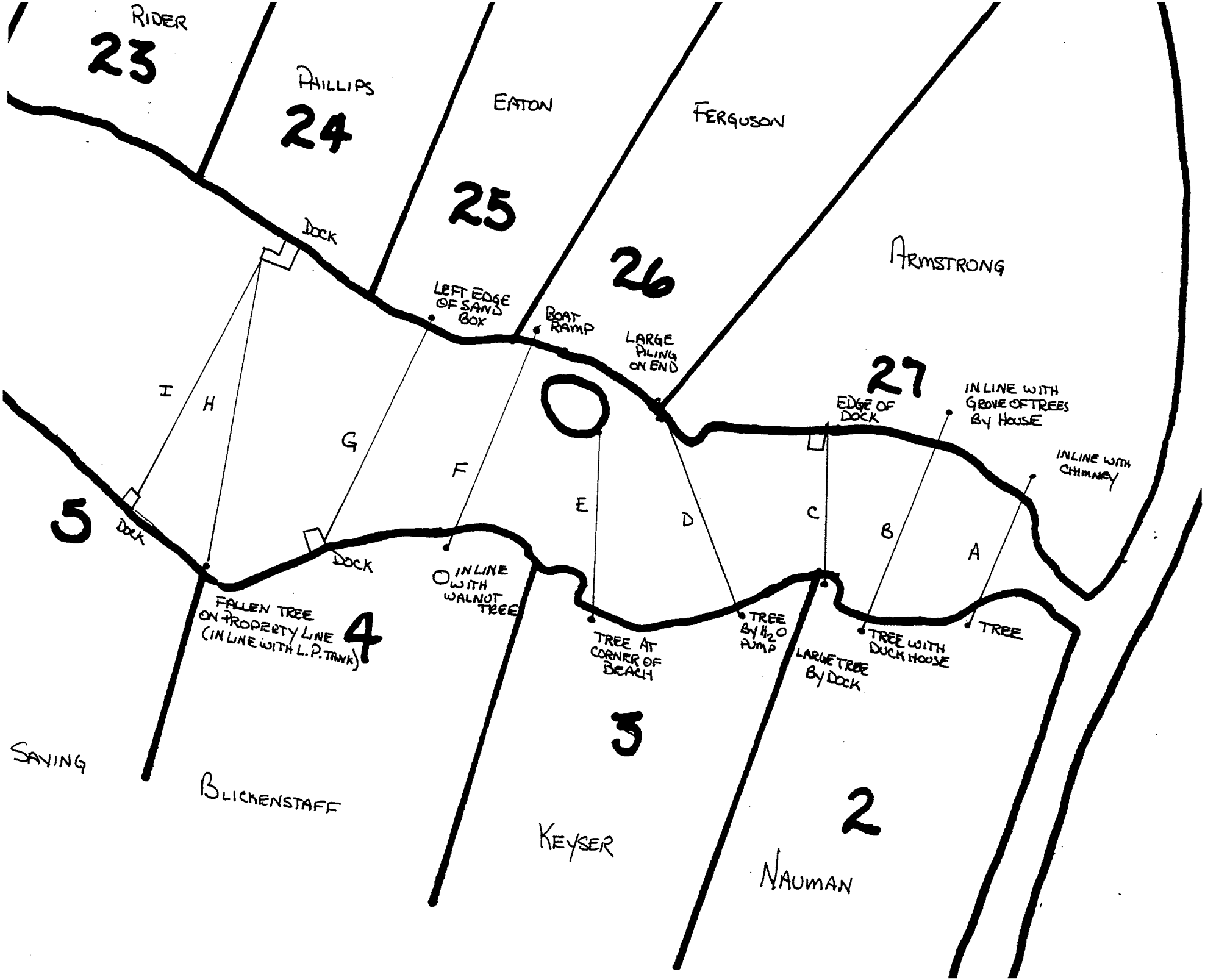
# Lake Santa Fe
# Sediment Survey
# 1999

**Measurements were made on October 25,1999.**

**A transect line marked at 10 ft. intervals was streched from shoreline to shoreline at locations marked on map.**

**Measurements were taken at 10 ft. intervals beginning at the North shoreline, using a graduated steel rod.**

**All values are rounded to the nearest .5 ft.**


RIDER
23
PHILLIPS
24
EATON
25
FERGUSON
26
ARMSTRONG
27
DOCK
LEFT EDGE OF SAND BOX
BOAT RAMP
LARGE PILING ON END
EDGE OF DOCK
IN LINE WITH GROVE OF TREES BY HOUSE
IN LINE WITH CHIMNEY
I
H
G
F
E
D
C
B
A
5
DOCK
DOCK
IN LINE WITH WALNUT TREE
FALLEN TREE ON PROPERTY LINE (IN LINE WITH L.P. TANK)
4
TREE AT CORNER OF BEACH
TREE BY H2O PUMP
LARGE TREE BY DOCK
TREE WITH DUCK HOUSE
TREE
SAVING
BLICKENSTAFF
3
KEYSER
2
NAUMAN

| | Av. Sed. Depth (yrd.) | Surface Area (sq. yrd) | | | □ yrd Sediment |
|---|---|---|---|---|---|
| INLET TO A/B | 3.7 ① (1.2) (3.7 ÷ 3 = 1.2) | 30 x 50 = 1500 ÷ 9 = | | (167) | 1.2 x 167 = 200 |
| A/B | 3.7 (1.2) | 50 x 100 ② | 5000 | (556) | 667 |
| B/C | 4.3 (1.4) | 45 x 105 | 4725 | (525) | 735 |
| C/D | 3.7 (1.2) | 45 x 120 | 5400 | (600) | 720 |
| D/E | 6.9 (2.3) | 40 x 115 | 4600 | (511) | 1175 |
| E/F EDGE OF ERNIES PROPERTY | 3.9 (1.3) | 42 x 110 | 3780 | (420) | 546 1043 |
| F/G | 2.9 (1.0) | 50 x 120 | 6000 | (667) | 667 |
| G/I | 7.9 (2.6 | 55 x 150 | 8250 | (917) | 825 5529 |

① AVERAGE OF THE TWO BOUNDARY TRANSECT SEDIMENT DEPTHS

② SAMPLE SEDIMENT DEPTHS WERE TAKEN AT 10' INCREMENTS STARTING 10' FROM SHORELINE ∴ ADDED 20' TO EACH TRANSECT LENGTH

Assume: 1 □yrd/min = 60 □yrd/hr. 4043 ÷ 60 = 67 hrs x $110 = $7370 (TO ERNIES' PROPERTY — DOES NOT INCLUDE ISLAND)

**Transect: A** **90 ft.**

| Pt. | Water Depth | Total Depth | Sed. Depth |
|---|---|---|---|
| 1 | 2.0 | 4.0 | 2.0 |
| 2 | 2.5 | 5.5 | 3.0 |
| 3 | 2.0 | 6.5 | 3.5 |
| 4 | 3.0 | 6.0 | 3.0 |
| 5 | 3.0 | 5.5 | 3.0 |
| 6 | 2.5 | 5.5 | 3.0 |
| 7 | 2.5 | 8.5 | 6.0 |
| 8 | 2.0 | 8.0 | 6.0 |
| 9 | | | |
| 10 | | | |
| 11 | | | |
| 12 | | | |
| 13 | | | |
| 14 | | | |
| 15 | | | |

**Transect: B** **80 ft.**

| Pt. | Water Depth | Total Depth | Sed. Depth |
|---|---|---|---|
| 1 | 1.0 | 3.5 | 2.5 |
| 2 | 2.5 | 4.0 | 1.5 |
| 3 | 3.0 | 4.5 | 1.5 |
| 4 | 2.5 | 5.5 | 3.0 |
| 5 | 3.0 | 6.0 | 3.0 |
| 6 | 3.0 | 8.0 | 5.0 |
| 7 | 3.0 | 9.5 | 6.5 |
| 8 | 2.0 | 8.0 | 6.0 |
| 9 | | | |
| 10 | | | |
| 11 | | | |
| 12 | | | |
| 13 | | | |
| 14 | | | |
| 15 | | | |

**Transect: C** **100 ft.**

| Pt. | Water Depth | Total Depth | Sed. Depth |
|---|---|---|---|
| 1 | 2.5 | 3.0 | 1.5 |
| 2 | 2.0 | 4.5 | 2.5 |
| 3 | 2.0 | 10.0 | 8.0 |
| 4 | 3.0 | 10.0 | 7.0 |
| 5 | 4.0 | 9.5 | 5.5 |
| 6 | 3.5 | 10.0 | 6.5 |
| 7 | 4.0 | 10.0 | 6.0 |
| 8 | 3.5 | 8.5 | 5.0 |
| 9 | 1.5 | 5.0 | 3.5 |
| 10 | | | |
| 11 | | | |
| 12 | | | |
| 13 | | | |
| 14 | | | |
| 15 | | | |

**Transect: D** **120 ft.**

| Pt. | Water Depth | Total Depth | Sed. Depth |
|---|---|---|---|
| 1 | 2.5 | 3.0 | .5 |
| 2 | 3.0 | 4.0 | 1.0 |
| 3 | 3.5 | 4.0 | .5 |
| 4 | 3.5 | 4.0 | .5 |
| 5 | 3.5 | 6.0 | 2.5 |
| 6 | 4.0 | 6.5 | 2.5 |
| 7 | 4.5 | 6.0 | 1.5 |
| 8 | 4.5 | 7.0 | 2.5 |
| 9 | 5.0 | 9.0 | 4.0 |
| 10 | 4.5 | 10.0 | 5.5 |
| 11 | 4.0 | 9.5 | 5.5 |
| 12 | | | |
| 13 | | | |
| 14 | | | |
| 15 | | | |

**Transect: E** **80 Ft.**

| Pt. | Water Depth | Total Depth | Sed. Depth |
|---|---|---|---|
| 1 | 3.0 | 6.0 | 3.0 |
| 2 | 5.5 | 9.5 | 4.0 |
| 3 | 5.5 | 11.5 | 6.5 |
| 4 | 6.0 | 12.5 | 6.5 |
| 5 | 6.5 | 11.0 | 4.5 |
| 6 | 4.5 | 8.0 | 3.5 |
| 7 | 1.5 | 5.0 | 3.5 |
| 8 | | | |
| 9 | | | |
| 10 | | | |
| 11 | | | |
| 12 | | | |
| 13 | | | |
| 14 | | | |
| 15 | | | |

**Transect: F** **110 ft.**

| Pt. | Water Depth | Total Depth | Sed. Depth |
|---|---|---|---|
| 1 | 3.0 | 3.5 | .5 |
| 2 | 3.5 | 4.0 | .5 |
| 3 | 3.5 | 4.5 | 1.0 |
| 4 | 4.5 | 7.0 | 2.5 |
| 5 | 6.0 | 9.0 | 3.0 |
| 6 | 6.5 | 10.5 | 4.0 |
| 7 | 7.0 | 13.0 | 6.0 |
| 8 | 6.5 | 13.0 | 6.5 |
| 9 | 6.5 | 11.5 | 5.0 |
| 10 | 3.0 | 5.5 | 2.5 |
| 11 | | | |
| 12 | | | |
| 13 | | | |
| 14 | | | |
| 15 | | | |

**Transect: G** **110 ft.**

| Pt. | Water Depth | Total Depth | Sed. Depth |
|---|---|---|---|
| 1 | 1.5 | 3.5 | 2.0 |
| 2 | 2.5 | 4.0 | 1.5 |
| 3 | 3.0 | 4.5 | 1.5 |
| 4 | 4.0 | 6.5 | 1.5 |
| 5 | 6.5 | 9.0 | 2.5 |
| 6 | 7.5 | 12.5 | 5.0 |
| 7 | 8.0 | 13.0 | 5.0 |
| 8 | 5.5 | 8.0 | 2.5 |
| 9 | 3.5 | 5.0 | 1.5 |
| 10 | 3.0 | 5.0 | 2.0 |
| 11 | | | |
| 12 | | | |
| 13 | | | |
| 14 | | | |
| 15 | | | |

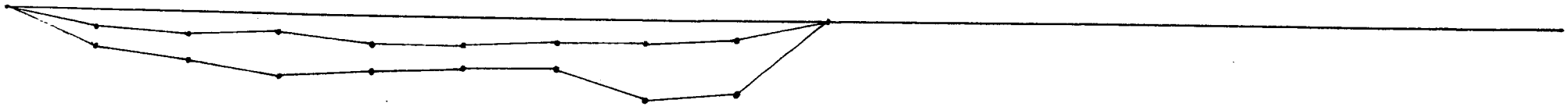
**Transect: H** **170 ft.**

| Pt. | Water Depth | Total Depth | Sed. Depth |
|---|---|---|---|
| 1 | 3.0 | 4.5 | 1.5 |
| 2 | 4.0 | 5.5 | 1.5 |
| 3 | 4.5 | 5.5 | 1.0 |
| 4 | 5.0 | 6.5 | 1.5 |
| 5 | 5.0 | 6.0 | 1.0 |
| 6 | 5.0 | 6.0 | 1.0 |
| 7 | 5.5 | 7.0 | 1.5 |
| 8 | 6.5 | 9.0 | 2.5 |
| 9 | 7.5 | 13.0 | 5.5 |
| 10 | 7.5 | 13.0 | 5.5 |
| 11 | 8.0 | 13.0 | 5.0 |
| 12 | 9.0 | 12.0 | 3.0 |
| 13 | 9.0 | 12.0 | 3.0 |
| 14 | 9.5 | 14.0 | 4.5 |
| 15 | 9.5 | 14.0 | 4.5 |
| 16 | 8.5 | 14.0 | 5.5 |

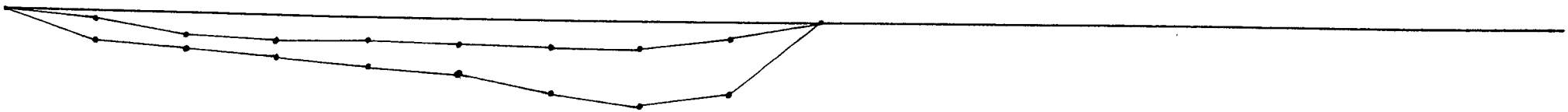
**Transect: I** **170 ft.**

| Pt. | Water Depth | Total Depth | Sed. Depth |
|---|---|---|---|
| 1 | 3.5 | 4.5 | 1.0 |
| 2 | 4.5 | 5.5 | 1.0 |
| 3 | 4.5 | 6.0 | 1.5 |
| 4 | 5.0 | 6.5 | 1.5 |
| 5 | 5.0 | 6.5 | 1.5 |
| 6 | 5.0 | 6.5 | 1.5 |
| 7 | 5.0 | 6.5 | 1.5 |
| 8 | 5.5 | 7.0 | 1.5 |
| 9 | 6.5 | 8.0 | 1.5 |
| 10 | 8.0 | 10.0 | 4.0 |
| 11 | 9.5 | 14.0 | 4.5 |
| 12 | 9.5 | 15.0 | 5.5 |
| 13 | 11.5 | 15.0 + | 3.5 |
| 14 | 12.0 | 15.0 + | 3.0 |
| 15 | 11.0 | 13.5 | 2.5 |
| 16 | 6.5 | 9.0 | 2.5 |

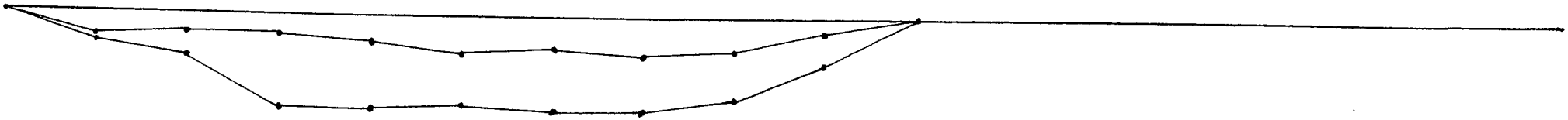
Transect A



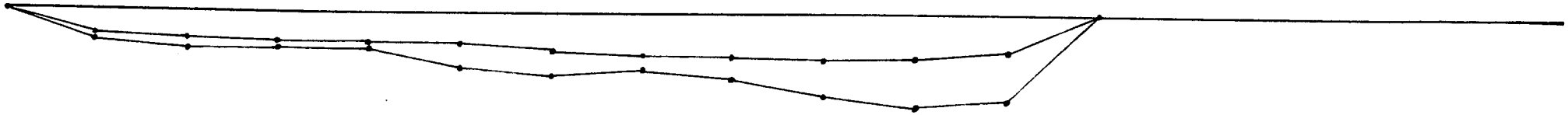
Transect B



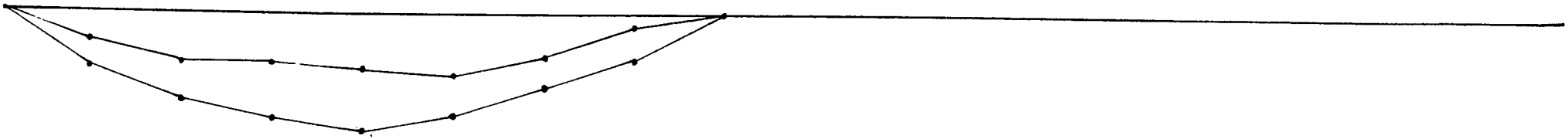
Transect C



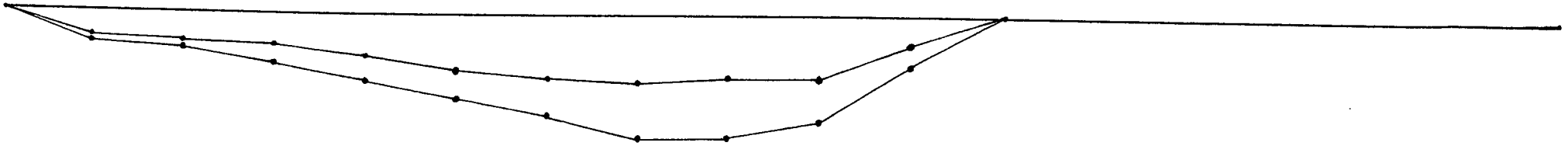
Transect D



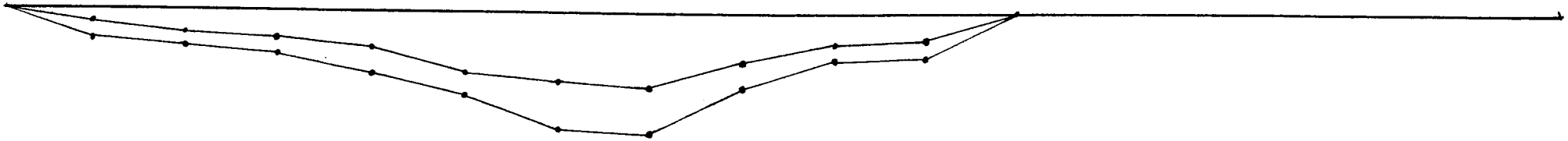
Transect E



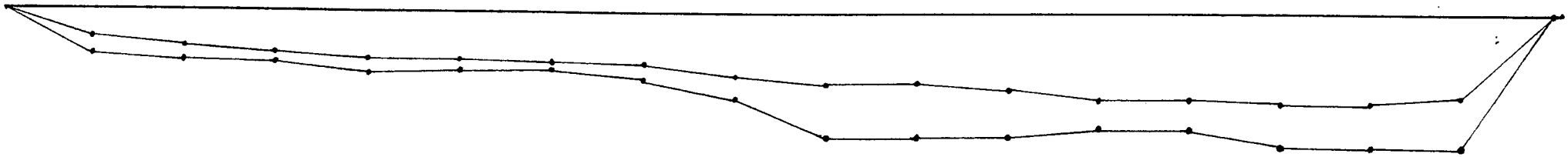
Transect F



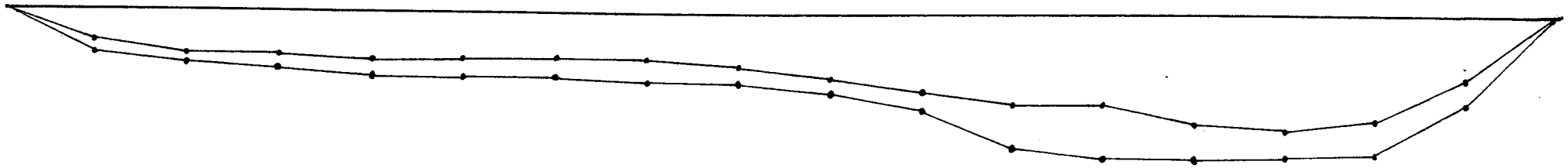
Transect G



Transect H



Transect I



Lake center values of transects A through I.
(roughly equivalent to transect A – B in 1995 report)

| | |
|---|---|
| **A** | **36 in.** |
| **B** | **36** |
| **C** | **66** |
| **D** | **30** |
| **E** | **78** |
| **F** | **42** |
| **G** | **48** |
| **H** | **48** |
| **I** | **18** |