

PILGRIM SPRING  
TEST

GL02933

W/Thermal Probe

MEDIA RESISTIVITY (OHM-METERS)

5.00 300.00 6000.00 15000.00 25000.00

MEDIA PFE (%)

0.00 0.00 0.00 0.00 0.00

88 77 66 55 44 33 22 11 00 11 22 33 44 55 66 77 88  
.....1.....2.....3.....4.....5.....6.....7  
55555555555555554444444455553333333322233333333333333333333  
5555555555555555444444445555333333333222333333333333333333333  
5555555555555555555555555555555555555553222222222222222222222222  
55  
222222222222222222222222111111111111111111122222222222222222222  
2222222222222222222222221111111111111111111222222222222222222222  
222222222222222222222222222222221122222222222222222222222222222  
22222222222222222222222222222222112222222222222222222222222222  
22222222222222222222222222222222112222222222222222222222222222  
22222222222222222222222222222222112222222222222222222222222222  
.....1.....2.....3.....4.....5.....6.....7

CALCULATED RESISTIVITY (OHM-METERS)

-5 -4 -3 -2 -1 0 +1 +2 +3 +4 +5  
-----;-----;-----;-----;-----;-----;-----;-----;-----;-----;-----;

19945. 23927. 10475. 9178. 460. 193. 395. 390.  
12863. 17654. 7518. 3704. 495. 85. 176. 280. 304.  
5646. 8534. 4181. 1898. 168. 99. 68. 106. 257. 305.  
2314. 3339. 1754. 913. 93. 50. 90. 43. 88. 247. 311.  
1361. 650. 363. 61. 52. 69. 68. 37. 80. 243.  
265. 137. 43. 59. 67. 64. 34. 75.

CALCULATED PFE (%)

-5 -4 -3 -2 -1 0 +1 +2 +3 +4 +5  
-----;-----;-----;-----;-----;-----;-----;-----;-----;-----;-----;

0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00  
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0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00

PILGRIM SPRING

WFO Thermal Plane

TEST

MEDIA RESISTIVITY (OHM-METERS)

5.00 300.00 6000.00 15000.00 25000.00

MEDIA PFE (%)

0.00 0.00 0.00 0.00 0.00

88 77 66 55 44 33 22 11 00 11 22 33 44 55 66 77 88  
.....1.....2.....3.....4.....5.....6.....7  
5555555555555555555444444445555333333333222333333333333333333333  
5555555555555555555444444445555333333333222333333333333333333333  
55322222222222222222222222222  
555222222222222222222222222222  
22  
22  
22  
22  
22  
22  
.....1.....2.....3.....4.....5.....6.....7

CALCULATED RESISTIVITY (OHM-METERS)

-5 -4 -3 -2 -1 0 +1 +2 +3 +4 +5  
-----:-----:-----:-----:-----:-----:-----:-----:-----:-----:

19925. 23967. 10511. 9215. 522. 230. 409. 376.  
12831. 17779. 7665. 3849. 947. 259. 326. 321. 276.  
5613. 8710. 4399. 2089. 469. 557. 366. 268. 308. 264.  
2282. 3540. 1984. 1122. 364. 300. 764. 318. 253. 301. 258.  
1564. 865. 556. 328. 257. 412. 669. 308. 245. 298.  
470. 314. 286. 253. 370. 647. 302. 239.

CALCULATED PFE (%)

-5 -4 -3 -2 -1 0 +1 +2 +3 +4 +5  
-----:-----:-----:-----:-----:-----:-----:-----:-----:-----:

0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00  
0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00  
0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00  
0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00  
0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00

PILGRIM SPRING  
TEST

STANDARD MESH  
IP2D MESH GEOMETRY CODING SHEET

|                       |    |                       |
|-----------------------|----|-----------------------|
| # X Nodes :           | 71 | (standard 71)         |
| # Z Nodes :           | 12 | (standard 12)         |
| # X Element Groups :  | 1  | (# width groups)      |
| X Element Group #'s : | 20 | (# Elements in Group) |

X Element Spacing : 0.25  
( $\alpha$ -units)

|                       |                        |                       |
|-----------------------|------------------------|-----------------------|
| # Z Element Groups :  | 8                      | (# Thickness Groups)  |
| Z Element Group #'s : |                        | (# Elements in Group) |
|                       | 1, 1, 1, 3, 2, 1, 1, 1 |                       |

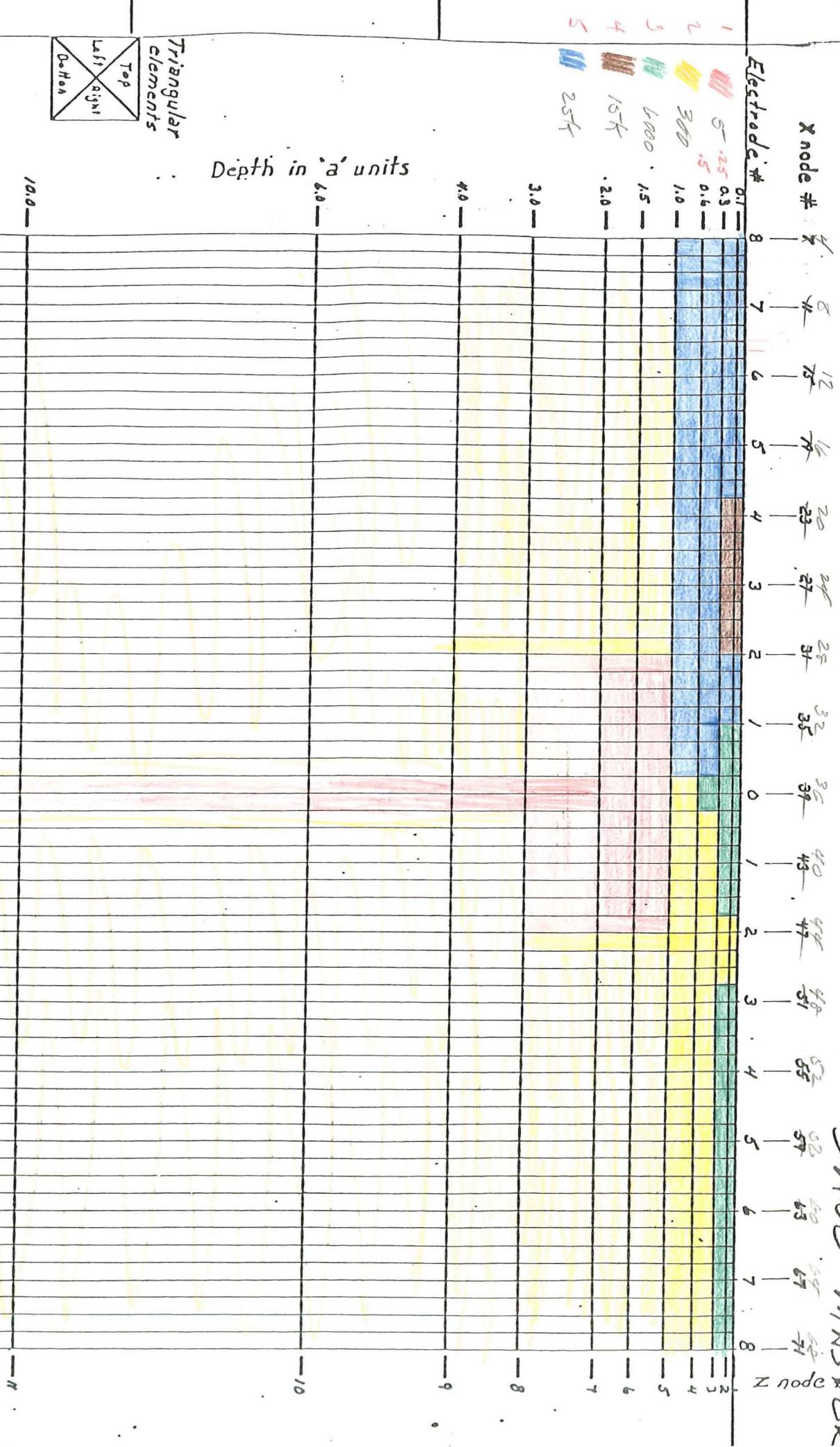
Z Element Spacing : 0.1, 0.15, 0.25, 0.35, 1.0, 2.0, 4.0  
( $\alpha$ -units)

17 Electrode (X, Z) Node LOCATIONS

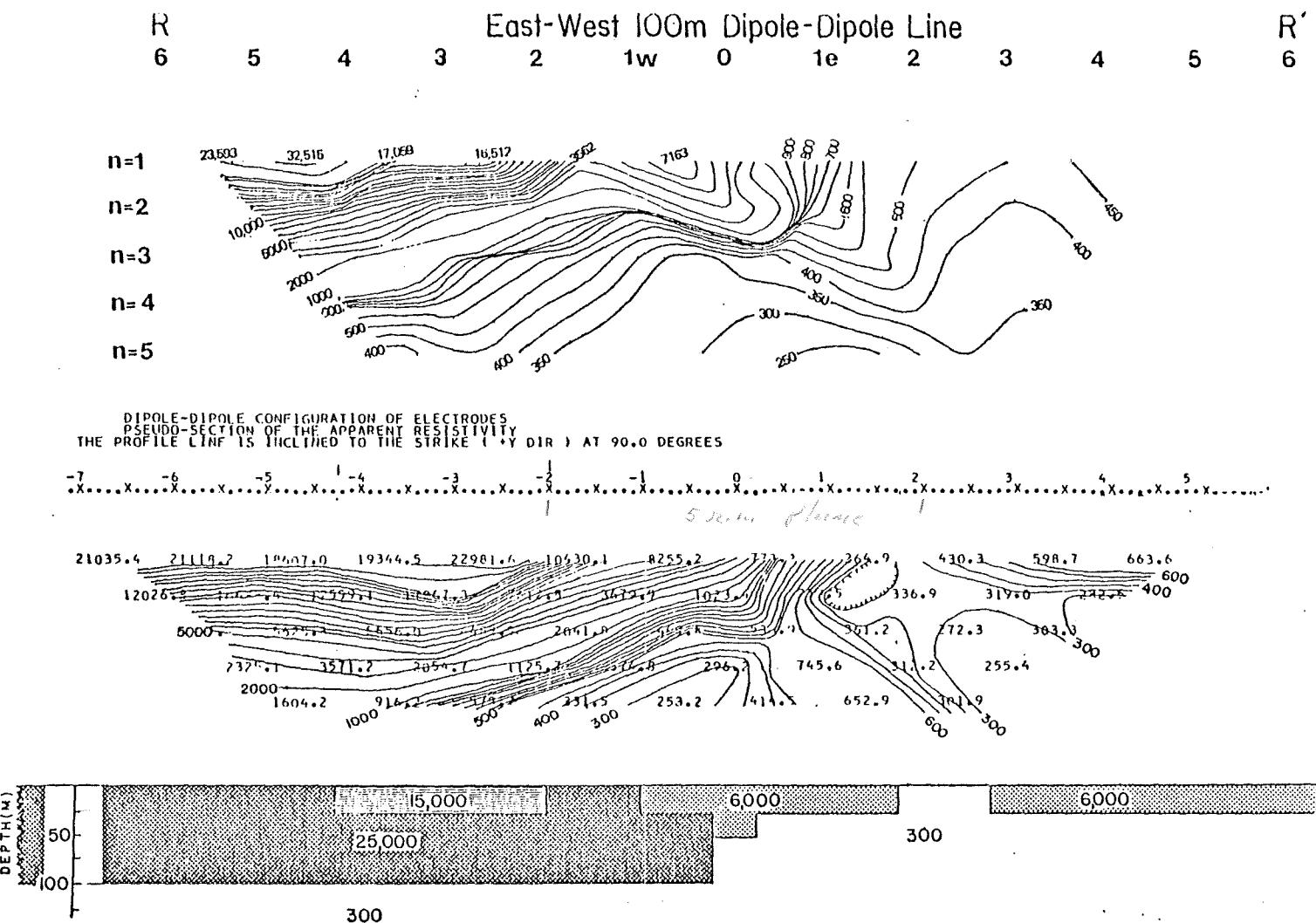
|          |           |           |
|----------|-----------|-----------|
| 1. 4, 1  | 7. 28, 1  | 13. 52, 1 |
| 2. 8, 1  | 8. 32, 1  | 14. 56, 1 |
| 3. 12, 1 | 9. 36, 1  | 15. 60, 1 |
| 4. 16, 1 | 10. 40, 1 | 16. 64, 1 |
| 5. 20, 1 | 11. 44, 1 | 17. 68, 1 |
| 6. 24, 1 | 12. 48, 1 |           |

Coding Form : 2-D Finite Element Model (Standard Mesh)

SAUC MAS~~WORK~~



Scale 1:24000



**Figure 11a.** 100 m dipole-dipole pseudosection line R-R' to test for a N-S trending Quaternary fault. Station numbers in hundreds of meters (e.g., 1S = 100 m south of origin).

**Figure 11b.** Two dimensional computer model shows thick ice-rich permafrost to the west and thinner permafrost to the east of the mapped fault at station 0.