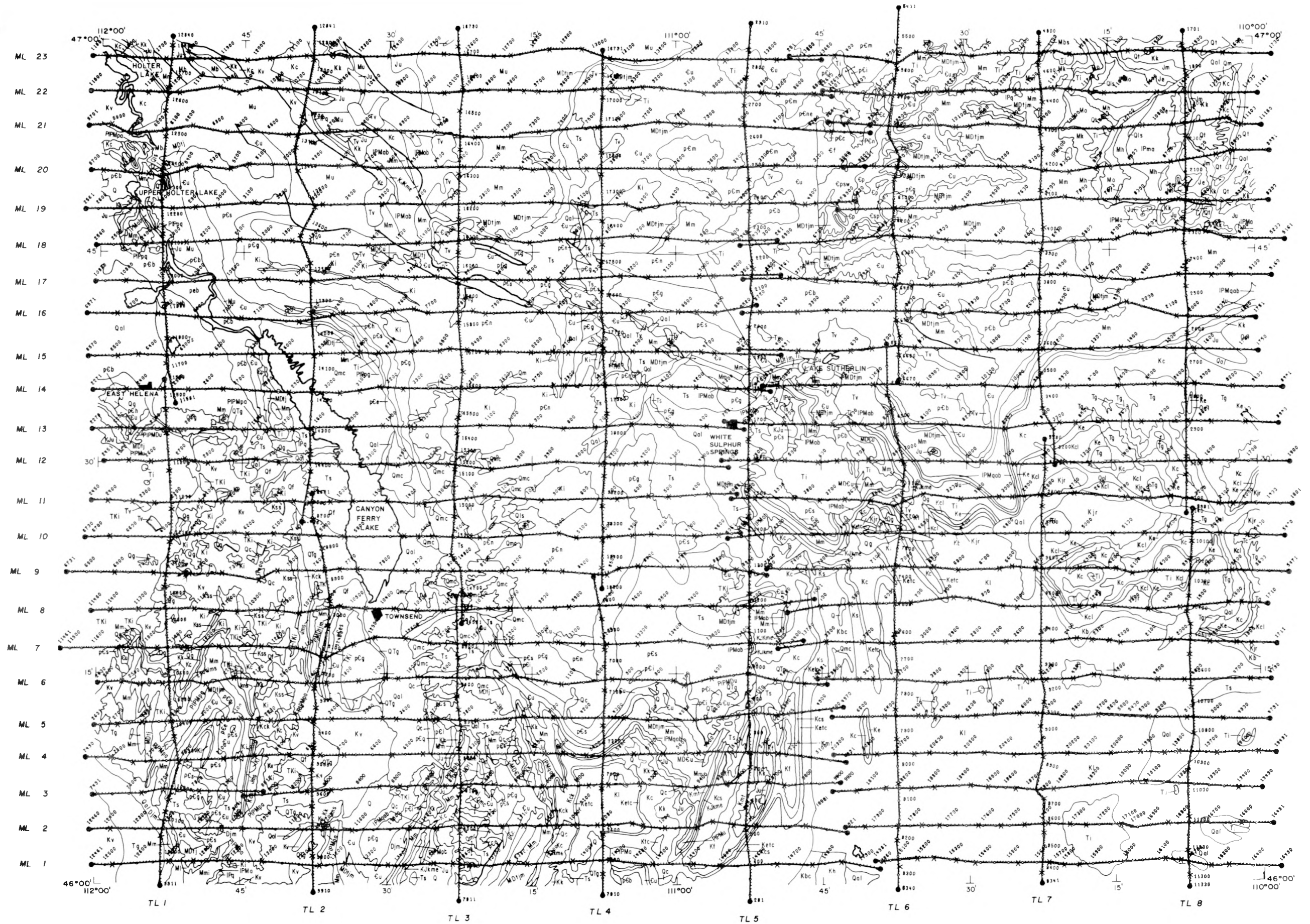
This report was prepared as an account of work sponsored by an agency of the United States Government. Neither the United States Government nor any agency thereof, nor any of their employees, makes any warranty, express or implied, or assumes any legal liability or responsibility for the accuracy, completeness, or usefulness of any information, apparatus, product, or process disclosed, or represents that its use would not infringe privately owned rights. Reference herein to any specific commercial product, process, or service by trade name, trademark, manufacturer, or otherwise does not necessarily constitute or imply its endorsement, recommendation, or favoring by the United States Government or any agency thereof. The views and opinions of authors expressed herein do not necessarily state or reflect those of the United States Government or any agency thereof.

NOTICE
PORTIONS OF THIS REPORT ARE ILLEGIBLE.
 It has been reproduced from the best available copy to permit the broadest possible availability.



GEOLOGY
 WHITE SULPHUR SPRINGS
 SHEET

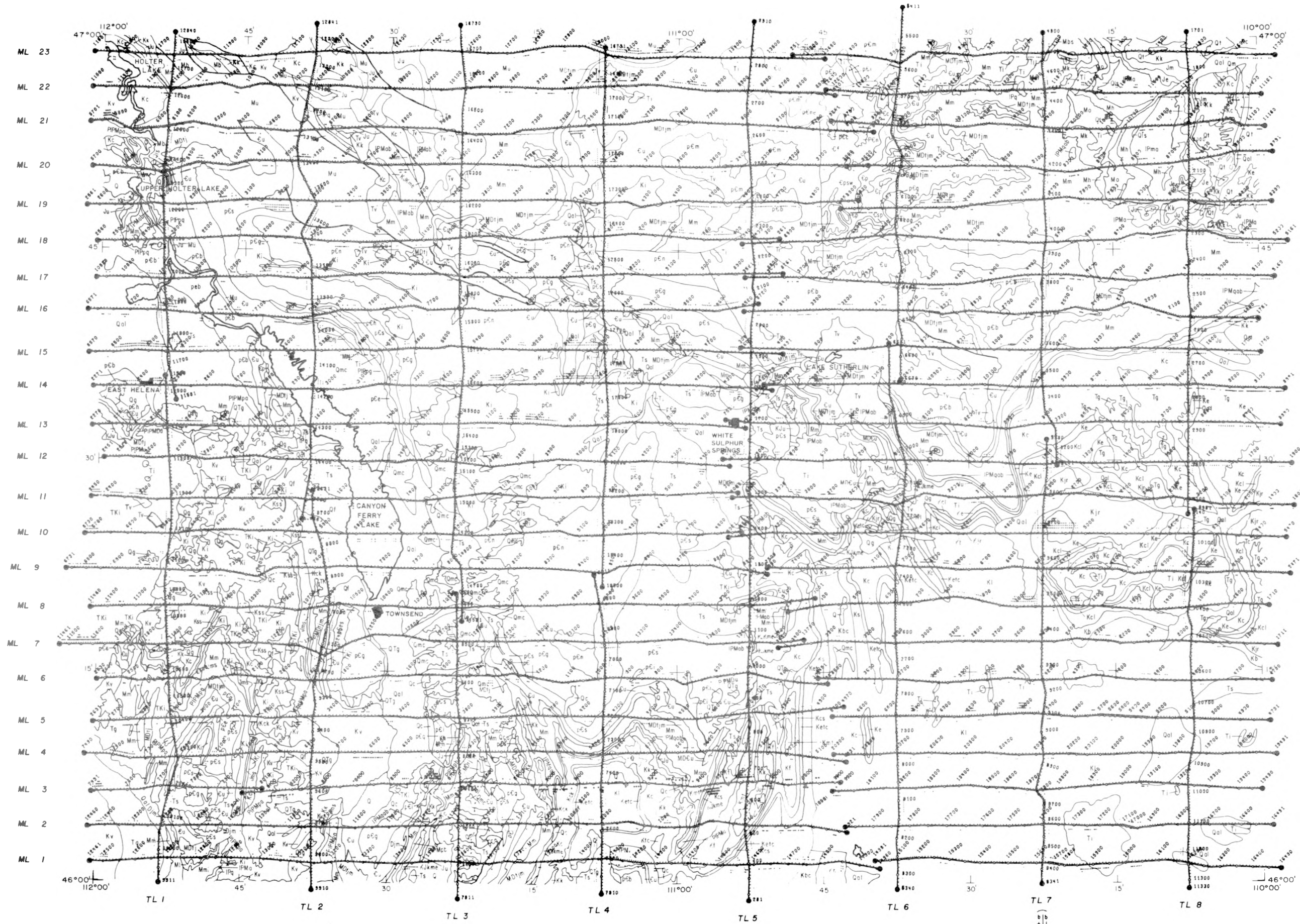
129



FLIGHT BASE

WHITE SULPHUR SPRINGS
SHEET



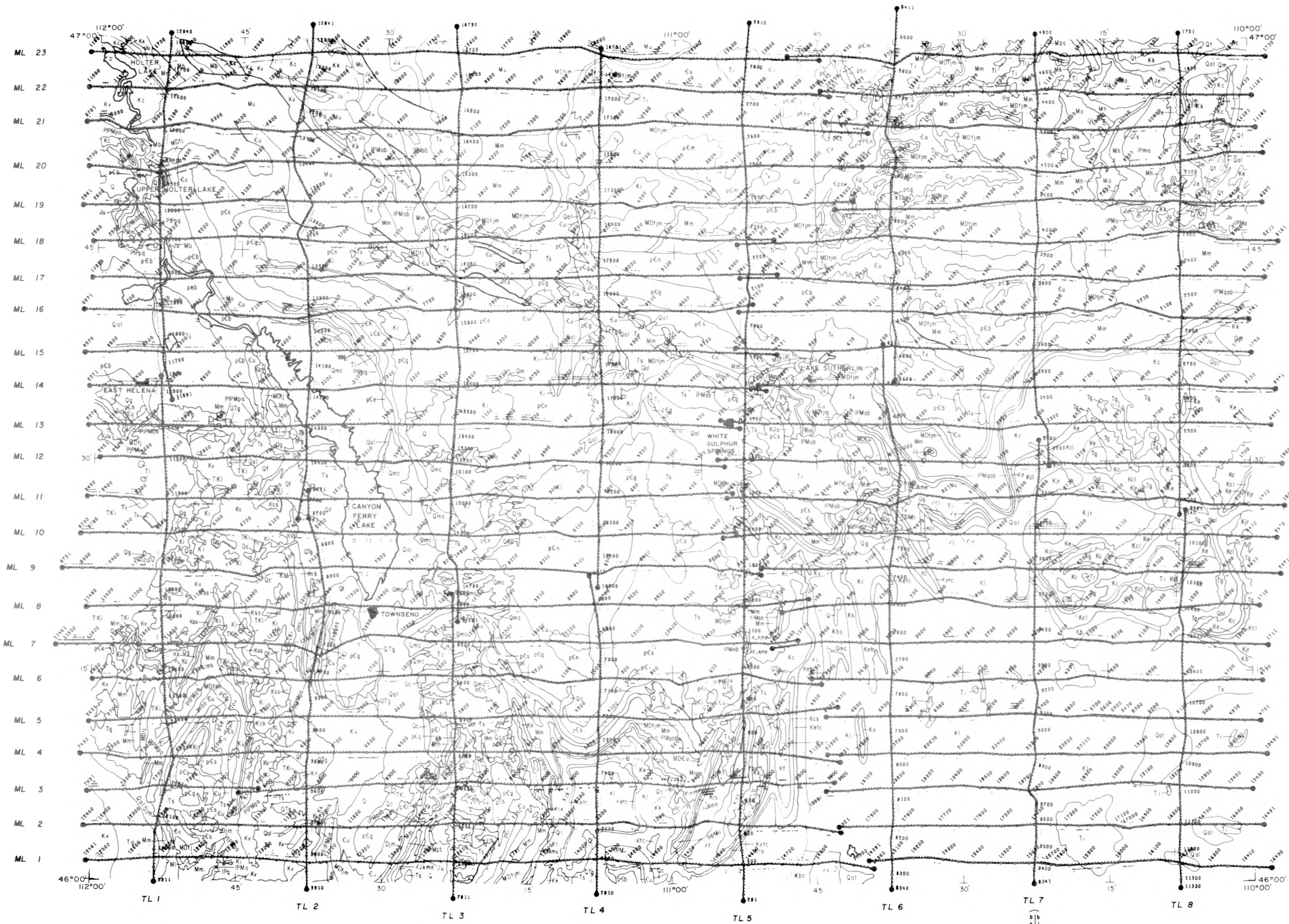


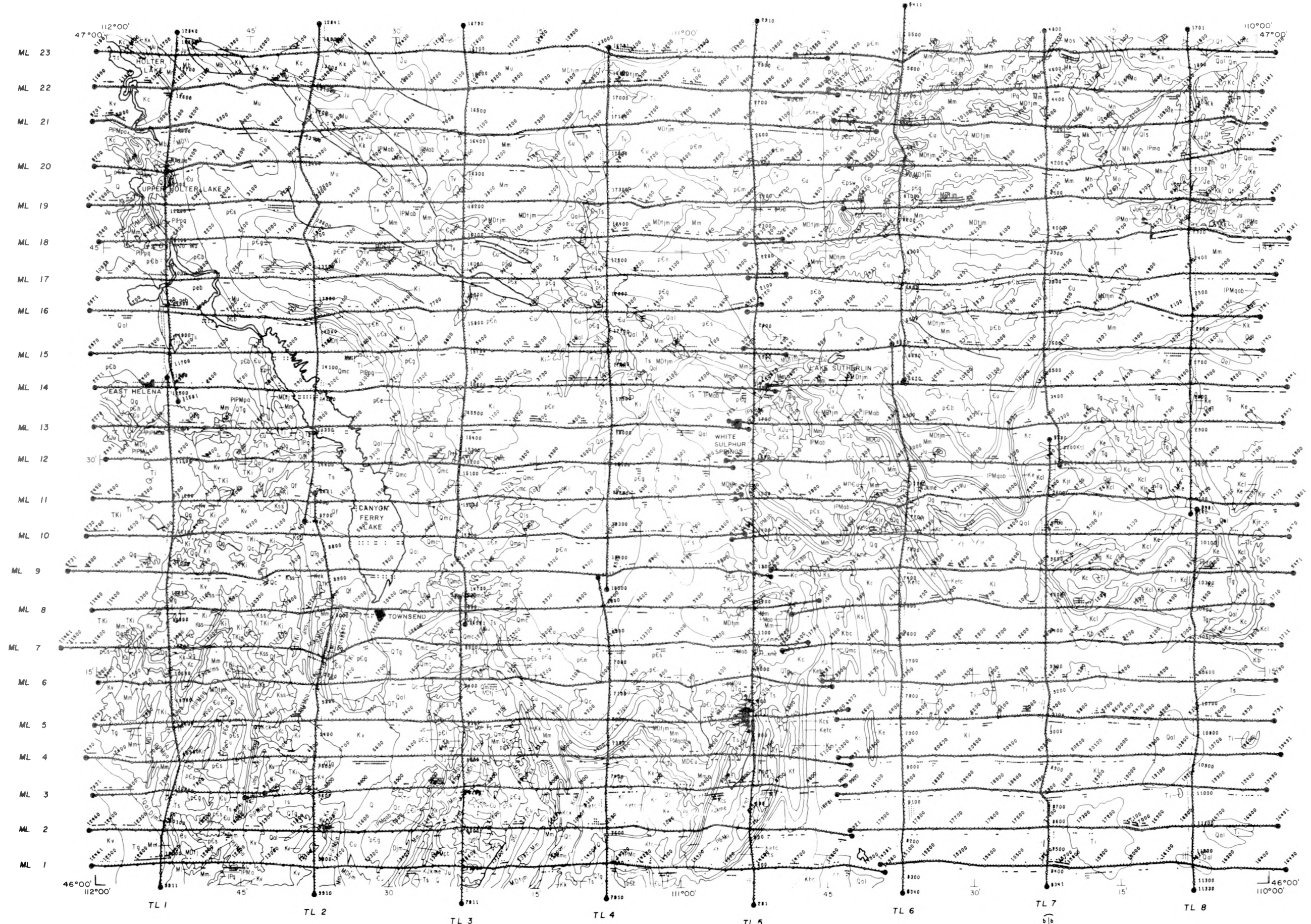
NGRMS

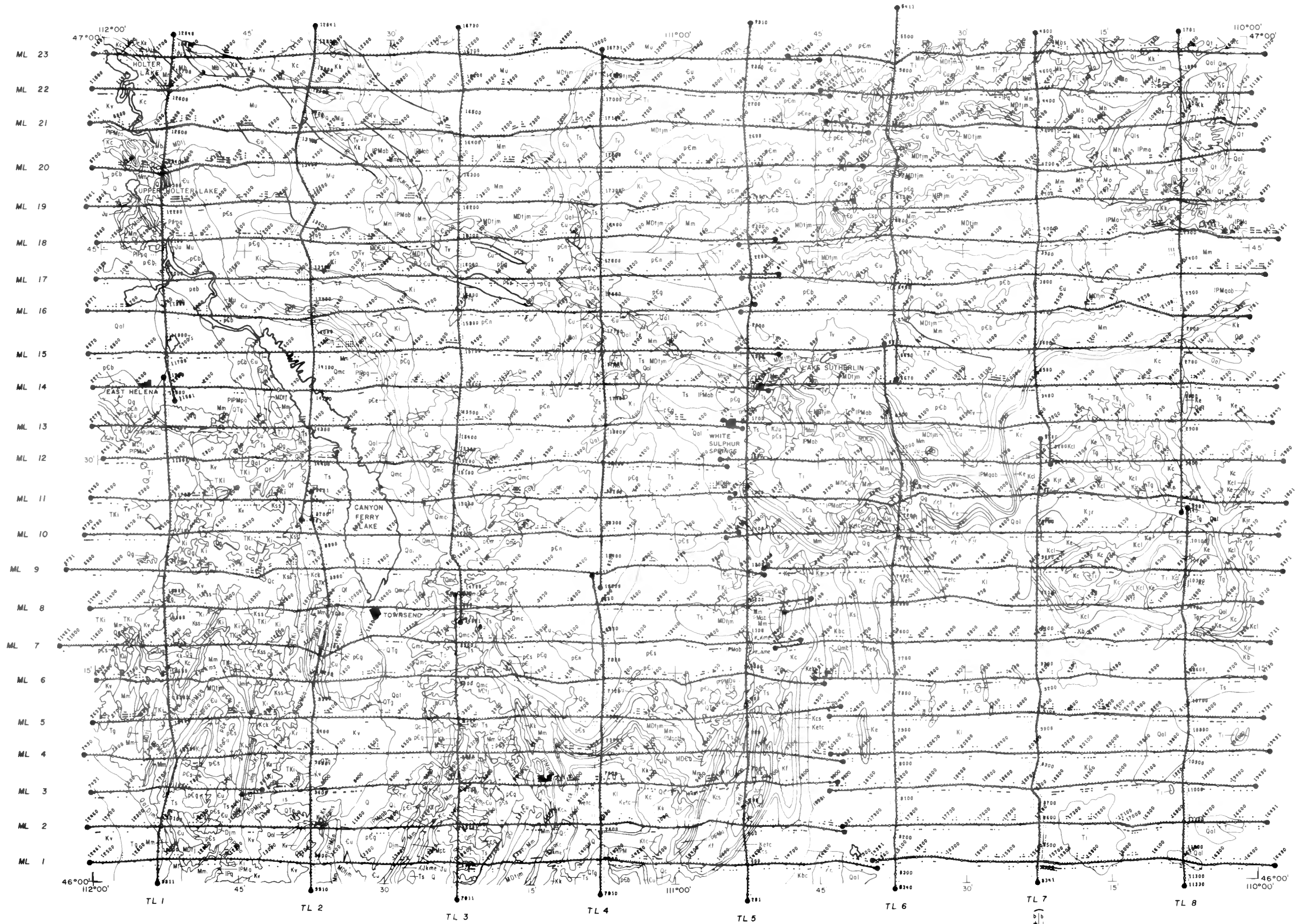
20° STANDARD DEVIATIONS

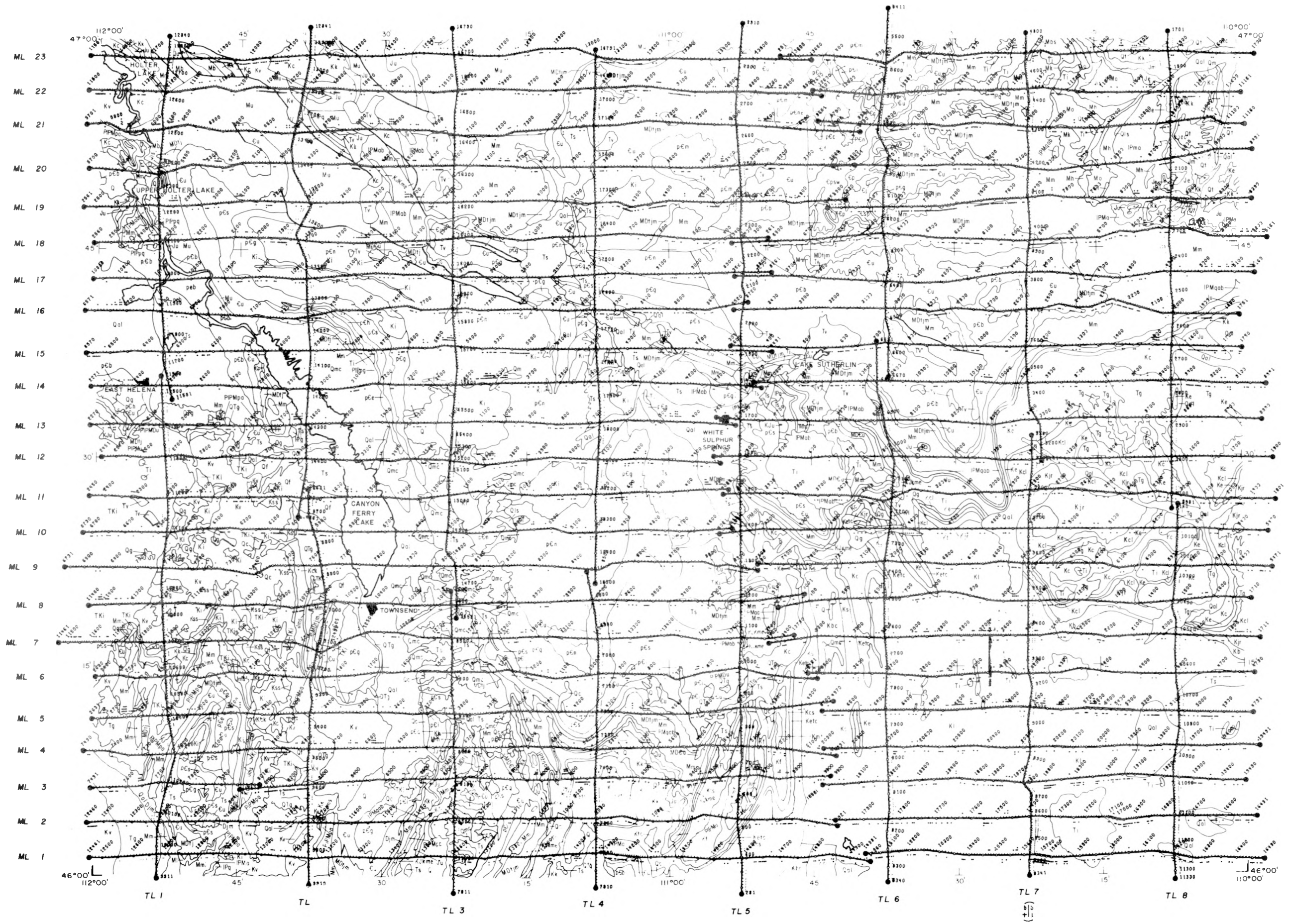
WHITE SULPHUR SPRINGS
SHEET









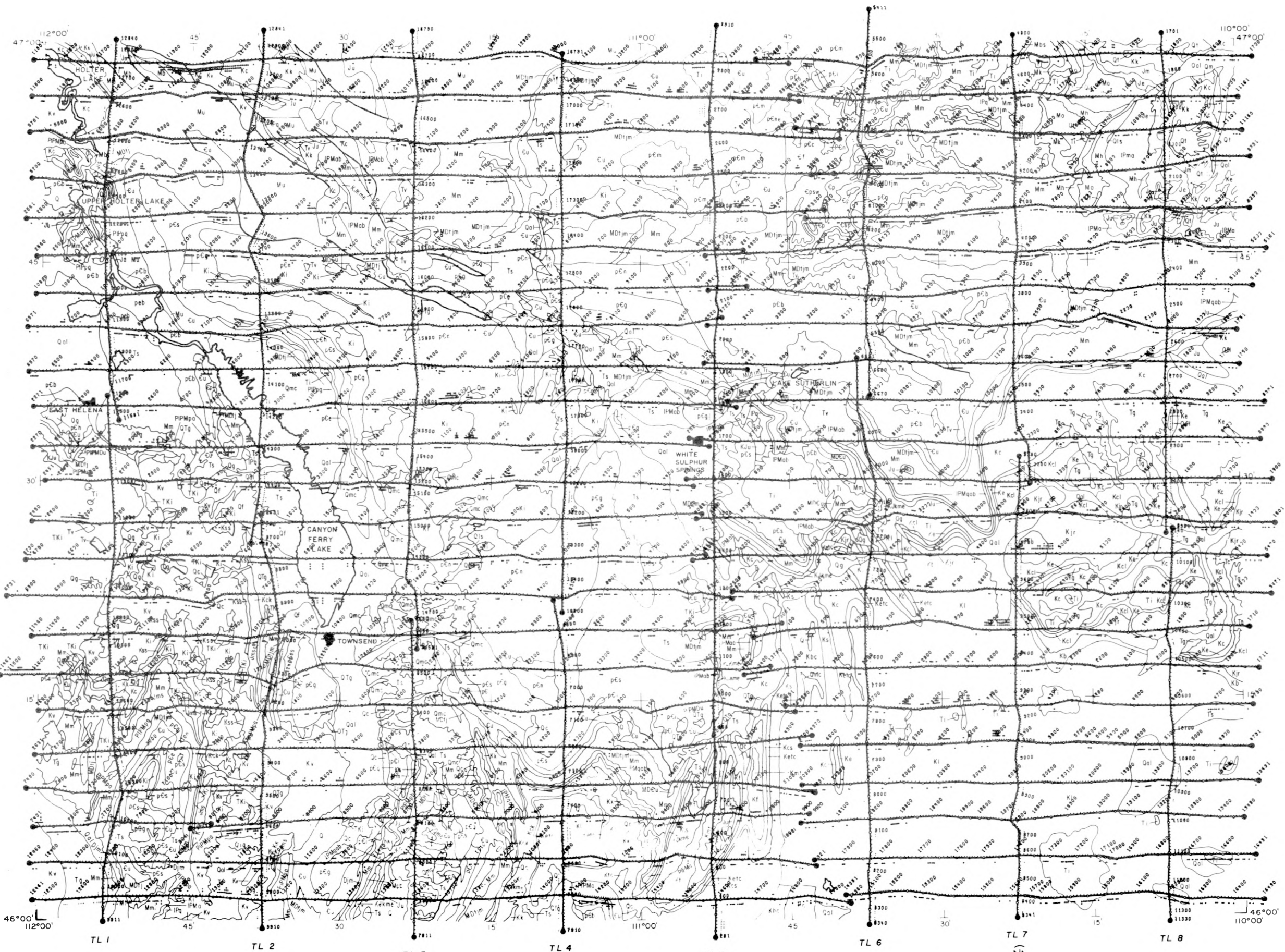


NGRMS

24 BI/40K ± STANDARD DEVIATIONS

WHITE SULPHUR SPRINGS
SHEET

ML 23
ML 22
ML 21
ML 20
ML 19
ML 18
ML 17
ML 16
ML 15
ML 14
ML 13
ML 12
ML 11
ML 10
ML 9
ML 8
ML 7
ML 6
ML 5
ML 4
ML 3
ML 2
ML 1



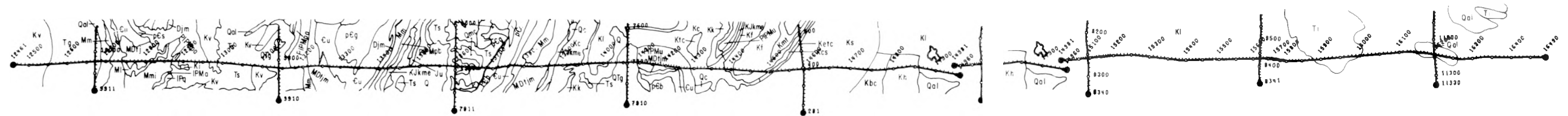
NGRMS

208 TL/40K ± STANDARD DEVIATIONS
WHITE SULPHUR SPRINGS
SHEET





2



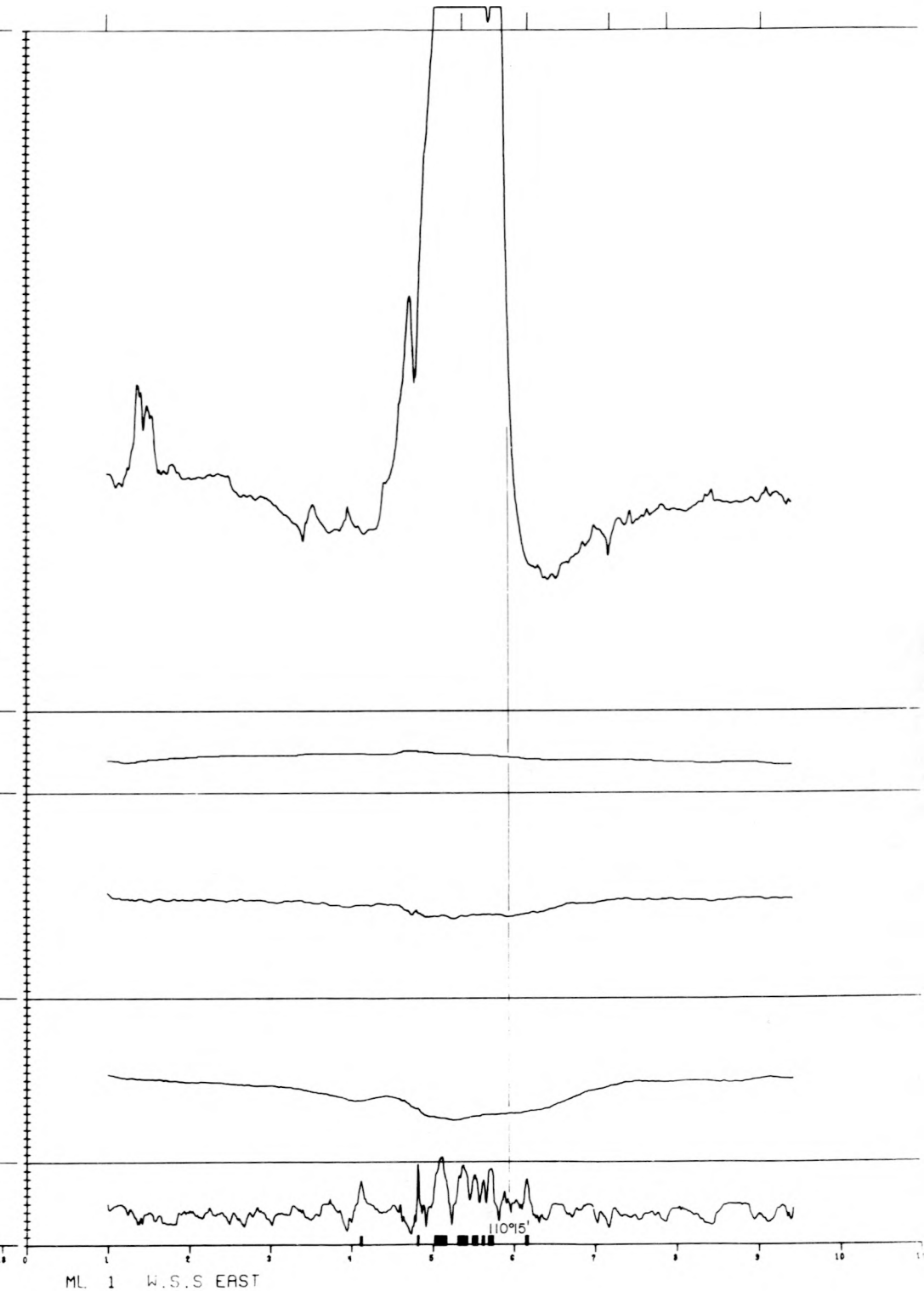
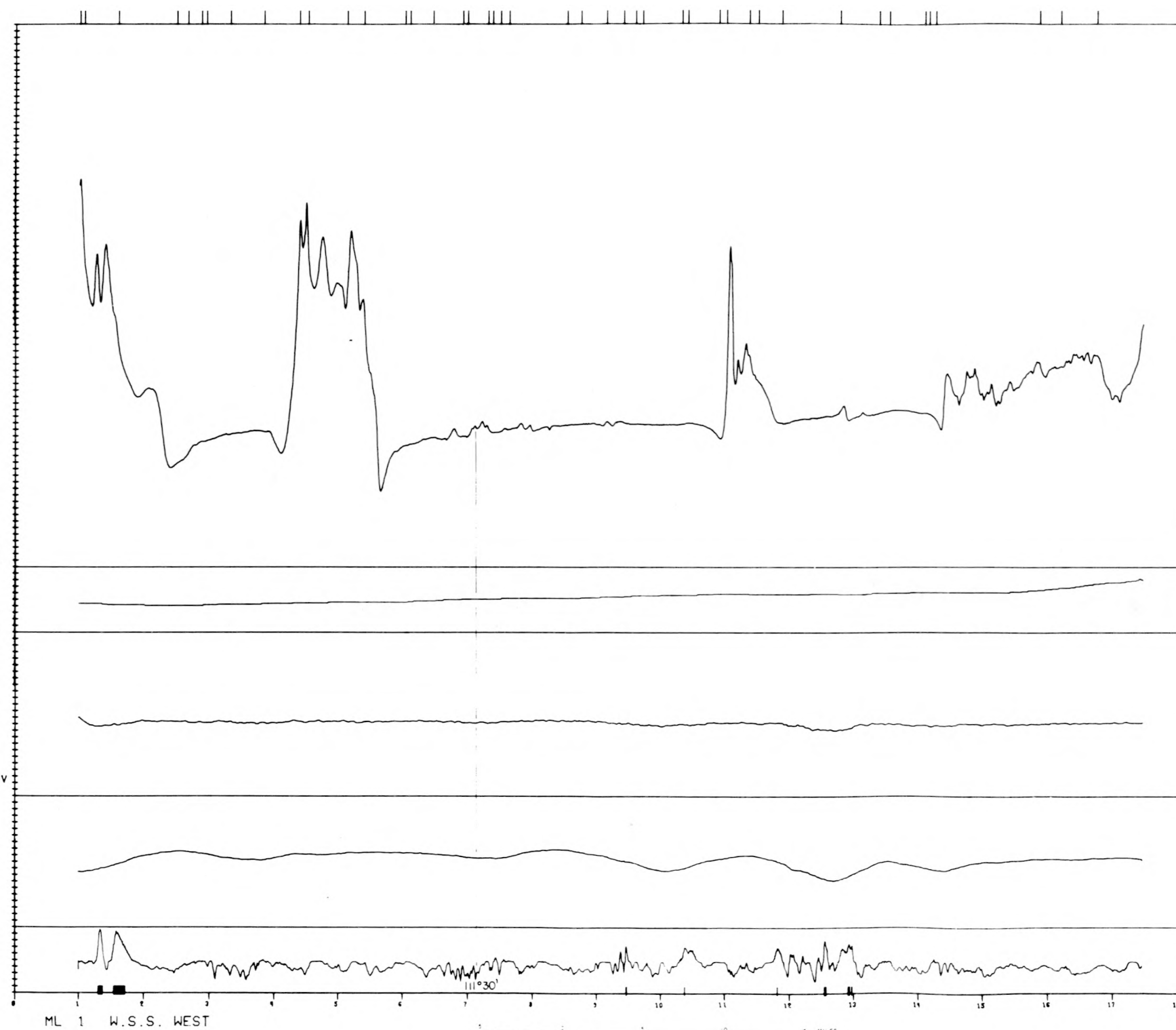
RMAG
30 GAMMA/DIV
BASE = -1000

BMAG
10 GAMMA/DIV
BASE = 56275

PRESSURE
0.25 IN HG/DIV
BASE = 21

TEMP
1 DEG C/DIV
BASE = 10

ALT
100 FT/DIV





TL/K
.06 /DIV

BI/K
.04 /DIV

BI/TL
.09 /DIV

GC
500 C/S/DIV

RMAG
50 GAMMAS/DIV
BASE = -300

BIAIR
5 C.S/DIV

K
30 C/S/DIV

BI
5 C/S/DIV

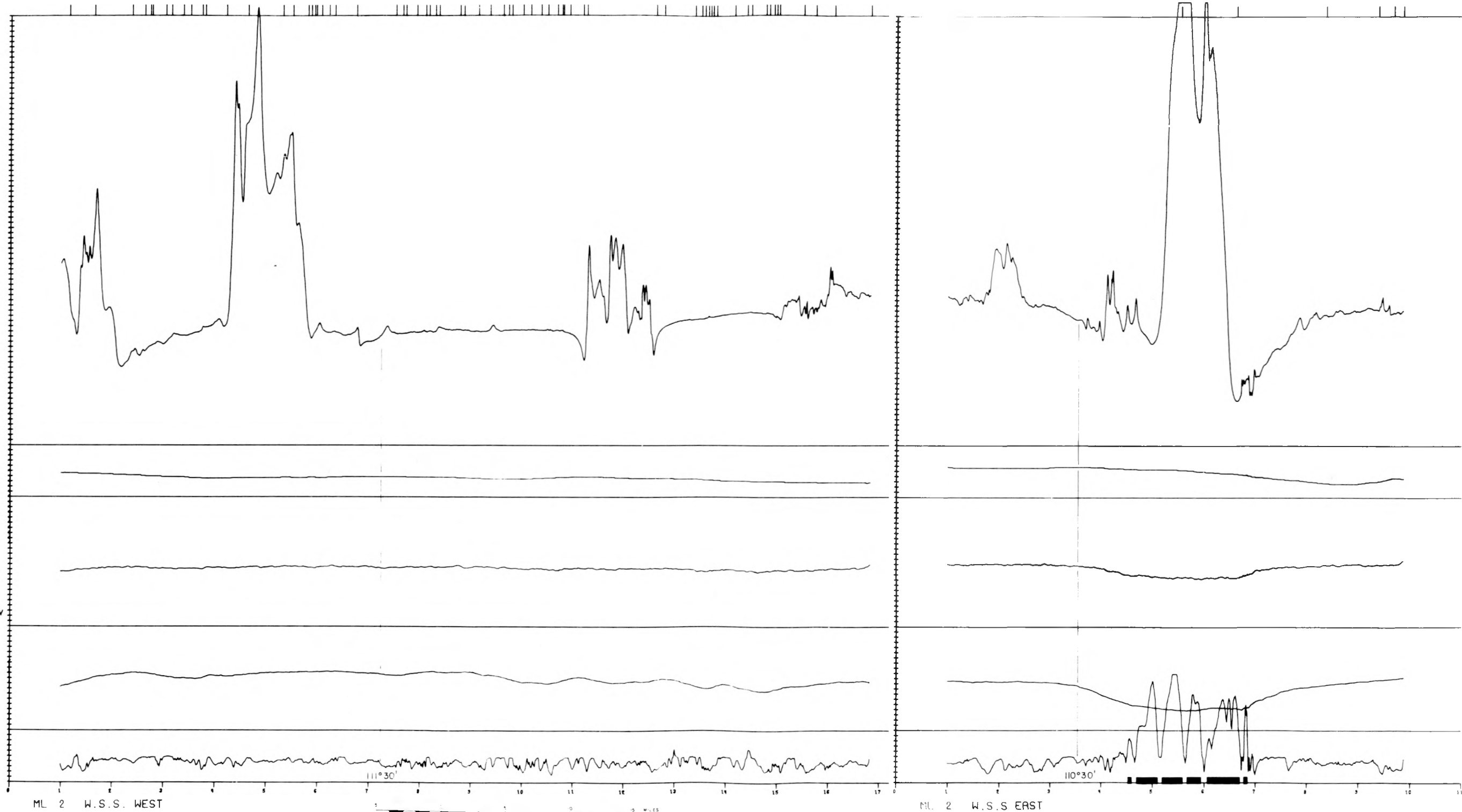
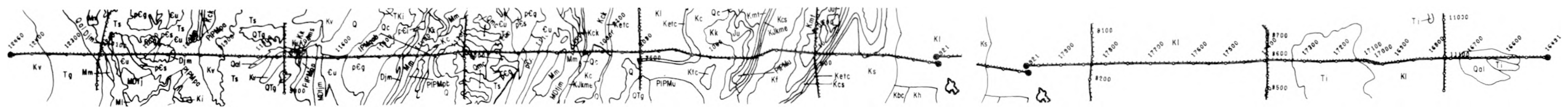
TL
10 C/S/DIV

ALT
100 FT/DIV

ML 2W WHITE SULPHUR SPRINGS



ML 2E WHITE SULPHUR SPRINGS



RMAG
30 GAMMA/DIV
BASE = -1000

BMAG
10 GAMMA/DIV
BASE = 56275

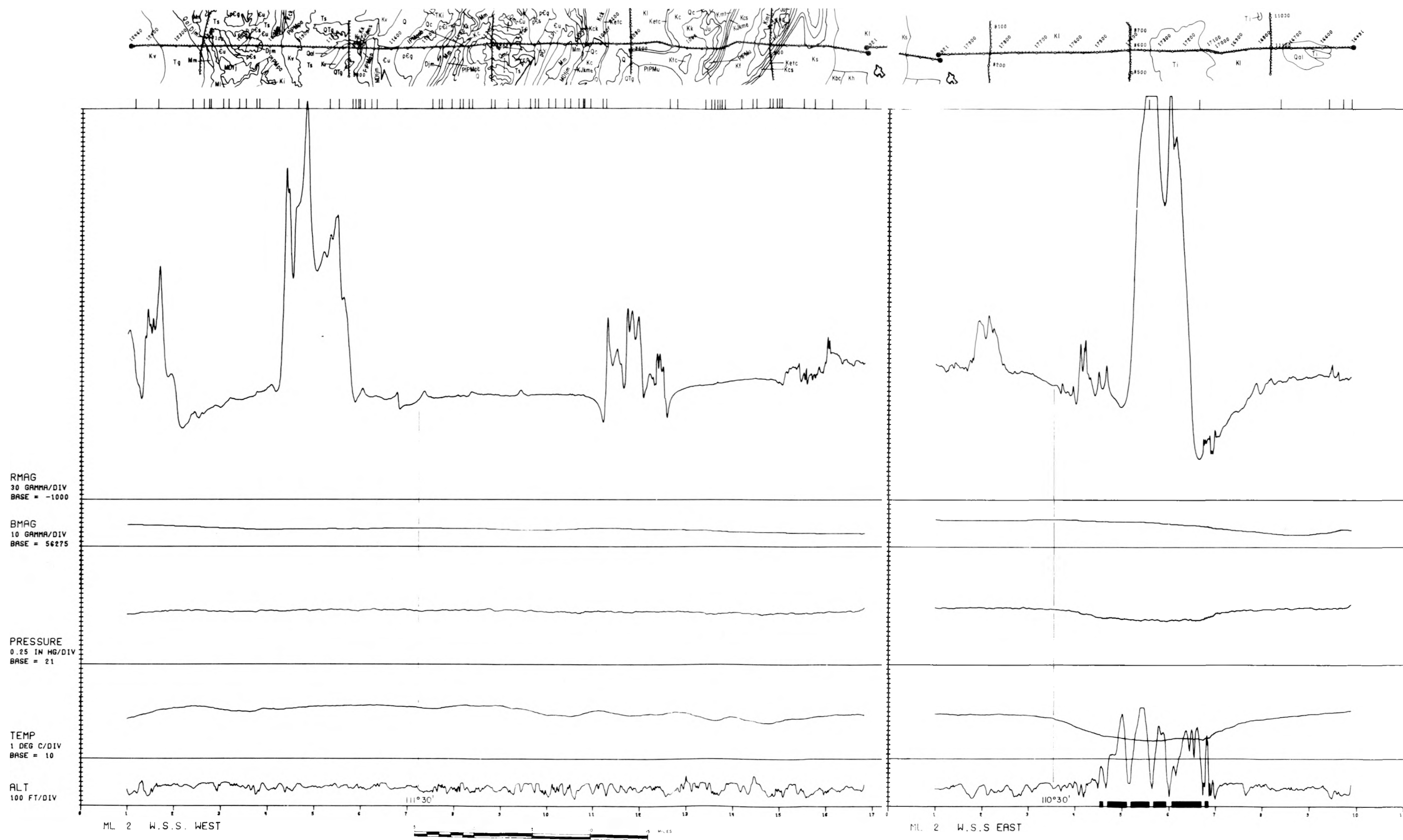
PRESSURE
0.25 IN HG/DIV
BASE = 21

TEMP
1 DEG C/DIV
BASE = 10

ALT
100 FT/DIV

ML 2 W.S.S. WEST

ML 2 W.S.S. EAST





TL/K
.06 /DIV

BI/K
.04 /DIV

BI/TL
.08 /DIV

GC
500 C/S/DIV

RMAG
50 GAMMAS/DIV
BASE = -300

BIAIR
5 C/S/DIV

K
30 C/S/DIV

BI
5 C/S/DIV

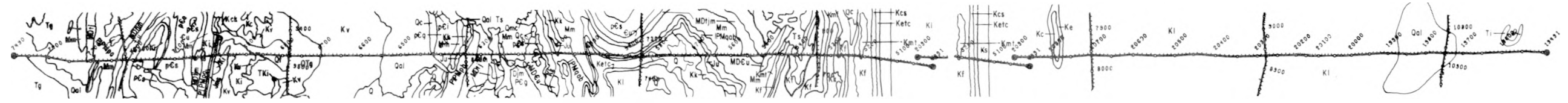
TL
10 C/S/DIV

ALT
100 FT/DIV

ML 3W WHITE SULPHUR SPRINGS

ML 3C WHITE SULPHUR SPRINGS

ML 3E WHITE SULPHUR SPRINGS



TL/K
.06 /DIV

BI/K
.06 /DIV

BI/TL
.06 /DIV

GC
500 C/S/DIV

RMAG
50 GAMMAS/DIV
BASE = -300

BIPIR
5 C/S/DIV

K
30 C/S/DIV

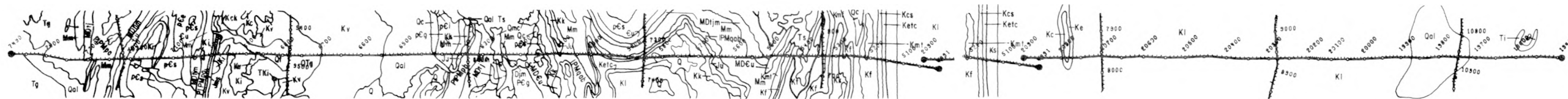
BI
5 C/S/DIV

TL
10 C/S/DIV

ALT
100 FT/DIV

ML 4W WHITE SULPHUR SPRINGS

ML 4E WHITE SULPHUR SPRINGS



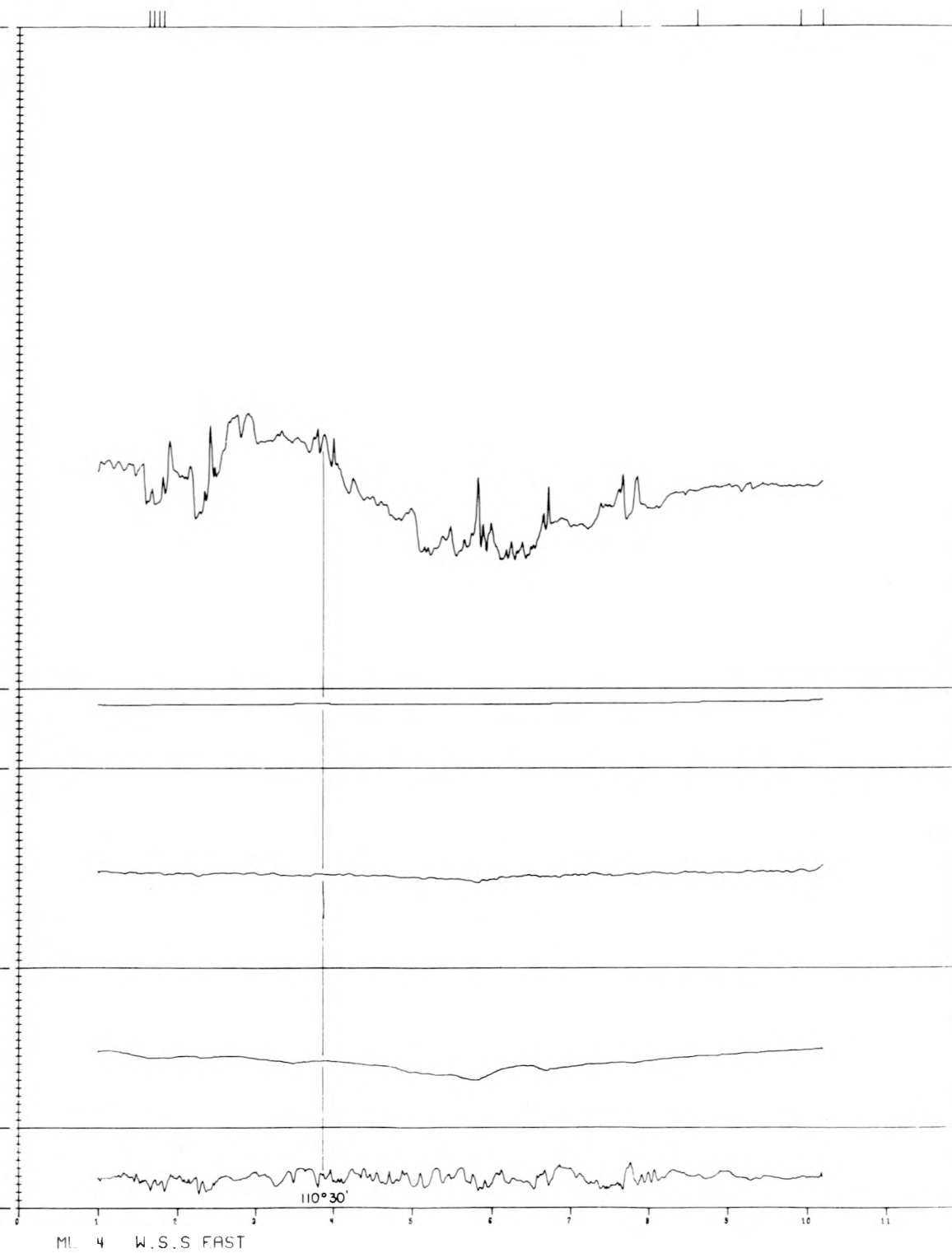
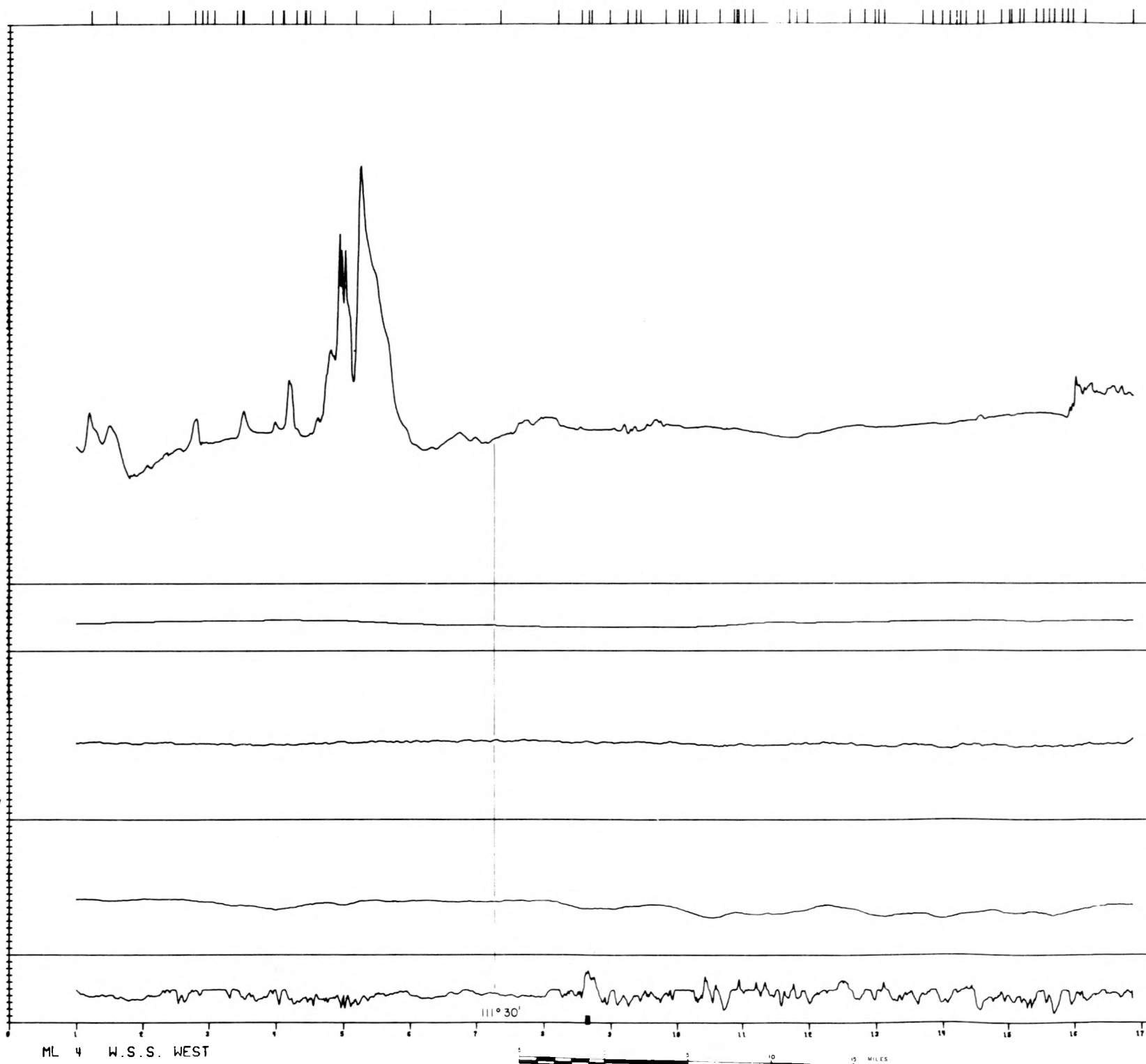
RMAG
30 GAMMA/DIV
BASE = -1000

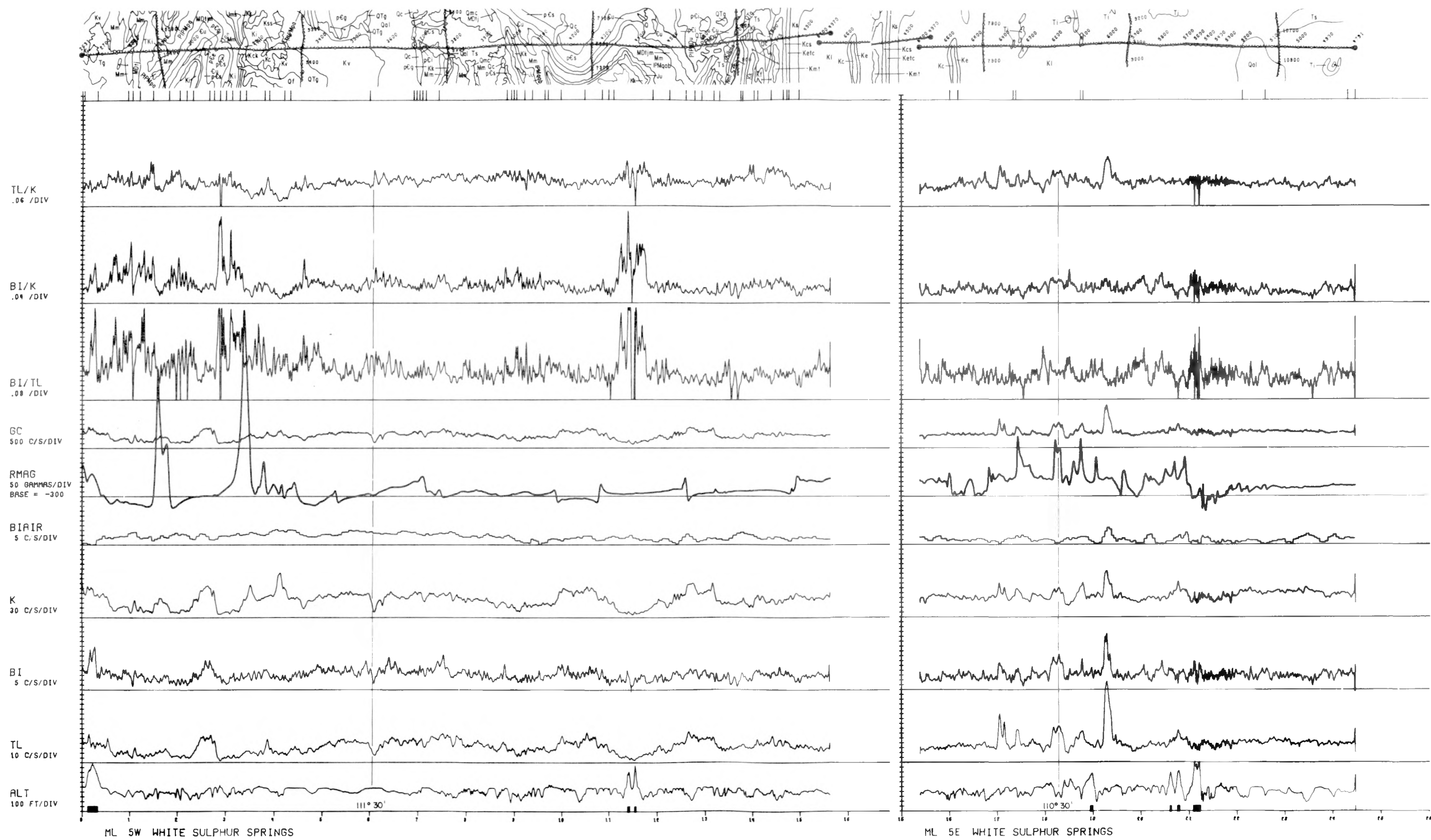
BMAG
10 GAMMA/DIV
BASE = 56275

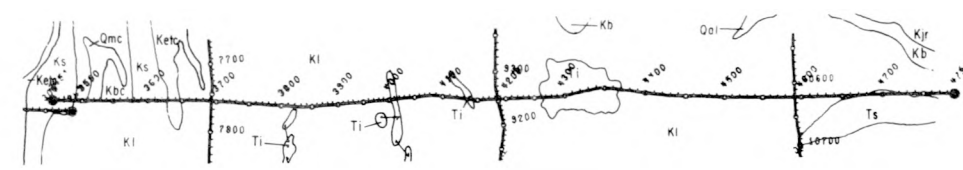
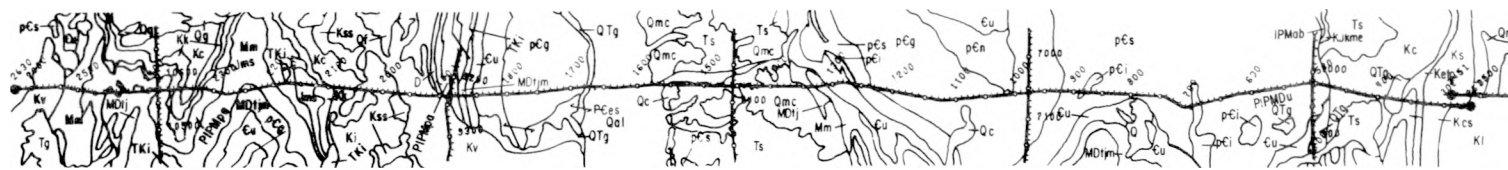
PRESSURE
0.25 IN HG/DIV
BASE = 21

TEMP
1 DEG C/DIV
BASE = 10

ALT
100 FT/DIV







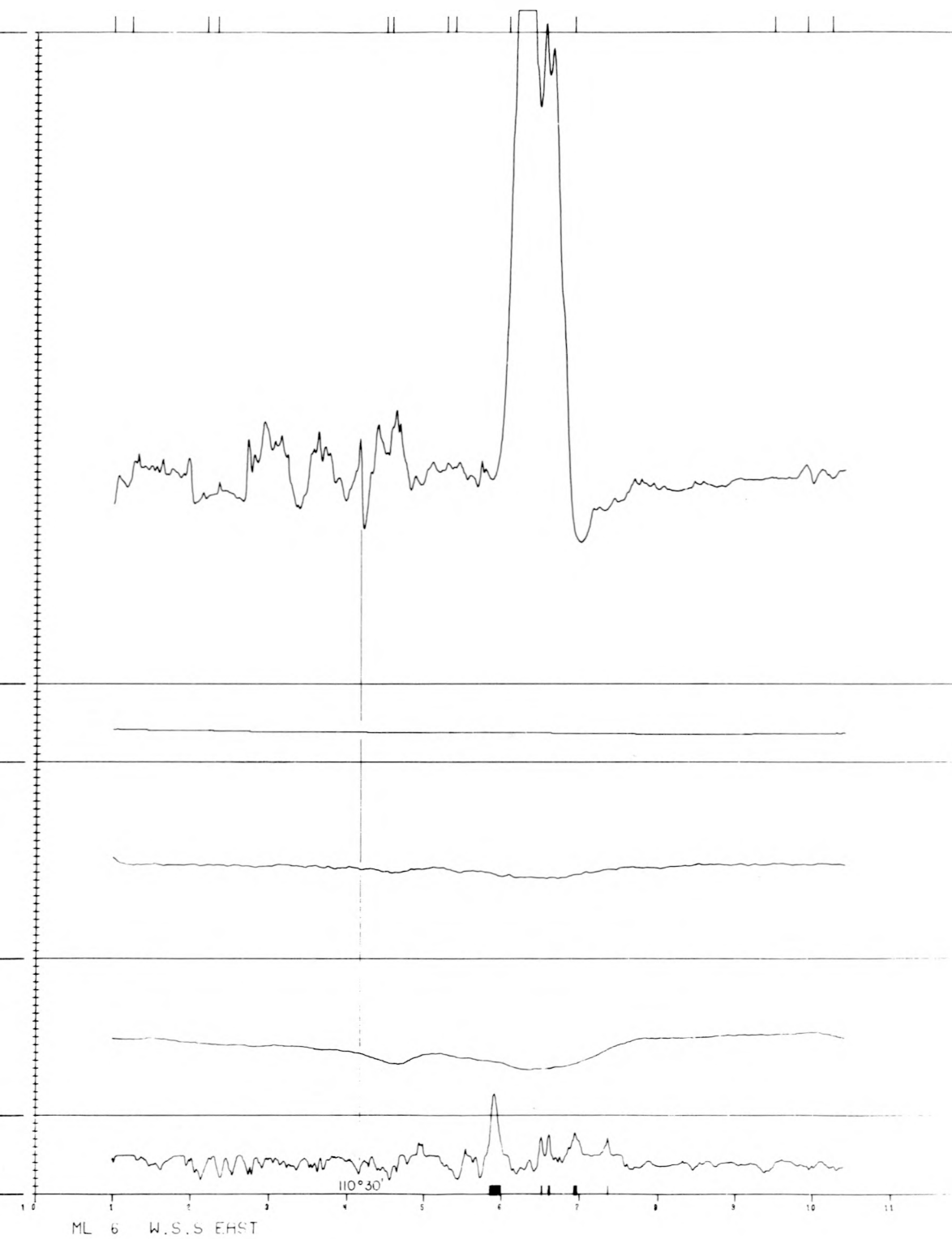
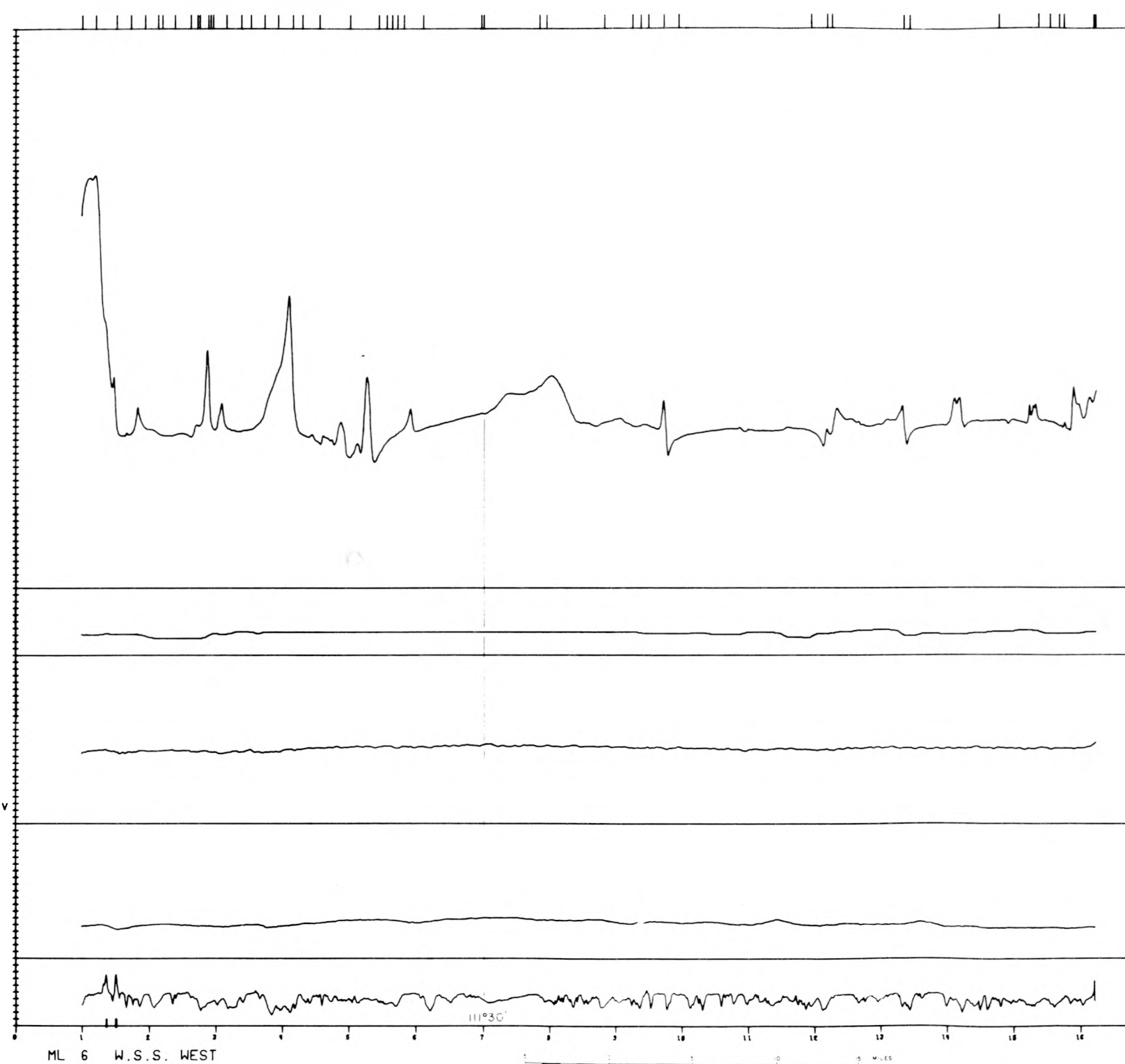
RMAG
30 GAMMA/DIV
BASE = -1000

BMAG
10 GAMMA/DIV
BASE = 56275

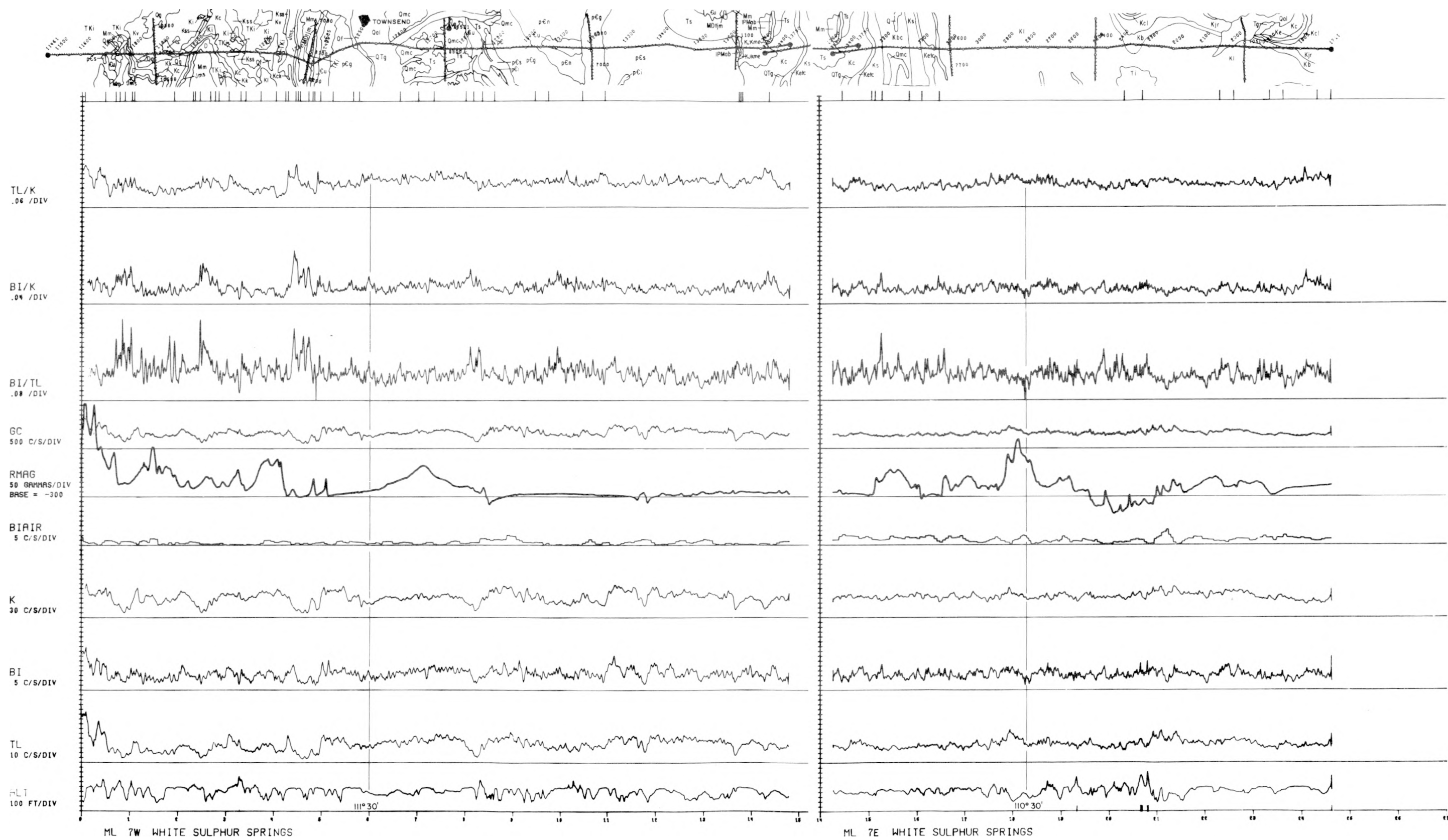
PRESSURE
0.25 IN HG/DIV
BASE = 21

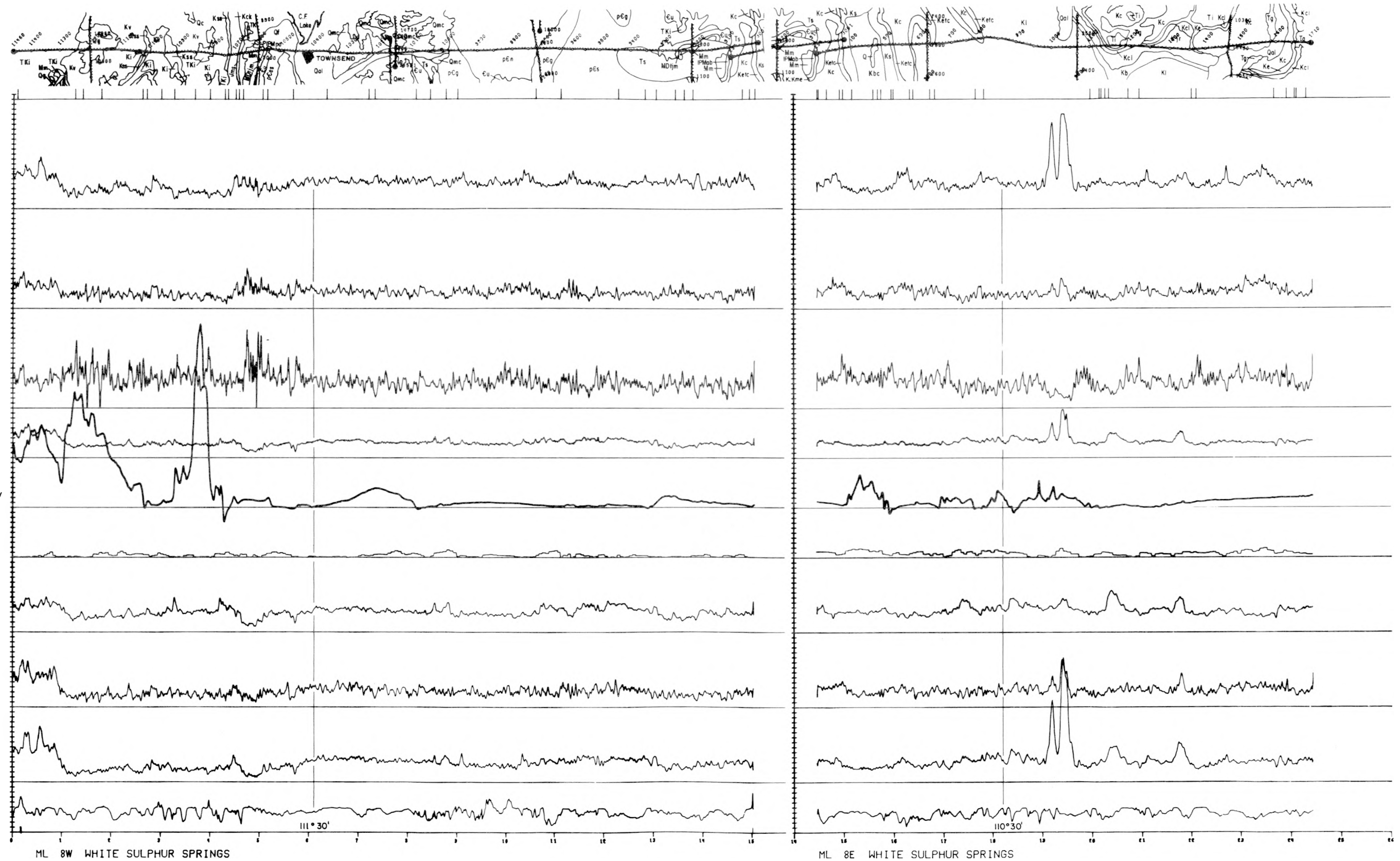
TEMP
1 DEG C/DIV
BASE = 10

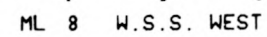
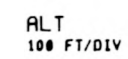
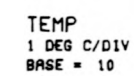
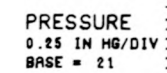
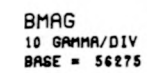
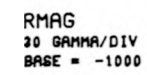
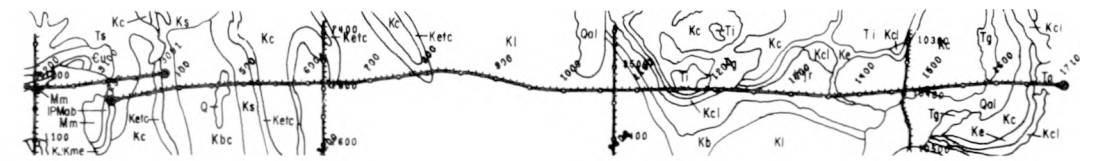
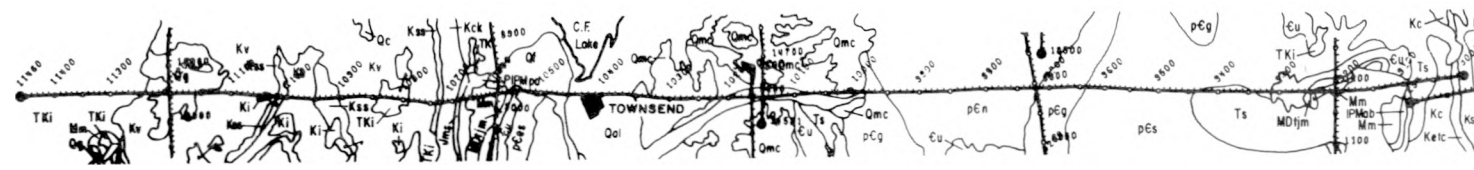
ALT
100 FT/DIV

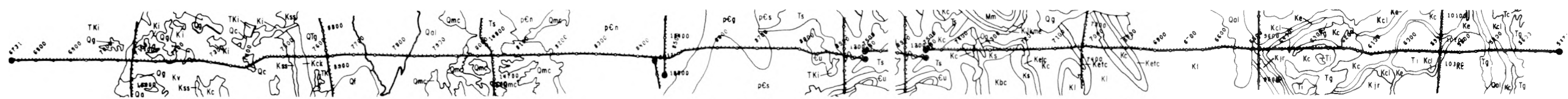


2









TL/K
.06 /DIV

BI/K
.04 /DIV

BI/TL
.08 /DIV

GC
500 C/S/DIV

RMAG
50 GAMMAS/DIV
BASE = -300

BIPIR
5 C. S/DIV

K
30 C/S/DIV

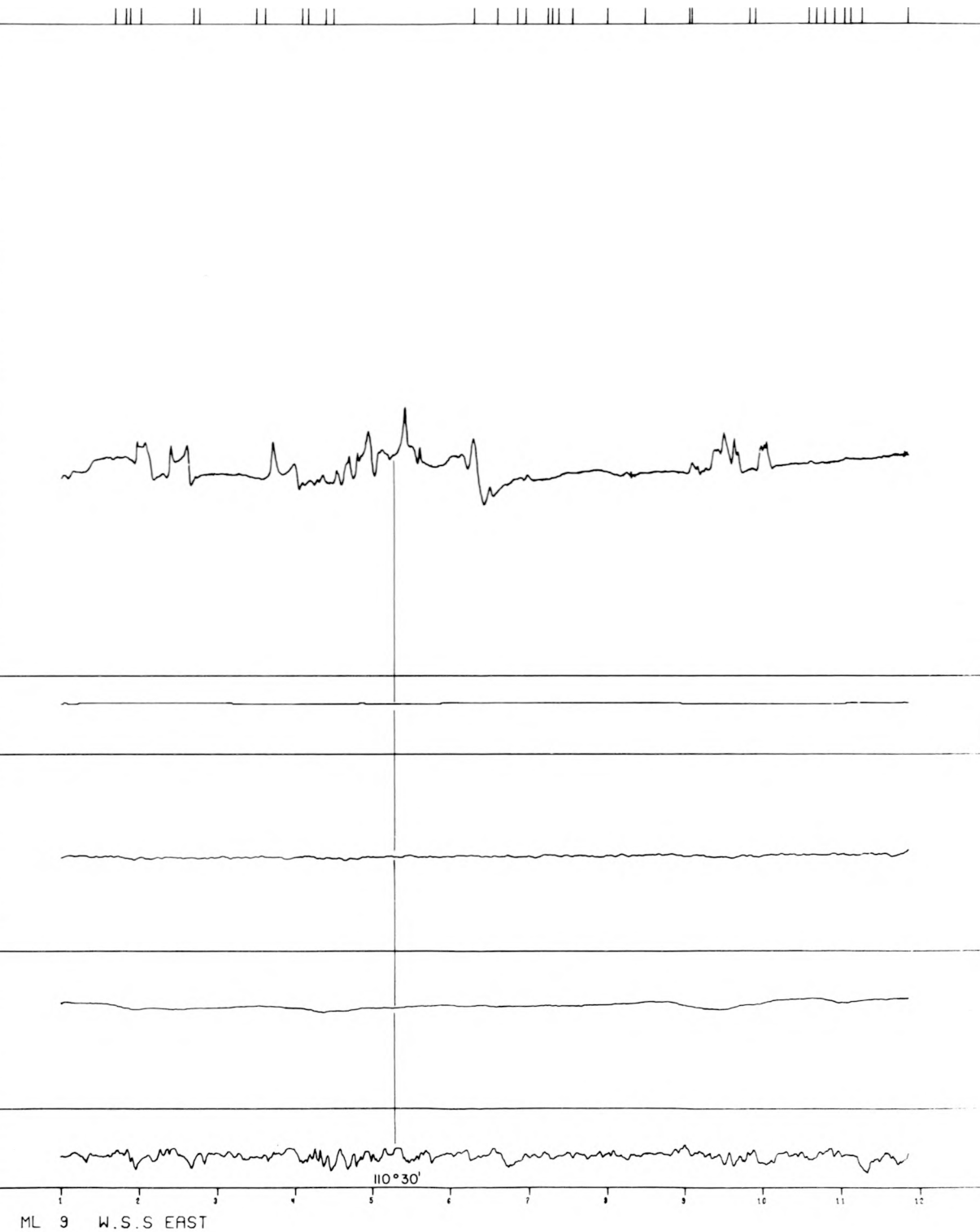
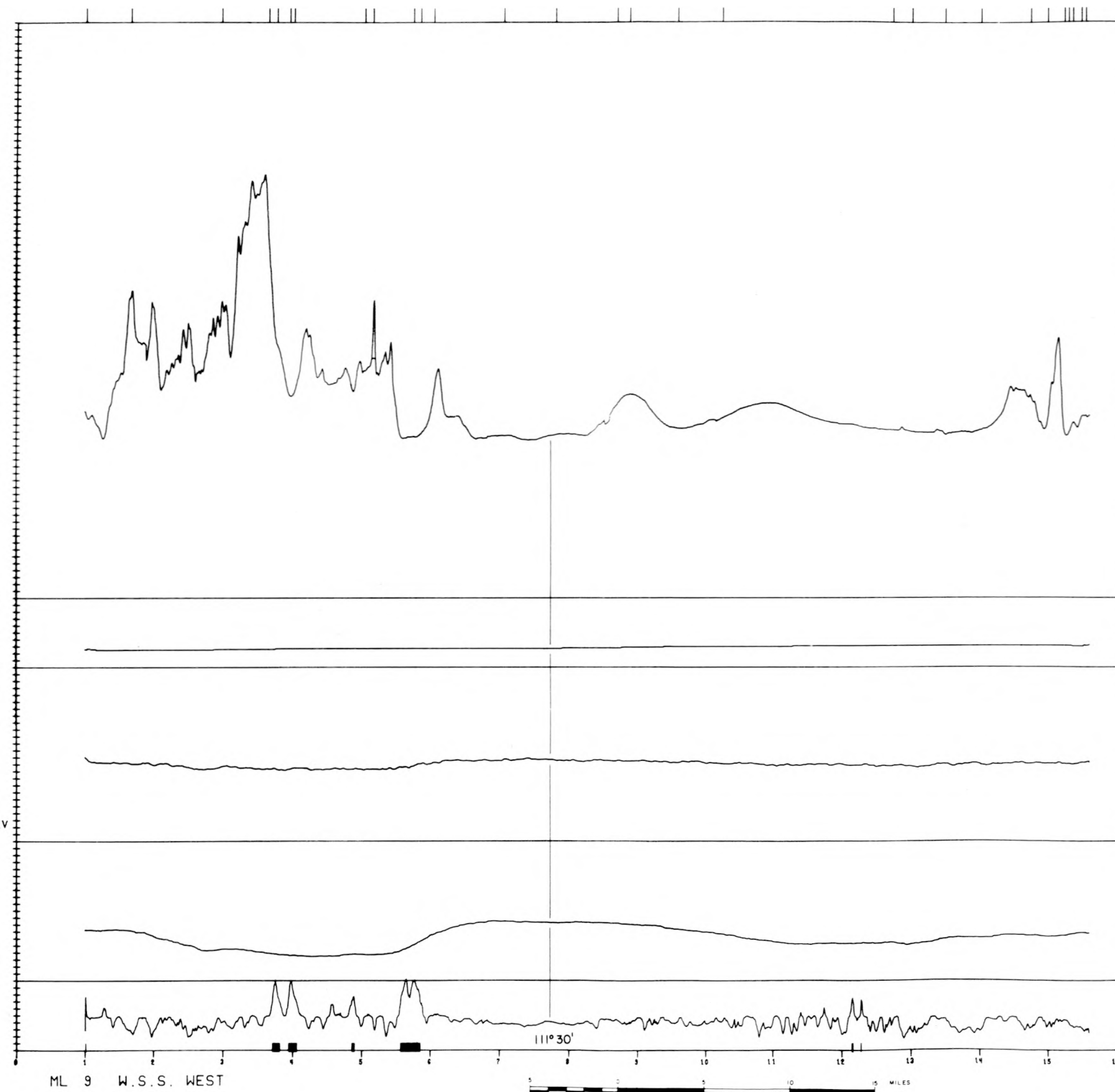
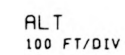
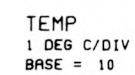
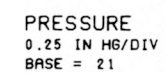
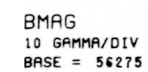
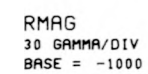
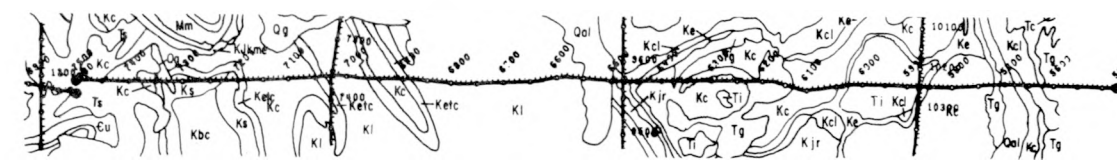
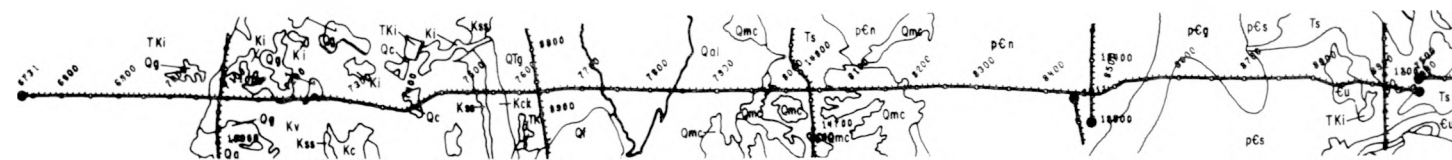
BI
5 C/S/DIV

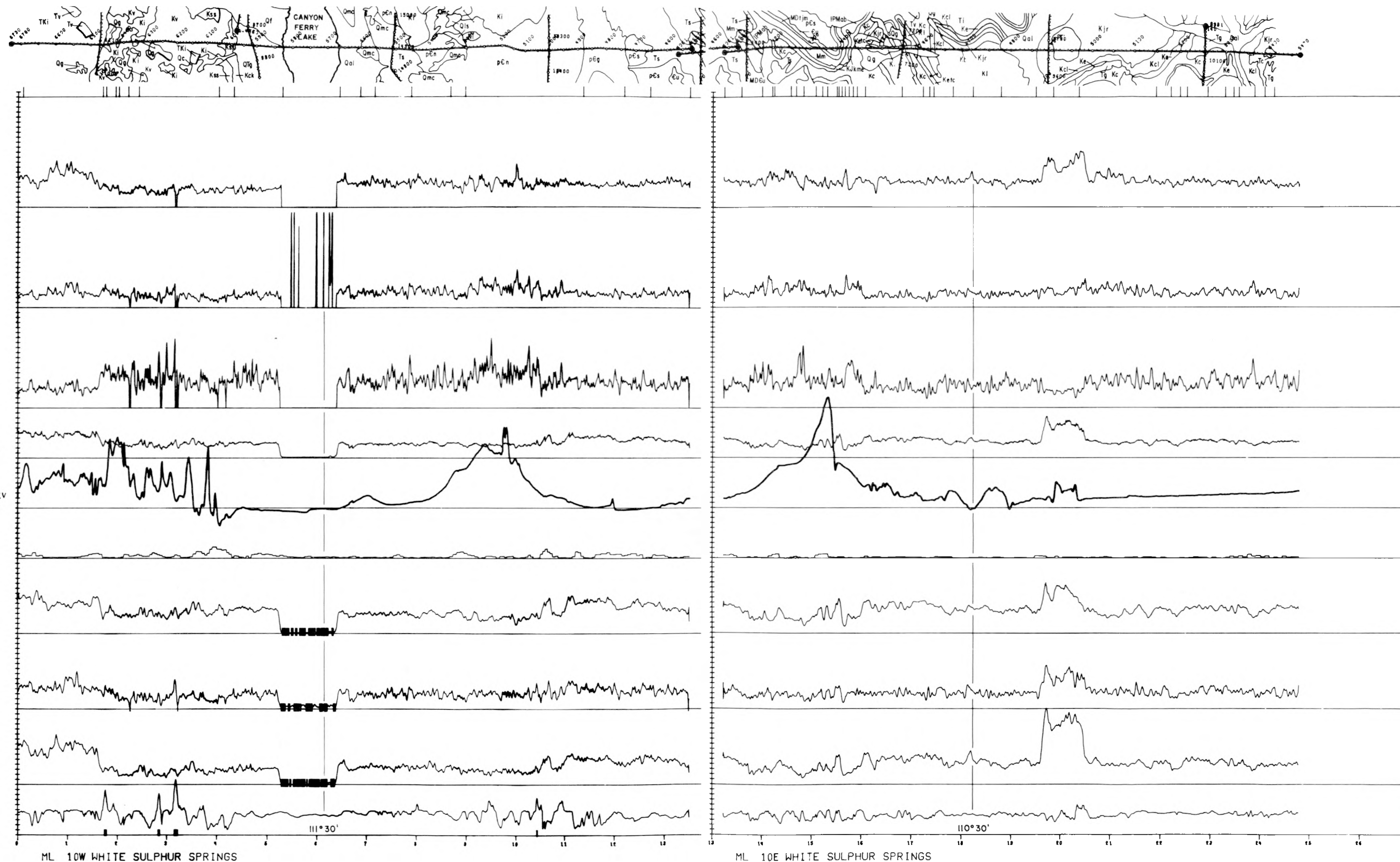
TL
10 C/S/DIV

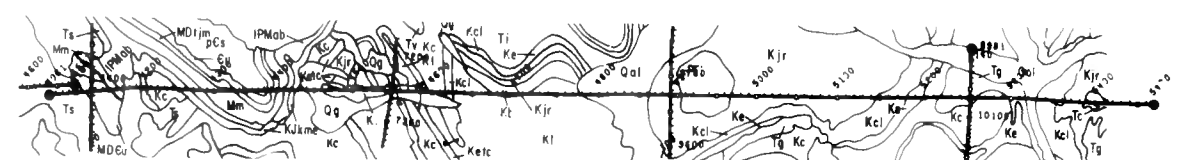
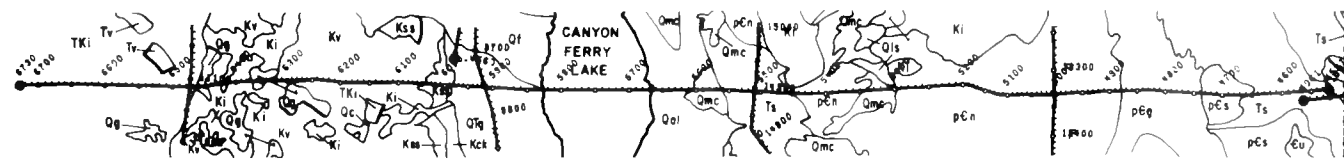
ALT
100 FT/DIV

ML 9W WHITE SULPHUR SPRINGS

ML 9E WHITE SULPHUR SPRINGS







RMAG
30 GAMMA/DIV
BASE = -1000

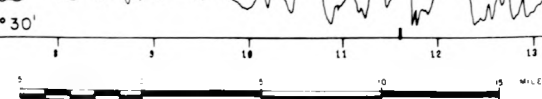
BMAG
10 GAMMA/DIV
BASE = 56275

PRESSURE
0.25 IN HG/DIV
BASE = 21

TEMP
1 DEG C/DIV
BASE = 10

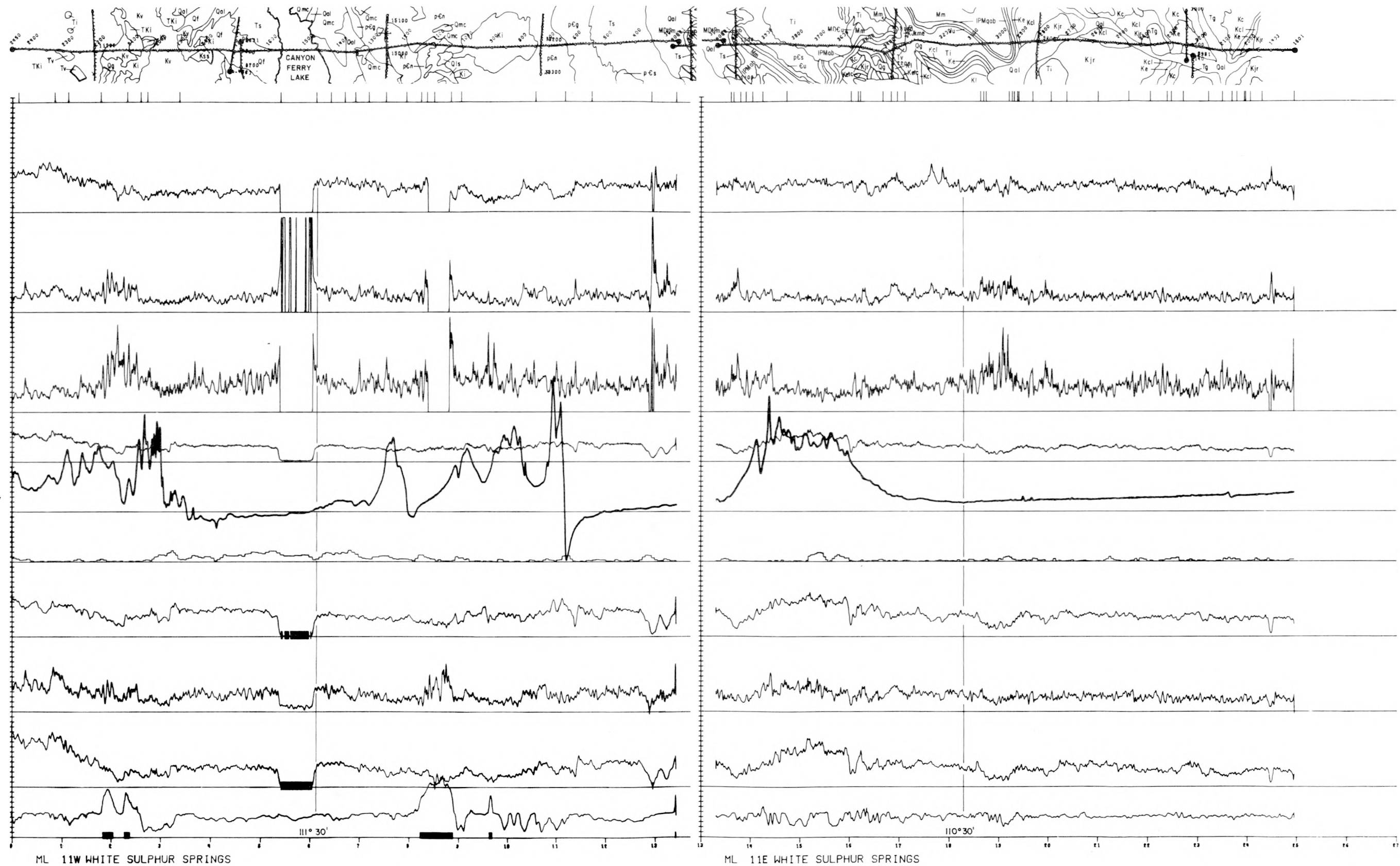
ALT
100 FT/DIV

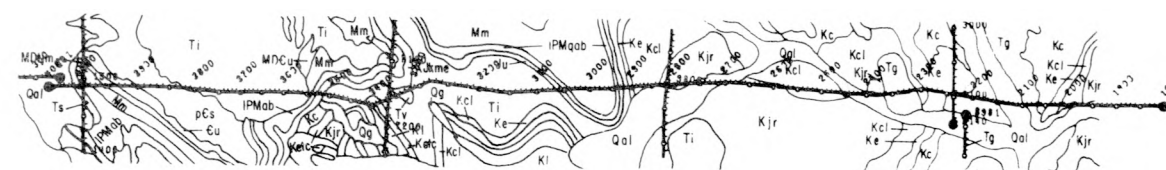
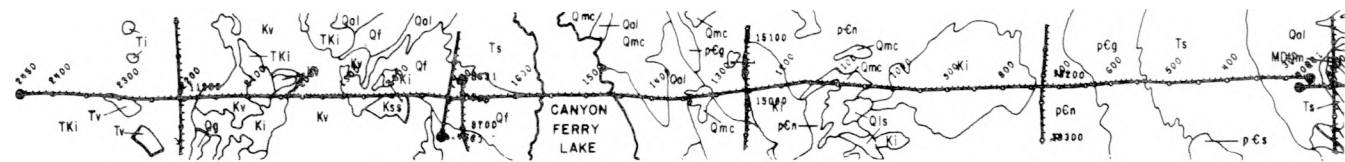
ML 10 W.S.S. WEST



ML 10 W.S.S. EAST

2





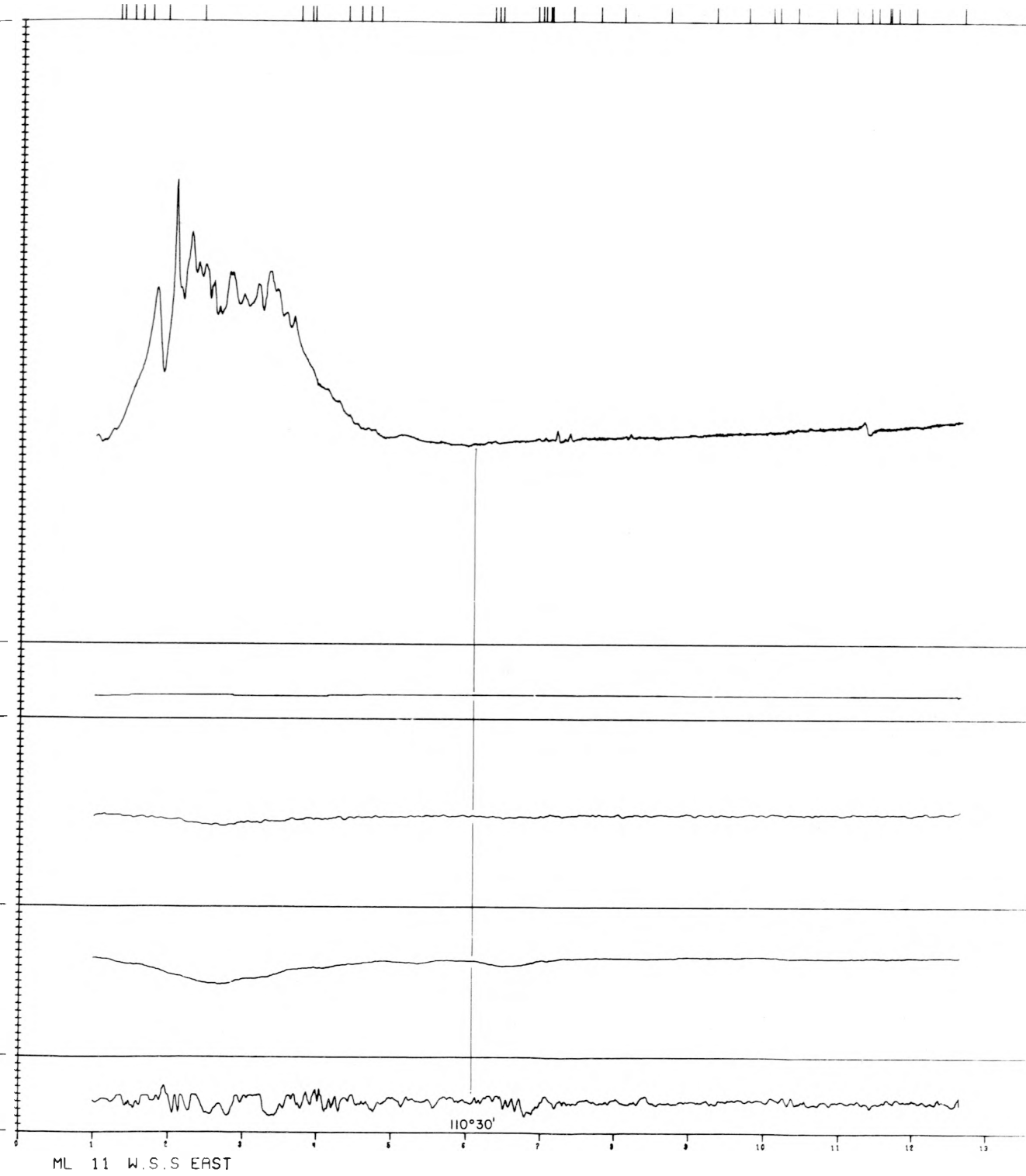
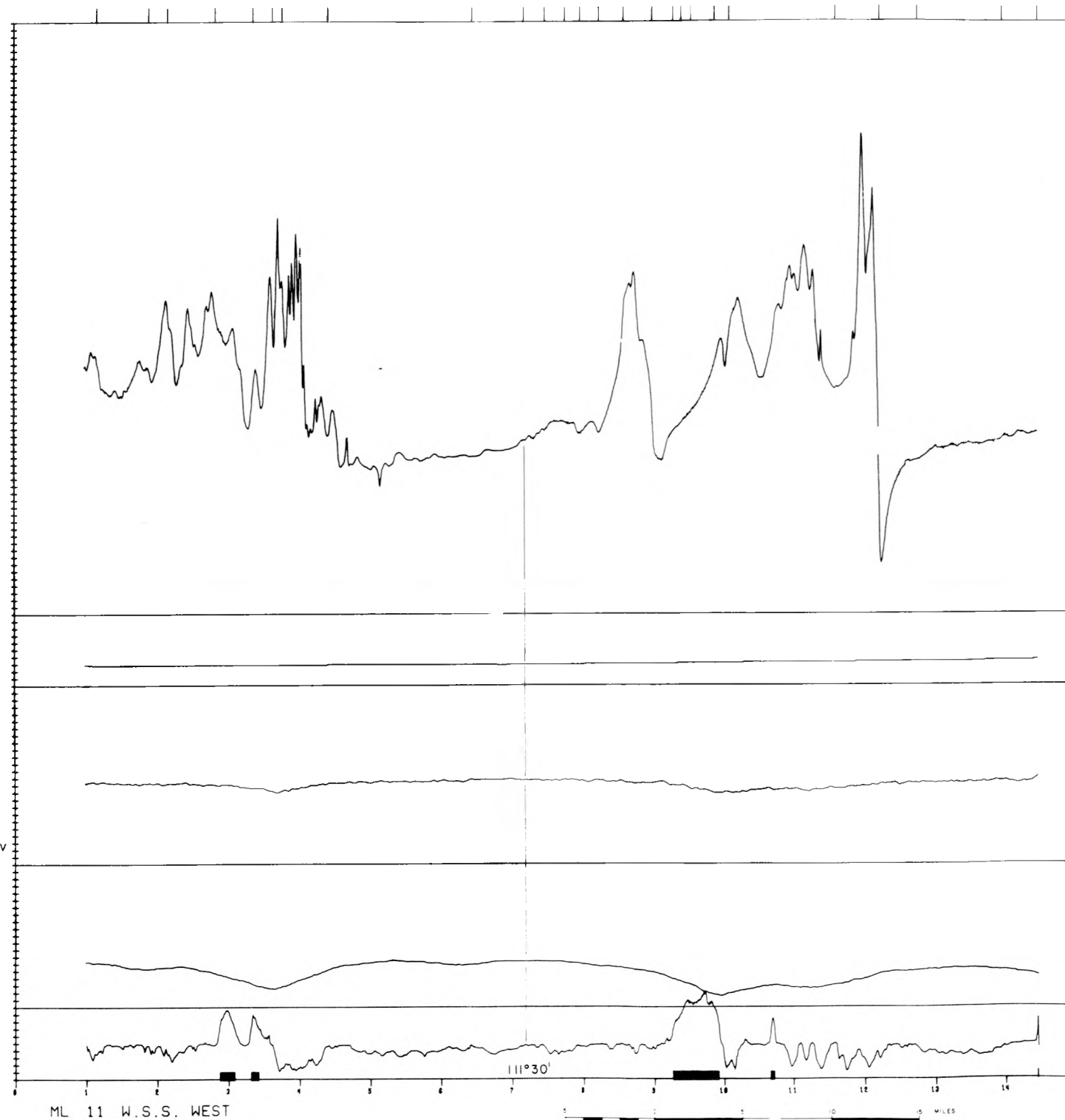
RMAG
30 GAMMA/DIV
BASE = -1000

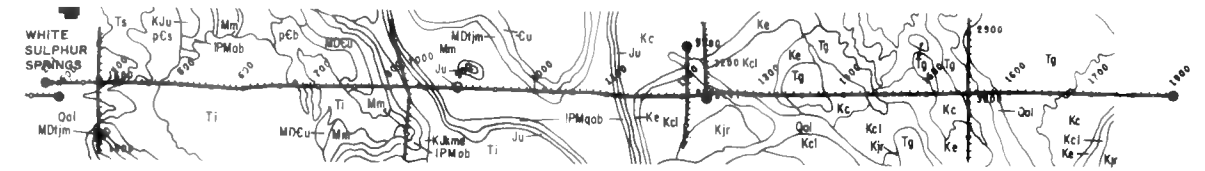
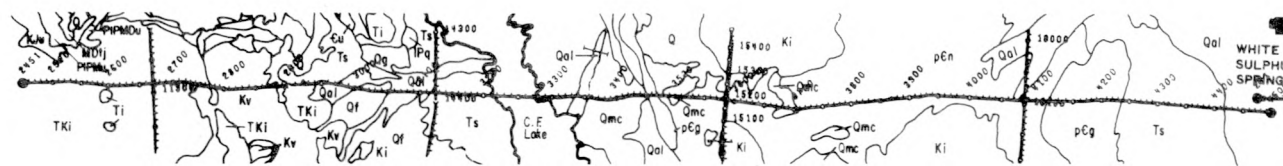
BMAG
10 GAMMA/DIV
BASE = 56275

PRESSURE
0.25 IN HG/DIV
BASE = 21

TEMP
1 DEG C/DIV
BASE = 10

ALT
100 FT/DIV





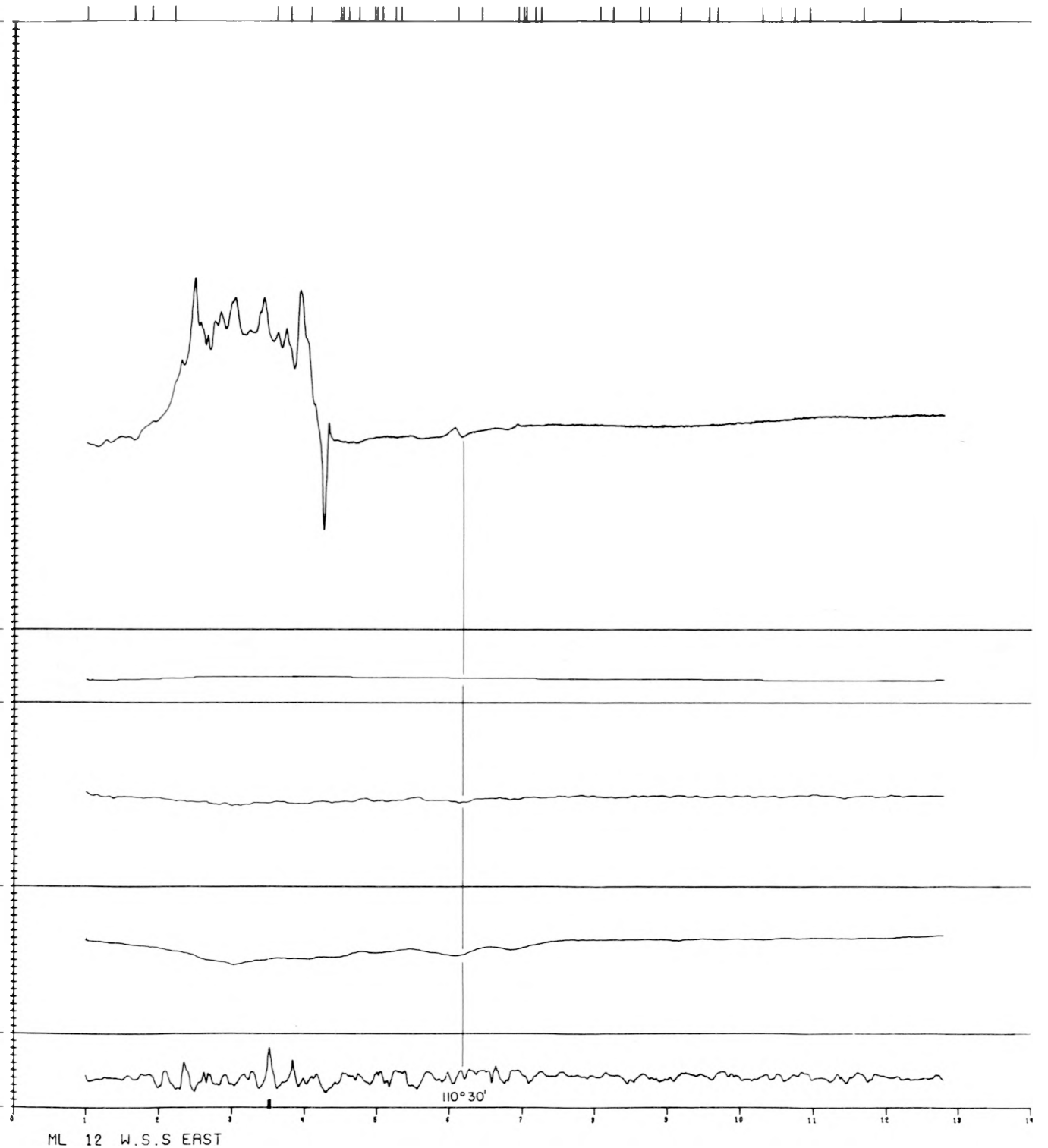
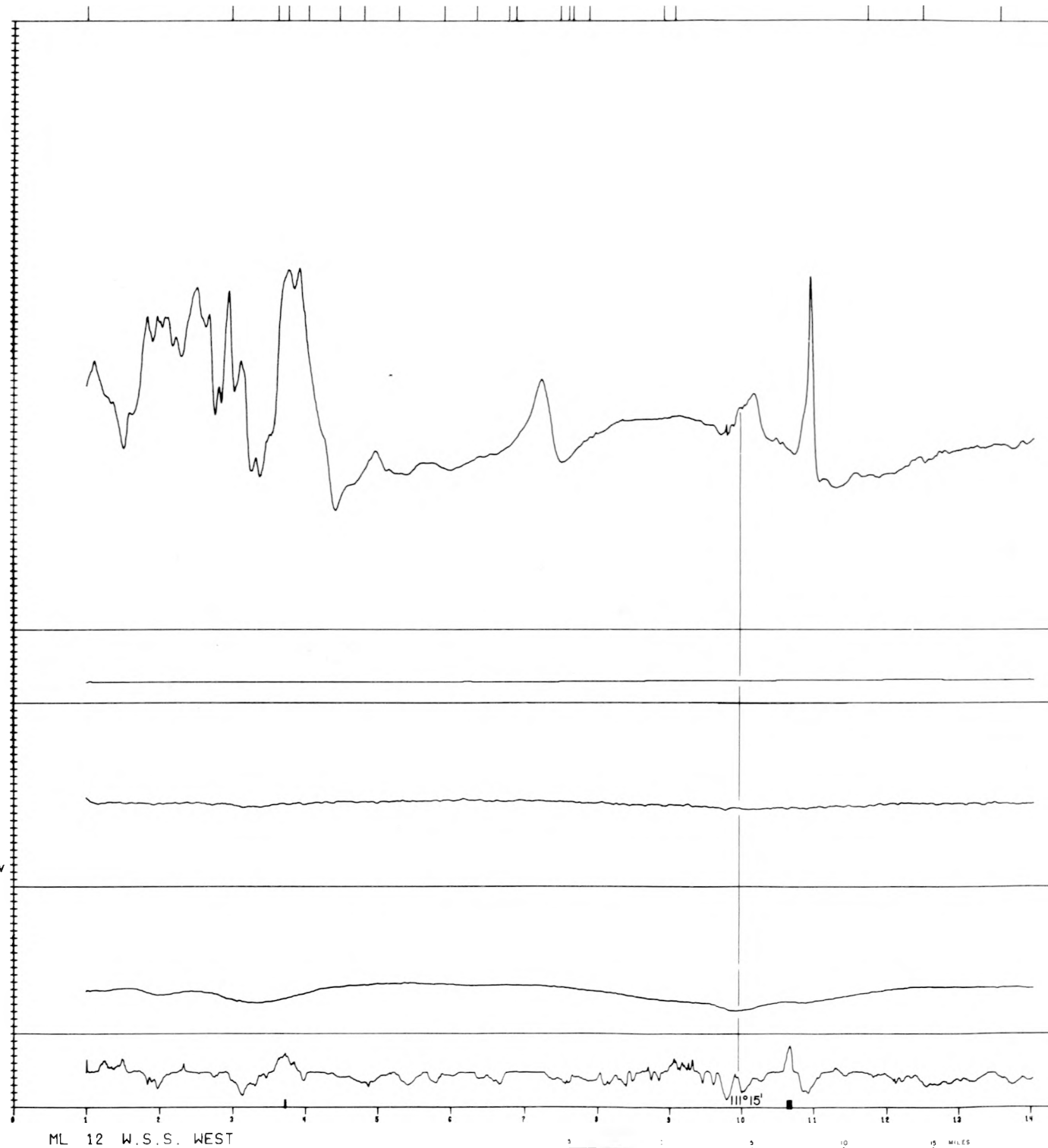
RMAG
30 GAMMA/DIV
BASE = -1000

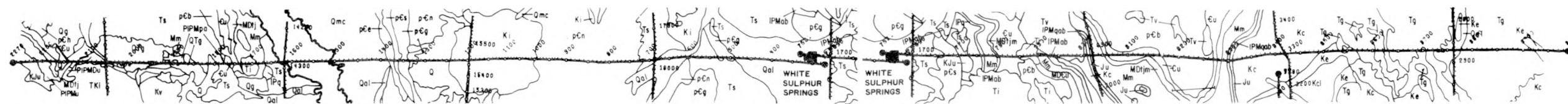
BMAG
10 GAMMA/DIV
BASE = 56275

PRESSURE
0.25 IN HG/DIV
BASE = 21

TEMP
1 DEG C/DIV
BASE = 10

ALT
100 FT/DIV





TL/K
.06 /DIV

BI/K
.04 /DIV

BI/TL
.08 /DIV

GC
500 C/S/DIV

RMAG
50 GRAMAS/DIV
BASE = -300

BIAIR
5 C/S/DIV

K
30 C/S/DIV

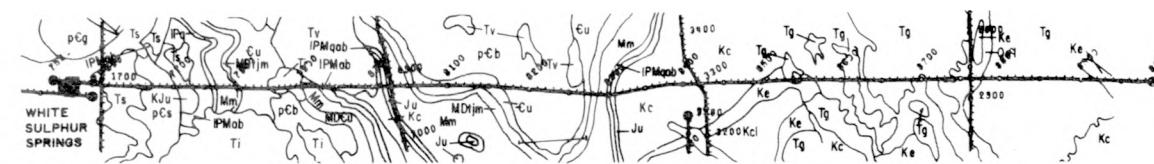
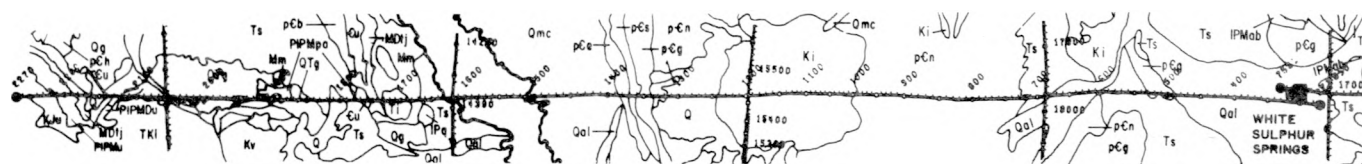
BI
5 C/S/DIV

TL
10 C/S/DIV

ALT
100 FT/DIV

ML 13W WHITE SULPHUR SPRINGS

ML 13E WHITE SULPHUR SPRINGS



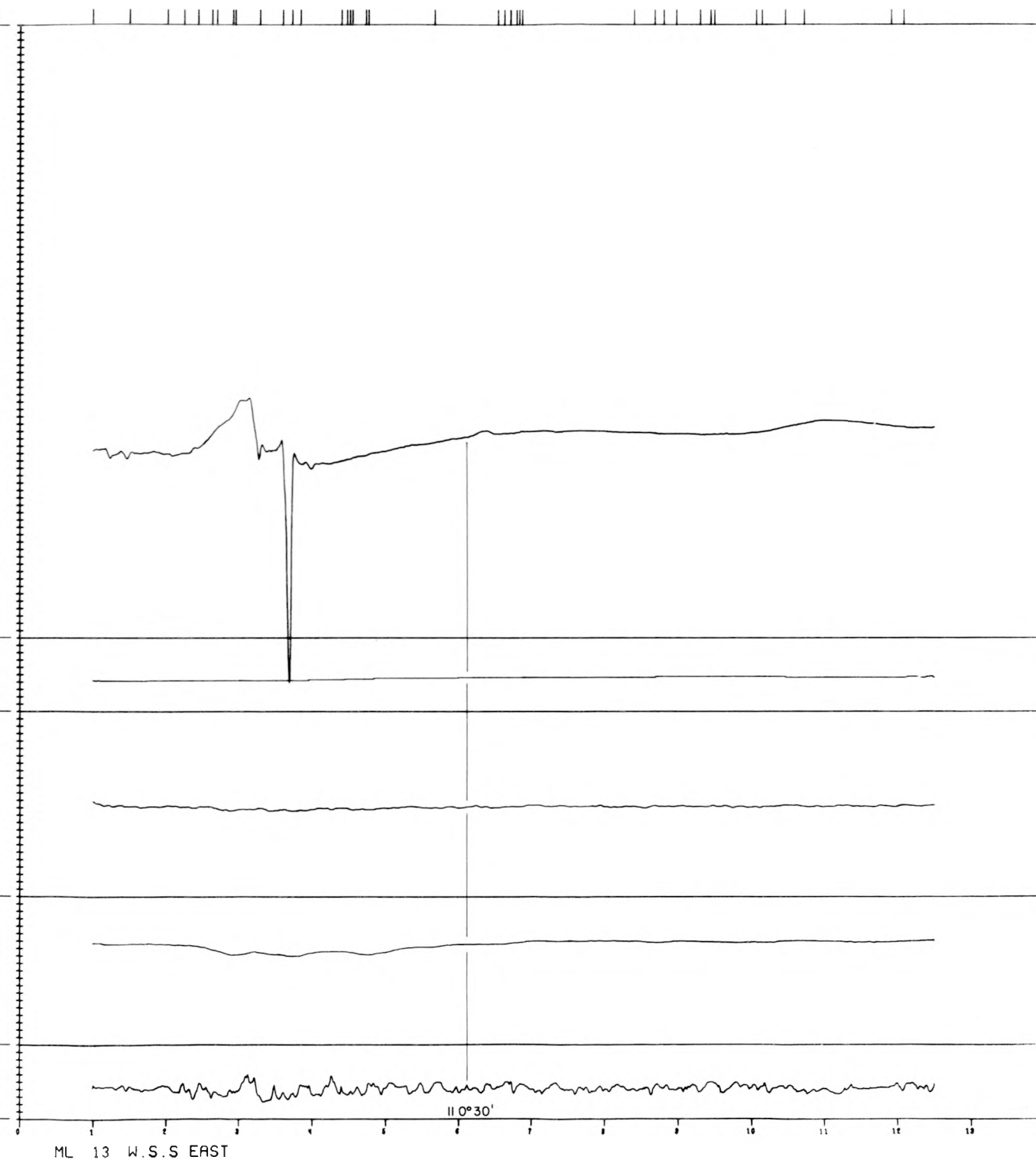
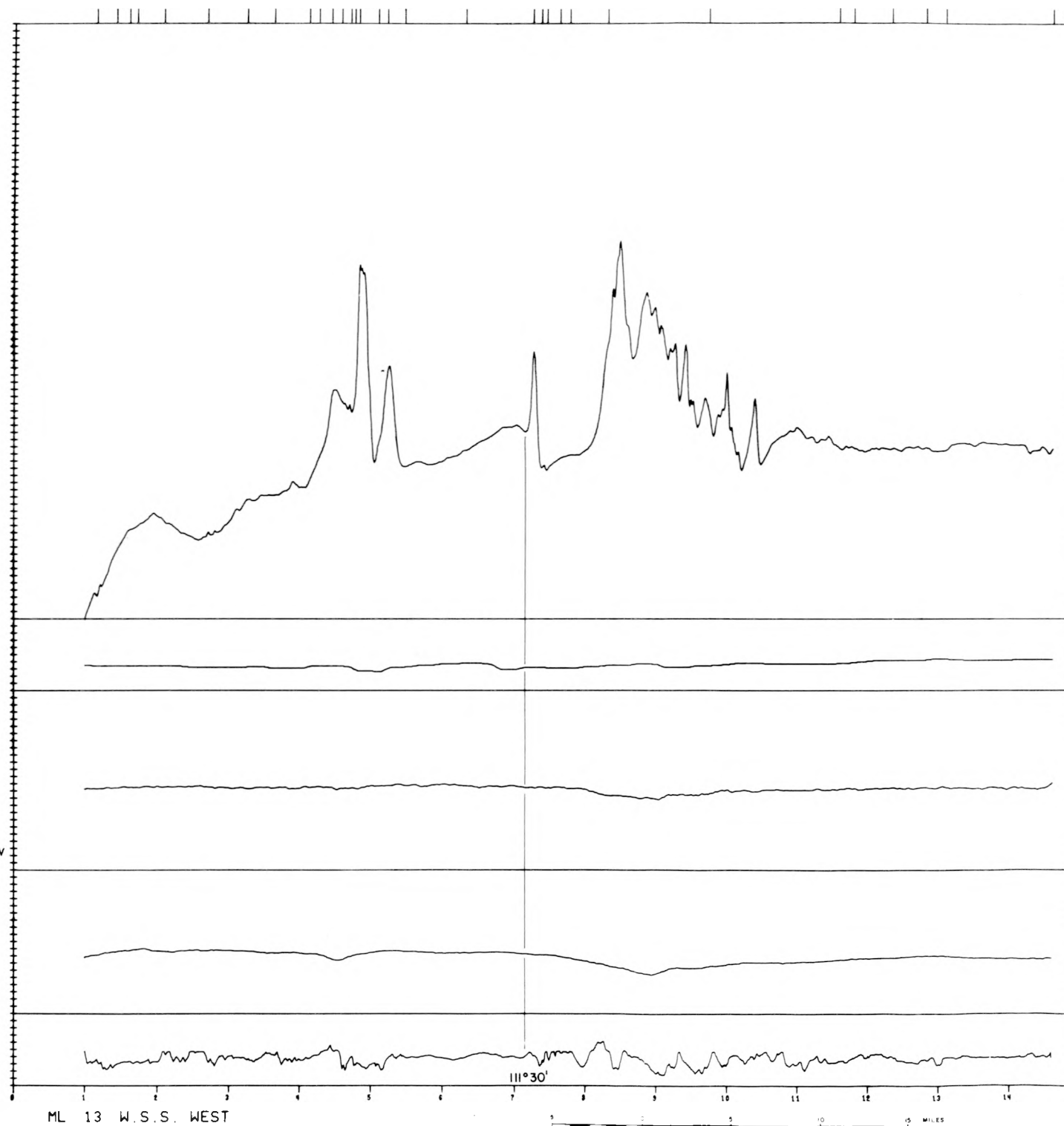
RMAG
30 GAMMA/DIV
BASE = -1000

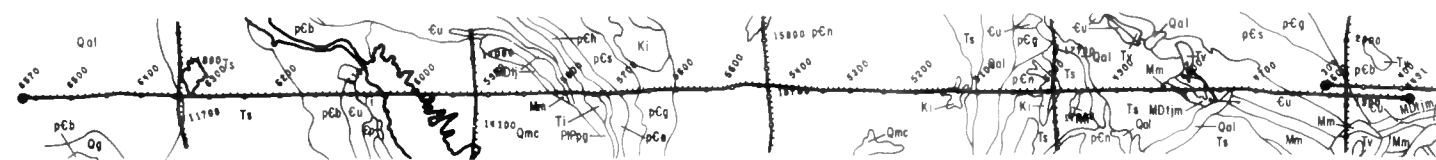
BMAG
10 GAMMA/DIV
BASE = 56275

PRESSURE
0.25 IN HG/DIV
BASE = 21

TEMP
1 DEG C/DIV
BASE = 10

ALT
100 FT/DIV





TL/K
.06 /DIV

BI/K
.04 /DIV

BI/TL
.08 /DIV

GC
500 C/S/DIV

RMAG
50 GAUSS/DIV
BASE = -300

BI/IR
5 C/S/DIV

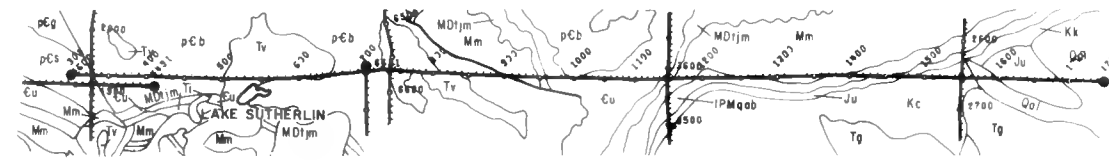
K
30 C/S/DIV

BI
5 C/S/DIV

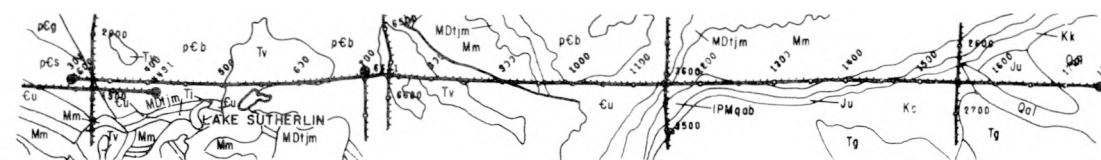
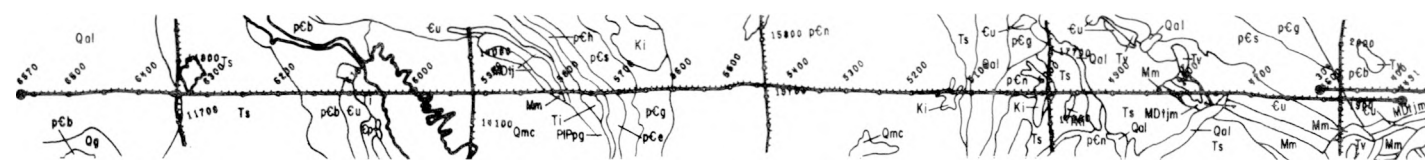
TL
10 C/S/DIV

ALT
100 FT/DIV

ML 15W WHITE SULPHUR SPRINGS



ML 15E WHITE SULPHUR SPRINGS



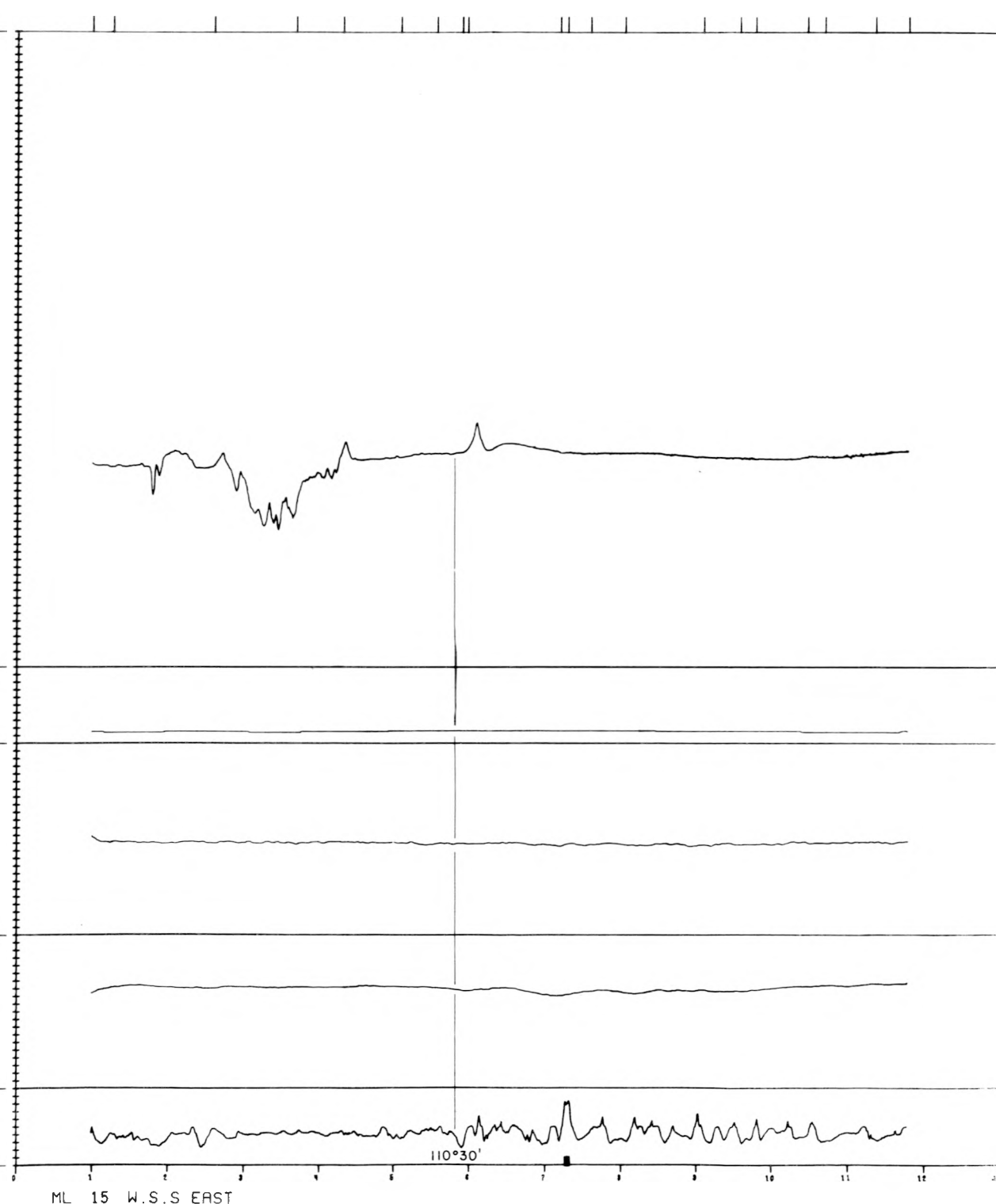
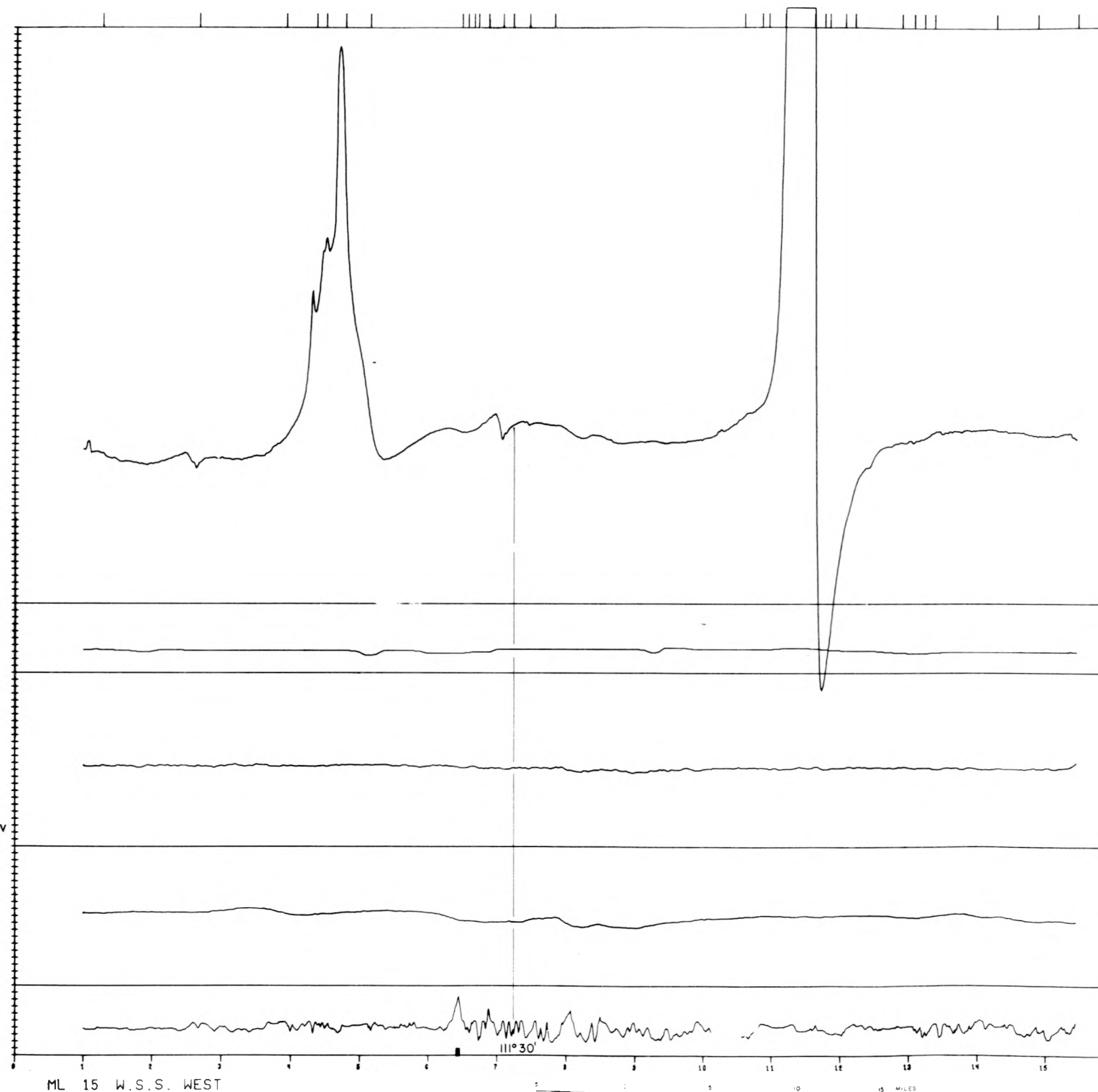
RMAG
30 GAMMA/DIV
BASE = -1000

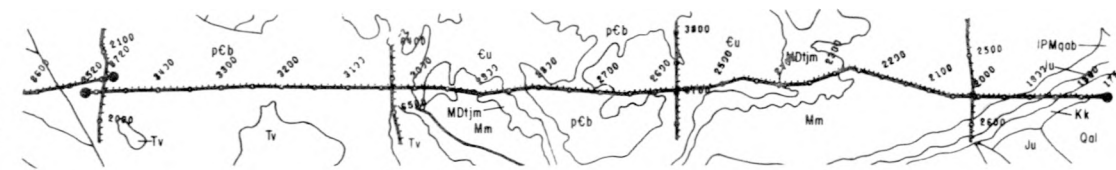
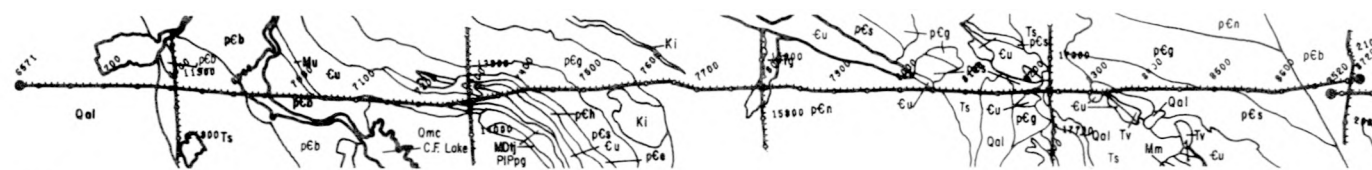
BMAG
10 GAMMA/DIV
BASE = 56275

PRESSURE
0.25 IN HG/DIV
BASE = 21

TEMP
1 DEG C/DIV
BASE = 10

ALT
100 FT/DIV





TL/K
.04 /DIV

BI/K
.04 /DIV

BI/TL
.04 /DIV

GC
500 C/S/DIV

RMAG
50 GAMMAS/DIV
BASE = -300

BIPIR
5 C/S/DIV

K
30 C/S/DIV

BI
5 C/S/DIV

TL
10 C/S/DIV

ALT
100 FT/DIV

ML 16W WHITE SULPHUR SPRINGS

TL/K
.04 /DIV

BI/K
.04 /DIV

BI/TL
.04 /DIV

GC
500 C/S/DIV

RMAG
50 GAMMAS/DIV
BASE = -300

BIPIR
5 C/S/DIV

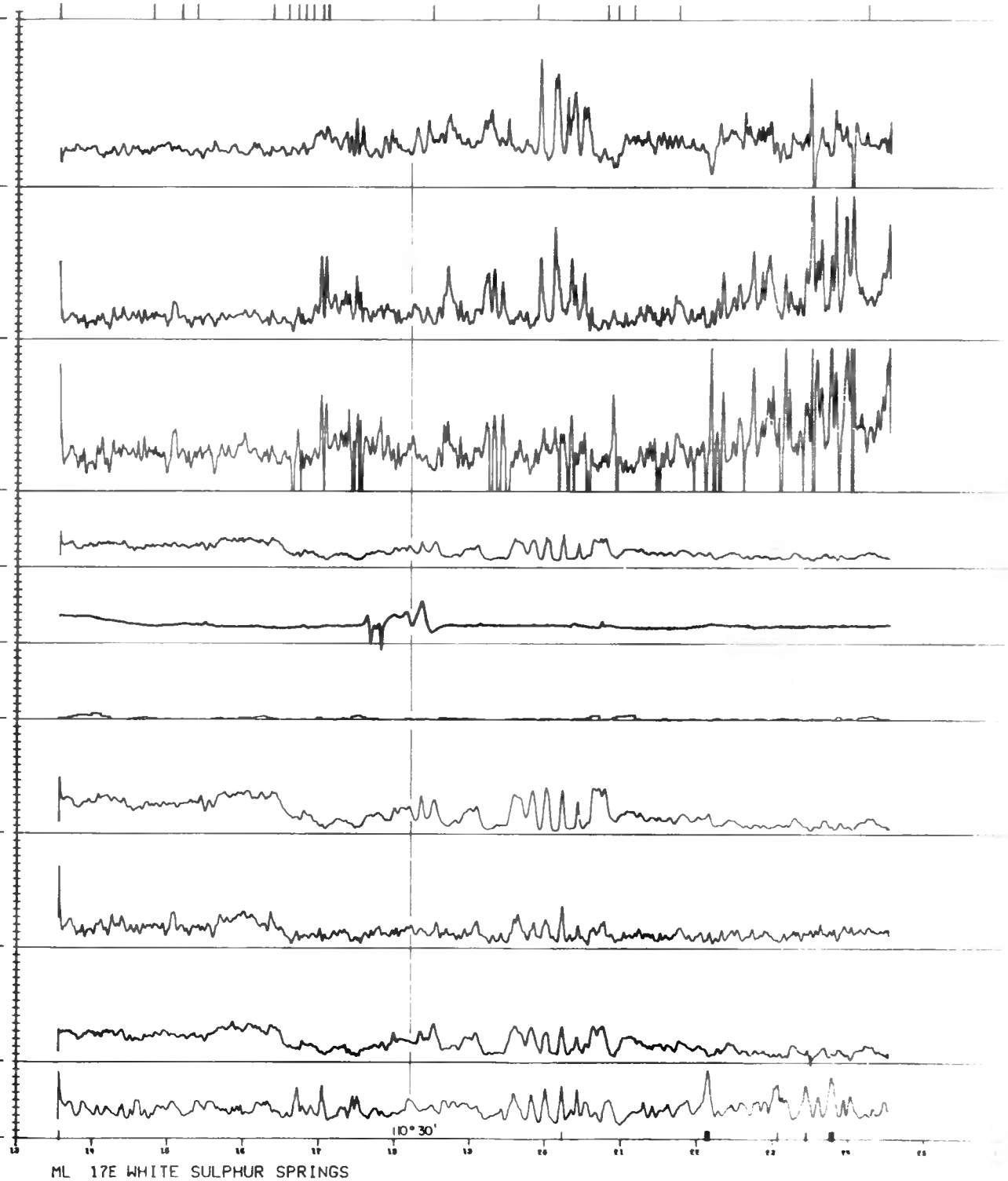
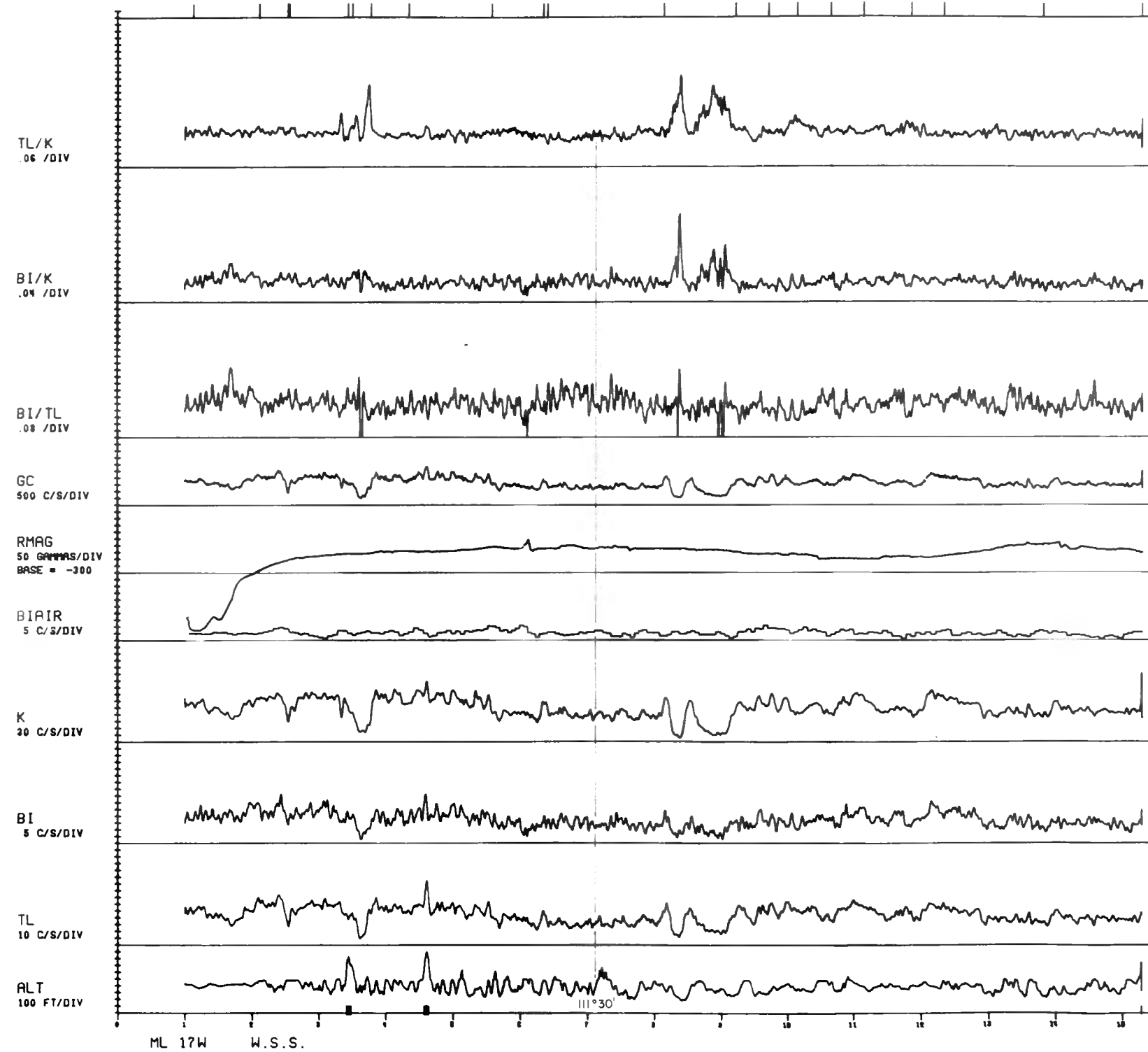
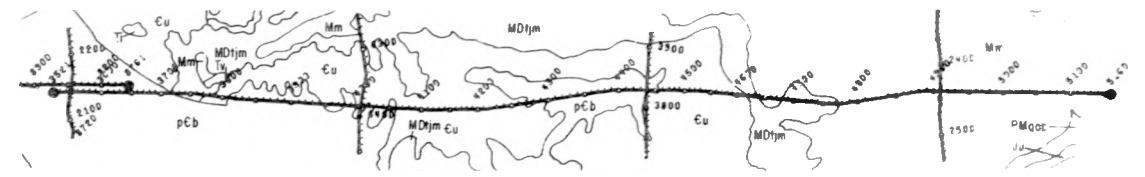
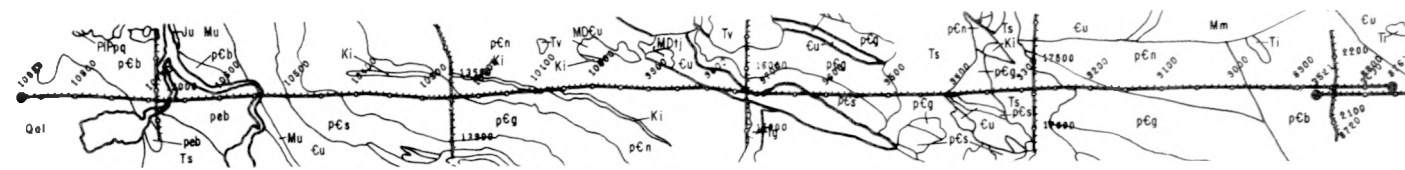
K
30 C/S/DIV

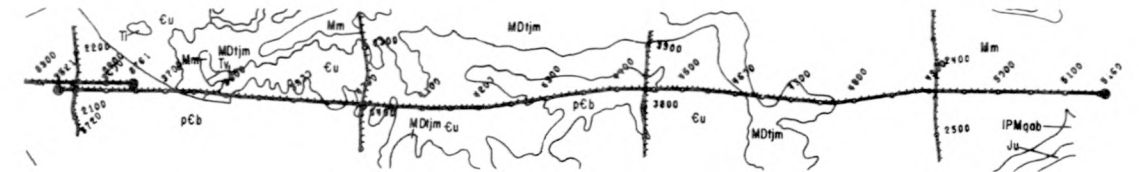
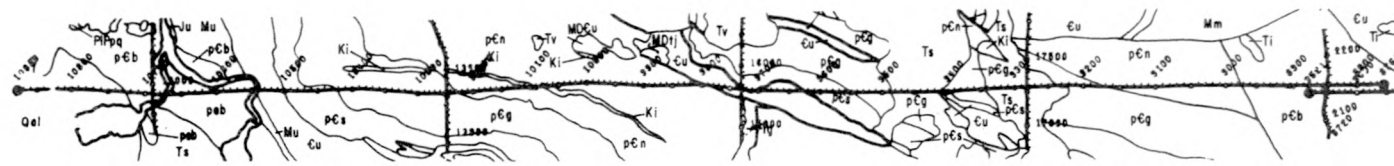
BI
5 C/S/DIV

TL
10 C/S/DIV

ALT
100 FT/DIV

ML 16E WHITE SULPHUR SPRINGS





RMAG
30 GAMMA/DIV
BASE = -1000

BMAG
10 GAMMA/DIV
BASE = 56275

PRESSURE
0.25 IN HG/DIV
BASE = 21

TEMP
1 DEG C/DIV
BASE = 10

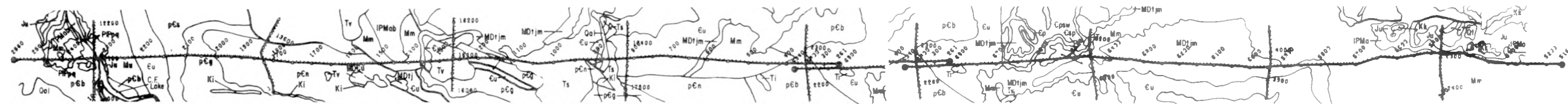
ALT
100 FT/DIV

ML 17 W.S.S. WEST

0 5 10 15 20 MILES

ML 17 W.S.S. EAST

110°30'



TL/K
.06 /DIV

BI/K
.04 /DIV

BI/TL
.08 /DIV

GC
500 C/S/DIV

RMAG
50 GAMMAS/DIV
BASE = -300

BIAIR
5 C/S/DIV

K
30 C/S/DIV

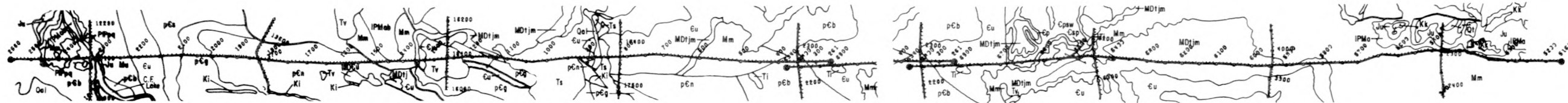
BI
5 C/S/DIV

TL
10 C/S/DIV

ALT
100 FT/DIV

ML 18W WHITE SULPHUR SPRINGS

ML 18E WHITE SULPHUR SPRINGS



RMAG
30 GAMMA/DIV
BASE = -1000

BMAG
10 GAMMA/DIV
BASE = 56275

PRESSURE
0.25 IN HG/DIV
BASE = 21

TEMP
1 DEG C/DIV
BASE = 10

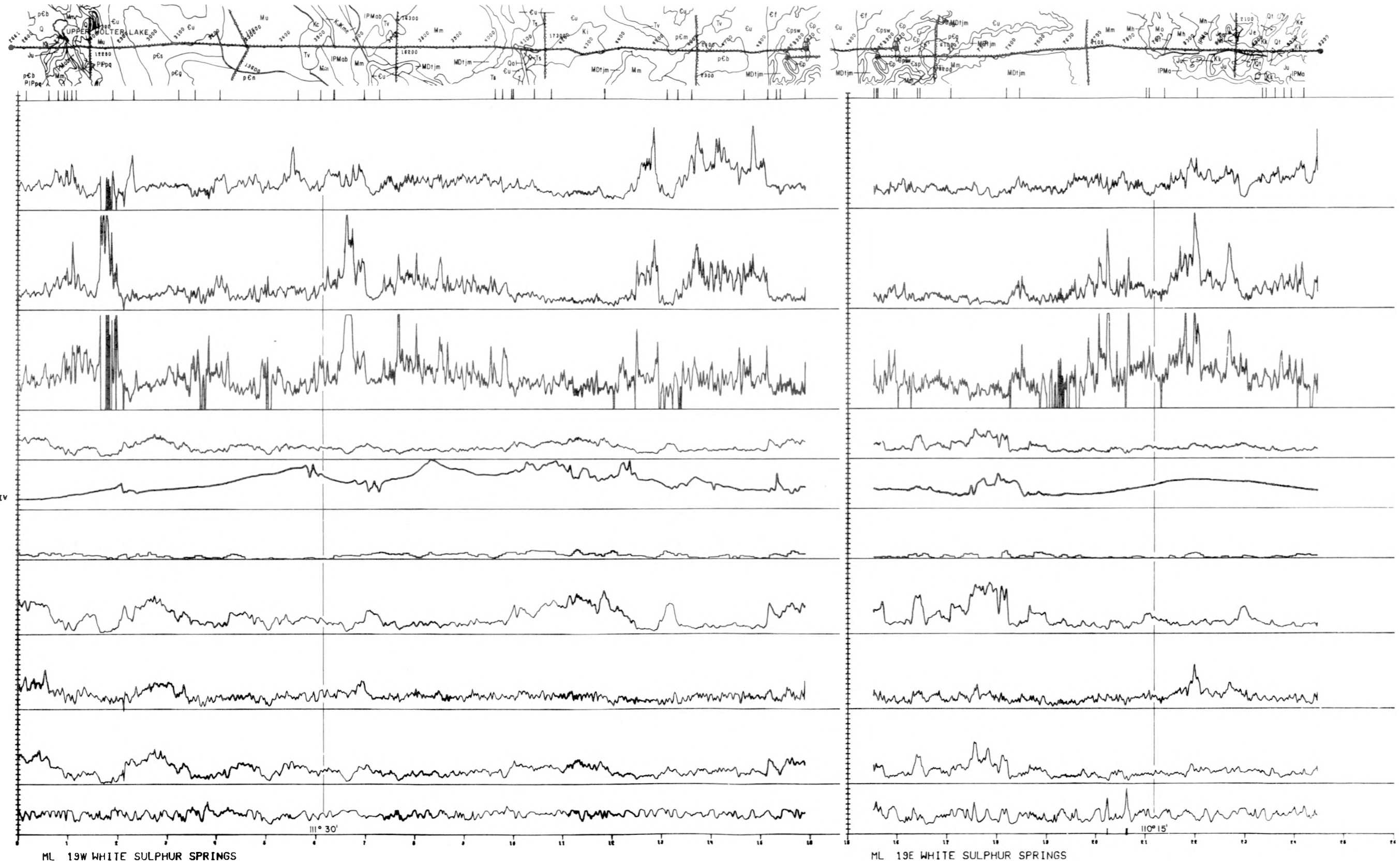
ALT
100 FT/DIV

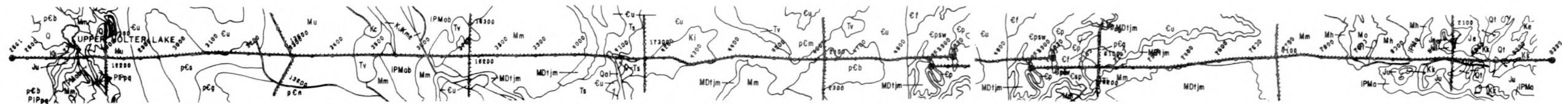
ML 18 W.S.S. WEST



ML 18 W.S.S. EAST

110°30'





RMAG
30 GAMMA/DIV
BASE = -1000

BMAG
10 GAMMA/DIV
BASE = 56275

PRESSURE
0.25 IN HG/DIV
BASE = 21

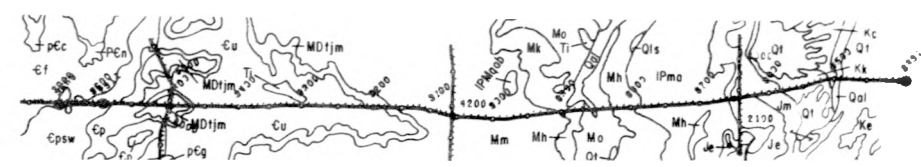
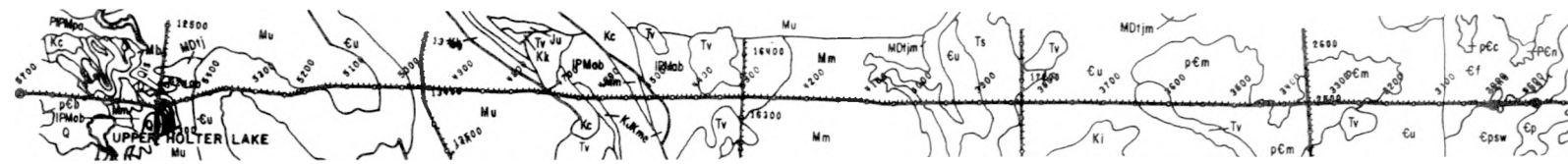
TEMP
1 DEG C/DIV
BASE = 10

ALT
100 FT/DIV

ML 19 W.S.S. WEST



ML 19 W.S.S. EAST



TL/K
.06 /DIV

BI/K
.04 /DIV

BI/TL
.00 /DIV

GC
500 C/S/DIV

RMAG
50 GAUSS/DIV
BASE = -300

BIAIR
5 C/S/DIV

K
20 C/S/DIV

BI
5 C/S/DIV

TL
10 C/S/DIV

ALT
100 FT/DIV

ML 20W WHITE SULPHUR SPRINGS

ML 20E WHITE SULPHUR SPRINGS

HORIZONTAL SCALE. 1:250000.



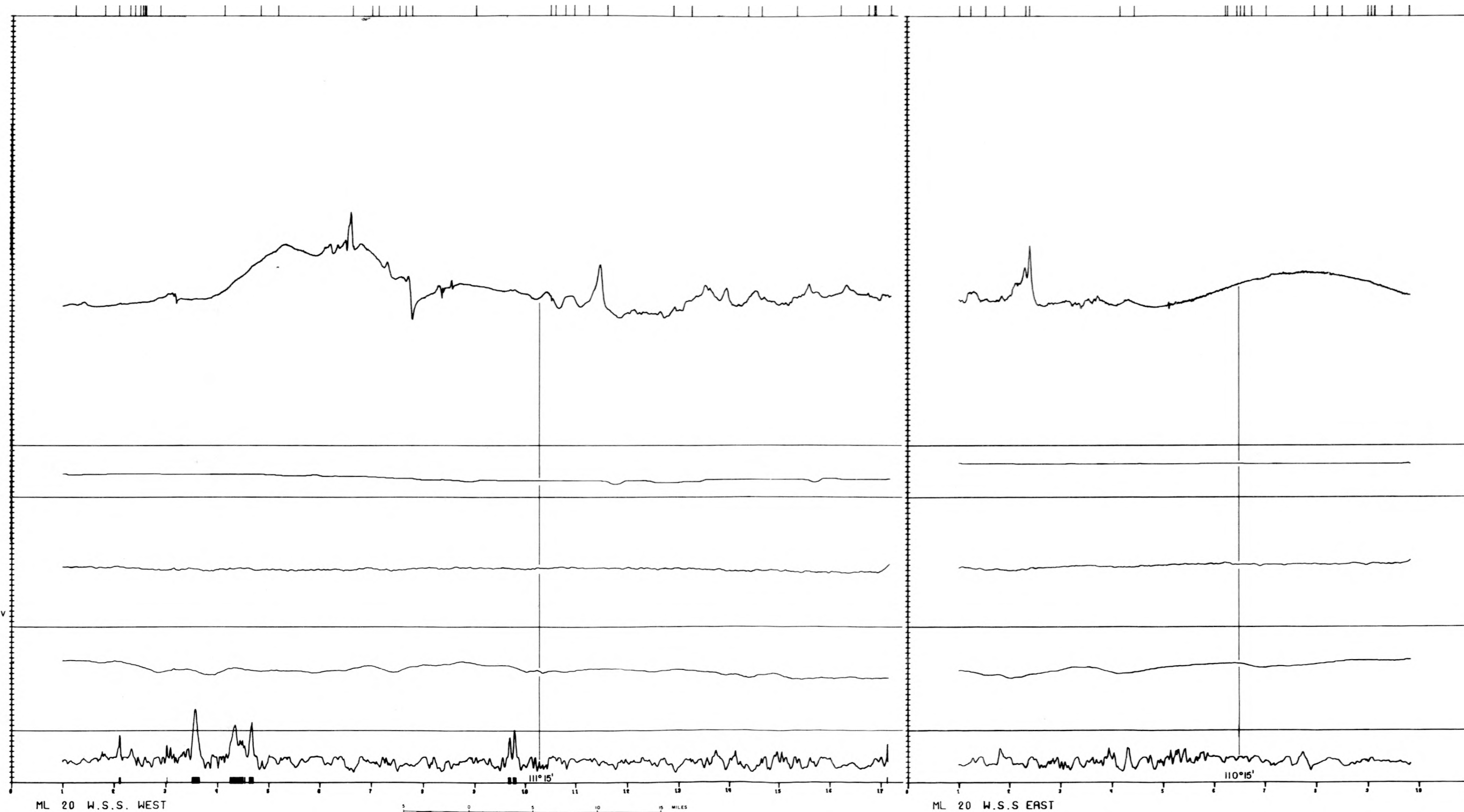
RMAG
30 GAMMA/DIV
BASE = -1000

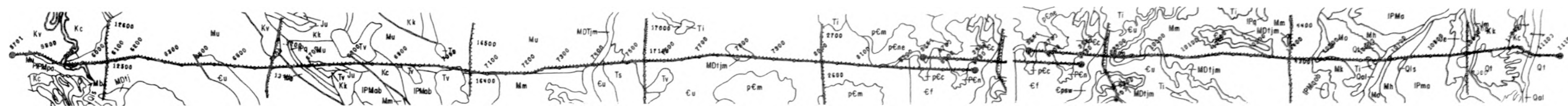
BMAG
10 GAMMA/DIV
BASE = 56275

PRESSURE
0.25 IN HG/DIV
BASE = 21

TEMP
1 DEG C/DIV
BASE = 10

ALT
100 FT/DIV





TL/K
.06 /DIV

BI/K
.09 /DIV

BI/TL
.09 /DIV

GC
500 C/S/DIV

RMAG
50 GRAMS/DIV
BASE = -300

BIPIR
5 C/S/DIV

K
20 C/S/DIV

BI
5 C/S/DIV

TL
10 C/S/DIV

ALT
100 FT/DIV

ML 21W WHITE SULPHUR SPRINGS

ML 21E WHITE SULPHUR SPRINGS



RMAG
30 GAMMA/DIV
BASE = -1000

BMAG
10 GAMMA/DIV
BASE = 56275

PRESSURE
0.25 IN HG/DIV
BASE = 21

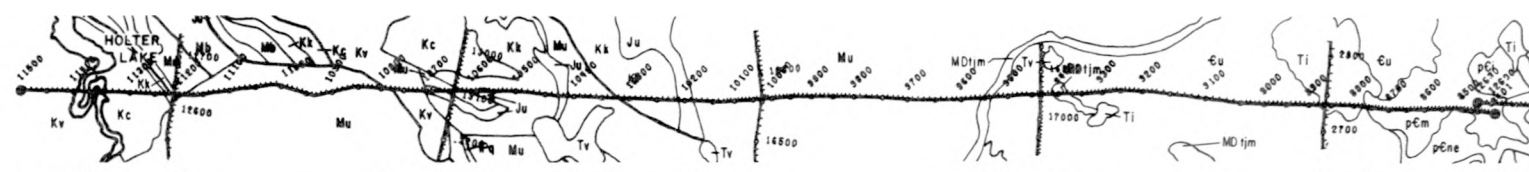
TEMP
1 DEG C/DIV
BASE = 10

ALT
100 FT/DIV

ML 21 W.S.S. WEST

0 5 10 15 20 MILES

ML 21 W.S.S. EAST



TL/K
.06 /DIV

BI/K
.04 /DIV

BI/TL
.08 /DIV

GC
500 C/S/DIV

RMAG
50 GAMMAS/DIV
BASE = -300

BIAIR
5 C/S/DIV

K
30 C/S/DIV

BI
5 C/S/DIV

TL
10 C/S/DIV

ALT
100 FT/DIV

ML 22W WHITE SULPHUR SPRINGS



ML 22E WHITE SULPHUR SPRINGS



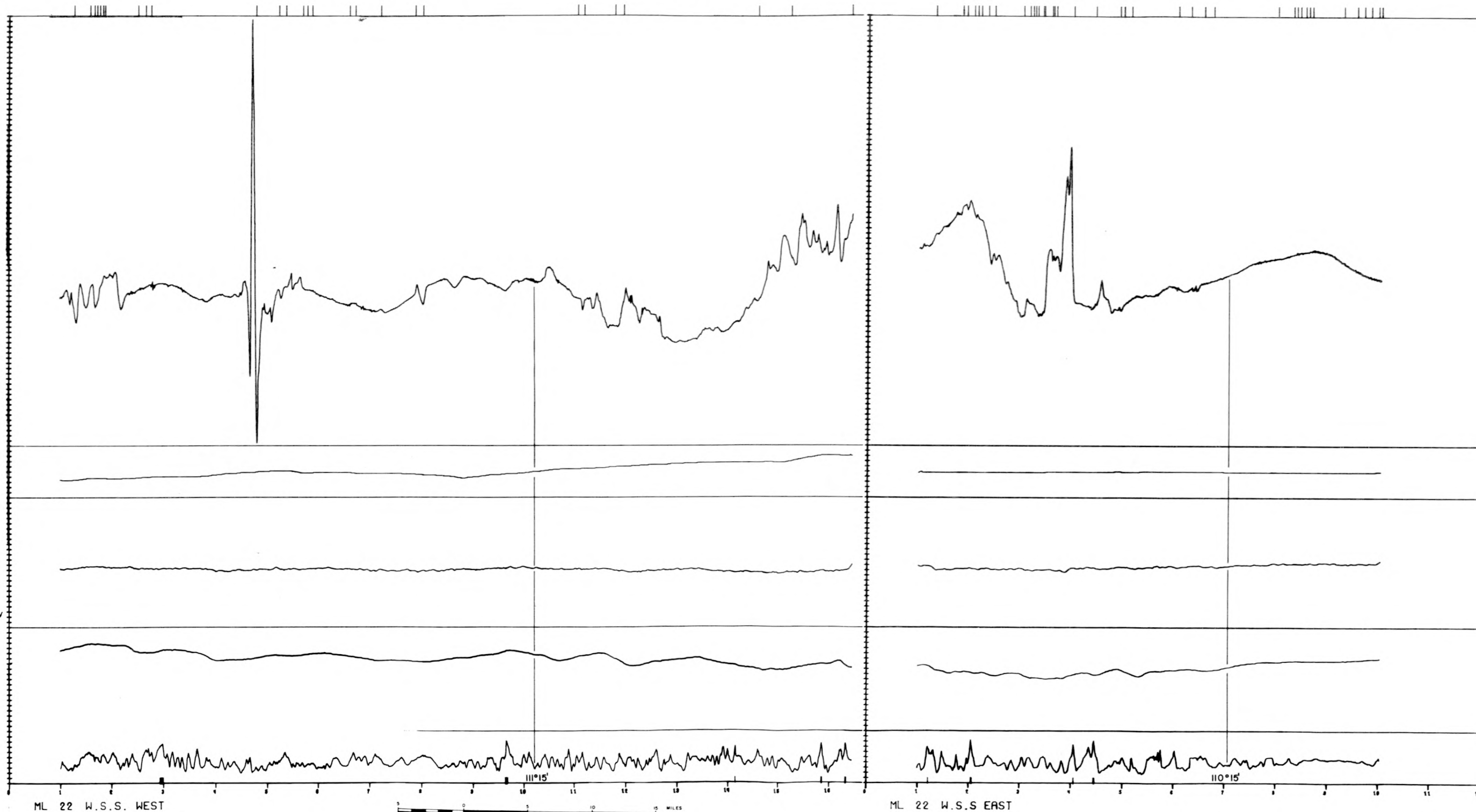
RMAG
30 GAMMA/DIV
BASE = -1000

BMAG
10 GAMMA/DIV
BASE = 56275

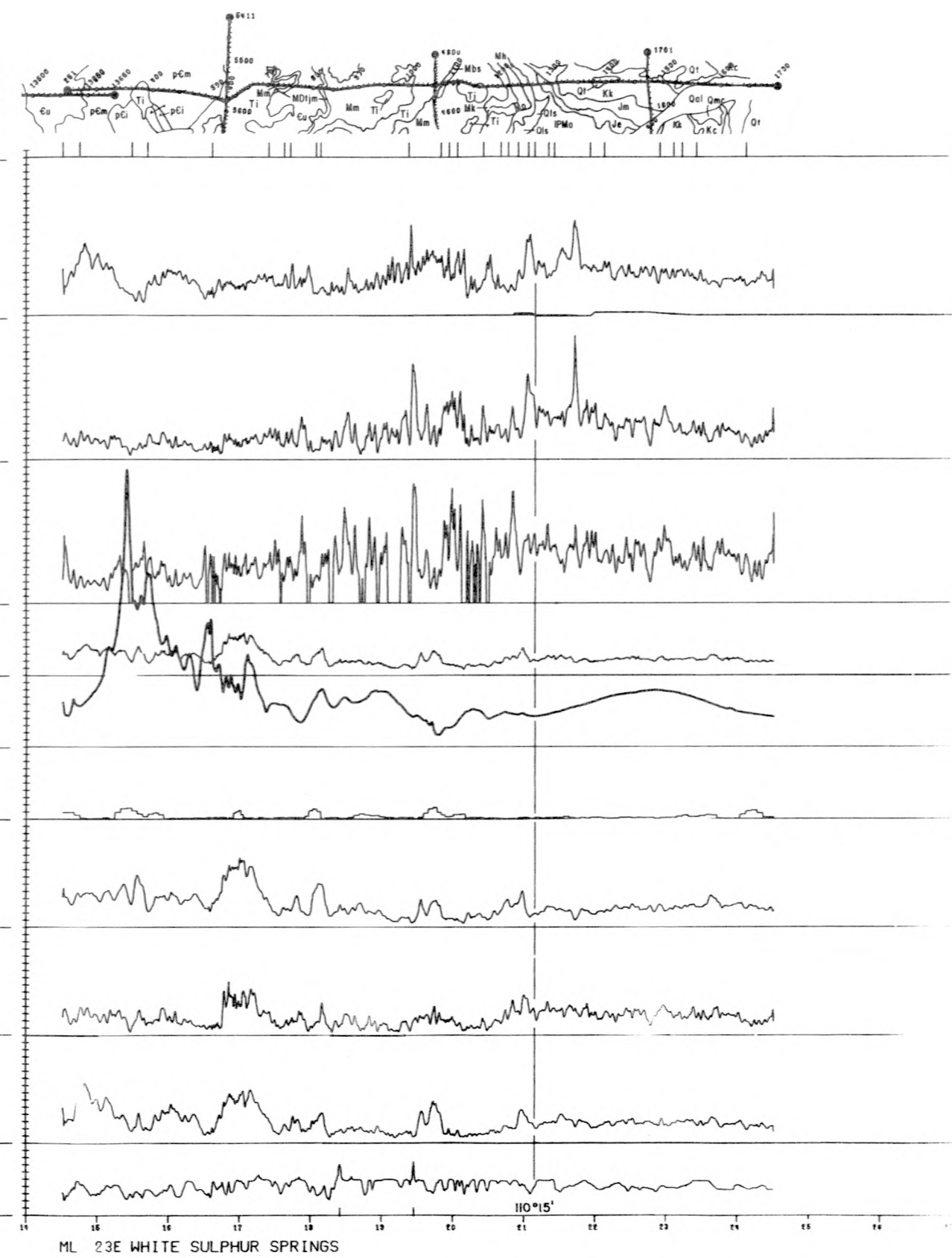
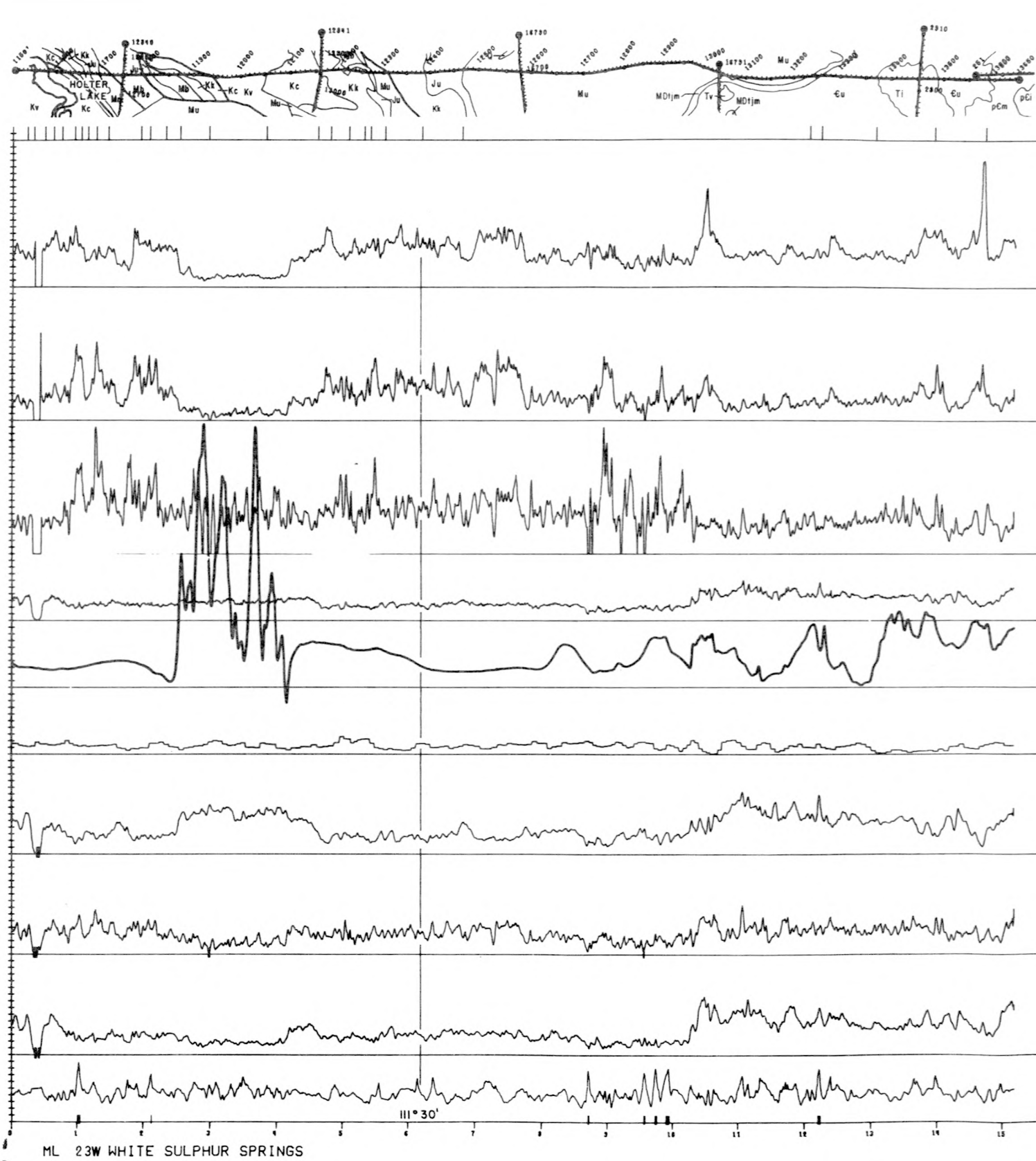
PRESSURE
0.25 IN HG/DIV
BASE = 21

TEMP
1 DEG C/DIV
BASE = 10

ALT
100 FT/DIV



2





TL/K
.06 /DIV

BI/K
.04 /DIV

BI/TL
.08 /DIV

GC
500 C/S/DIV

RMAG
50 GAMMAS/DIV
BASE = -300

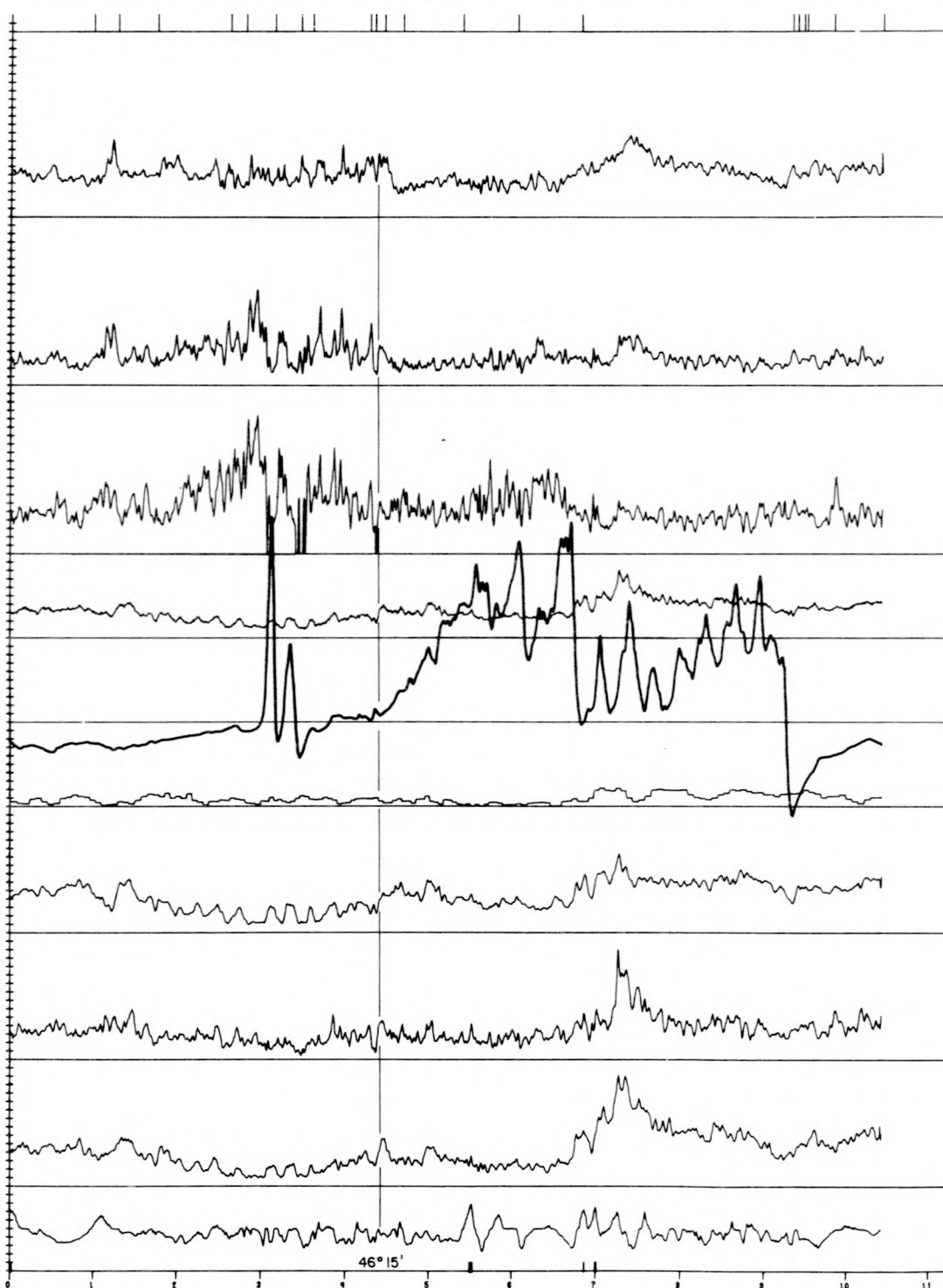
BIAIR
5 C/S/DIV

K
30 C/S/DIV

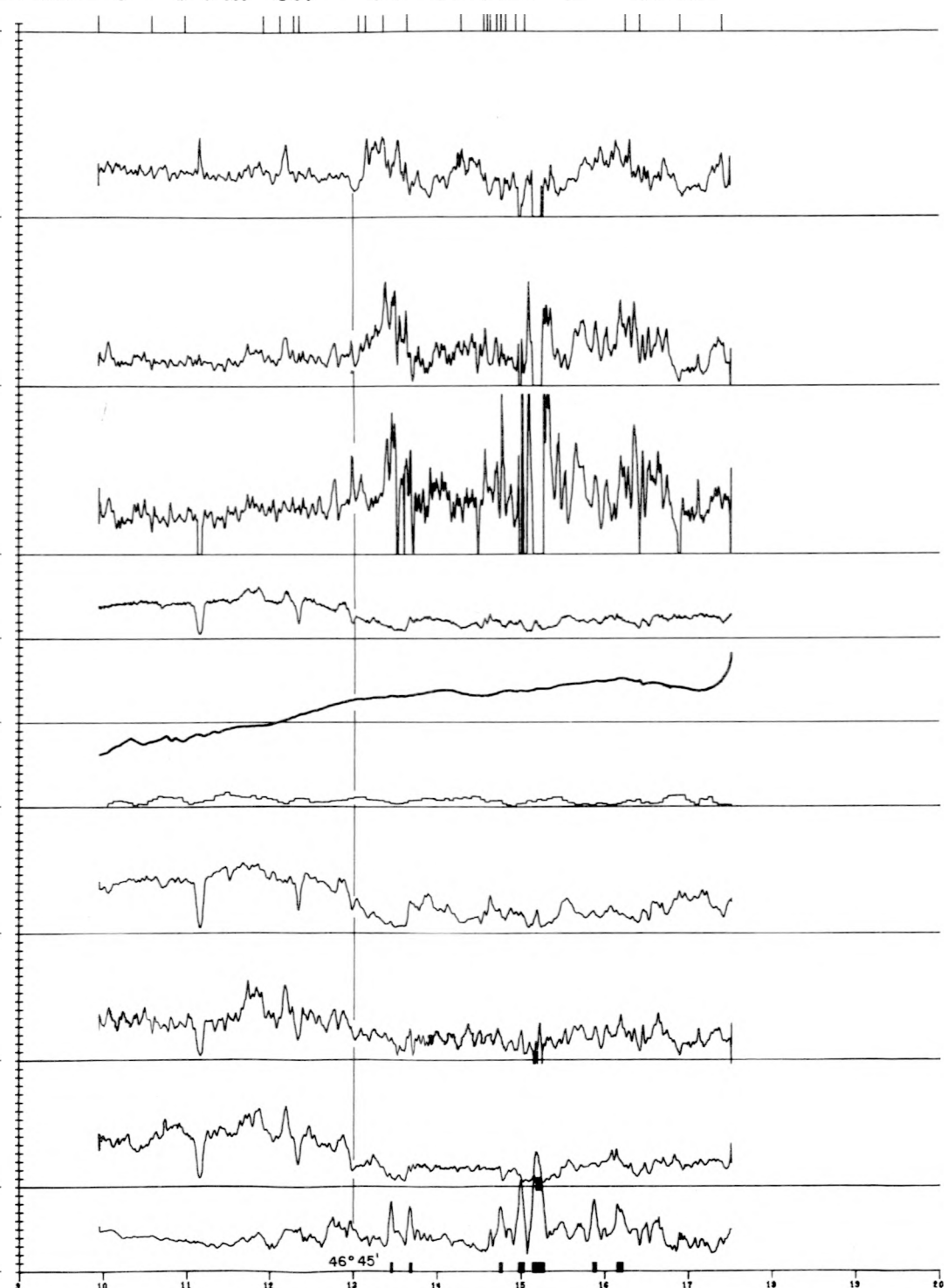
BI
5 C/S/DIV

TL
10 C/S/DIV

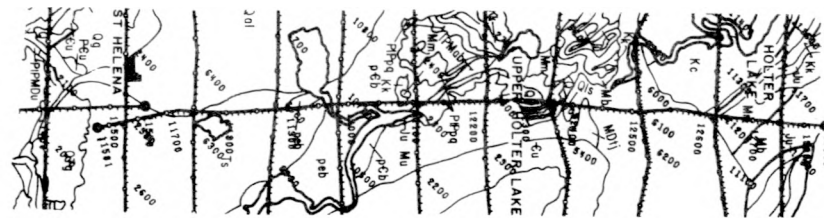
ALT
100 FT/DIV



TL 1S WHITE SULPHUR SPRINGS



TL 1N WHITE SULPHUR SPRINGS



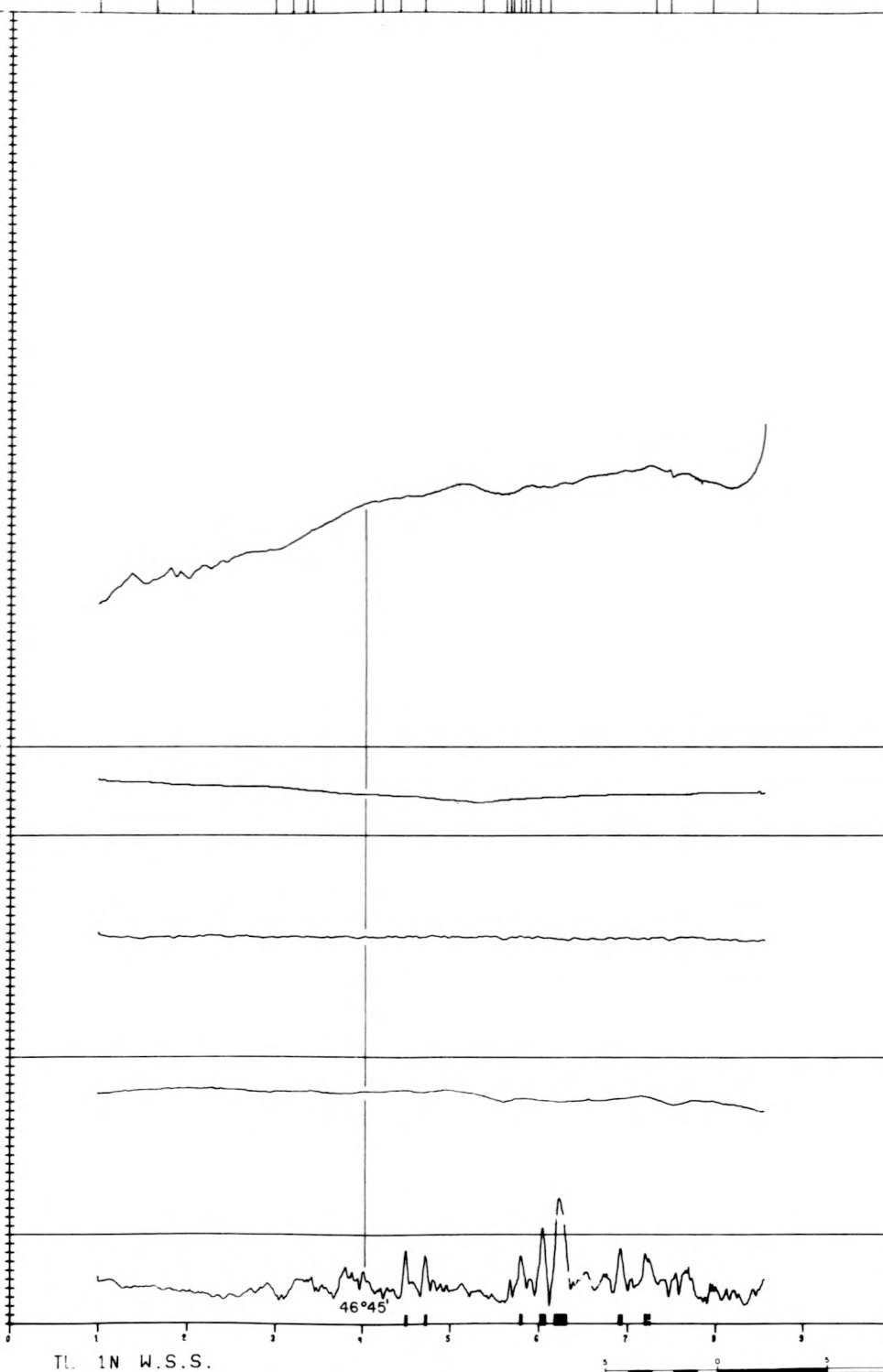
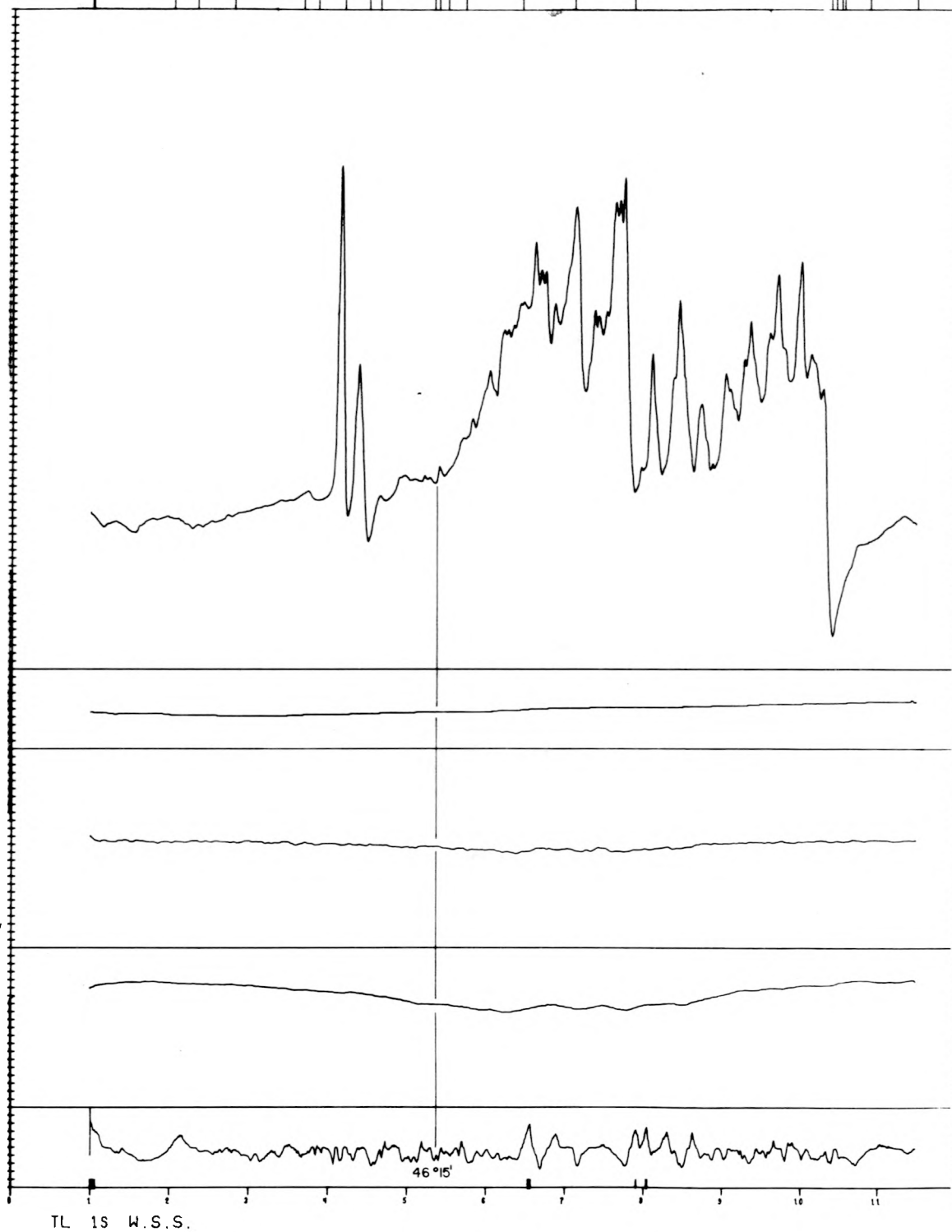
RMAG
30 GAMMA/DIV
BASE = -1000

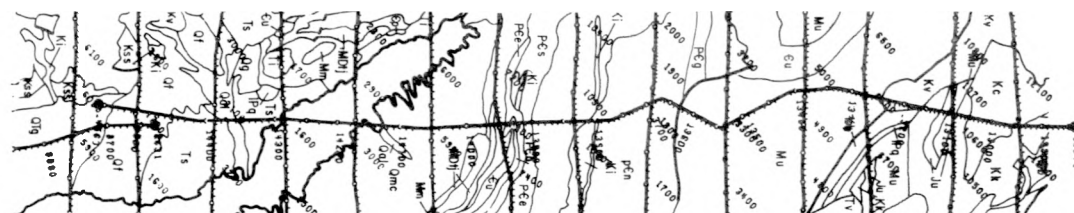
BMAG
10 GAMMA/DIV
BASE = 56275

PRESSURE
0.25 IN HG/DIV
BASE = 21

TEMP
1 DEG C/DIV
BASE = 10

ALT
100 FT/DIV





TL/K
.06 /DIV

BI/K
.04 /DIV

BI/TL
.08 /DIV

GC
500 C/S/DIV

RMAG
50 GAMMAS/DIV
BASE = -300

BIAIR
5 C/S/DIV

K
30 C/S/DIV

BI
5 C/S/DIV

TL
10 C/S/DIV

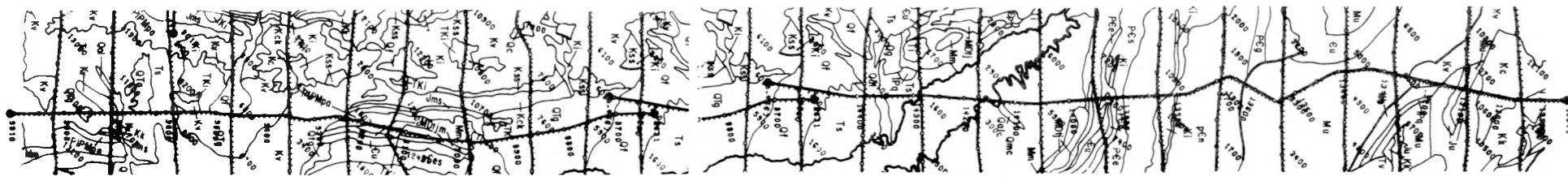
ALT
100 FT/DIV

TL 2S WHITE SULPHUR SPRINGS

46°15'

TL 2N WHITE SULPHUR SPRINGS

46°45'



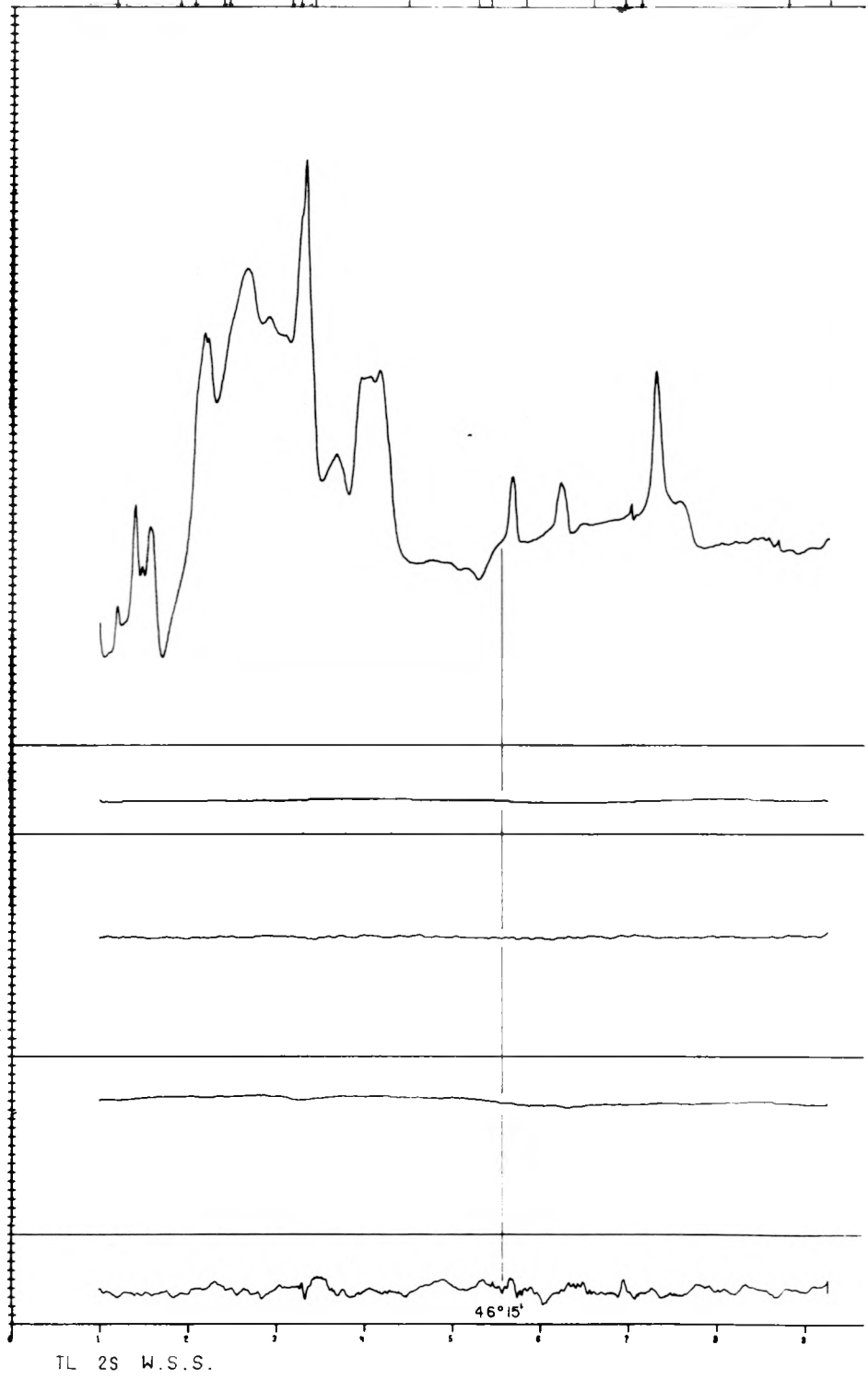
RMAG
30 GAMMA/DIV
BASE = -1000

BMAG
10 GAMMA/DIV
BASE = 56275

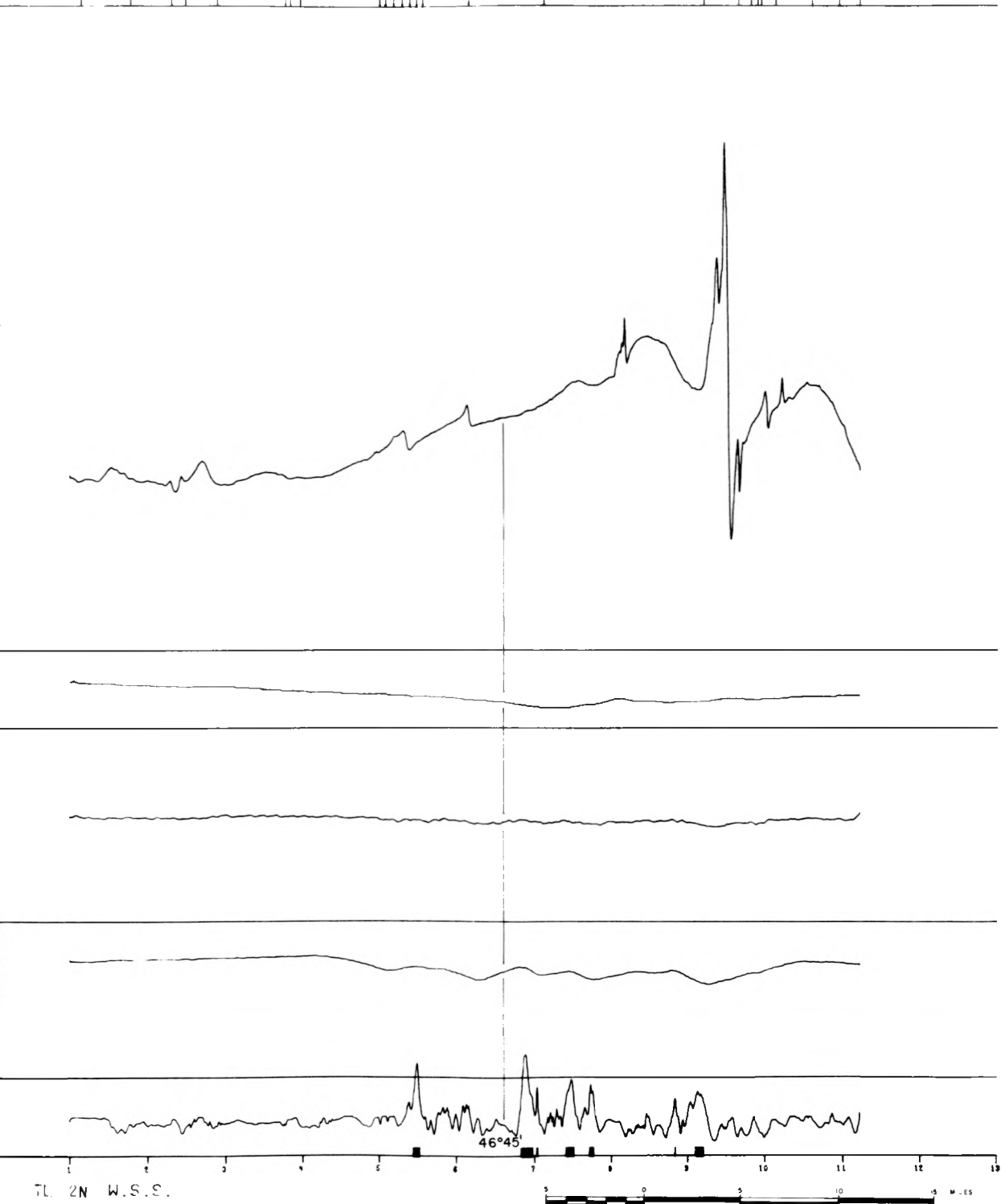
PRESSURE
0.25 IN HG/DIV
BASE = 21

TEMP
1 DEG C/DIV
BASE = 10

ALT
100 FT/DIV

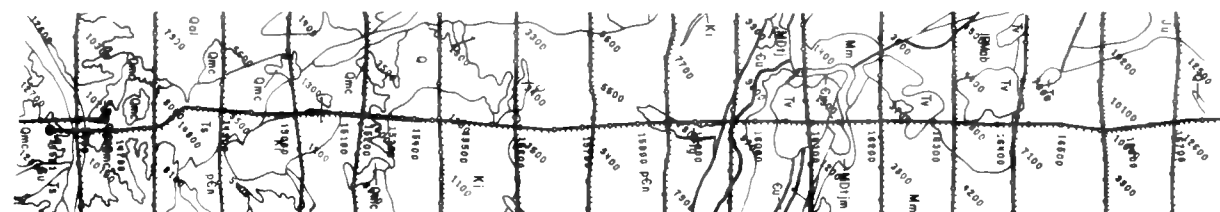


TL 2S W.S.S.



TL 2N W.S.S.





TL/K
.06 /DIV

BI/K
.04 /DIV

BI/TL
.08 /DIV

GC
500 C/S/DIV

RMAG
50 GAMMAS/DIV
BASE = -300

BIAIR
5 C/S/DIV

K
30 C/S/DIV

BI
5 C/S/DIV

TL
10 C/S/DIV

ALT
100 FT/DIV

TL 3S WHITE SULPHUR SPRINGS

46°15'

TL 3N WHITE SULPHUR SPRINGS

46°30'



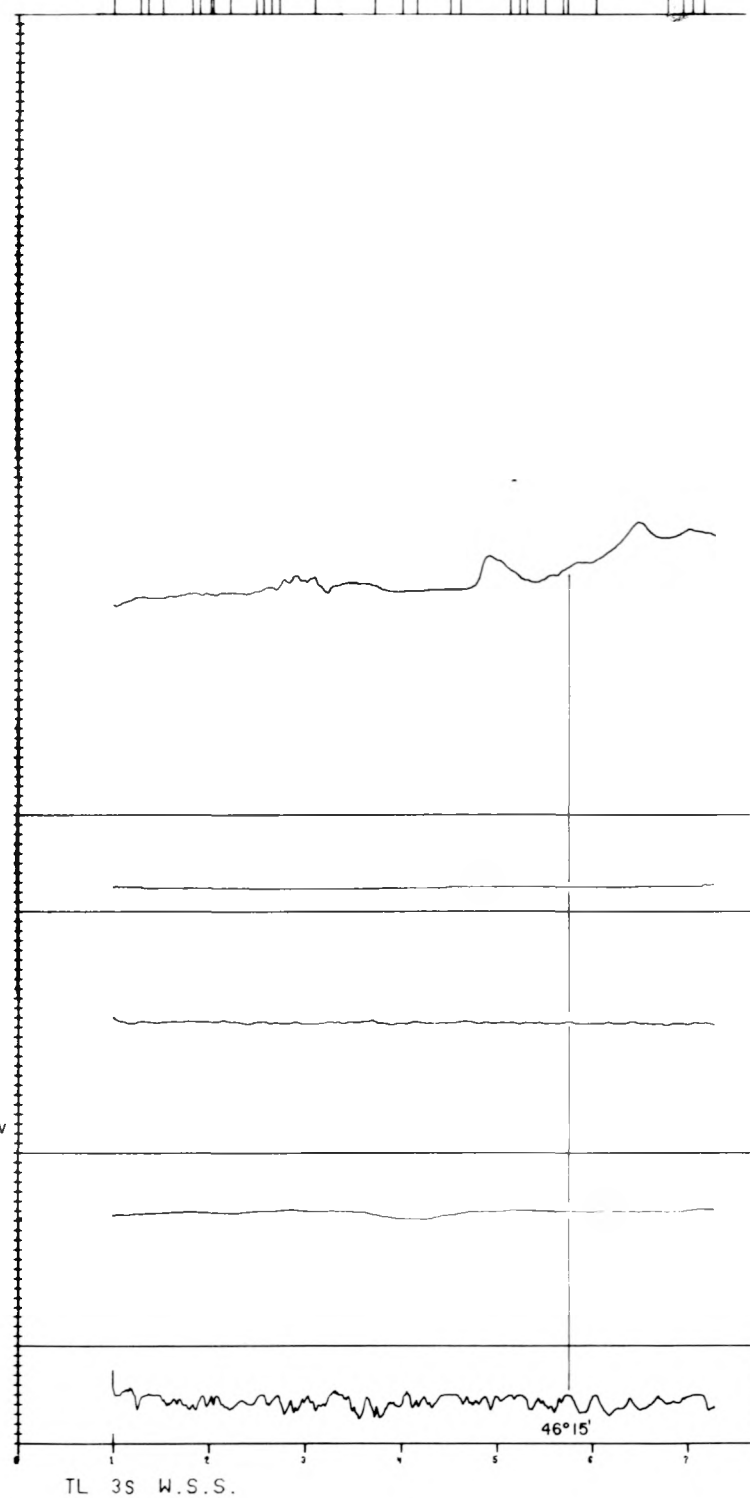
RMAG
30 GAMMA/DIV
BASE = -1000

BMAG
10 GAMMA/DIV
BASE = 56275

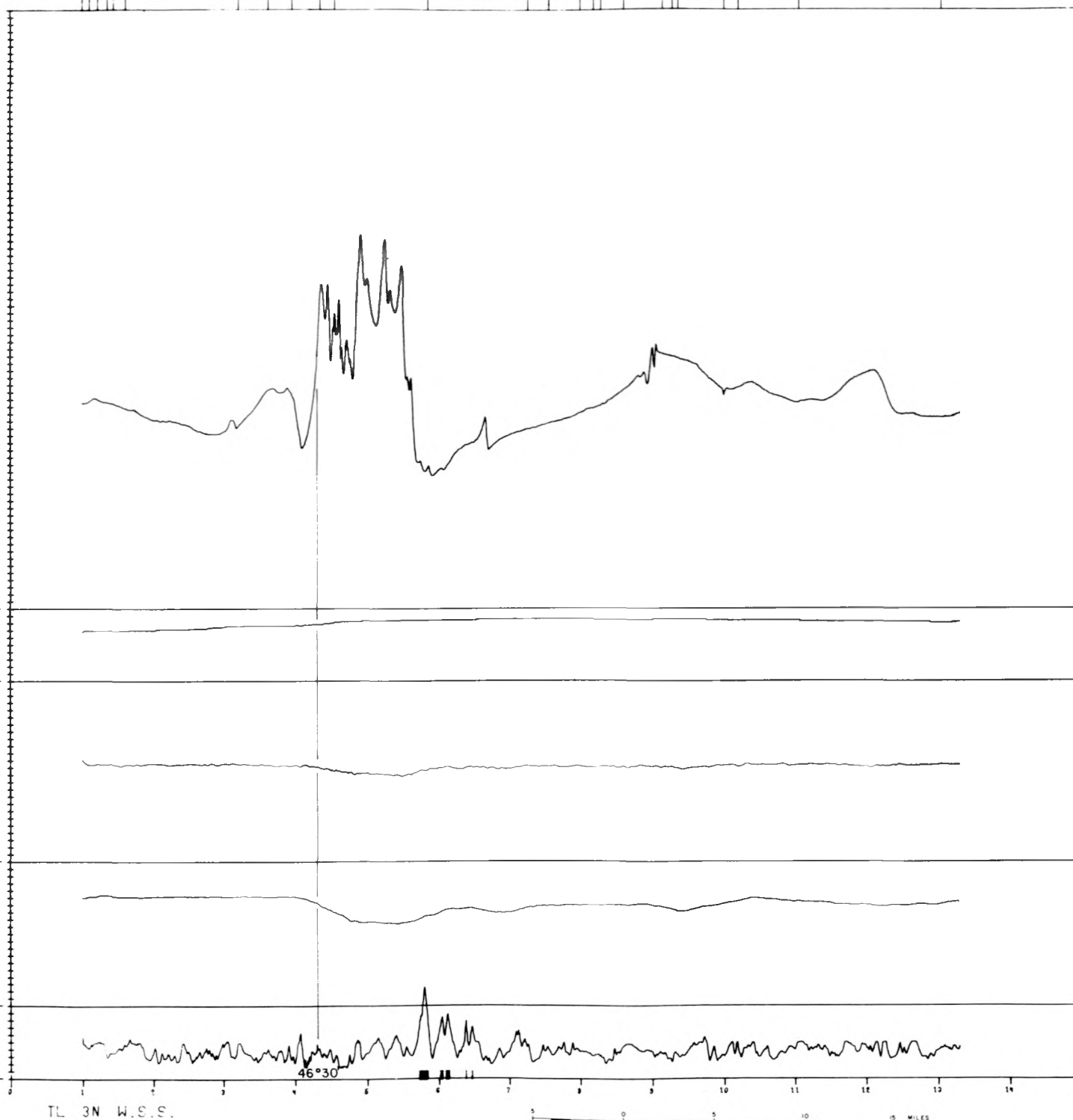
PRESSURE
0.25 IN HG/DIV
BASE = 21

TEMP
1 DEG C/DIV
BASE = 10

ALT
100 FT/DIV



TL 3S W.S.S.



TL 3N W.S.S.

0 5 10 15 MILES



TL/K
.06 /DIV

BI/K
.04 /DIV

BI/TL
.08 /DIV

GC
500 C/S/DIV

RMAG
50 GAMMAS/DIV
BASE = -300

BIAIR
5 C/S/DIV

K
30 C/S/DIV

BI
5 C/S/DIV

TL
10 C/S/DIV

ALT
100 FT/DIV

TL 4S WHITE SULPHUR SPRINGS

46°15'

TL 4N WHITE SULPHUR SPRINGS

46°45'



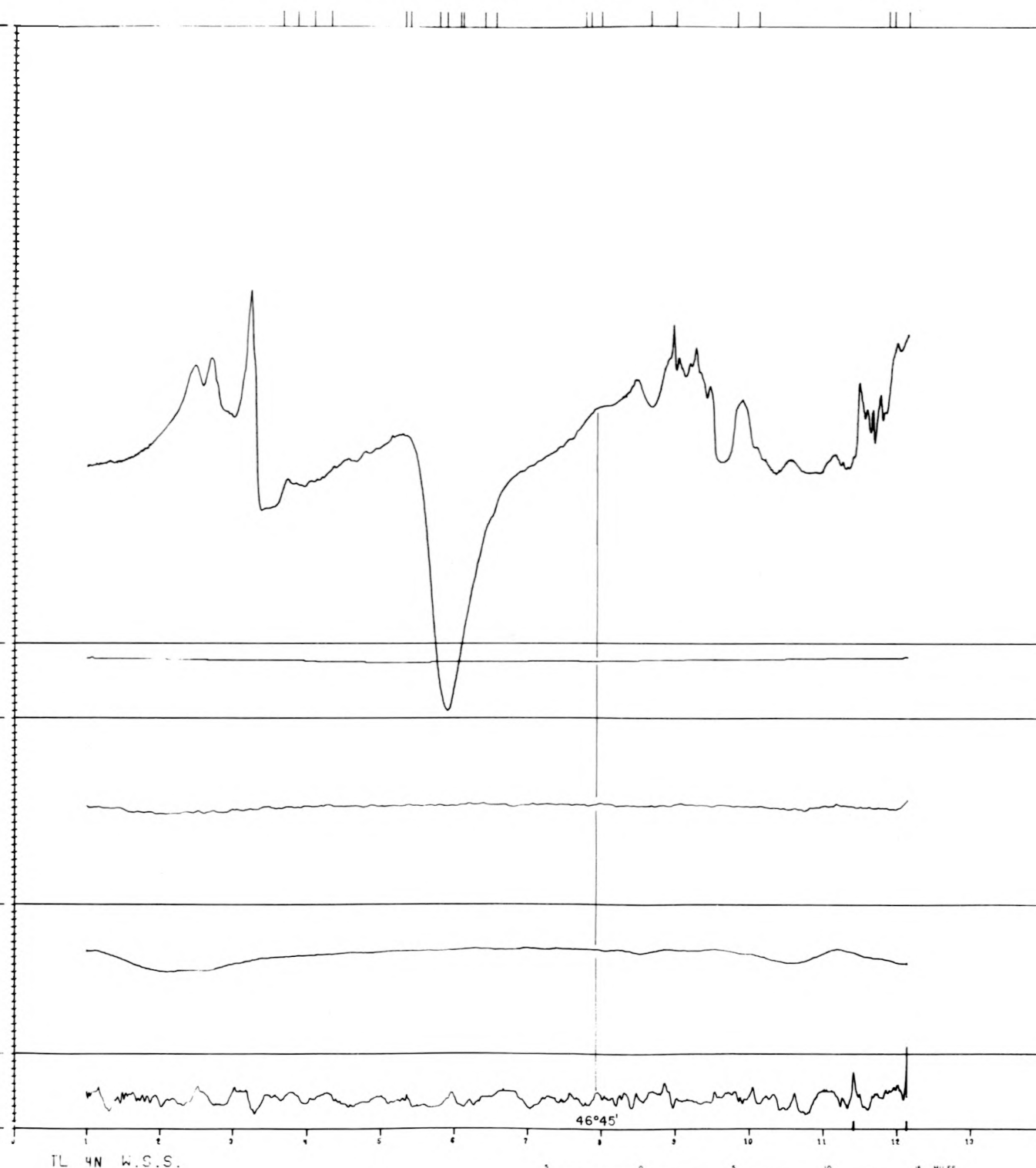
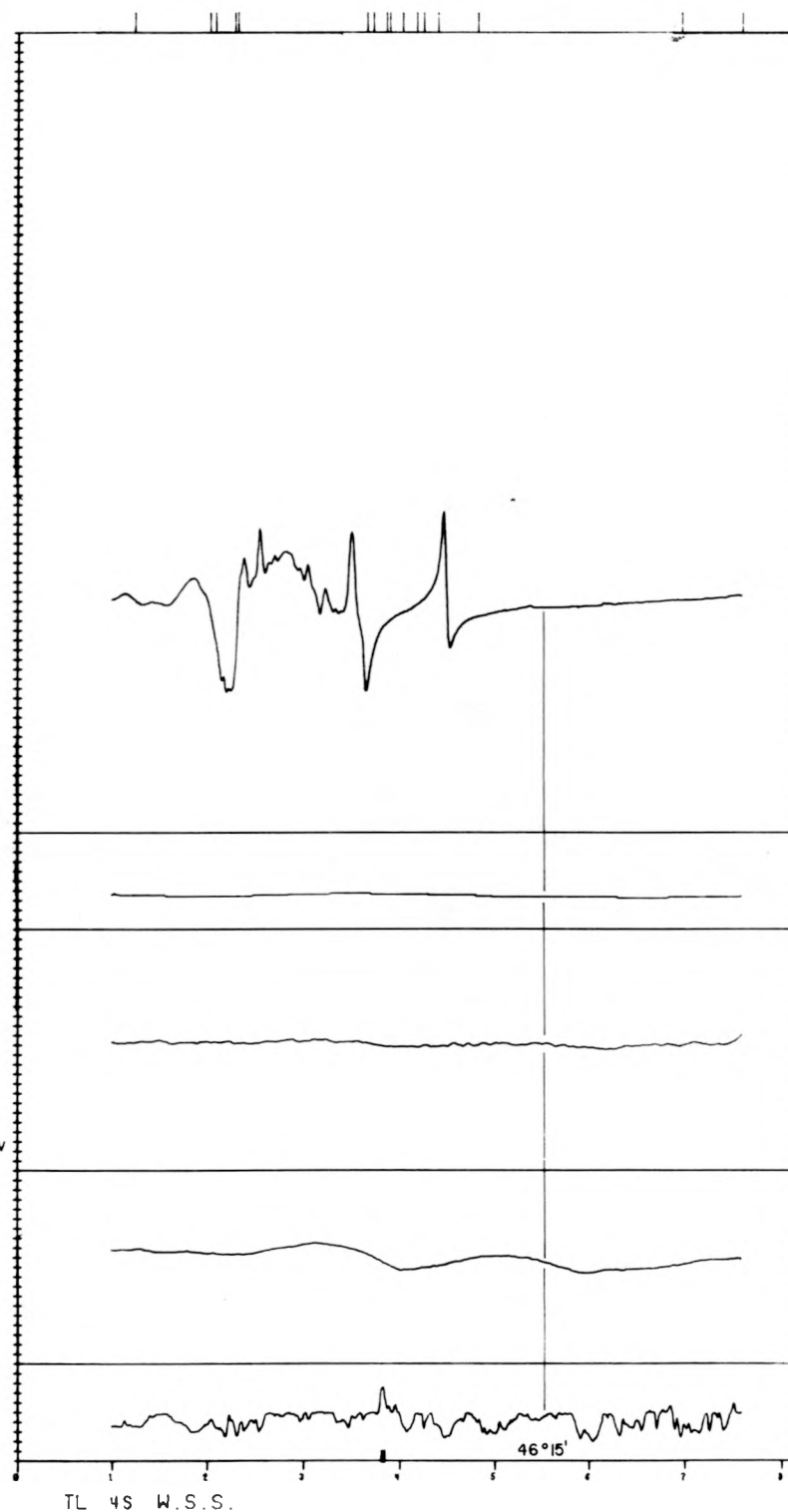
RMAG
30 GAMMA/DIV
BASE = -1000

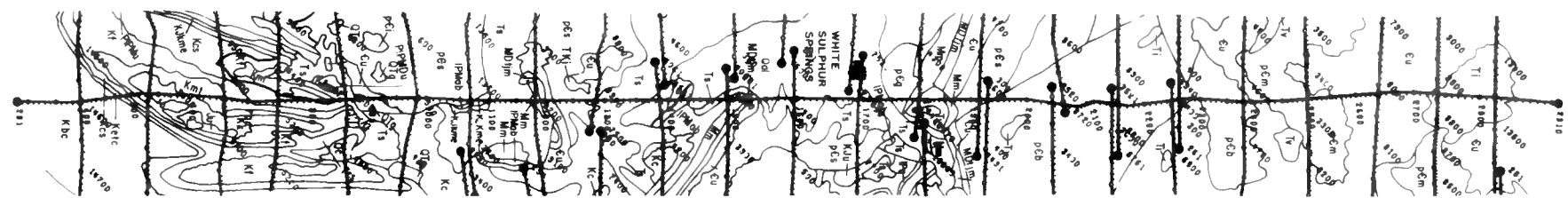
BMAG
10 GAMMA/DIV
BASE = 56275

PRESSURE
0.25 IN HG/DIV
BASE = 21

TEMP
1 DEG C/DIV
BASE = 10

ALT
100 FT/DIV





TL/K
.06 /DIV

BI/K
.04 /DIV

BI/TL
.08 /DIV

GC
500 C/S/DIV

RMAG
50 GAMMAS/DIV
BASE = -300

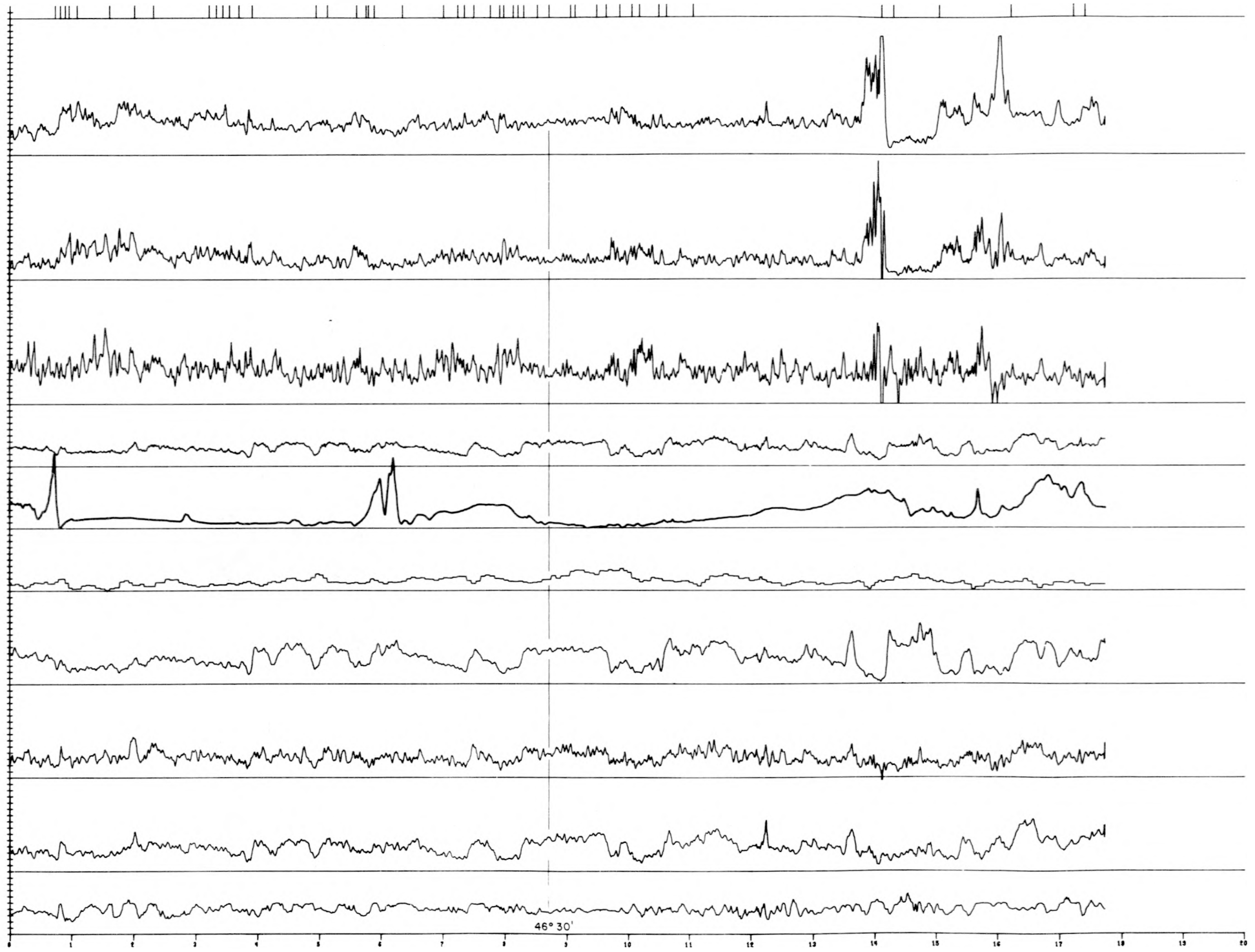
BIAIR
5 C/S/DIV

K
30 C/S/DIV

BI
5 C/S/DIV

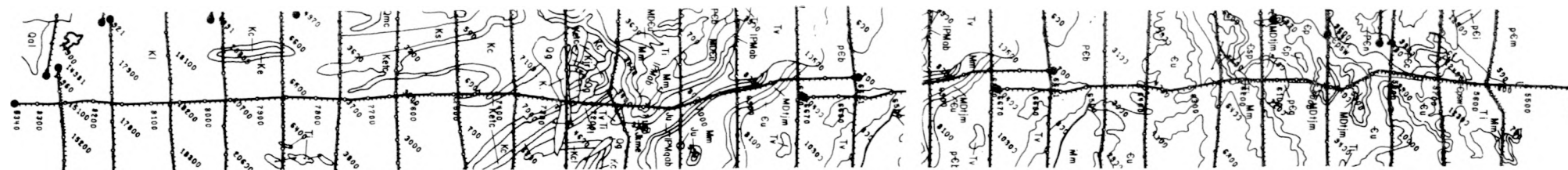
TL
10 C/S/DIV

ALT
100 FT/DIV



TL 5 WHITE SULPHUR SPRINGS

46° 30'



TL/K
.06 /DIV

BI/K
.04 /DIV

BI/TL
.08 /DIV

GC
500 C/S/DIV

RMAG
50 GAMMAS/DIV
BASE = -300

BIAIR
5 C/S/DIV

K
30 C/S/DIV

BI
5 C/S/DIV

TL
10 C/S/DIV

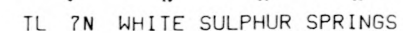
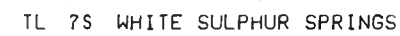
ALT
100 FT/DIV

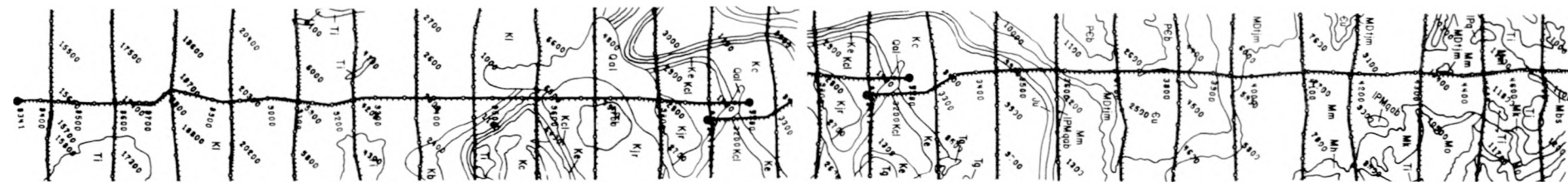
TL 6S WHITE SULPHUR SPRINGS

46°15'

TL 6N WHITE SULPHUR SPRINGS

46°45'





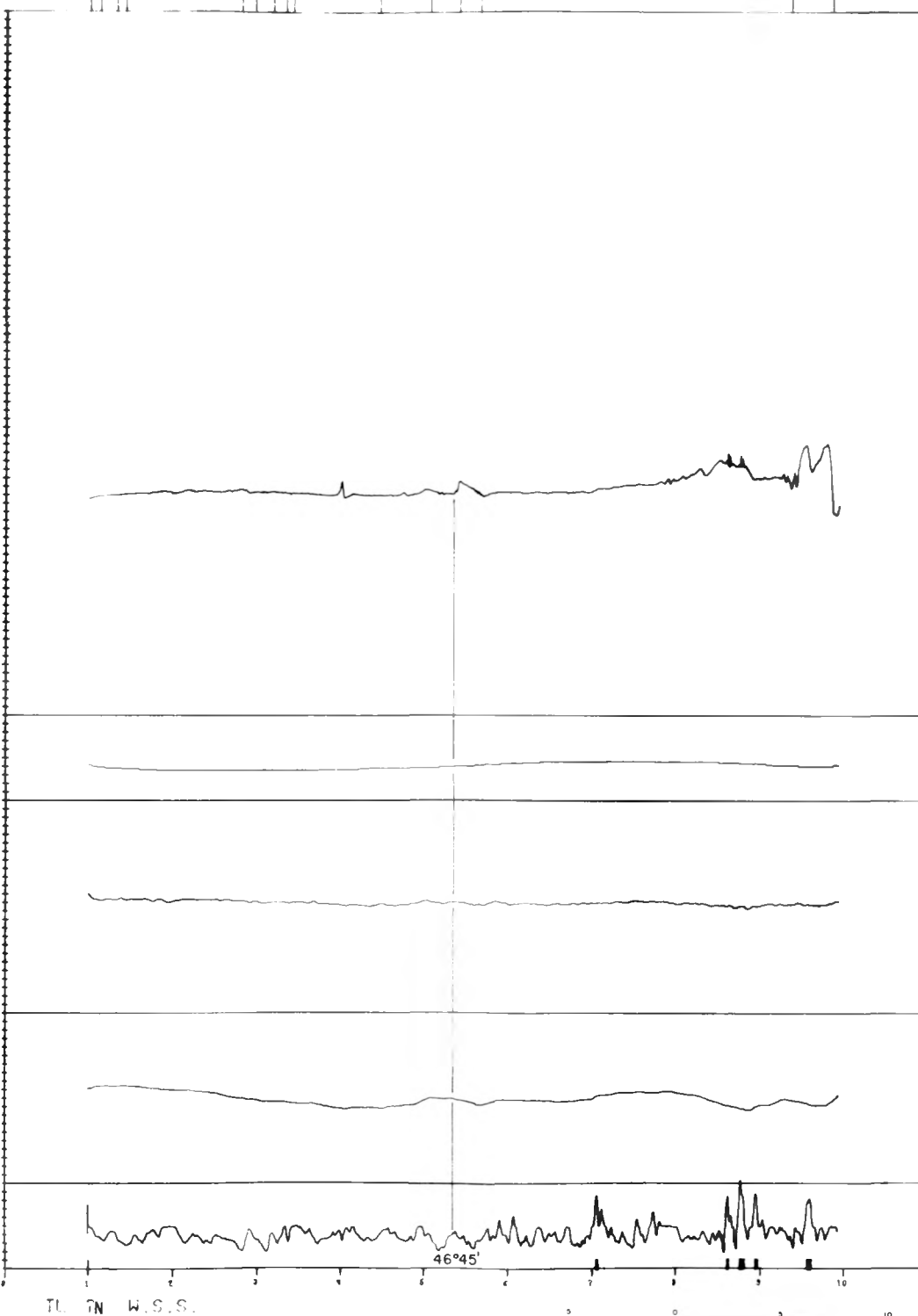
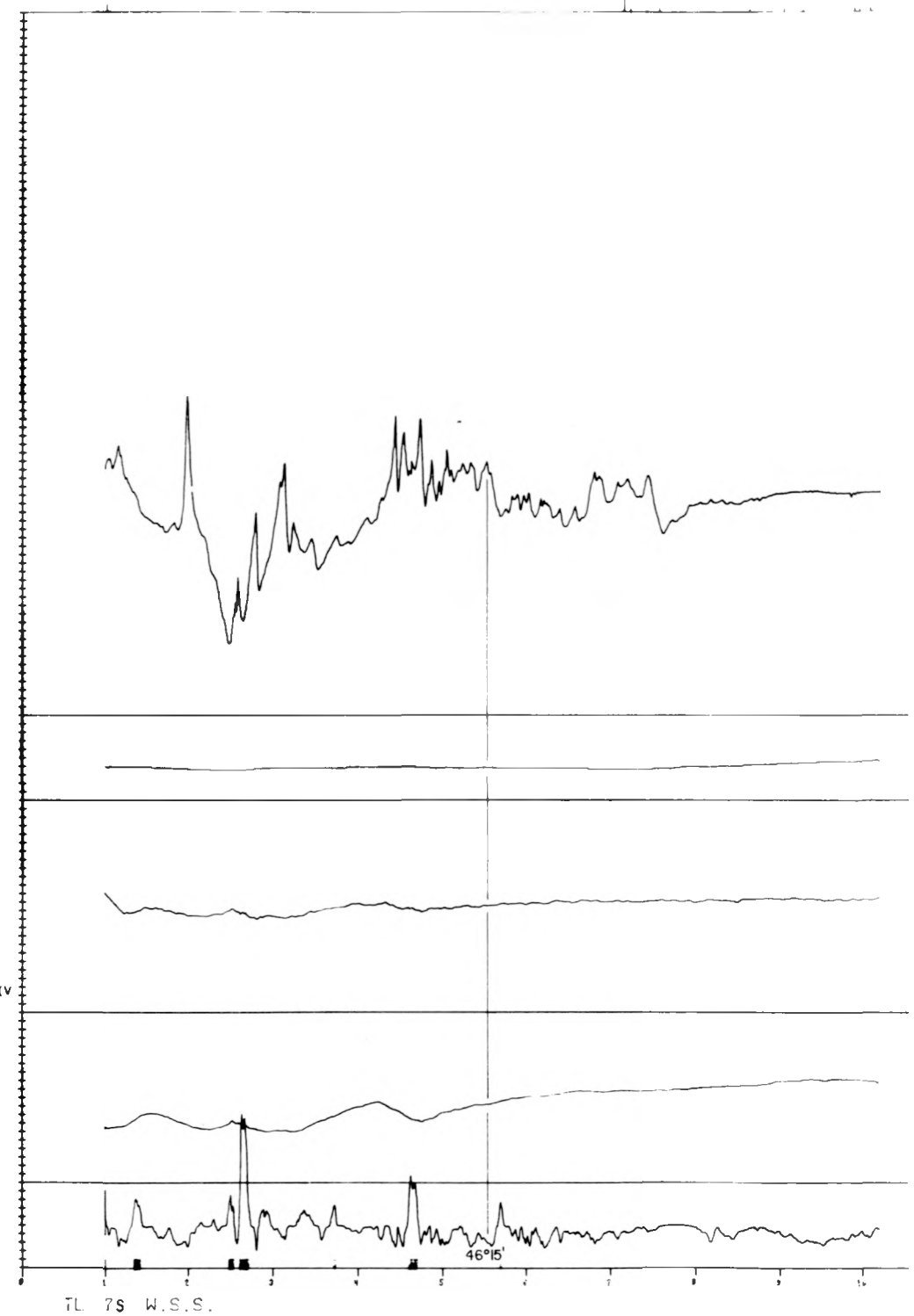
RMAG
30 GAMMA/DIV
BASE = -1000

BMAG
10 GAMMA/DIV
BASE = 56275

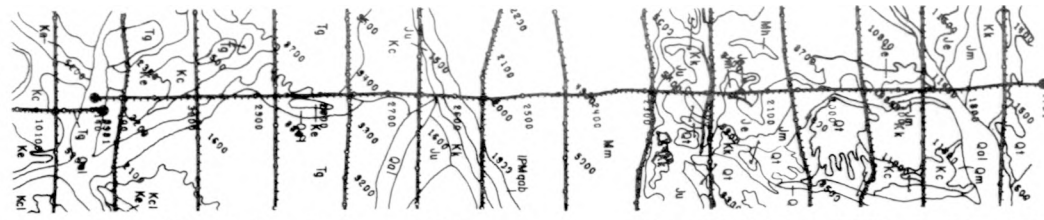
PRESSURE
0.25 IN HG/DIV
BASE = 21

TEMP
1 DEG C/DIV
BASE = 10

ALT
100 FT/DIV



0 5 10 5 MILES



TL/K
.06 /DIV

BI/K
.04 /DIV

BI/TL
.03 /DIV

GC
500 C/S/DIV

RMAG
50 GAMMAS/DIV
BASE = -300

BIAIR
5 C/S/DIV

K
30 C/S/DIV

BI
5 C/S/DIV

TL
10 C/S/DIV

ALT
100 FT/DIV

TL 8S WHITE SULPHUR SPRINGS

46°15'

TL 8N WHITE SULPHUR SPRINGS

46°45'

