

# A Soil Survey for Fruit Development in the Ceded Districts (Contd.)\*

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## APPENDIX II.

Results of mechanical analysis (Results expressed on moisture free basis)

| Area       | Pit No. | Depth     | No. of samples | Moisture % | Clay % | Silt % | Fine sand % | Coarse sand % | Fine Fractions (clay silt) | Coarse Fractions (F. sand C. sand.) |
|------------|---------|-----------|----------------|------------|--------|--------|-------------|---------------|----------------------------|-------------------------------------|
| 1          | 2       | 3         | 4              | 5          | 6      | 7      | 8           | 9             | 10                         | 11                                  |
| Kottur     | 2       | 0'-1'     | 4              | 4.21       | 33.2   | 5.2    | 21.2        | 40.7          | 38.4                       | 61.9                                |
|            | ..      | 1'-2'     | 5              | 5.80       | 49.8   | 10.5   | 22.5        | 17.9          | 60.3                       | 40.4                                |
|            | ..      | 2'-3'     | 6              | 5.58       | 37.7   | 18.2   | 22.1        | 21.6          | 55.9                       | 43.7                                |
|            | ..      | 3'-4'     | 7              | 4.38       | 37.6   | 6.8    | 16.3        | 39.2          | 44.4                       | 55.5                                |
|            | ..      | 4'-5'     | 8              | 6.53       | 43.6   | 11.2   | 10.1        | 31.2          | 54.8                       | 41.3                                |
|            | 4       | 0'-1'     | 16             | 3.98       | 44.8   | 6.7    | 16.5        | 30.2          | 51.5                       | 46.7                                |
|            | ..      | 1'-2'     | 17             | 4.27       | 47.8   | 5.2    | 13.2        | 33.2          | 53.0                       | 46.4                                |
|            | ..      | 2'-3'     | 18             | 4.57       | 51.6   | 4.4    | 13.7        | 29.2          | 56.0                       | 42.9                                |
|            | ..      | 3'-4'     | 19             | 4.74       | 51.4   | 7.7    | 11.8        | 28.5          | 59.1                       | 40.3                                |
|            | ..      | 4'-5'     | 20             | 4.59       | 49.5   | 7.4    | 12.0        | 30.3          | 56.9                       | 42.3                                |
|            | ..      | 5'-6'     | 21             | 4.69       | 48.8   | 8.9    | 12.5        | 29.6          | 57.7                       | 42.1                                |
|            | ..      | 6'-7'     | 22             | 4.54       | 39.8   | 6.0    | 13.8        | 39.2          | 45.8                       | 53.0                                |
|            | 7       | 0''-9''   | 31             | 1.32       | 16.2   | 4.1    | 35.8        | 44.8          | 20.3                       | 80.6                                |
|            | ..      | 9''-18''  | 32             | 0.83       | 11.9   | 2.5    | 19.6        | 67.1          | 14.4                       | 86.7                                |
|            | ..      | 18''-30'' | 33             | 1.32       | 17.5   | 3.5    | 24.3        | 56.2          | 21.0                       | 80.5                                |
|            | ..      | 30''-40'' | 34             | 1.76       | 20.1   | 4.6    | 16.6        | 59.5          | 24.7                       | 76.1                                |
|            | ..      | 40''-41'' | 35             | 2.88       | 29.3   | 6.0    | 15.3        | 50.1          | 35.3                       | 65.4                                |
|            | ..      | 4'-5'     | 36             | 2.02       | 23.0   | 5.1    | 18.0        | 54.8          | 28.1                       | 72.8                                |
|            | ..      | 5'-6'     | 37             | 5.44       | 51.9   | 7.6    | 12.8        | 28.7          | 59.3                       | 41.5                                |
|            | 9       | 0'-1'     | 40             | 2.86       | 37.6   | 4.4    | 19.7        | 39.0          | 42.0                       | 58.7                                |
|            | ..      | 1'-2'     | 41             | 3.17       | 38.2   | 7.0    | 19.7        | 36.0          | 45.2                       | 55.7                                |
|            | ..      | 2'-3'     | 42             | 3.17       | 39.0   | 6.2    | 18.2        | 37.6          | 45.2                       | 55.8                                |
|            | 10      | 0'-1'     | 43             | 1.75       | 23.9   | 3.6    | 16.7        | 56.6          | 27.5                       | 73.3                                |
|            | ..      | 1'-2'     | 44             | 2.65       | 35.4   | 5.4    | 13.8        | 46.8          | 40.8                       | 60.6                                |
|            | ..      | 2'-3'     | 45             | 3.46       | 48.8   | 6.1    | 12.7        | 32.8          | 54.9                       | 45.5                                |
| Rudravaram | 18      | 0'-1'     | 72             | 4.91       | 53.1   | 17.1   | 15.7        | 14.8          | 70.2                       | 30.5                                |
|            | ..      | 1'-2'     | 73             | 4.96       | 56.3   | 19.7   | 13.1        | 12.0          | 76.0                       | 25.1                                |
|            | ..      | 2'-3'     | 74             | 4.99       | 56.8   | 16.9   | 13.4        | 13.9          | 73.7                       | 27.3                                |
|            | ..      | 3'-4'     | 75             | 5.14       | 55.1   | 14.0   | 11.5        | 20.7          | 69.1                       | 32.2                                |
|            | ..      | 4'-5'     | 76             | 5.34       | 55.5   | 13.8   | 12.0        | 20.2          | 69.3                       | 32.2                                |
|            | 20      | 0'-1'     | 82             | 0.44       | 7.0    | 1.8    | 45.3        | 46.7          | 8.8                        | 92.0                                |
|            | ..      | 1'-2'     | 83             | 0.53       | 9.6    | 1.7    | 43.1        | 46.6          | 11.3                       | 89.7                                |

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## APPENDIX II—Contd.

GUNATHA RAO,

moisture free basis)

| Coarse sand % | Fine Fractions (clay silt) | Coarse Fractions (F. sand C. sand.) |
|---------------|----------------------------|-------------------------------------|
| 9             | 10                         | 11                                  |
| 38.4          | 61.9                       |                                     |
| 60.3          | 40.4                       |                                     |
| 55.9          | 43.7                       |                                     |
| 44.4          | 55.5                       |                                     |
| 54.8          | 41.3                       |                                     |
| 51.5          | 46.7                       |                                     |
| 53.0          | 46.4                       |                                     |
| 56.0          | 42.9                       |                                     |
| 59.1          | 40.3                       |                                     |
| 56.9          | 42.3                       |                                     |
| 57.7          | 42.1                       |                                     |
| 45.8          | 53.0                       |                                     |
| 20.3          | 80.6                       |                                     |
| 14.4          | 86.7                       |                                     |
| 21.0          | 80.5                       |                                     |
| 24.7          | 76.1                       |                                     |
| 35.3          | 65.4                       |                                     |
| 28.1          | 72.8                       |                                     |
| 59.3          | 41.5                       |                                     |
| 42.0          | 58.7                       |                                     |
| 45.2          | 55.7                       |                                     |
| 45.2          | 55.8                       |                                     |
| 27.5          | 73.3                       |                                     |
| 40.8          | 60.6                       |                                     |
| 54.9          | 45.5                       |                                     |
| 70.2          | 30.5                       |                                     |
| 76.0          | 25.1                       |                                     |
| 3.7           | 27.3                       |                                     |
| 9.1           | 32.2                       |                                     |
| 9.3           | 32.2                       |                                     |
| 1.8           | 92.0                       |                                     |
| 3             | 89.7                       |                                     |

Giddalore

| Area      | Pit No. | Depth | No. of samples | Moisture % | Clay % | Silt % | Fine sand % | Coarse sand % | Fine Fractions (clay silt) | Coarse Fractions (F. sand C. sand) |
|-----------|---------|-------|----------------|------------|--------|--------|-------------|---------------|----------------------------|------------------------------------|
| 1         | 2       | 3     | 4              | 5          | 6      | 7      | 8           | 9             | 10                         | 11                                 |
|           | "       | 2'-3' | 84             | 1.36       | 17.5   | 7.1    | 36.3        | 39.8          | 24.6                       | 76.1                               |
|           | "       | 3'-4' | 85             | 1.77       | 24.4   | 10.0   | 28.3        | 38.3          | 34.4                       | 66.6                               |
|           | 22      | 0'-1' | 91             | 8.57       | 16.1   | 11.4   | 29.6        | 43.0          | 28.2                       | 72.6                               |
|           | "       | 1'-2' | 92             | 2.87       | 30.9   | 19.3   | 16.4        | 33.5          | 50.2                       | 49.9                               |
|           | "       | 2'-3' | 93             | 3.75       | 39.7   | 18.0   | 18.6        | 20.0          | 57.7                       | 38.6                               |
|           | "       | 3'-4' | 94             | 4.76       | 47.5   | 14.2   | 16.7        | 19.2          | 61.7                       | 35.9                               |
|           | "       | 4'-5' | 95             | 5.12       | 46.0   | 17.1   | 15.2        | 21.5          | 63.1                       | 36.7                               |
|           | 24      | 0'-1' | 101            | 4.13       | 35.7   | 20.6   | 32.8        | 10.7          | 56.3                       | 43.5                               |
|           | "       | 1'-2' | 102            | 4.40       | 39.2   | 20.4   | 29.2        | 9.7           | 59.6                       | 38.9                               |
|           | "       | 2'-3' | 103            | 4.46       | 41.6   | 23.6   | 27.3        | 7.8           | 65.2                       | 35.1                               |
|           | "       | 3'-4' | 104            | 4.76       | 46.7   | 23.6   | 26.3        | 1.9           | 70.3                       | 28.2                               |
|           | "       | 4'-5' | 105            | 4.82       | 44.4   | 23.4   | 7.5         | 4.1           | 67.8                       | 31.6                               |
|           | 25      | 0'-1' | 106            | 1.30       | 13.7   | 5.0    | 63.8        | 17.5          | 18.7                       | 81.3                               |
|           | "       | 1'-2' | 107            | 1.37       | 14.2   | 4.1    | 77.6        | 3.7           | 18.3                       | 81.3                               |
|           | "       | 2'-3' | 108            | 1.29       | 13.7   | 4.5    | 75.5        | 6.8           | 18.2                       | 82.3                               |
|           | "       | 3'-4' | 109            | 0.84       | 8.8    | 2.8    | 73.6        | 15.4          | 11.6                       | 89.0                               |
|           | "       | 4'-5' | 110            | 1.07       | 12.1   | 2.3    | 62.3        | 24.2          | 14.4                       | 86.5                               |
|           | 27      | 0'-1' | 115            | 3.72       | 38.7   | 10.9   | 22.6        | 26.4          | 49.6                       | 49.0                               |
|           | "       | 1'-2' | 116            | 3.57       | 34.5   | 8.3    | 35.4        | 20.6          | 42.8                       | 56.0                               |
|           | "       | 2'-3' | 117            | 4.70       | 41.7   | 15.7   | 27.1        | 14.0          | 57.4                       | 41.1                               |
|           | "       | 3'-4' | 118            | 5.13       | 46.1   | 13.7   | 23.4        | 15.5          | 59.8                       | 38.9                               |
|           | "       | 4'-5' | 119            | 5.00       | 30.5   | 14.5   | 34.1        | 20.7          | 45.0                       | 54.8                               |
|           | "       | 5'-6' | 120            | 3.59       | 42.8   | 13.2   | 24.1        | 18.5          | 56.0                       | 42.6                               |
|           | "       | 6'-7' | 121            | 4.53       | 41.1   | 16.2   | 22.9        | 18.5          | 57.3                       | 41.4                               |
|           | "       | 7'-8' | 122            | 3.66       | 34.4   | 11.7   | 22.7        | 29.8          | 46.1                       | 52.5                               |
|           | 31      | 0'-1' | 142            | 3.76       | 32.6   | 14.1   | 22.5        | 29.7          | 46.7                       | 52.2                               |
|           | "       | 1'-2' | 143            | 4.90       | 42.3   | 11.9   | 15.9        | 30.0          | 54.2                       | 45.9                               |
|           | "       | 2'-3' | 144            | 5.54       | 36.5   | 7.4    | 22.5        | 33.5          | 43.9                       | 56.0                               |
|           | "       | 3'-4' | 145            | 5.01       | 41.3   | 5.8    | 7.3         | 44.2          | 47.6                       | 51.5                               |
| Giddalore | 34      | 0'-1' | 155            | 4.68       | 38.6   | 19.6   | 22.6        | 16.0          | 58.2                       | 38.6                               |
|           | "       | 1'-2' | 156            | 5.06       | 42.1   | 20.0   | 22.0        | 12.6          | 62.1                       | 34.6                               |
|           | "       | 2'-3' | 157            | 5.43       | 44.4   | 23.3   | 20.3        | 8.5           | 67.7                       | 28.8                               |
|           | "       | 3'-4' | 158            | 5.67       | 43.8   | 25.4   | 20.6        | 6.9           | 69.2                       | 27.5                               |
|           | "       | 4'-5' | 159            | 5.75       | 42.2   | 21.5   | 18.0        | 11.2          | 63.7                       | 29.2                               |
|           | "       | 5'-5' | 160            | 5.41       | 42.5   | 19.3   | 19.9        | 14.3          | 61.8                       | 34.2                               |
|           | 37      | 0'-1' | 173            | 1.85       | 18.1   | 6.4    | 39.7        | 36.0          | 24.5                       | 75.7                               |
|           | "       | 1'-2' | 174            | 4.18       | 37.8   | 15.6   | 30.1        | 14.7          | 53.4                       | 44.8                               |
|           | "       | 2'-3' | 175            | 4.15       | 38.3   | 18.8   | 27.9        | 13.8          | 57.1                       | 41.7                               |
|           | "       | 3'-4' | 176            | 4.23       | 38.1   | 18.0   | 27.9        | 15.0          | 56.1                       | 42.9                               |
|           | "       | 4'-5' | 177            | 3.91       | 33.3   | 19.5   | 28.7        | 18.0          | 52.8                       | 46.7                               |
|           | "       | 5'-6' | 178            | 3.73       | 31.9   | 16.9   | 29.7        | 19.5          | 48.8                       | 49.2                               |
|           | "       | 6'-7' | 179            | 3.07       | 26.8   | 14.2   | 25.2        | 32.4          | 41.0                       | 57.6                               |



## APPENDIX II—Contd.

| Area       | Pit No. | Depth | No. of samples | Moisture % | Clay % | Silt % | Fine sand % | Coarse sand % | Fine Fractions (clay silt) | Coarse Fractions (F. sand C. sand) |
|------------|---------|-------|----------------|------------|--------|--------|-------------|---------------|----------------------------|------------------------------------|
| 1          | 2       | 3     | 4              | 5          | 6      | 7      | 8           | 9             | 10                         | 11                                 |
|            | 39      | 0'—1' | 185            | 2.32       | 20.5   | 7.4    | 35.2        | 35.6          | 27.9                       | 70.8                               |
|            | "       | 1'—2' | 186            | 2.77       | 23.7   | 10.8   | 26.6        | 35.7          | 34.5                       | 62.3                               |
|            | "       | 2'—3' | 187            | 2.67       | 28.3   | 11.6   | 33.1        | 25.4          | 39.9                       | 58.5                               |
|            | "       | 3'—4' | 188            | 2.73       | 27.5   | 13.1   | 31.3        | 27.9          | 40.6                       | 59.2                               |
|            | "       | 4'—5' | 189            | 2.90       | 34.5   | 16.8   | 27.5        | 20.7          | 51.3                       | 48.2                               |
|            | "       | 5'—6' | 190            | 3.09       | 31.7   | 10.3   | 33.4        | 24.4          | 42.0                       | 57.8                               |
|            | "       | 6'—7' | 191            | 3.04       | 25.8   | 13.9   | 27.0        | 25.6          | 39.7                       | 52.6                               |
|            | "       | 7'—8' | 192            | 2.92       | 26.3   | 12.0   | 31.4        | 27.3          | 38.3                       | 58.7                               |
|            | 40      | 0'—1' | 193            | 3.60       | 34.5   | 16.8   | 27.5        | 19.7          | 51.3                       | 47.2                               |
|            | "       | 1'—2' | 194            | 3.71       | 31.2   | 14.0   | 34.9        | 18.5          | 49.2                       | 53.4                               |
|            | "       | 2'—3' | 195            | 3.23       | 23.5   | 29.5   | 41.8        | 6.6           | 53.0                       | 48.4                               |
|            | "       | 3'—4' | 196            | 2.18       | 22.5   | 13.8   | 43.5        | 19.0          | 36.3                       | 62.5                               |
|            | "       | 4'—5' | 197            | 4.39       | 40.0   | 14.9   | 23.2        | 19.4          | 54.9                       | 42.6                               |
|            | "       | 5'—6' | 198            | 2.49       | 23.6   | 12.1   | 43.2        | 20.9          | 35.7                       | 64.1                               |
|            | 42      | 0'—1' | 207            | 3.61       | 38.4   | 18.2   | 36.2        | 8.5           | 56.6                       | 44.7                               |
|            | "       | 1'—2' | 208            | 3.76       | 38.2   | 18.5   | 38.2        | 6.0           | 56.7                       | 44.2                               |
|            | "       | 2'—3' | 209            | 3.50       | 37.3   | 17.6   | 36.9        | 7.6           | 54.9                       | 44.5                               |
|            | "       | 3'—4' | 210            | 2.78       | 30.9   | 10.7   | 30.4        | 29.7          | 41.6                       | 60.1                               |
|            | "       | 4'—5' | 211            | 3.64       | 37.6   | 13.8   | 27.0        | 20.6          | 51.4                       | 47.6                               |
|            | 44      | 0'—1' | 217            | 2.84       | 19.3   | 26.2   | 30.3        | 20.2          | 45.5                       | 50.5                               |
|            | "       | 1'—2' | 218            | 2.07       | 16.6   | 18.2   | 28.1        | 35.3          | 34.8                       | 63.4                               |
|            | "       | 2'—3' | 219            | 1.78       | 17.8   | 8.6    | 41.0        | 30.9          | 26.4                       | 71.9                               |
|            | "       | 3'—4' | 220            | 1.93       | 12.2   | 5.6    | 29.8        | 53.7          | 17.8                       | 83.5                               |
| Vontimitta | 48      | 0'—1' | 231            | 2.04       | 21.4   | 11.8   | 39.3        | 25.8          | 33.2                       | 65.1                               |
|            | "       | 1'—2' | 232            | 2.54       | 26.7   | 11.5   | 33.5        | 28.1          | 38.2                       | 61.6                               |
|            | "       | 2'—3' | 233            | 4.09       | 45.6   | 12.0   | 17.7        | 25.2          | 57.6                       | 42.9                               |
|            | "       | 3'—4' | 234            | 4.84       | 53.6   | 14.2   | 16.1        | 17.7          | 67.8                       | 33.8                               |
|            | "       | 4'—5' | 235            | 4.99       | 56.4   | 13.7   | 16.9        | 14.4          | 70.1                       | 31.3                               |
|            | "       | 5'—6' | 236            | 3.30       | 36.2   | 19.4   | 24.7        | 14.9          | 55.6                       | 39.6                               |
|            | 49      | 0'—1' | 237            | 3.02       | 33.8   | 22.9   | 29.5        | 15.4          | 56.7                       | 42.9                               |
|            | "       | 1'—2' | 238            | 3.06       | 32.3   | 21.1   | 34.3        | 13.4          | 53.4                       | 47.7                               |
|            | "       | 2'—3' | 239            | 3.09       | 31.0   | 18.3   | 34.3        | 16.6          | 49.3                       | 50.9                               |
|            | "       | 3'—4' | 240            | 3.96       | 43.0   | 19.4   | 26.9        | 11.2          | 62.4                       | 38.1                               |
|            | "       | 4'—5' | 241            | 5.55       | 58.8   | 14.3   | 14.9        | 11.2          | 73.1                       | 26.1                               |
|            | 50      | 0'—1' | 243            | 3.38       | 35.7   | 18.6   | 30.0        | 12.6          | 54.3                       | 42.6                               |
|            | "       | 1'—2' | 244            | 4.37       | 51.8   | 12.2   | 15.2        | 21.6          | 64.0                       | 36.8                               |
|            | "       | 2'—3' | 245            | 3.48       | 35.0   | 16.8   | 23.3        | 19.4          | 51.8                       | 42.7                               |
|            | "       | 3'—4' | 246            | 3.52       | 35.2   | 16.9   | 24.8        | 17.9          | 52.1                       | 42.7                               |



## APPENDIX II Contd.

| Area  | Pit No. | Depth | No. of samples | Moisture % | Clay % | Silt % | Fine sand % | Coarse sand % | Fine Fractions (clay silt) | Coarse Fractions (F. sand C. sand) |
|-------|---------|-------|----------------|------------|--------|--------|-------------|---------------|----------------------------|------------------------------------|
|       |         |       |                |            |        |        |             |               |                            |                                    |
| 1     | 2       | 3     | 4              | 5          | 6      | 7      | 8           | 9             | 10                         | 11                                 |
| Kodur | 53      | 0'-1' | 258            | 1.75       | 19.1   | 17.3   | 42.6        | 21.5          | 36.4                       | 64.1                               |
|       | "       | 1'-2' | 259            | 3.01       | 43.8   | 14.7   | 22.8        | 15.2          | 58.5                       | 38.0                               |
|       | "       | 2'-3' | 260            | 3.80       | 56.4   | 15.1   | 14.1        | 15.9          | 71.5                       | 30.0                               |
|       | "       | 3'-4' | 261            | 3.88       | 52.3   | 13.0   | 13.9        | 21.7          | 65.3                       | 35.6                               |
|       | 56      | 0'-1' | 270            | 2.85       | 30.1   | 17.3   | 31.3        | 18.5          | 47.4                       | 49.8                               |
|       | "       | 1'-2' | 271            | 3.68       | 37.1   | 14.3   | 28.7        | 15.6          | 51.4                       | 44.3                               |
|       | "       | 2'-3' | 272            | 4.03       | 38.8   | 16.2   | 27.6        | 14.4          | 55.0                       | 42.0                               |
|       | "       | 3'-4' | 273            | 3.90       | 38.5   | 14.8   | 25.8        | 20.0          | 53.0                       | 45.8                               |
|       | "       | 4'-5' | 274            | 3.93       | 33.1   | 22.3   | 20.9        | 22.0          | 55.6                       | 42.9                               |
|       | 57      | 0'-1' | 275            | 2.10       | 24.7   | 11.1   | 39.3        | 24.9          | 35.8                       | 64.2                               |
|       | "       | 1'-2' | 276            | 1.66       | 21.1   | 10.4   | 52.5        | 17.0          | 31.5                       | 69.5                               |
|       | "       | 2'-3' | 277            | 2.06       | 25.3   | 10.4   | 36.4        | 28.8          | 35.7                       | 65.2                               |
|       | "       | 3'-4' | 278            | 1.90       | 19.6   | 10.7   | 36.6        | 34.1          | 30.3                       | 70.7                               |
|       | "       | 4'-5' | 279            | 1.96       | 20.7   | 9.9    | 40.0        | 29.9          | 30.6                       | 69.9                               |
|       | 60      | 0'-1' | 290            | 3.44       | 28.2   | 7.8    | 26.0        | 31.4          | 36.0                       | 57.4                               |
|       | "       | 1'-2' | 291            | 3.68       | 29.9   | 7.0    | 25.1        | 29.7          | 36.9                       | 54.8                               |
|       | "       | 2'-3' | 292            | 3.85       | 30.7   | 8.6    | 21.7        | 31.4          | 39.3                       | 53.1                               |
|       | "       | 3'-4' | 293            | 3.66       | 32.0   | 7.7    | 19.3        | 32.1          | 39.7                       | 51.4                               |
|       | 64      | 0'-1' | 310            | 1.82       | 21.1   | 13.5   | 58.8        | 7.6           | 34.6                       | 66.4                               |
|       | "       | 1'-2' | 311            | 2.12       | 29.4   | 12.5   | 58.3        | 5.5           | 41.9                       | 58.8                               |
|       | "       | 2'-3' | 312            | 2.91       | 35.5   | 13.1   | 47.9        | 4.6           | 48.6                       | 52.5                               |
|       | "       | 3'-4' | 313            | 3.08       | 38.7   | 13.7   | 44.2        | 4.1           | 52.4                       | 48.3                               |
|       | "       | 4'-5' | 314            | 2.98       | 36.7   | 15.5   | 44.9        | 4.6           | 52.2                       | 49.5                               |
|       | "       | 5'-6' | 315            | 3.06       | 37.2   | 14.2   | 43.5        | 5.6           | 51.4                       | 49.1                               |
|       | "       | 6'-7' | 316            | 3.15       | 35.1   | 11.4   | 36.1        | 16.9          | 46.5                       | 53.0                               |
|       | "       | 7'-8' | 317            | 3.29       | 32.3   | 11.6   | 44.4        | 9.6           | 43.9                       | 54.0                               |
|       | 66      | 0'-1' | 324            | 2.14       | 30.7   | 11.7   | 50.4        | 8.7           | 42.4                       | 59.1                               |
|       | "       | 1'-2' | 325            | 3.01       | 37.2   | 13.4   | 42.2        | 7.6           | 50.6                       | 49.8                               |
|       | "       | 2'-3' | 326            | 3.12       | 37.7   | 13.4   | 41.9        | 6.9           | 51.1                       | 48.8                               |
|       | "       | 3'-4' | 327            | 3.41       | 38.8   | 13.0   | 39.3        | 9.1           | 51.8                       | 48.4                               |
|       | "       | 4'-5' | 328            | 3.41       | 41.4   | 13.7   | 37.1        | 7.3           | 55.1                       | 44.4                               |
|       | "       | 5'-6' | 329            | 3.40       | 41.4   | 14.5   | 37.5        | 6.6           | 57.2                       | 44.0                               |
|       | "       | 6'-7' | 330            | 3.26       | 42.2   | 15.0   | 39.0        | 5.0           | 57.2                       | 44.0                               |
|       | "       | 7'-8' | 331            | 3.10       | 40.3   | 15.5   | 41.2        | 4.8           | 55.8                       | 46.0                               |
|       | 68      | 0'-1' | 340            | 1.80       | 26.0   | 8.9    | 43.0        | 22.1          | 34.9                       | 65.1                               |
|       | "       | 1'-2' | 341            | 3.35       | 49.7   | 14.2   | 26.7        | 10.0          | 63.9                       | 36.7                               |
|       | "       | 2'-3' | 342            | 2.81       | 45.8   | 12.6   | 30.2        | 13.4          | 58.4                       | 43.6                               |
|       | "       | 3'-4' | 343            | 3.62       | 49.6   | 12.9   | 23.3        | 14.5          | 62.5                       | 37.8                               |
|       | "       | 4'-5' | 344            | 3.56       | 50.0   | 10.9   | 21.8        | 18.7          | 60.9                       | 40.5                               |
|       | "       | 5'-6' | 345            | 3.55       | 49.0   | 14.3   | 21.6        | 16.0          | 63.3                       | 37.6                               |
|       | "       | 7'-8' | 347            | 3.43       | 47.7   | 11.9   | 22.0        | 19.6          | 59.6                       | 41.6                               |



## APPENDIX II—Contd.

| Area   | Pit No. | Depth | No. of samples | Moisture % | Clay % | Silt % | Fine sand % | Coarse sand % | Fine Fractions (clay silt) | Coarse Fractions (F sand C sand) |
|--------|---------|-------|----------------|------------|--------|--------|-------------|---------------|----------------------------|----------------------------------|
| 1      | 2       | 3     | 4              | 5          | 6      | 7      | 8           | 9             | 10                         | 11                               |
| Panyam | 70      | 0'—1' | 355            | 0.45       | 9.1    | 5.0    | 66.0        | 21.2          | 14.1                       | 87.2                             |
|        | "       | 1'—2' | 356            | 0.79       | 13.9   | 9.3    | 57.0        | 20.3          | 23.2                       | 77.3                             |
|        | "       | 2'—3' | 357            | 1.81       | 30.6   | 8.6    | 45.5        | 16.5          | 39.2                       | 62.0                             |
|        | "       | 3'—4' | 358            | 2.35       | 36.4   | 9.7    | 37.6        | 16.6          | 16.1                       | 54.2                             |
|        | "       | 4'—5' | 359            | 2.60       | 41.1   | 7.9    | 36.0        | 16.4          | 49.0                       | 52.4                             |
|        | "       | 5'—6' | 360            | 2.71       | 43.2   | 9.7    | 29.0        | 16.6          | 52.9                       | 45.6                             |
|        | "       | 6'—7' | 361            | 2.22       | 38.3   | 8.2    | 37.4        | 15.2          | 46.5                       | 52.6                             |
|        | "       | 7'—8' | 362            | 2.16       | 33.0   | 9.9    | 38.0        | 20.1          | 42.9                       | 58.1                             |
|        | 71      | 0'—1' | 363            | 0.81       | 13.1   | 7.8    | 65.1        | 13.1          | 20.9                       | 78.4                             |
|        | "       | 1'—2' | 364            | 1.80       | 28.3   | 14.5   | 47.0        | 10.6          | 42.8                       | 57.6                             |
|        | "       | 2'—3' | 365            | 2.46       | 36.3   | 16.0   | 39.1        | 8.9           | 52.3                       | 48.0                             |
|        | "       | 3'—4' | 366            | 2.78       | 38.9   | 18.2   | 33.4        | 9.4           | 57.1                       | 42.8                             |
|        | "       | 4'—5' | 367            | 2.45       | 41.3   | 16.0   | 31.5        | 10.6          | 57.3                       | 42.1                             |
|        | "       | 5'—6' | 368            | 2.88       | 38.9   | 19.0   | 31.9        | 10.4          | 57.9                       | 42.3                             |
|        | "       | 6'—7' | 369            | 3.94       | 49.4   | 15.6   | 27.4        | 9.5           | 65.0                       | 36.9                             |
|        | "       | 7'—8' | 370            | 3.55       | 46.7   | 19.1   | 26.9        | 8.9           | 65.8                       | 35.8                             |
|        | 75      | 0'—1' | 386            | 1.53       | 24.6   | 11.7   | 54.3        | 7.9           | 36.3                       | 62.2                             |
|        | "       | 1'—2' | 387            | 1.95       | 29.3   | 15.3   | 48.0        | 7.4           | 44.6                       | 55.4                             |
|        | "       | 2'—3' | 388            | 2.73       | 38.0   | 14.7   | 34.7        | 13.1          | 52.7                       | 47.8                             |
|        | "       | 3'—4' | 389            | 3.29       | 39.5   | 16.0   | 27.0        | 18.3          | 55.5                       | 45.3                             |
|        | 78      | 0'—1' | 403            | 0.95       | 15.2   | 5.8    | 71.6        | 7.3           | 21.0                       | 78.9                             |
|        | "       | 1'—2' | 404            | 1.46       | 1.46   | 9.4    | 63.6        | 6.4           | 31.2                       | 70.0                             |
|        | "       | 2'—3' | 405            | 1.61       | 1.61   | 9.8    | 60.7        | 5.7           | 34.3                       | 66.4                             |
|        | "       | 3'—4' | 406            | 1.74       | 1.74   | 8.6    | 59.9        | 5.6           | 35.6                       | 65.5                             |
|        | "       | 4'—5' | 407            | 2.21       | 2.21   | 7.7    | 55.3        | 4.6           | 39.9                       | 59.9                             |
|        | "       | 5'—6' | 408            | 2.03       | 2.03   | 10.4   | 56.9        | 4.4           | 38.8                       | 61.3                             |
|        | "       | 6'—7' | 409            | 2.18       | 2.18   | 11.2   | 56.1        | 4.4           | 39.6                       | 60.5                             |
|        | "       | 7'—8' | 410            | 2.56       | 2.56   | 10.0   | 52.7        | 3.8           | 43.9                       | 56.5                             |
|        | 79      | 0'—1' | 411            | 0.89       | 3.0    | 6.6    | 12.1        | 75.5          | 9.6                        | 87.6                             |
|        | "       | 1'—2' | 412            | 2.22       | 17.0   | 7.3    | 19.2        | 53.6          | 24.3                       | 72.8                             |
|        | "       | 2'—3' | 413            | 1.98       | 15.8   | 7.4    | 15.4        | 61.2          | 23.2                       | 76.6                             |
|        | "       | 3'—4' | 414            | 1.83       | 16.0   | 7.1    | 13.9        | 63.8          | 23.1                       | 77.7                             |
|        | "       | 4'—5' | 415            | 1.71       | 13.7   | 6.2    | 12.7        | 67.2          | 19.9                       | 79.9                             |
|        | "       | 5'—6' | 416            | 2.32       | 17.7   | 11.2   | 18.2        | 52.1          | 28.9                       | 70.3                             |
|        | "       | 6'—7' | 417            | 2.53       | 18.5   | 10.2   | 27.2        | 40.8          | 28.7                       | 68.0                             |
|        | "       | 7'—8' | 418            | 0.90       | 7.8    | 2.5    | 2.2         | 87.5          | 10.3                       | 89.7                             |
|        | 80      | 0'—1' | 419            | 3.92       | 30.7   | 12.7   | 16.0        | 34.1          | 43.4                       | 50.1                             |
|        | "       | 1'—2' | 420            | 4.63       | 35.7   | 13.4   | 14.4        | 32.7          | 49.1                       | 47.1                             |
|        | "       | 2'—3' | 421            | 5.12       | 38.7   | 11.4   | 13.7        | 30.0          | 50.1                       | 43.7                             |
|        | "       | 3'—4' | 422            | 5.99       | 46.0   | 16.5   | 14.7        | 16.8          | 62.5                       | 31.5                             |
|        | "       | 4'—5' | 423            | 5.60       | 44.5   | 17.5   | 17.1        | 12.5          | 62.0                       | 29.6                             |
|        | "       | 5'—6' | 424            | 4.91       | 34.4   | 21.1   | 17.7        | 13.9          | 55.5                       | 31.6                             |
|        | "       | 6'—7' | 425            | 3.98       | 26.6   | 15.3   | 19.7        | 25.0          | 41.9                       | 44.7                             |
|        | "       | 7'—8' | 426            | 3.15       | 24.3   | 9.8    | 15.6        | 38.9          | 34.1                       | 54.5                             |

| No. of samples | Locality  | Result |
|----------------|-----------|--------|
| 4              | Kottur    |        |
| 9              | "         |        |
| 16             | "         |        |
| 31             | "         |        |
| 40             | "         |        |
| 43             | "         |        |
| 72             | Rudravart |        |
| 82             | "         |        |
| 91             | "         |        |
| 101            | "         |        |
| 106            | "         |        |
| 111            | "         |        |
| 142            | "         |        |
| 155            | Giddalon  |        |
| 173            | "         |        |
| 185            | "         |        |
| 193            | "         |        |
| 207            | "         |        |
| 217            | "         |        |
| 231            | Vontin    |        |
| 237            | "         |        |
| 242            | "         |        |
| 258            | "         |        |
| 270            | "         |        |
| 275            | "         |        |
| 290            | "         |        |
| 310            | Kodu      |        |
| 324            | "         |        |
| 340            | "         |        |
| 355            | "         |        |
| 363            | "         |        |
| 386            | "         |        |
| 403            | "         |        |
| 411            | Par       |        |
| 419            | "         |        |



### APPENDIX III

### Results of analysis of 35 selected surface samples of soils.

| Fine sand<br>% | Coarse sand<br>% | Fine Fractions<br>(clay silt) | Coarse<br>Fractions<br>(F. sand<br>C. sand) |
|----------------|------------------|-------------------------------|---------------------------------------------|
| 8              | 9                | 10                            | 11                                          |
| 66.0           | 21.2             | 14.1                          | 87.2                                        |
| 57.0           | 20.3             | 23.2                          | 77.3                                        |
| 45.5           | 16.5             | 39.2                          | 62.0                                        |
| 37.6           | 16.6             | 16.1                          | 54.2                                        |
| 36.0           | 16.4             | 49.0                          | 52.4                                        |
| 29.0           | 16.6             | 52.9                          | 45.6                                        |
| 37.4           | 15.2             | 46.5                          | 52.6                                        |
| 38.0           | 20.1             | 42.9                          | 58.1                                        |
| 5.1            | 13.1             | 20.9                          | 78.4                                        |
| 7.0            | 10.6             | 42.8                          | 57.6                                        |
| 9.1            | 8.9              | 52.3                          | 48.0                                        |
| 3.4            | 9.4              | 57.1                          | 42.8                                        |
| 5.5            | 10.6             | 57.3                          | 42.1                                        |
| 9.9            | 10.4             | 57.9                          | 42.3                                        |
| 4.4            | 9.5              | 65.0                          | 36.9                                        |
| 9.9            | 8.9              | 65.8                          | 35.8                                        |
| 3.3            | 7.9              | 36.3                          | 62.2                                        |
| 0.0            | 7.4              | 44.6                          | 55.4                                        |
| 7.7            | 13.1             | 52.7                          | 47.8                                        |
| 0.0            | 18.3             | 55.5                          | 45.3                                        |
| 5.5            | 7.3              | 21.0                          | 78.9                                        |
| 6.6            | 6.4              | 31.2                          | 70.0                                        |
| 5.7            | 5.7              | 34.3                          | 66.4                                        |
| 5.6            | 5.6              | 35.6                          | 65.5                                        |
| 4.6            | 4.6              | 39.9                          | 59.9                                        |
| 4.4            | 4.4              | 38.8                          | 61.3                                        |
| 4.4            | 4.4              | 39.6                          | 60.5                                        |
| 3.8            | 3.8              | 43.9                          | 56.5                                        |
| 75.5           | 9.6              | 87.6                          |                                             |
| 53.6           | 24.3             | 72.8                          |                                             |
| 61.2           | 23.2             | 76.6                          |                                             |
| 63.8           | 23.1             | 77.7                          |                                             |
| 67.2           | 19.9             | 79.9                          |                                             |
| 52.1           | 28.9             | 70.3                          |                                             |
| 40.8           | 28.7             | 68.0                          |                                             |
| 87.5           | 10.3             | 89.7                          |                                             |
| 34.1           | 43.4             | 50.1                          |                                             |
| 32.7           | 49.1             | 47.1                          |                                             |
| 0.0            | 50.1             | 43.7                          |                                             |
| 6.8            | 62.5             | 31.5                          |                                             |
| 2.5            | 62.0             | 29.6                          |                                             |
| 3.9            | 55.5             | 31.6                          |                                             |
| 5.0            | 41.9             | 44.7                          |                                             |
| 9.9            | 34.1             | 54.5                          |                                             |

| No. of samples | Locality   | Losses on Ignition | Nitrogen | Lime (CaO) | Total Potash $K_2O$ | Total phosphoric acid $P_2O_5$ | Available potash $K_2O$ | Available Phosphoric acid $P_2O_5$ | PH   |
|----------------|------------|--------------------|----------|------------|---------------------|--------------------------------|-------------------------|------------------------------------|------|
| 4              | Kottur     | 2.63               | .042     | 0.52       | 0.31                | .005                           | .008                    | Trace                              | 7.41 |
| 9              | "          | 4.22               | .051     | 0.41       | 0.42                | .002                           | .011                    | "                                  | 7.05 |
| 16             | "          | 4.96               | .056     | 1.05       | 0.59                | .002                           | .025                    | "                                  | 8.06 |
| 31             | "          | 1.42               | .029     | 0.34       | 0.24                | .002                           | .011                    | "                                  | 7.61 |
| 40             | "          | 3.87               | .048     | 0.27       | 0.46                | .002                           | .006                    | "                                  | 6.72 |
| 43             | "          | 2.77               | .034     | 0.22       | 0.31                | .001                           | .017                    | "                                  | 6.77 |
| 72             | Rudravaram | 5.34               | .044     | 0.63       | 1.26                | .006                           | .009                    | "                                  | 7.71 |
| 82             | "          | 0.65               | .018     | 0.08       | 0.16                | .002                           | .015                    | "                                  | 7.18 |
| 91             | "          | 1.70               | .028     | 0.18       | 0.26                | Trace                          | .011                    | "                                  | 7.70 |
| 101            | "          | 2.96               | .025     | 0.53       | 0.81                | "                              | .014                    | "                                  | 8.29 |
| 106            | "          | 1.20               | .012     | 0.36       | 0.34                | "                              | .018                    | "                                  | 8.48 |
| 111            | "          | 6.17               | .022     | 4.29       | 0.71                | "                              | .008                    | "                                  | 8.58 |
| 142            | "          | 4.86               | .007     | 0.61       | 0.85                | "                              | .014                    | "                                  | 8.73 |
| 155            | Giddalore  | 3.20               | .036     | 4.25       | 1.19                | "                              | .023                    | "                                  | 8.55 |
| 173            | "          | 1.49               | .041     | 0.24       | 0.63                | "                              | .017                    | "                                  | 8.57 |
| 185            | "          | 1.86               | .023     | 1.67       | 0.63                | "                              | .008                    | "                                  | 8.76 |
| 193            | "          | 3.09               | .015     | 4.49       | 1.27                | "                              | .012                    | "                                  | 8.92 |
| 207            | "          | 29.7               | .025     | 0.38       | 0.99                | .004                           | .008                    | "                                  | 8.47 |
| 217            | "          | 4.55               | .022     | 6.06       | 1.09                | .009                           | .015                    | .001                               | 8.85 |
| 231            | Vontimitta | 3.45               | .064     | 1.07       | 1.38                | .144                           | .034                    | .104                               | 8.57 |
| 237            | "          | 4.79               | .108     | 1.91       | 1.91                | .078                           | .039                    | .043                               | 8.74 |
| 242            | "          | 4.18               | .041     | 4.07       | 1.69                | .005                           | .015                    | Trace                              | 8.82 |
| 258            | "          | 3.75               | .055     | 2.60       | 1.51                | .075                           | .027                    | .031                               | 88.7 |
| 270            | "          | 3.91               | .056     | 3.24       | 1.85                | .146                           | .030                    | .099                               | 8.81 |
| 275            | "          | 2.59               | .031     | 1.50       | 1.05                | .028                           | .024                    | .015                               | 8.71 |
| 290            | "          | 2.90               | .084     | 4.17       | 0.87                | .051                           | .028                    | .017                               | 8.64 |
| 310            | Kodur      | 1.78               | .064     | 1.26       | 0.46                | .017                           | .026                    | .013                               | 8.66 |
| 324            | "          | 2.19               | .034     | 0.19       | 0.57                | .002                           | .019                    | Trace                              | 7.90 |
| 340            | "          | 2.75               | .032     | 0.11       | 0.54                | .002                           | .019                    | "                                  | 7.24 |
| 355            | "          | 0.61               | .016     | 0.10       | 0.22                | .002                           | .015                    | "                                  | 8.16 |
| 363            | "          | 1.29               | .028     | 0.11       | 0.35                | .003                           | .015                    | "                                  | 7.95 |
| 386            | "          | 2.69               | .048     | 0.17       | 0.61                | .011                           | .019                    | "                                  | 7.64 |
| 403            | "          | 1.33               | .029     | 0.12       | 0.52                | .002                           | .025                    | "                                  | 8.48 |
| 411            | Panyam     | 0.95               | .012     | 1.43       | 0.35                | .022                           | .010                    | .010                               | 8.48 |
| 419            | "          | 4.27               | .115     | 3.71       | 0.98                | .548                           | .035                    | .329                               | 8.63 |



## APPENDIX IV

Results of analysis of water samples (Results expressed in parts per 100,000) and depth of water table in feet in summer and rainy season

| Area                                  |     | Kottur—Ujjini |             |                                       |                                     |                                  |                                  | Rudravaram—Sirvel |                                |                 |                                               |
|---------------------------------------|-----|---------------|-------------|---------------------------------------|-------------------------------------|----------------------------------|----------------------------------|-------------------|--------------------------------|-----------------|-----------------------------------------------|
| Serial No.                            |     | 1             | 2           | 3                                     | 4                                   | 5                                | 6                                | 7                 | 8                              | 9               | 10                                            |
| Particulars                           |     | Maruru Vanka  | Kottur Tank | Step well Harkalahalu near pit No. 16 | Step well Kalapuram near pit No. 11 | Draw well Ujjini near pit No. 14 | Draw well Ujjini near pit No. 15 | Okkileru-vagu.    | Well in Ibrahim's Chini garden | Nagireddipalli. | Chintalabhavi Rudravaram well in Chini garden |
| Total solids at 405°C                 |     | 15.1          | 45.0        | 67.8                                  | 109.2                               | 153.4                            | 87.4                             | 24.8              | 24.6                           | 23.4            | 33.4                                          |
| Calculated salts:                     |     |               |             |                                       |                                     |                                  |                                  |                   |                                |                 |                                               |
| Calcium bicarbonate                   |     | 8.1           | 15.4        | 25.1                                  | 19.4                                | 33.2                             | 29.2                             | 16.2              | 17.0                           | 19.4            | 12.1                                          |
| Magnesium                             | ..  | 4.5           | 8.5         | 18.6                                  | 29.6                                | 38.7                             | 20.4                             | 7.2               | 2.2                            | 6.9             | 7.4                                           |
| Sodium                                | ..  | 3.2           | 2.9         | 19.6                                  | 31.5                                | ...                              | ...                              | 1.9               | ...                            | 0.5             | 15.8                                          |
| Calcium carbonate                     | ... | ...           | ...         | ...                                   | ...                                 | ...                              | ...                              | ...               | ...                            | ...             | ...                                           |
| Magnesium                             | ..  | ...           | ...         | ...                                   | ...                                 | ...                              | ...                              | ...               | ...                            | ...             | ...                                           |
| Sodium                                | ..  | ...           | ...         | ...                                   | ...                                 | ...                              | ...                              | ...               | ...                            | ...             | ...                                           |
| Calcium sulphate                      | ... | ...           | ...         | ...                                   | ...                                 | ...                              | ...                              | ...               | ...                            | ...             | ...                                           |
| Magnesium                             | ..  | ...           | ...         | ...                                   | ...                                 | 4.3                              | 3.2                              | ...               | ...                            | ...             | ...                                           |
| Sodium                                | ..  | 1.5           | 4.5         | 2.7                                   | 6.1                                 | 6.7                              | 4.3                              | 2.2               | 1.0                            | 1.1             | 1.8                                           |
| Calcium Chloride                      | ... | ...           | ...         | ...                                   | ...                                 | ...                              | ...                              | ...               | ...                            | ...             | ...                                           |
| Magnesium                             | ..  | ...           | ...         | ...                                   | ...                                 | ...                              | ...                              | ...               | ...                            | ...             | ...                                           |
| Sodium                                | ..  | 3.5           | 23.5        | 15.3                                  | 29.4                                | 92.8                             | 37.6                             | 7.0               | 4.7                            | 3.5             | 5.9                                           |
| Depth of water in summer              |     | ...           | ...         | 50                                    | 50                                  | 60                               | 55                               | ...               | 15                             | 15              | 15                                            |
| Depth of water table in rainy season. |     | ...           | ...         | 45                                    | 40                                  | 50                               | 50                               | ...               | ...                            | 7               | 7                                             |



## APPENDIX IV—Contd.

in parts per 100,000) and  
rainy season

| Rudravaram—Sirvel  |                                        |                      |                                       |
|--------------------|----------------------------------------|----------------------|---------------------------------------|
| 7.                 | 8.                                     | 9.                   | 10.                                   |
| Okkileru-<br>vagu. | Well in Ibra-<br>him's Chini<br>garden | Nagireddi-<br>palli. | Chintalabhavi                         |
|                    |                                        |                      | Rudravaram<br>well in<br>Chini garden |
| 24.8               | 24.6                                   | 23.4                 | 33.4                                  |
| 16.2               | 17.0                                   | 19.4                 | 12.1                                  |
| 7.2                | 2.2                                    | 6.9                  | 7.4                                   |
| 1.9                | ...                                    | 0.5                  | 15.8                                  |
| ...                | ...                                    | ...                  | ...                                   |
| ...                | ...                                    | ...                  | ...                                   |
| ...                | ...                                    | ...                  | ...                                   |
| ...                | ...                                    | ...                  | ...                                   |
| 2.2                | 1.0                                    | 1.1                  | 1.8                                   |
| ...                | ...                                    | ...                  | ...                                   |
| ...                | ...                                    | ...                  | ...                                   |
| 7.0                | 4.7                                    | 3.5                  | 5.9                                   |
| ...                | 15                                     | 15                   | 15                                    |
| ...                | ...                                    | 7                    | 7                                     |

| Area                                    | Rudravaram—Sirvel                                            |                                          |                                       |                             | Diguvameta               |                          |                                   |                           |                                           |                                                  |
|-----------------------------------------|--------------------------------------------------------------|------------------------------------------|---------------------------------------|-----------------------------|--------------------------|--------------------------|-----------------------------------|---------------------------|-------------------------------------------|--------------------------------------------------|
| Serial No.                              | 11                                                           | 12                                       | 13                                    | 14                          | 15                       | 16                       | 17                                | 18                        | 19                                        | 20                                               |
| Particulars                             | Rudravaram<br>well in Chini<br>Ramayya's<br>Mango<br>garden. | Well in Mango<br>tope near pit<br>No. 26 | Rudravaram<br>well in Reddy's<br>tope | Negireddipalli<br>Draw well | Kanchipalli<br>step well | Kanchipalli<br>step well | Giddalorepalli<br>Bhavi-step well | Giddalore<br>Virannabhavi | Krishnan<br>Satiy palli draw<br>step well | Krishnan setty<br>palli draw well<br>of choultry |
| Total solids at 105°C                   | 32.0                                                         | 48.4                                     | 51.6                                  | 12.4                        | 33.2                     | 37.6                     | 73.5                              | 74.8                      | 192.3                                     | 98.6                                             |
| Calculated salts :                      |                                                              |                                          |                                       |                             |                          |                          |                                   |                           |                                           |                                                  |
| Calcium Bicarbonate                     | 16.2                                                         | 25.1                                     | 6.5                                   | 9.7                         | 12.1                     | 7.3                      | 24.3                              | 25.9                      | 5.7                                       | 4.9                                              |
| Magnesium "                             | 14.8                                                         | 6.6                                      | 5.0                                   | 2.9                         | 15.1                     | 9.3                      | ...                               | 12.0                      | 10.9                                      | 7.9                                              |
| Sodium "                                | 6.5                                                          | ...                                      | 42.9                                  | ...                         | 2.0                      | 20.4                     | ...                               | ...                       | 104.2                                     | 64.9                                             |
| Calcium carbonate                       | ...                                                          | ...                                      | ...                                   | ...                         | ...                      | ...                      | 40                                | ...                       | ...                                       | ...                                              |
| Magnesium "                             | ...                                                          | ...                                      | ...                                   | ...                         | ...                      | ...                      | ...                               | 5.9                       | ...                                       | ...                                              |
| Sodium "                                | ...                                                          | ...                                      | ...                                   | ...                         | 6.4                      | 6.4                      | ...                               | ...                       | 42.4                                      | 24.3                                             |
| Calcium sulphate                        | ...                                                          | ...                                      | ...                                   | ...                         | ...                      | ...                      | 6.0                               | ...                       | ...                                       | ...                                              |
| Magnesium                               | ...                                                          | 3.7                                      | ...                                   | 1.1                         | ...                      | ...                      | ...                               | 3.0                       | ...                                       | ...                                              |
| Sodium "                                | 1.1                                                          | 3.5                                      | 0.6                                   | ...                         | ...                      | ...                      | ...                               | 0.7                       | 1.3                                       | 3.5                                              |
| Calcium Chloride                        | ...                                                          | ...                                      | ...                                   | ...                         | ...                      | ...                      | 1.2                               | ...                       | ...                                       | ...                                              |
| Magnesium "                             | ...                                                          | ...                                      | ...                                   | ...                         | ...                      | ...                      | 16.9                              | ...                       | ...                                       | ...                                              |
| Sodium "                                | 3.5                                                          | 21.2                                     | 14.1                                  | ...                         | 4.7                      | 5.3                      | 9.6                               | 21.1                      | 61.4                                      | 12.9                                             |
| Depth of water table<br>in summer (ft)  | 15                                                           | 20                                       | 15                                    | ...                         | 35                       | 40                       | 50                                | 60                        | 45                                        | 40                                               |
| Depth of water table<br>in rainy season | 6                                                            | 10                                       | 6                                     | ...                         | 25                       | 30                       | 45                                | 40                        | 30                                        | 35                                               |



## APPENDIX IV—Contd.

| Area                                    | Giddalore                              |                                       |                                |                                     |                            | Vontimitta                    |                            |                              |                                                    |                               |
|-----------------------------------------|----------------------------------------|---------------------------------------|--------------------------------|-------------------------------------|----------------------------|-------------------------------|----------------------------|------------------------------|----------------------------------------------------|-------------------------------|
| Serial No.                              | 21                                     | 22                                    | 23                             | 24                                  | 25                         | 26                            | 27                         | 28                           | 29                                                 | 30                            |
| Particulars                             | Modarupallimora<br>saguranna step well | Giddalore Mission<br>school draw well | Krishnam setty village<br>well | Giddalore taluk office<br>draw well | Giddalore river<br>Sagieru | Pachapalli near<br>Pit No. 51 | Salabad near<br>Pit No. 52 | Mangampet near<br>Pit No. 56 | Polubuchayya<br>galipalli Venka<br>near Pit No. 53 | Nadimpalli near<br>pit No. 54 |
| Total solids at 105°C                   | 46.8                                   | 71.2                                  | 120.6                          | 59.1                                | 20.7                       | 43.0                          | 40.0                       | 48.0                         | 19.0                                               | 42.0                          |
| Calculated salts :                      |                                        |                                       |                                |                                     |                            |                               |                            |                              |                                                    |                               |
| Calcium bicarbonate                     | 11.7                                   | 16.6                                  | 8.1                            | 29.1                                | 10.5                       | 23.5                          | 24.3                       | 31.6                         | 11.3                                               | 26.7                          |
| Magnesium ..                            | 11.4                                   | 24.5                                  | 25.5                           | 5.9                                 | 8.1                        | 22.3                          | 19.0                       | 21.2                         | 0.9                                                | 24.4                          |
| Sodium ..                               | ...                                    | ...                                   | 37.9                           | ...                                 | ...                        | ...                           | ...                        | ...                          | 0.7                                                | 24.4                          |
| Calcium Carbonate                       | ...                                    | ...                                   | ...                            | ...                                 | ...                        | ...                           | ...                        | ...                          | ...                                                | ...                           |
| Magnesium ..                            | 1.7                                    | 2.9                                   | ...                            | 4.2                                 | 1.3                        | ...                           | ...                        | ...                          | ...                                                | ...                           |
| Sodium ..                               | ...                                    | 4.8                                   | ...                            | 17.0                                | 0.4                        | ...                           | ...                        | ...                          | ...                                                | ...                           |
| Calcium sulphate                        | ...                                    | ...                                   | ...                            | ...                                 | ...                        | ...                           | ...                        | ...                          | ...                                                | ...                           |
| Magnesium ..                            | ...                                    | ...                                   | ...                            | 2.5                                 | ...                        | ...                           | 0.4                        | 2.5                          | ...                                                | 1.4                           |
| Sodium ..                               | ...                                    | 2.4                                   | 8.1                            | ...                                 | 0.9                        | 3.4                           | 3.1                        | ...                          | ...                                                | ...                           |
| Calcium Chloride                        | ...                                    | ...                                   | ...                            | ...                                 | ...                        | ...                           | ...                        | ...                          | ...                                                | ...                           |
| Magnesium ..                            | 2.2                                    | ...                                   | ...                            | 9.0                                 | ...                        | ...                           | ...                        | 1.3                          | ...                                                | 0.3                           |
| Sodium ..                               | 25.9                                   | 25.7                                  | 35.7                           | 7.7                                 | 4.1                        | 7.0                           | 5.9                        | 6.0                          | 2.9                                                | 4.3                           |
| Depth of water table<br>in summer       | 50                                     | 55                                    | 50                             | 55                                  | ...                        | 20                            | 30                         | 30                           | ...                                                | 15                            |
| Depth of water table<br>in rainy season | 40                                     | 40                                    | 35                             | 45                                  | ...                        | 15                            | 20                         | 20                           | 15                                                 | 3                             |

| Area | Serial No. | Particular      |
|------|------------|-----------------|
|      |            | Total solids at |
|      |            | Calculated sal  |
|      |            | Calcium Bicarb  |
|      |            | Magnesium       |
|      |            | Sodium          |
|      |            | Calcium Carb    |
|      |            | Magnesium       |
|      |            | Sodium          |
|      |            | Calcium Sulph   |
|      |            | Magnesium       |
|      |            | Sodium          |
|      |            | Calcium Chl     |
|      |            | Magnesium       |
|      |            | Sodium          |
|      |            | Depth of wa     |
|      |            | in sum          |
|      |            | Depth of wa     |
|      |            | in rainy        |



## APPENDIX IV—Contd.

| Area        |      | Vontimitta                              |                                                     |                                                       |                                                |                         |                 |                       | Kodur                           |                                    |                                           |                                          |      |
|-------------|------|-----------------------------------------|-----------------------------------------------------|-------------------------------------------------------|------------------------------------------------|-------------------------|-----------------|-----------------------|---------------------------------|------------------------------------|-------------------------------------------|------------------------------------------|------|
| Serial No.  |      | 31                                      | 32                                                  | 33                                                    | 34                                             | 35                      | 36              | 37                    | 38                              | 39                                 | 40                                        | 41                                       |      |
| Particulars |      | Cherlopalli near<br>pit No. 55          | Chelam Reddi's<br>natural garden<br>near pit No. 57 | Chellama Reddy's<br>made up garden<br>near pit No. 59 | Mantapampalli<br>waste land near<br>Pit No. 61 | Vontimitta out<br>skris | Vontimitta town | Vontimitta tank water | Mallapalli Kondayya's<br>garden | Rachapalli Obili<br>Reddy's garden | Balli Reddipalli Iswara<br>Reddy's garden | Satram Rapupalli<br>Sitaramayya's garden |      |
| 90          | 42.0 | Total solids at 105°C                   | 27.0                                                | 33.0                                                  | 44.0                                           | 22.0                    | 63.0            | 68.0                  | 11.0                            | 27.0                               | 50.0                                      | 60.0                                     | 38.0 |
|             |      | Calculated salts :                      |                                                     |                                                       |                                                |                         |                 |                       |                                 |                                    |                                           |                                          |      |
| 3           | 26.7 | Calcium Bicarbonate                     | 13.8                                                | 25.1                                                  | 21.1                                           | 15.4                    | 30.0            | 59.1                  | 5.7                             | 11.1                               | 28.3                                      | 34.8                                     | 19.4 |
| 9           | 24.4 | Magnesium ..                            | 12.2                                                | 13.9                                                  | 18.3                                           | 10.3                    | 0.7             | ...                   | 5.1                             | 17.1                               | 26.3                                      | 22.7                                     | 23.4 |
| 7           | 24.4 | Sodium ..                               | 7.0                                                 | ...                                                   | ...                                            | 2.5                     | ...             | ...                   | ...                             | 0.6                                | 0.6                                       | ...                                      | ...  |
|             | ...  | Calcium Carbonate                       | ...                                                 | ...                                                   | ...                                            | ...                     | ...             | ...                   | ...                             | ...                                | ...                                       | ...                                      | ...  |
|             | ...  | Magnesium ..                            | ...                                                 | ...                                                   | ...                                            | ...                     | ...             | ...                   | ...                             | ...                                | ...                                       | ...                                      | ...  |
|             | ...  | Sodium ..                               | ...                                                 | ...                                                   | ...                                            | ...                     | ...             | ...                   | ...                             | ...                                | ...                                       | ...                                      | ...  |
|             | ...  | Calcium Sulphate                        | ...                                                 | ...                                                   | ...                                            | ...                     | ...             | 93.1                  | ...                             | ...                                | ...                                       | ...                                      | ...  |
|             | 1.4  | Magnesium ..                            | ...                                                 | 1.8                                                   | 2.1                                            | ...                     | 6.3             | 25.0                  | ...                             | ...                                | 4.1                                       | 2.5                                      | 0.4  |
|             | ...  | Sodium ..                               | 1.0                                                 | ...                                                   | ...                                            | 0.7                     | ...             | ...                   | ...                             | 0.8                                | ...                                       | ...                                      | ...  |
|             | ...  | Calcium Chloride                        | ...                                                 | ...                                                   | ...                                            | ...                     | ...             | ...                   | ...                             | ...                                | ...                                       | ...                                      | ...  |
| 0.3         |      | Magnesium ..                            | ...                                                 | 0.3                                                   | 1.1                                            | ...                     | 7.6             | 61.0                  | 0.6                             | ...                                | 1.0                                       | 6.0                                      | 1.4  |
| 4.3         |      | Sodium ..                               | 4.1                                                 | 5.5                                                   | 6.2                                            | 2.9                     | 7.6             | 87.5                  | 0.7                             | 2.3                                | 9.9                                       | 10.8                                     | 3.6  |
| 15          |      | Depth of water table<br>in summer (ft)  | 15                                                  | 20                                                    | 20                                             | 15                      | 30              | 35                    | ...                             | 40                                 | 40                                        | 30                                       | 40   |
| 3           |      | Depth of water table<br>in rainy season | 3                                                   | 10                                                    | 10                                             | 4                       | 20              | 25                    | ...                             | 30                                 | 30                                        | 20                                       | 25   |



## APPENDIX IV—Contd.

| Area                                    | Kodur                                           |                                                                  |                                         |              |                                              |                             |                              |                                 |             |                  | Panyam |
|-----------------------------------------|-------------------------------------------------|------------------------------------------------------------------|-----------------------------------------|--------------|----------------------------------------------|-----------------------------|------------------------------|---------------------------------|-------------|------------------|--------|
| Serial No.                              | 42                                              | 43                                                               | 44                                      | 45           | 45                                           | 46                          | 47                           | 48                              | 49          | 50               | 51     |
| Particulars                             | Reddivaipalli Mannuri<br>Sitaranaya's<br>garden | Well of Rami Reddi<br>Kondayya & Co. of<br>Kichamma<br>Agraharam | Chiyavaram<br>Venkata<br>Reddi's garden | Tirupatiyeru | Anantarajupeta<br>Sivarami Reddi's<br>garden | Anantaraju petta<br>Anavama | Sattigunta Samba-<br>sivan's | Janakipuram<br>Lakamma's garden | Panyam tank | Panyam draw well |        |
| Total Solids at 105°C                   | 41.0                                            | 55.0                                                             | 26.0                                    | 10.0         | 29.0                                         | 49.0                        | 14.0                         | 20.0                            | 19.0        | 38.0             |        |
| Calculated salts:                       |                                                 |                                                                  |                                         |              |                                              |                             |                              |                                 |             |                  |        |
| Calcium Bicarbonate                     | 21.9                                            | 25.9                                                             | 19.4                                    | 4.9          | 21.1                                         | 20.2                        | 6.5                          | 13.8                            | 12.1        | 31.6             |        |
| Magnesium     ,,                        | 18.3                                            | 25.6                                                             | 9.9                                     | 2.9          | 14.3                                         | 30.5                        | 0.7                          | 3.7                             | 7.1         | 8.8              |        |
| Sodium           ,,                     | ...                                             | ...                                                              | ...                                     | ...          | ...                                          | 1.5                         | ...                          | ...                             | 5.3         | ...              |        |
| Calcium carbonate                       | ...                                             | ...                                                              | ...                                     | ...          | ...                                          | ...                         | ...                          | ...                             | ...         | ...              |        |
| Magnesium     ,,                        | ...                                             | ...                                                              | ...                                     | ...          | ...                                          | ...                         | ...                          | ...                             | ...         | ...              |        |
| Sodium           ,,                     | ...                                             | ...                                                              | ...                                     | ...          | ...                                          | ...                         | ...                          | ...                             | ...         | ...              |        |
| Calcium sulphate                        | ...                                             | ...                                                              | ...                                     | ...          | ...                                          | ...                         | ...                          | ...                             | ...         | ...              |        |
| Magnesium     ,,                        | 2.4                                             | 2.5                                                              | 0.3                                     | 1.3          | 1.0                                          | ...                         | 0.5                          | 0.3                             | ...         | ...              |        |
| Sodium           ,,                     | ...                                             | ...                                                              | ...                                     | ...          | ...                                          | 6.8                         | ...                          | ...                             | 0.6         | 3.5              |        |
| Calcium chloride                        | ...                                             | ...                                                              | ...                                     | ...          | ...                                          | ...                         | ...                          | ...                             | ...         | ...              |        |
| Magnesium     ,,                        | 1.3                                             | 3.9                                                              | 0.2                                     | 0.1          | ...                                          | ...                         | 0.8                          | 3.0                             | ...         | ...              |        |
| Sodium           ,,                     | 5.4                                             | 7.5                                                              | 3.2                                     | 1.7          | 4.1                                          | 13.7                        | 5.4                          | 1.6                             | 4.1         | 1.0              |        |
| Depth of water table<br>in summer (ft)  | 30                                              | 25                                                               | 25                                      | 30           | 25                                           | 25                          | 25                           | 25                              | ...         | 45               |        |
| Depth of water table<br>in rainy season | 15                                              | 15                                                               | 15                                      | 15           | 10                                           | 10                          | 10                           | 10                              | 0           | 35               |        |



Selected Article

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