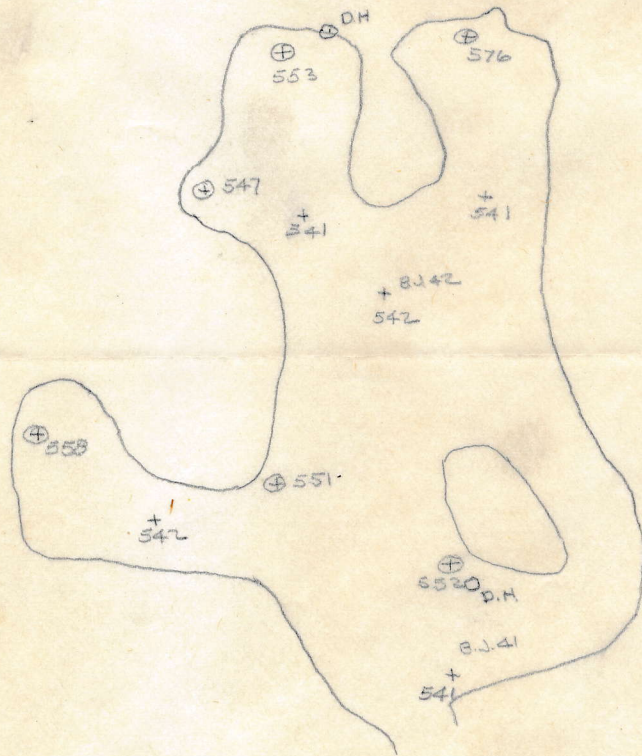


Coord. lines &
orientation?

PA.



Bottom
Sump
99

1073

46

107
107
107

1075
925

disturbed
high clay
partly
filled

5

1073
0 926

110

8071

108

Crossing

Rich

Sump
102

Office



2

2

Spelling case near
and the wood shed
on the south

#8
111.0

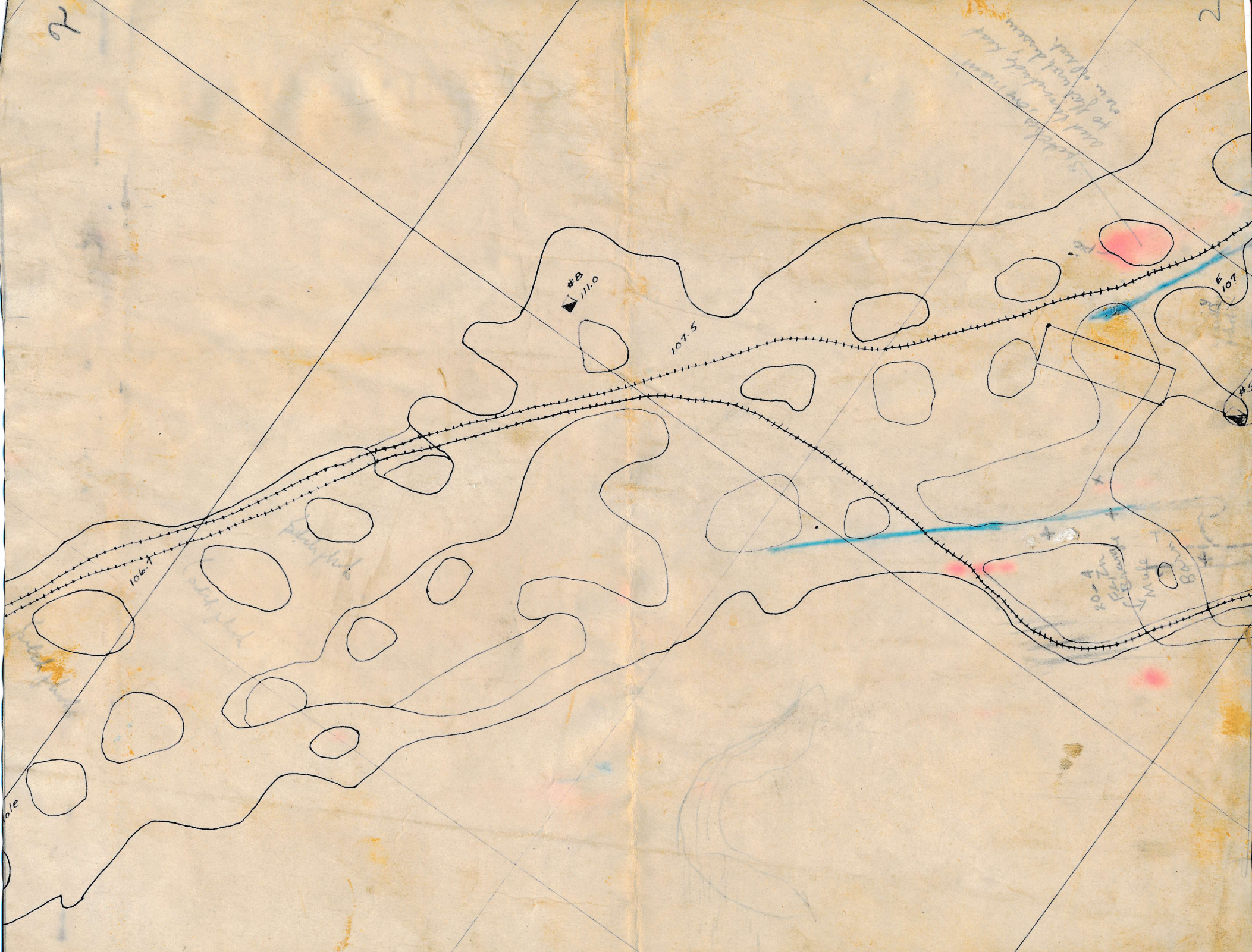
107.5

107

106.7

106.7

10-A
10-B
10-C
10-D
10-E
10-F
10-G
10-H
10-I
10-J
10-K
10-L
10-M
10-N
10-O
10-P
10-Q
10-R
10-S
10-T
10-U
10-V
10-W
10-X
10-Y
10-Z



5400 N

775
26
556

777
27
546
+572

765
4
545

765
13
545

556

770
2
542

772
6
542

554

777
7
538
+541
548

776
8
545

775
11
544

773
12
544

780
11
546

580

544

788
T.S. K-3
539

14
545

13
544

792
T.S. K-5
534.5

791
T.S. K-4
538.5

5200 N

547

+
537

797.6
T.S. K-6
535.5

8

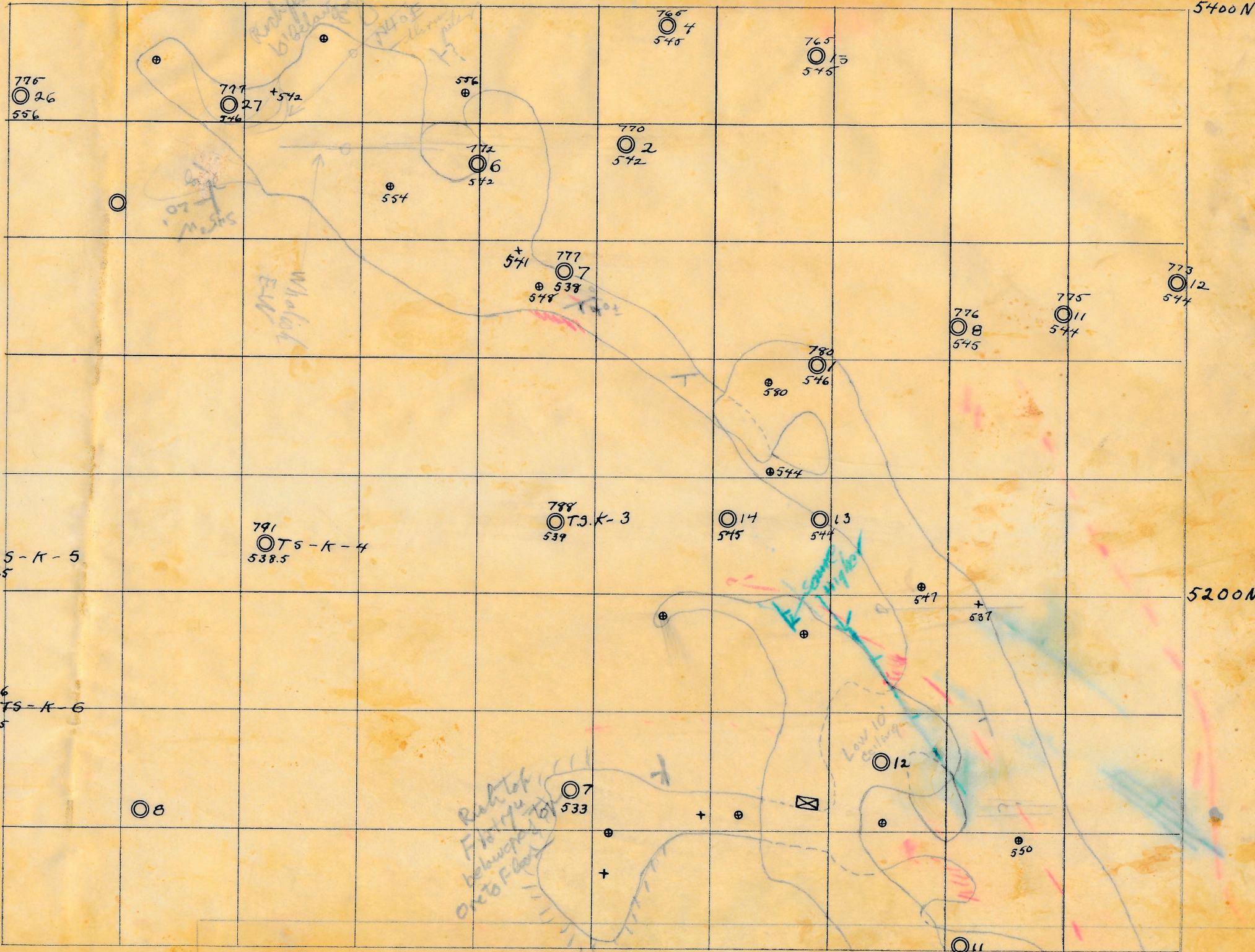
Reach top
Flats
below top
one to Flats

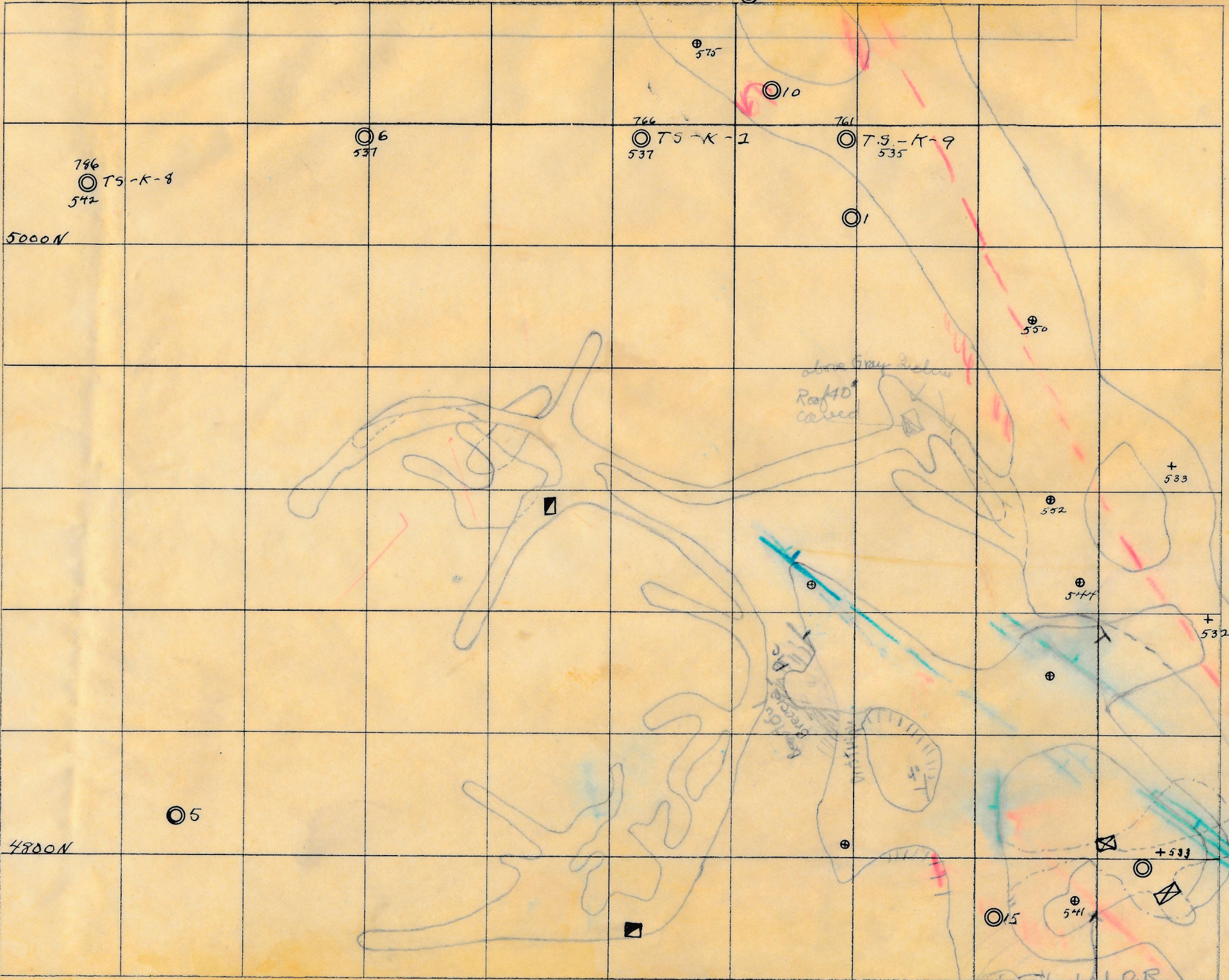
7
533

12

550

11



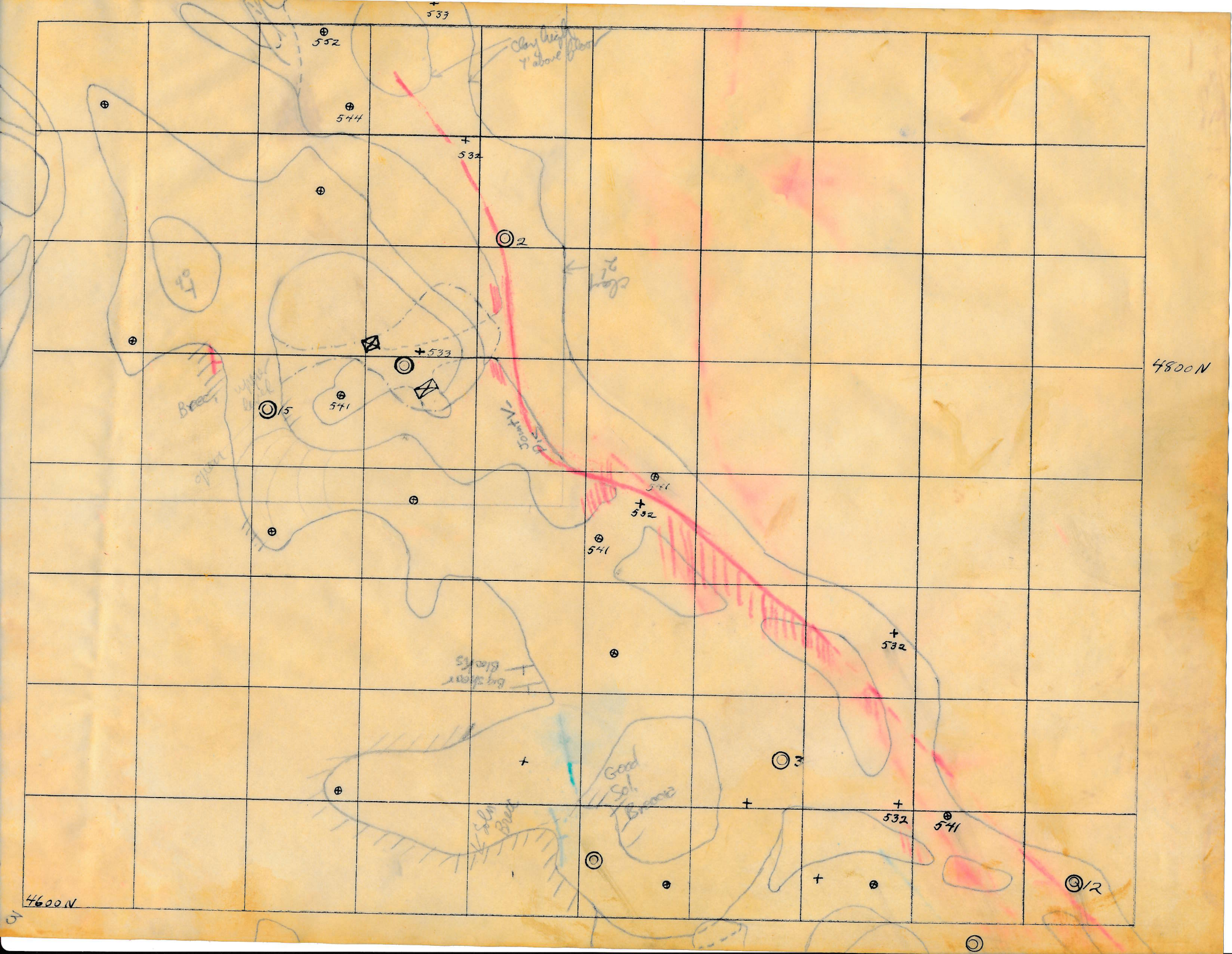


5000N

4800N

above Gray Station
Road 40
closed

picnic area
high class



552

533

544

532

2

533

541

532

541

532

532

541

1/2

4800N

4600N

Clay bank
↑ about

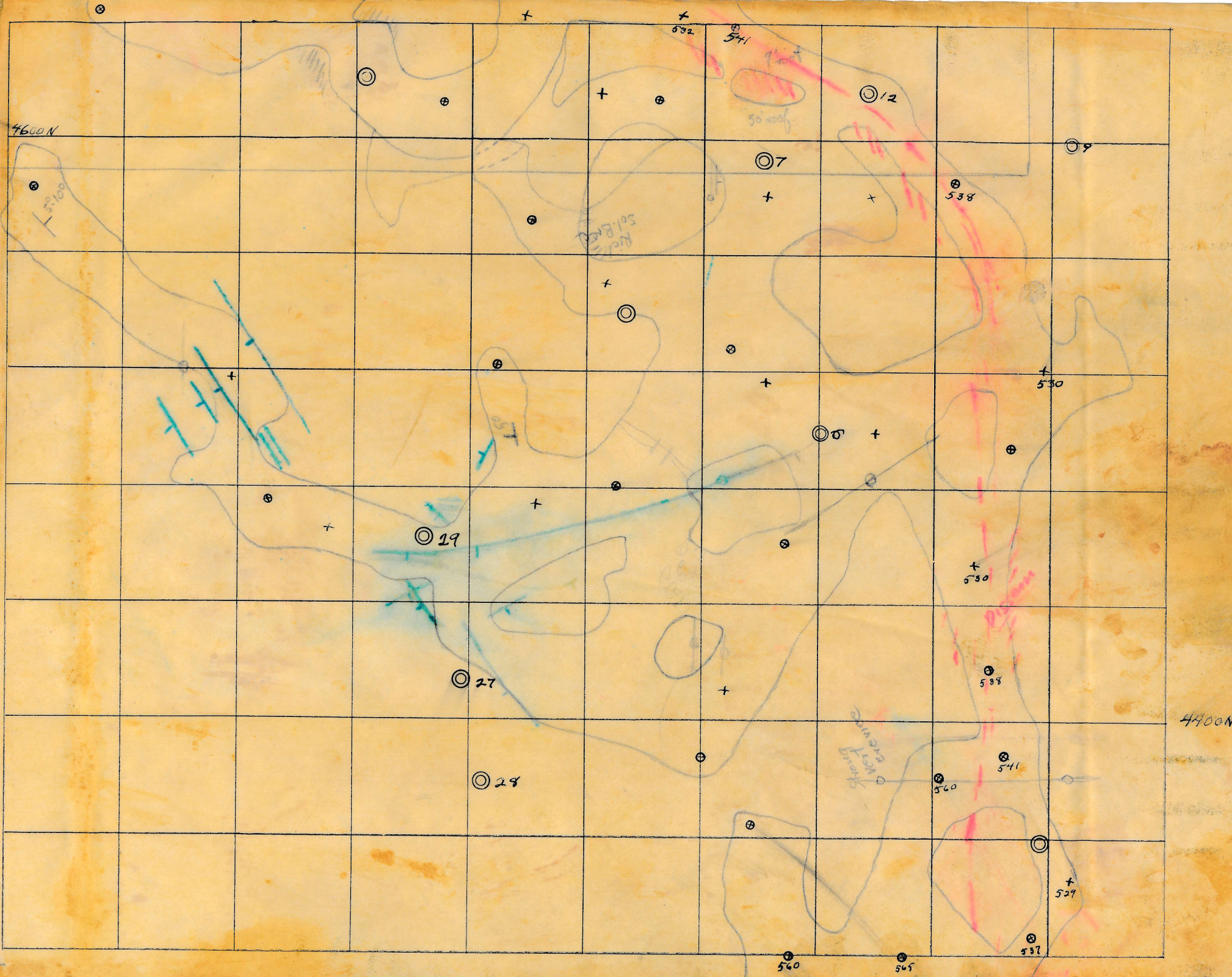
Clay
↑

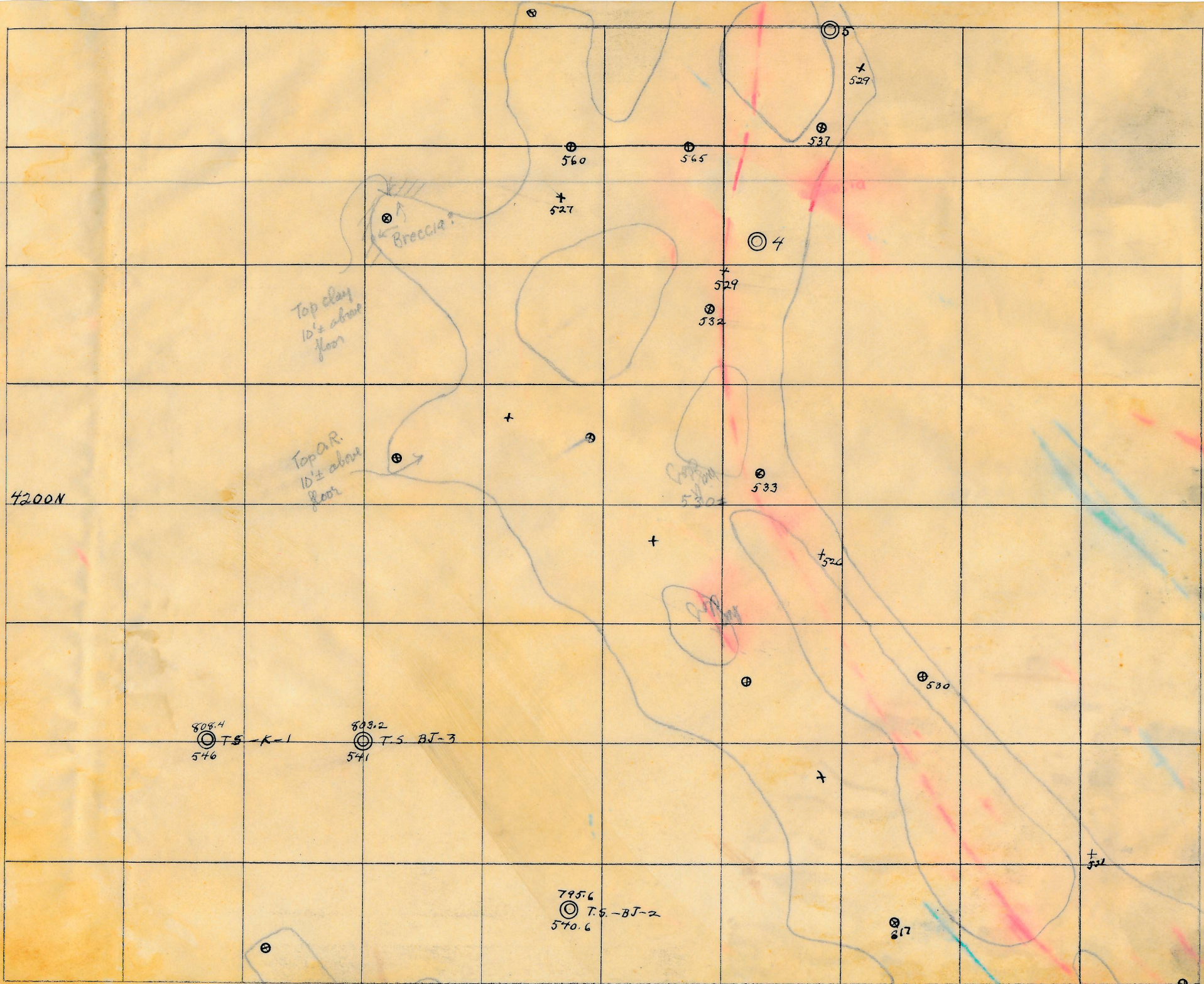
Beec

Stony
bank

Good
Sol.
Terrace

Sola
Bank





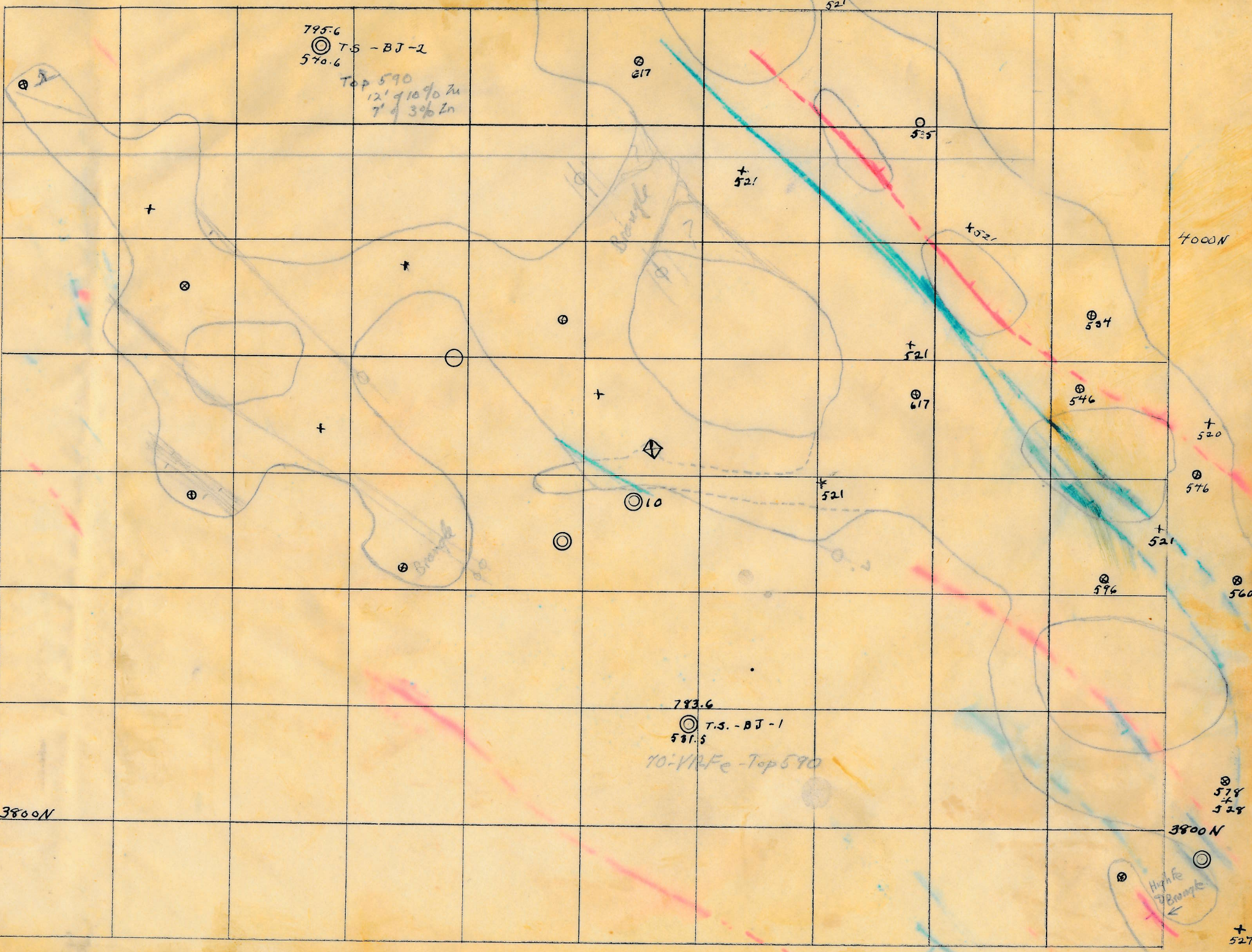
808.4
⊙ T.S. - K-1
546

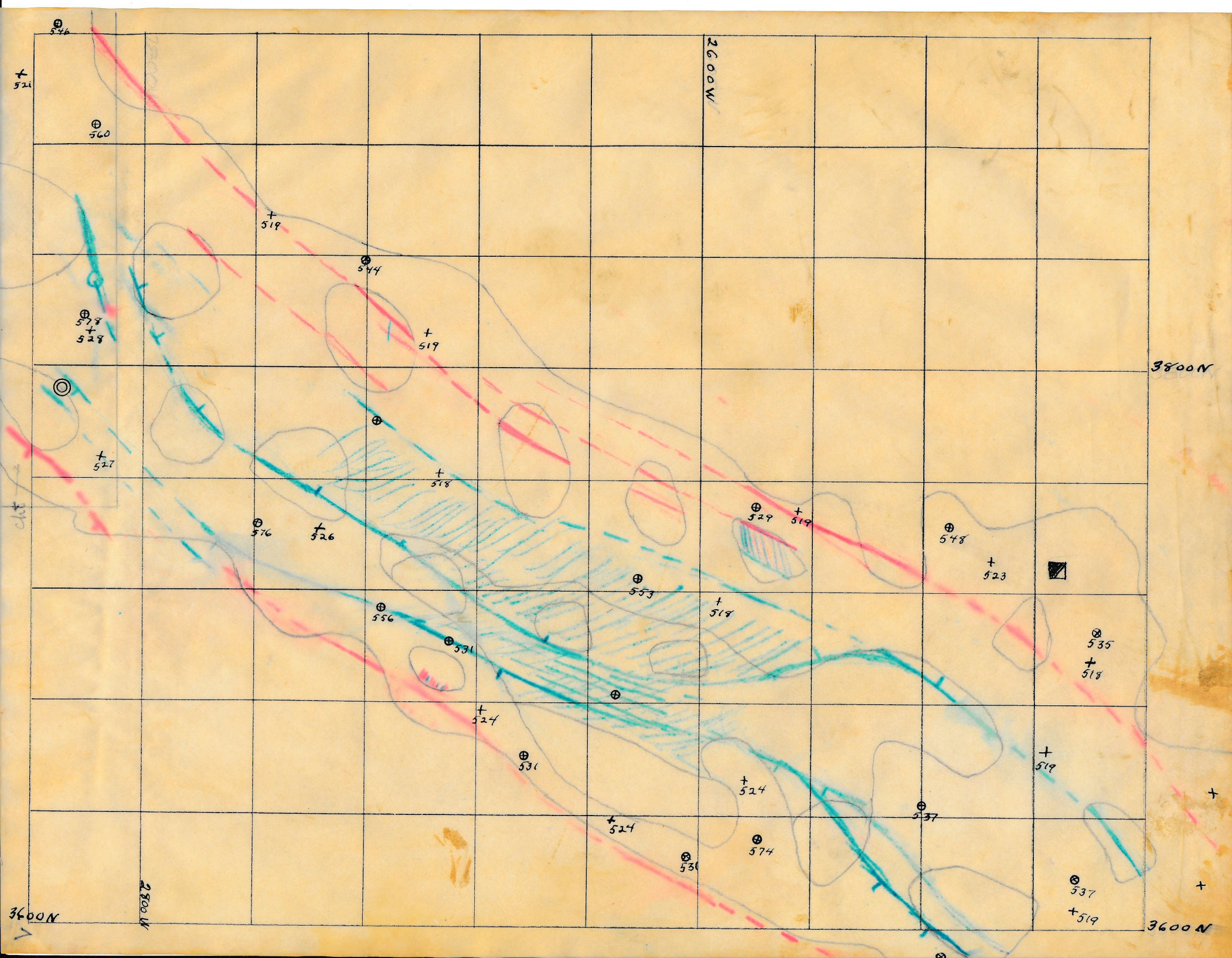
803.2
⊙ T.S. BJ-3
541

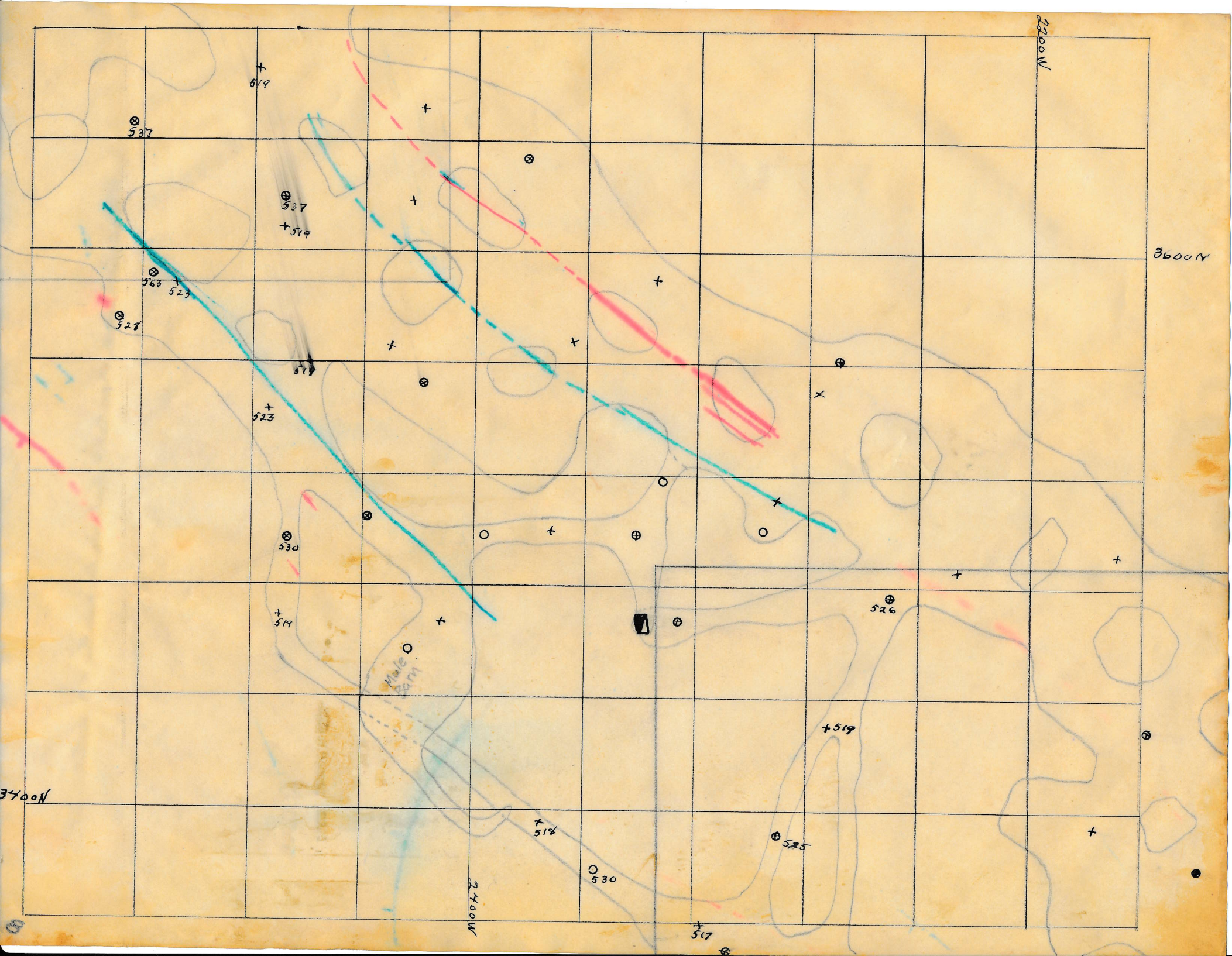
795.6
⊙ T.S. - BJ-2
540.6

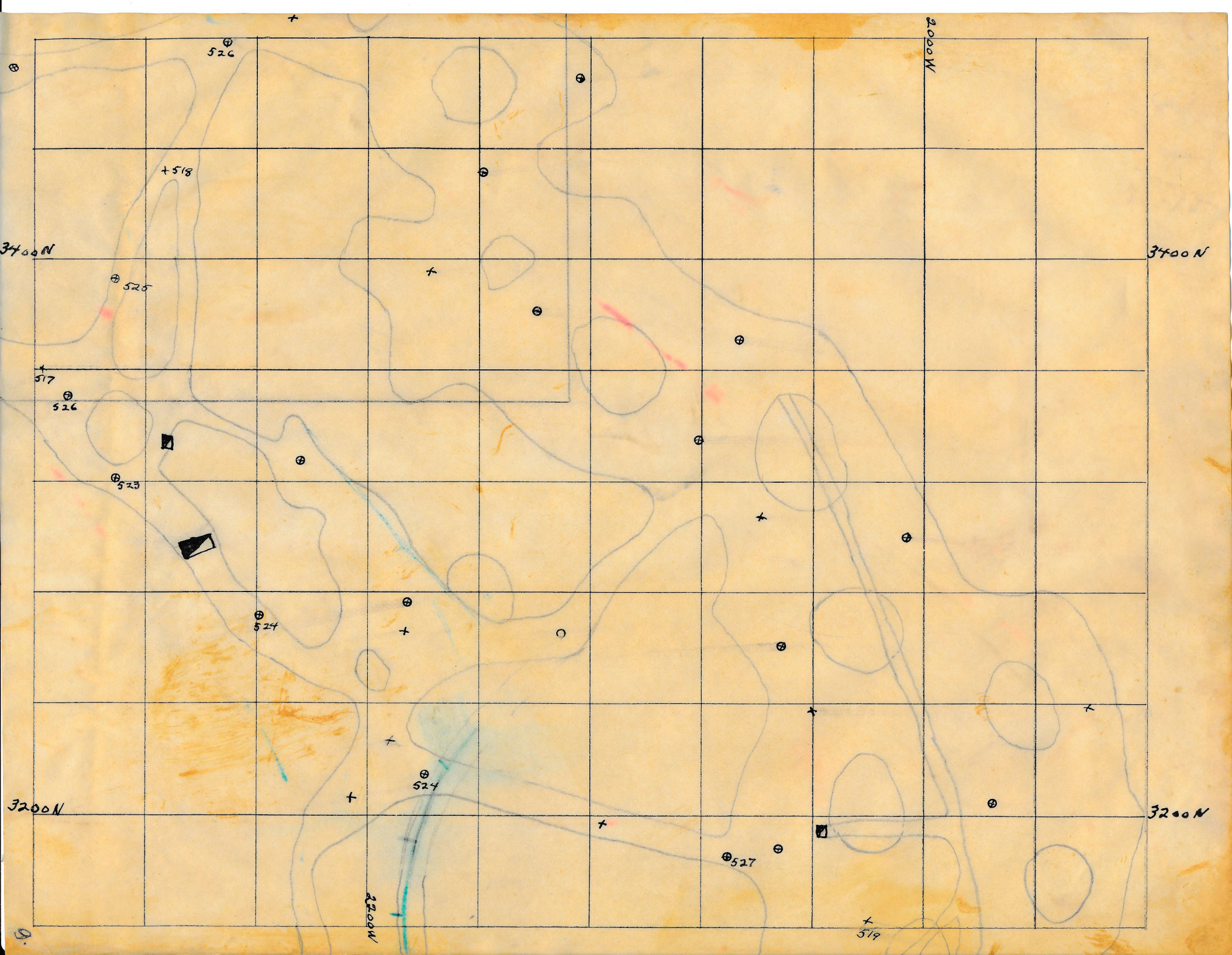
⊙ 537

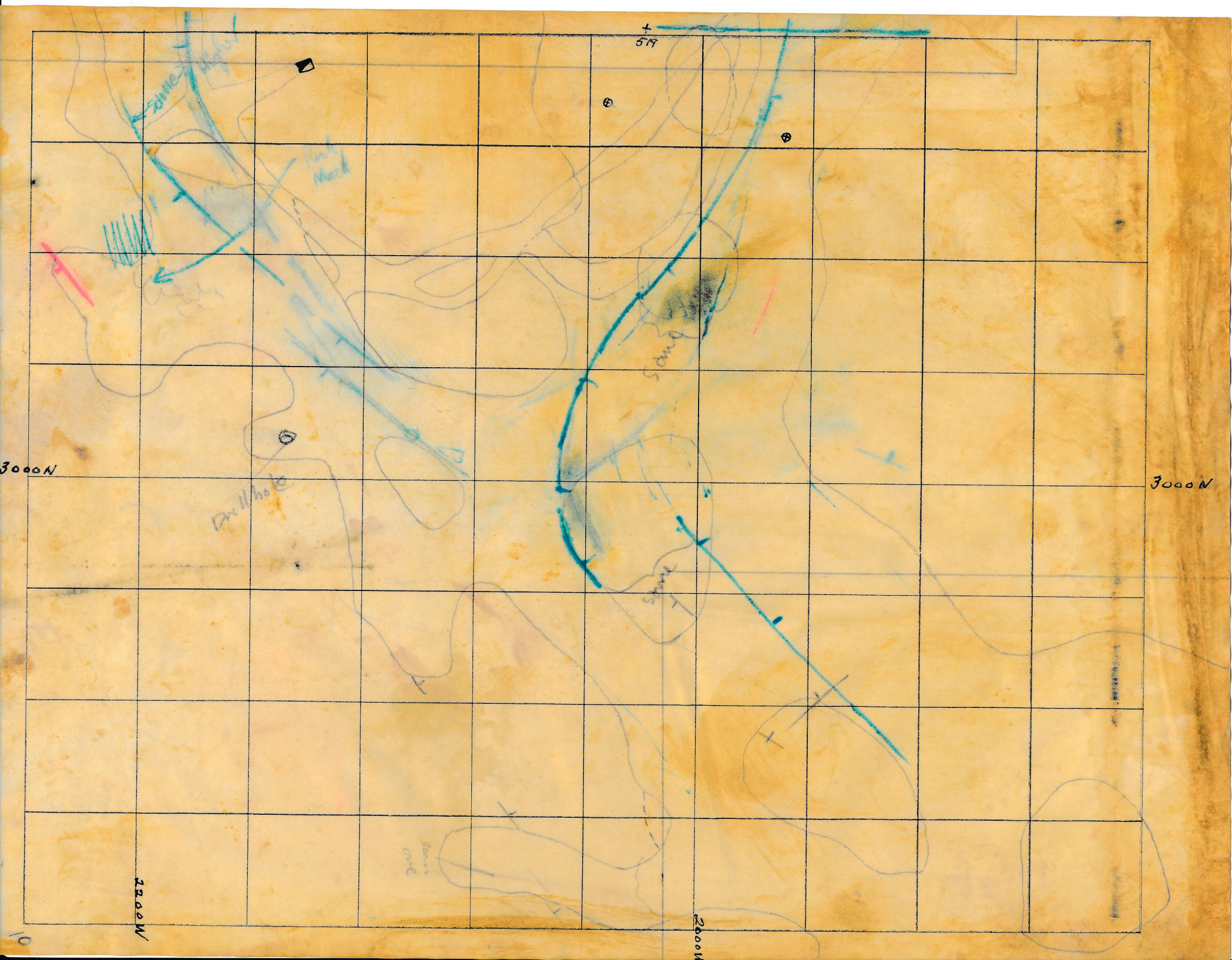
⊙ 535











519

3000N

3000N

2200W

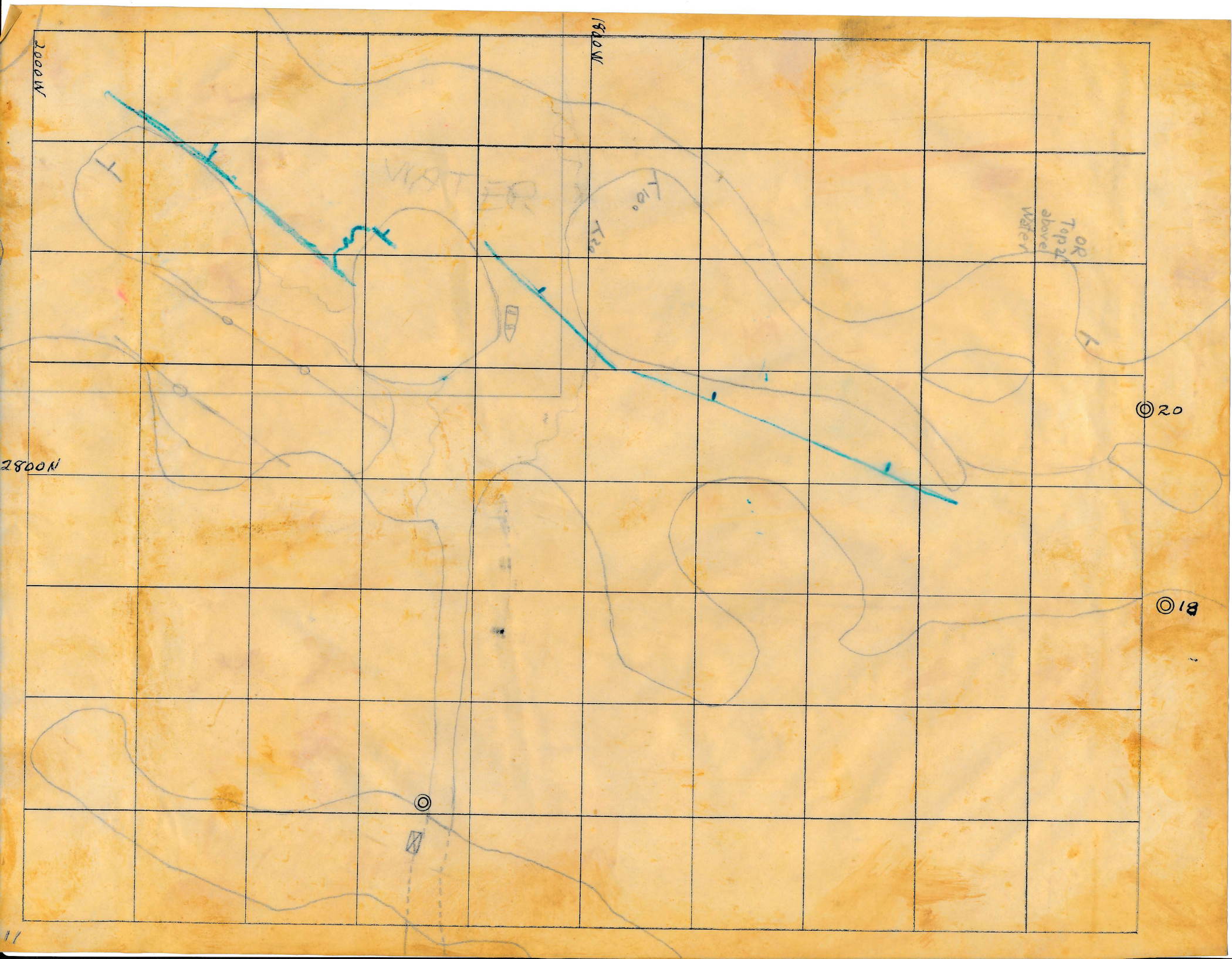
2200W

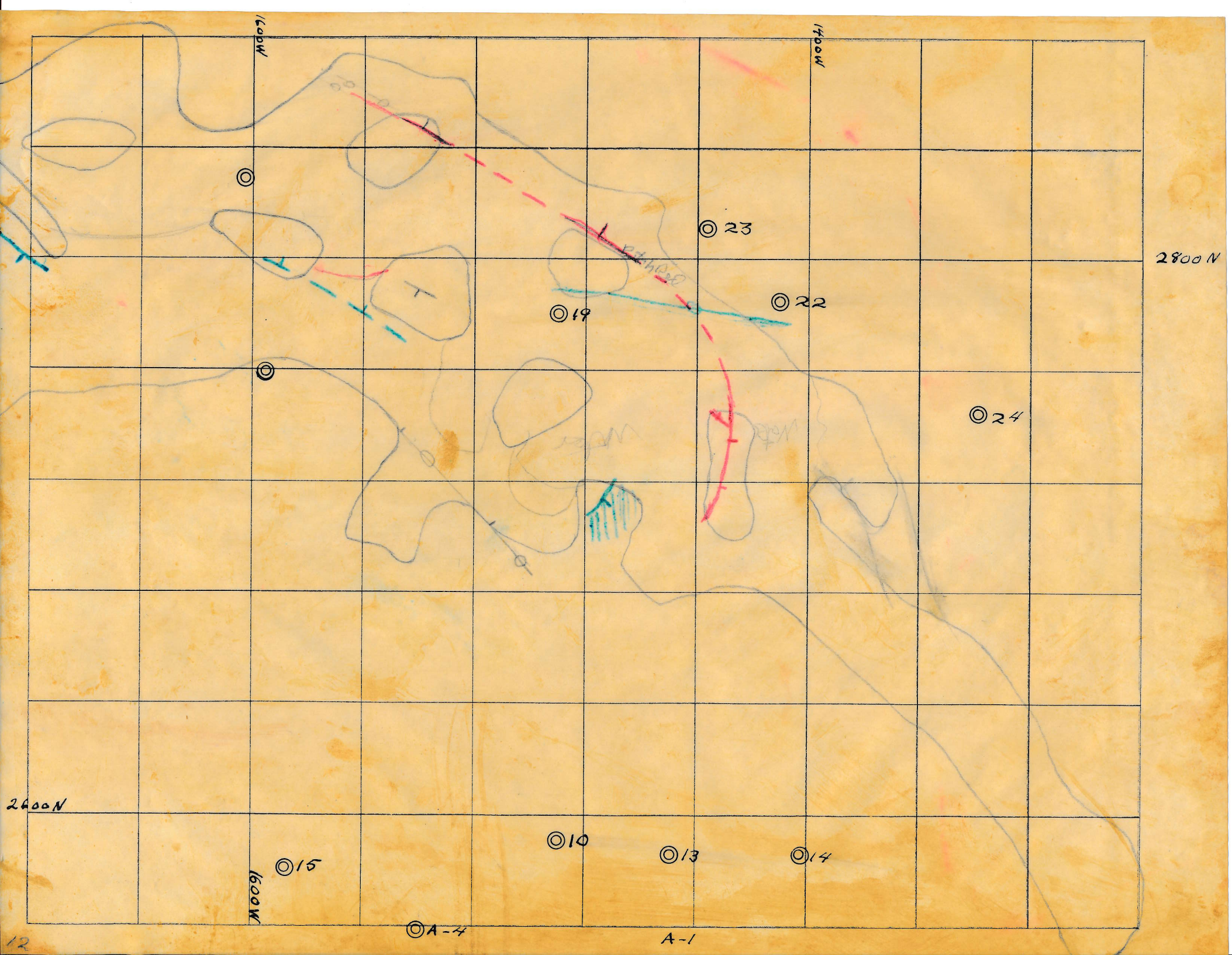
Drill hole

Sand

Sand

Down one





1600W

1400W

2800N

2600N

1600W

⊙

⊙

⊙ 15

⊙ 10

⊙ 13

⊙ 14

⊙ 19

⊙ 23

⊙ 22

⊙ 24

⊙ A-4

A-1

12

2600N

2600N

Wien

Höhe für
Lopper

Dipchip →

↓ Strom

25

11

20

12

9

24

20

19

8

17

2400N

21

18

15

13

1

7

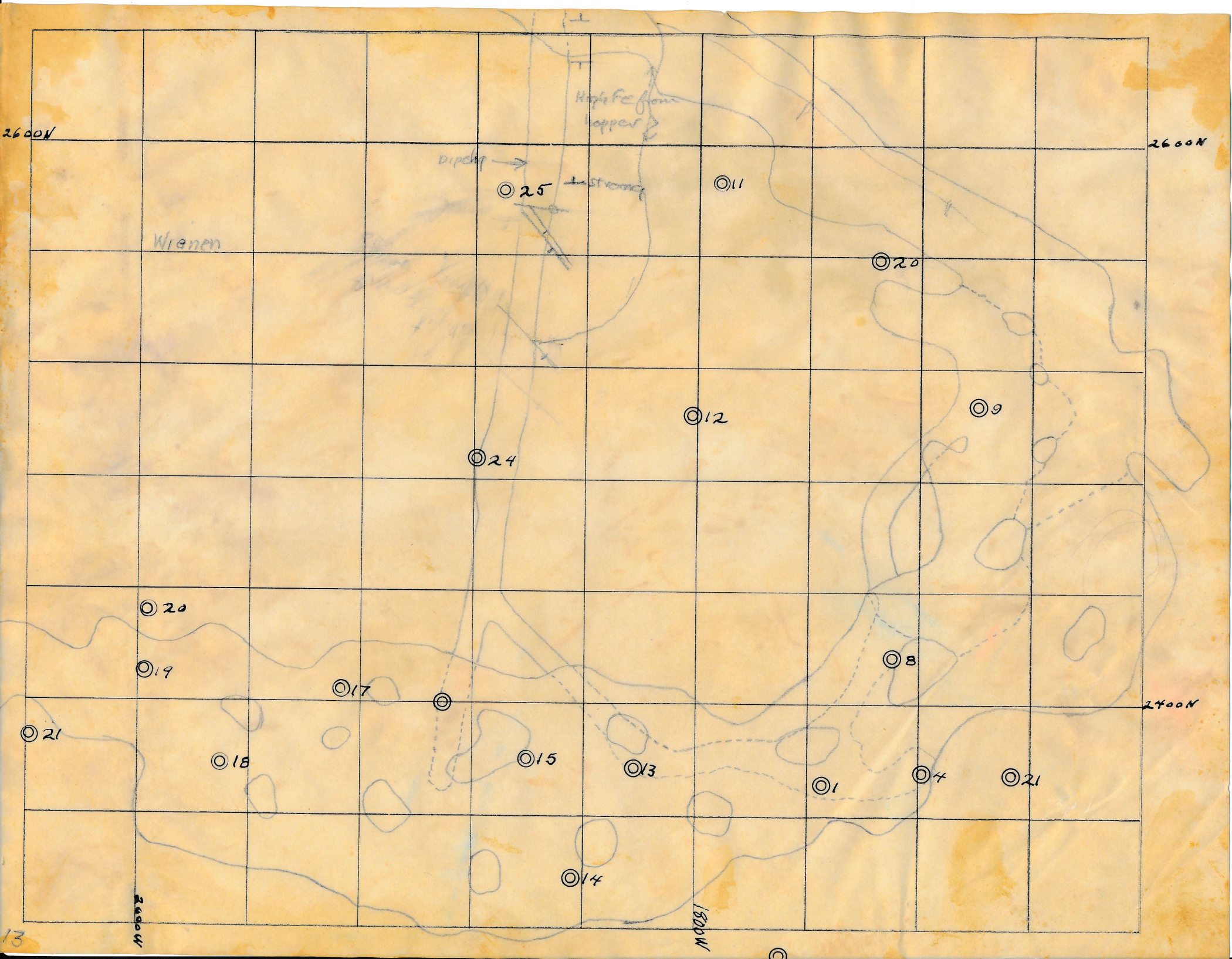
21

14

2000W

1800W

13



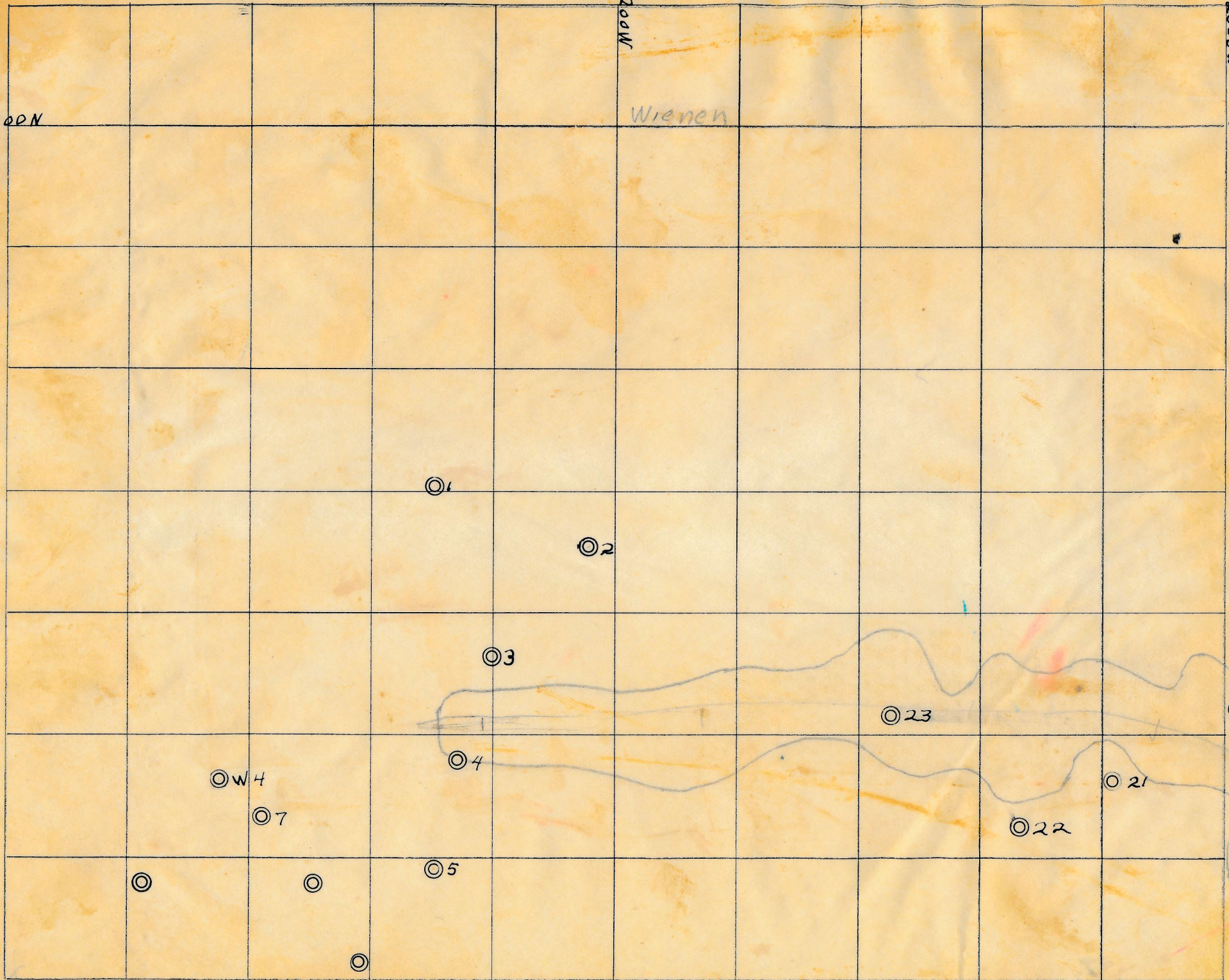
2600N

2800W

Wien

2000W

2600N



1

2

3

20

23

19

W4

4

21

7

22

○

○

5

○

Carlous -
R. M. Grogan
H. M. Joreman
T.S.Z.

Observations resulting from five days underground study
of the Black Jack Mine
Robert M. Grogan and Paul Herbert
December 4, 1948

Black Jack ore body possibilities (north to south)

- a) The main ore body on the Martins may offset to the northeast.
- b) The drilled out ore to the west of Marten's workings may be *along*
a northwest loop enclosing boulder breccia type ore.
- c) In the vicinity of the workings around Black Jack drill hole #7
the ore looks of core ground type and a high iron pitch may lie
to the west.
- d) The area between Black Jack drill hole #6 and Kipp #5 is
bounded by east and west dipping pitches which are joined by a
loop on the southeast. The core ground is apparently *a* high,
boulder breccia ore which may extend throughout the area and
on to the northwest.
- e) The offset in the trend of the Black Jack mine near its center
may be related to a northeast-southwest clay bed, ^{high} and probable
"Trenton" high. *Similar offsets may be expected where "Trenton" highs*
(are encountered in drilling elsewhere along
the trend.
- f) The area mined west of Black Jack #11 is ^{um} stratigraphically
high, zinc-iron-calcite brangle along a set of vertical northwest-
southeast crevices. No evidence of a west pitch was found and the ore
appears to be of core ground type. It is conceivable that the
missing west pitch may lie in the undrilled area to the west
along which an ore body of the Wienen type may exist.

Wienen ore body possibilities

- a) The east arm continues northwest.
- b) The east arm may lie along the west pitch of the Black Jack.
- c) A loop of ore may join the Wienen from near the south end of the Black Jack.
- d) High ore may be encountered in much or all of the ground between the east arm of the Wienen and the Black Jack.

g) The west wall of the mine from the stub drift west of the air hole 230' southeast of Black Jack hole #10, to the westmost stub drift 220' south of the main shaft is characterized by a high iron brangle. In the vicinity of the old high workings above the mule barn this brangle contains considerable zinc which might also be present in other places. The high stratigraphic position of the brangle at the mule barn and its occurrence in flats may carry its ore west beyond the present mine workings.