|              |             |    |                |     |  |          |            |                |   |                                  |                              |                            |          |                        | L                   | HEE                            |                 |              | OF           | 1   |    |
|--------------|-------------|----|----------------|-----|--|----------|------------|----------------|---|----------------------------------|------------------------------|----------------------------|----------|------------------------|---------------------|--------------------------------|-----------------|--------------|--------------|-----|----|
|              |             |    |                |     | AL BOREHOLE LOG  | -        | -          | the local dive | CONTRACTOR OF THE PARTY OF THE | OF                               | TES                          | ST                         | -        |                        |                     |                                | the system is a | IRV          | -            | 27  |    |
| IEC'         | TI          | Pa | sig            | -Ma | arikina River Channel Imp. I   | ro       | oj.        | (              | GROUND ELEV.<br>MLLW = Zero Data  |                                  |                              | 3                          |          |                        |                     |                                |                 |              |              | 001 | m  |
|              |             | R  | Si             | de  | Offshore, Sto. Niño, Marikin   | na       |            |                | STATION NO.:  |                                  | 515                          |                            | 1        |                        |                     | URED                           |                 |              |              |     | -  |
| 101          |             | 27 | D/             | TE  | DRILLED: 16 - 17 January 2   | 200      | 1          |                | OORDINATES:   |                                  | 1998                         | 1.50                       | L        |                        | ,                   |                                | 0947            |              |              |     | E  |
| -            |             | T  | B              | T   |  | 1 0      | LOW        |                |   |                                  | ST.                          | . 8                        | ATTER    |                        |                     | UNCON<br>COMP.                 |                 |              | E AN         |     |    |
| RECOVERY (%) | I OG SYMBOL |    | CLAUSIFICATION | ROD | DESCRIPTION  | 15<br>cm |            |                | STANDARI<br>PENETRATION<br>(SPT)<br>(N-VALUE<br>10 20 30 4  | TEST                             | NATURAL MOIST.<br>CONTENT, % | TOTAL UNIT<br>WEIGHT, g/cc | LIMIT, % | PLASTICITY<br>INDEX, % | SPECIFIC<br>GRAVITY | STRENGTH<br>kg/cm <sup>2</sup> | STRAIN<br>Z. %  | 4            | 10           | 40  | 2  |
| 1 100        | X           |    | ic i           |     | Sandy Clayey GRAVEL; grayish<br>brown; 61% angular to sub-angular<br>gravel; 13% sand and 26% high<br>plasticity clay; MEDIUM DENSE. | 5        | 6          | 8              |   |                                  | 30                           |                            | 55       | 30                     | 2.65                |                                |                 | 39           | 38           | 34  | -  |
| 2 89         | É           | 1  | -              |     | Sandy Silty CLAY; grayish brown;<br>6% sub-angular to sub-rounded  | 6        |            |                |   |                                  |                              |                            |          |                        |                     |                                |                 | -            | 87           | 77  |    |
| 3 100        | X           |    |                |     | gravel; 34% fine to coarse sand;<br>60% high plasticity clay; VERY<br>STIFF.   |          | 8 18       |                |   |                                  | 28                           |                            | 63       | 36                     | 2.61                |                                |                 | 94           | 01           | 11  |    |
| 4 89         | ×.          |    |                |     |  |          | 7          |                |   |                                  |                              |                            |          |                        |                     |                                |                 |              |              |     |    |
| 5 89<br>6 89 |             | 1  | сн             |     | Gravelly Sandy CLAY; grayish<br>brown; 18-29% sub-rounded to<br>angular gravel; 26-35% coarse to                                     | 6        | 8          | 8              |   |                                  | 37                           |                            | 74       | 46                     | 2.63                | <u> </u>                       |                 | 71           | 62           | 52  |    |
| .7 89        | X           | 1  |                |     | fine sand; 45-47% high plasticity clay; VERY STIFF.  | 7        | 8          | 7              |   |                                  | 38                           |                            | 75       | 48                     | 2.63                | 3                              |                 | 82           | 68           | 57  |    |
| -8 89        |             | 1  |                |     |  | 6        | 9          | 10             | o   |                                  |                              | -                          |          |                        |                     |                                |                 |              |              |     | -  |
| -9 89        | A           | 1  |                |     | Sandy Silty CLAY; grayish brown;<br>11% fine sand; 4% gravel; 80% high<br>plasticity clay; VERY STIFF.                               |          | 3 11       | 1;             | 3   |                                  | 36                           | -                          | 75       | 50                     | 2.6                 | 1                              |                 | 96           | 94           | 91  |    |
| -10 89       | X           | 1  |                |     | Gravelly Silty SAND; yellowish   |          | 3 12<br>50 | 2              | 3   |                                  | -                            |                            | -        |                        |                     | -                              |                 | 80           |              | 52  | -  |
| -11 83       | X           |    | SM             |     | brown to brown; 9-20% gravel; 44-<br>62% coarse to fine sand; 29-36%<br>non-plastic silt; VERY DENSE.                                |          | 10 1<br>50 | 2              |   |                                  | 48                           |                            |          |                        | 2.6                 |                                |                 | 91           | 75           |     |    |
| R-1 42       | 2           |    |                | 12  |  |          | COF        |                | G   |                                  |                              |                            |          |                        |                     | 42.38                          | 1.618           | 3            |              |     | _  |
| R-2 50       | 0           |    | ST             | 15  | Tuffaceous SANDSTONE; light<br>gray; contains gravel-sized<br>pumice clasts; moderately wea-<br>thered; broken; Moderately SOFT.     |          | COF        | RING           | G   |                                  |                              |                            | -        | -                      |                     | 57.7                           | 16 2.064        | 4            |              |     |    |
| R-3 4        | 7           |    |                | 14  |  | _        | COF        | 2 NIN          | G   |                                  | -                            |                            | _        | -                      | _                   | 23.2                           | 9 1.67          | 0            |              | -   | -  |
| S-13 8       | 9           |    | SM             |     | Silty SAND; brownish gray; nor<br>plastic silt; 10% medium sand;<br>65% fine sand; DENSE.  |          | 15 1       | 8 1            | 18  |                                  | 58                           | 3                          |          | -                      | 2.6                 | 33                             |                 | -            | 100          | 9(  | 2  |
|              | 9           |    |                | -   | Tuffaceous SANDSTONE; ligh   |          | 13 1       | 5 1            | 18  |                                  | -                            |                            |          | +                      |                     |                                | -               | +            |              |     | -  |
|              | 26          |    | ST             |     | gray; contains gravel-sized<br>pumice clasts; moderately wea-<br>thered; broken; SOFT.   | -        |            |                |   |                                  | -                            |                            | -        | -                      |                     |                                | -               | +            | -            | -   |    |
| S-15 8       | 39          |    | SM             | 0   | Silty SAND; brownish gray; 18% coarse<br>sand; 35% medium fine sand; 28% fine<br>sand; 18% non-plastic silt; DENSE.                  | 9        | COI        |                | End of Borehold   | (20.00 m                         | <sup>1)</sup> 5              | 4                          |          |                        | 2.                  | 63                             |                 | 95           | 9 81         | 4   | 6  |
|              |             | 20 | d F            | AGI | TECHNOLOGY AND<br>EMENT CORPORATION<br>Prudential Bank Building, DF  | RIL      |            | R:             | J. M<br>I. LU<br>M.   | (ER A<br>ADERA<br>ENGAS<br>ESTAU | RA.                          | _                          | LEG      | SEND                   | :                   | WS -<br>UDS -<br>CR - 0        | WASH<br>UNDI    | SAMP<br>STUR | PLE<br>BED S | AMP | ۶L |

| TION:   | Pasi<br>R. S   | ig-M<br>Side | IAL BOREHOLE LOG<br>arikina River Channel Imp<br>Offshore, Malanday, Mari<br>DRILLED: <u>18 - 19 Januar</u>  | , Pr                   | roj<br>a  | -            | GRO<br>(ML<br>ST/   | DUND | ELE<br>Zero I<br>NO.<br>ER:             | V.<br>Datu<br>.:          | ım)<br>15<br>F | + 11   | 00<br>R | 5           | DE<br>DA<br>TIN | PTH<br>TE I | OF V<br>MEAS | VATE<br>SURE<br>UREI | R:<br>D: _1              | 1<br>8 Ja<br>8:0 | in. 20<br>10 Al       | 001   | m.  |
|---|----------------|--------------|--|------------------------|-----------|--------------|---------------------|------|---|---------------------------|----------------|--------|---------|-------------|-----------------|-------------|--------------|----------------------|--------------------------|------------------|-----------------------|-------|-----|
| VERY (%)                                      | CLASSIFICATION | RaD          | DESCRIPTION  | 11                     | (SI       |              | 5                   | PEN  | STANE<br>ETRAT<br>(SP<br>(N-VA<br>20 30 | DARE<br>ION<br>T)<br>LUE) | )<br>TEST      | T      |         | 41T<br>g/cc |                 | BERG        | 0>           | UNCO                 | VFINED<br>TEST<br>NIVALS | SIE              | VE AN<br>ASSIN<br>10  | g sie | SIS |
| 55-1 89<br>55-2 89<br>55-3 89<br>55-4 78      |                |              | <b>Sandy CLAY</b> ; grayish brown; 34<br>40% fine sand; 59-65% low t<br>medium plasticity clay; STIFF.   | t- 4                   | 2         |              | 6                   |      |   |                           |                |        | 37      |             | 48              |             | 2.61         |                      |                          |                  | 100                   |       |     |
| SS-5 100<br>SS-6 89<br>SS-7 93<br>SS-8 89     | CL             |              | Sandy CLAY; brown; 31% fin<br>sand; 68% medium plasticity cla<br>VERY STIFF.   | 1e<br>y;               | 7         | 5<br>13<br>9 | 11                  |      |   |                           |                | -      | 41      |             | 47              | 21          | 2.61         |                      |                          |                  | 100                   | 99    | e   |
| SS-9 89<br>SS-10 78                           |                |              | Sandy CLAY; brown; 23% mediu<br>to fine sand; 69% medium plastici<br>clay; VERY STIFF to HARD.   | ity  -1                |           | <u>13</u>    |                     |      |   |                           |                |        | 36      |             | 45              | 22          | 2.61         |                      |                          | 96               | 92                    | 80    |     |
| SS-11 93<br>SS-12 89<br>SS-13 100<br>SS-14 71 | , , SN         | n            | Silty SAND; brown; 42% mediu<br>sand; 39% fine sand; 15% no<br>plastic silt; DENSE to VER<br>DENSE.  | m<br>n-<br>₹Υ          | <u>15</u> | 29           | 27<br>21<br>5<br>23 |      |   |                           |                |        |         |             |                 |             | 2.63         | 3                    |                          | 99               | 96                    | 54    |     |
| SS-15 82<br>SS-16 86<br>SS-17 91              |                |              | Silty SAND; gray; 5% gravel; 33<br>medium sand; 33% fine sand w<br>only 5% coarse sand; 24% no<br>plastic silt; DENSE to VEF<br>DENSE.<br>End of Borehole<br>(16.88 m) | 9%<br>ith<br>on-<br>RY | 14<br>22  | 16<br>25     | 26<br>25<br>5       |      |   |                           |                |        | 28      |             |                 |             | 2.6          | 3                    |                          | 95               | 90                    | 57    |     |
|   | MAN            | IAGE         | MENT COPPOPATION   | MAC                    |           |              |                     |      | J.<br>I.                                | MA                        | ER A           | A<br>S |         | _           |                 | END:        |              | ws - N               | NASH                     | SAMF             | N SAM<br>PLE<br>BED S |       |     |

| R        | OJ     | EC           | T: 1     |                |      | AL BOREHOLE LOG  | -        | 1        | T            | GROUND ELEV.                     |      | 27                          |                    | 1     |                    |                     | NATE                           | R:             |      | <b>R</b> - |      |    |
|----------|--------|--------------|----------|----------------|------|--|----------|----------|--------------|----------------------------------|------|-----------------------------|--------------------|-------|--------------------|---------------------|--------------------------------|----------------|------|------------|------|----|
|          | CAT    |              |          |                |      |  |          | <u>.</u> |              | MLLW = Zero Datu<br>STATION NO.: |      |                             | 10                 | DA    | TE I               | MEAS                | SURE                           | D:(            | 05 C | ec.        | 200  | )0 |
|          |        |              |          |                |      | t Bank, Roxas Bridge, Manila   |          | -        | -            | NEATHER:                         | FAI  |                             |                    | -     | MEN                | MEAS                | URE                            |                |      | 00 /       | M    | _  |
| 31       | NO:    | -            | Τ.       | -              |      | DRILLED: <u>27 Nov 02 Dec.</u>   | -        | LOV      | -            | OORDINATES:                      | 161  | 433                         | 8.54               | ATTER | N                  |                     |                                | 963            |      | 13<br>VE A |      | -  |
| 8        | NO     | ۲۲ (%        | SYMBOL   | CATIC          |      |  |          | (SP      |              | STANDARD                         |      | AOIST.                      | NIT<br>g/cc        |       |                    |                     | COMP.                          |                |      | ASSIN      |      |    |
| DEPIH, m | SAMPLE | RECOVERY (%) | LOG SYI  | CLASSIFICATION | RQD  | DESCRIPTION  | 15<br>cm | 15<br>cm |              | PENETRATION<br>(SPT)             |      | NATURAL MOIST<br>CONTENT, % | TOTAL U<br>NEIGHT, |       | ASTICITY<br>DEX, % | SPECIFIC<br>GRAVITY | STRENGTH<br>kg/cm <sup>2</sup> | STRAIN<br>Z. % | 4    | 10         | 40   |    |
|          | Ś      | RE           | 19       | C              |      |  |          |          |              | (N-VALUE)<br>10 20 30 4          |      | Ż                           |                    | Ē     | 5<br>Z             |                     | STI                            | ωM             |      |            |      |    |
| • 1      | SS-1   | 100          |          | SM             |      | Silty SAND; brown; 60% fine to<br>medium sand with 9% coarse sand<br>and 9% gravel; 20% non-plastic  | 9        | 16       | 20           |                                  |      | 22                          |                    |       |                    | 2.63                |                                |                | 91   | 82         | 56   |    |
| 2        | SS-2   | 44           |          |                |      | silt; DENSE.   | 8        | 20       | 20           |                                  |      |                             |                    |       |                    |                     |                                |                |      |            |      |    |
| 3        | SS-3   | 78           |          | sw             |      | Gravelity SAND; dark gray; coarse to medium<br>sand with sub-angular gravel and small amount<br>of line sand and non-plastic silt; MED. DENSE. | 13       | 13       | 8            |                                  |      |                             |                    |       |                    |                     |                                |                |      |            |      |    |
|          |        |              |          |                |      | Silty SAND; dark gray; 52% fine  |          |          |              |                                  |      |                             |                    |       |                    |                     |                                |                |      |            |      |    |
| 4        | SS-4   | 44           | X        | SM             |      | to medium sand with 11% coarse<br>sand and 10% gravel; 30% non-<br>plastic fines; MEDIUM DENSE.  | 8        | 27       | 8            |                                  |      | 48                          |                    |       |                    | 2.63                |                                |                | 93   | 82         | 59   | 1  |
| 5        | SS-5   | 56           |          |                |      |  | 2        | 5        | 5            |                                  |      |                             |                    |       |                    |                     |                                |                |      |            |      | -  |
| 6        | SS-6   | 100          |          |                |      |  | 2        | 1        | 1            |                                  |      |                             |                    |       |                    |                     | Cc                             | Pc             |      |            |      |    |
| 7        | UDS-1  | 100          |          |                |      |  | PF       | ES       | ED           |                                  |      | 46                          | 1.54               | 73    | 49                 | 2.60                | 0.465<br>0.62                  | 1.450          | 100  | 99         | 99   |    |
|          | SS-7   | 100          |          | 1              |      |  |          | 1        | 1            |                                  |      | 75                          |                    |       |                    |                     |                                |                |      |            |      |    |
| 8        | 00-7   | 100          | V        |                |      |  | ľ        |          |              |                                  |      | 75                          |                    | 14    | 45                 | 2.60                |                                |                |      | 100        | .99  |    |
| 9        | SS-8   | 100          | K        |                |      |  | 1        | 1        | 1            |                                  |      |                             |                    |       |                    |                     | Cc                             | Pc<br>1.600    |      |            |      |    |
| 10       | UDS-2  | 100          | X        | 1              |      |  | PF       | ES       | ED           |                                  |      | 65                          | 1.51               | 74    | 53                 | 2.60                | 1.312.522.000                  | 1.000          |      |            | 100  | 1  |
| 11       | SS-9   | 100          |          |                |      |  | 1        | 2        | 1            |                                  |      |                             |                    |       |                    |                     |                                |                |      |            |      |    |
|          | SS-10  | 100          |          | сн             |      | Silty CLAY; dark gray; 90-98% very high plasticity clay; contains  | 1        | 1        | 1            |                                  |      | 74                          |                    | 72    | 57                 | 2.60                |                                |                | 97   | 96         | 92   |    |
| 13       | UDS-3  | 100          |          |                |      | some shell fragments; VERY SOFT to SOFT.   | PF       | ES       | ED           |                                  |      | 79                          | 1 49               | 80    | 54                 | 2 60                | Cc<br>0.650<br>0.1113          | Pc<br>0.550    | 07   | 94         | 02   |    |
|          |        |              | V        |                |      |  |          |          |              |                                  |      | 10                          | 1.49               | 00    | <u></u>            | 2.00                |                                | 1.920          |      | 34         | - 54 | -  |
| 14       | SS-11  |              |          |                |      |  |          | 0        | 1            |                                  |      |                             |                    |       |                    |                     |                                |                |      |            |      |    |
| 15       | SS-12  | 100          |          | 1              |      | A.   | 1        | 0        | 1            |                                  |      |                             |                    |       |                    |                     |                                |                |      |            |      |    |
| 16       | SS-13  | 100          | X        |                |      |  | 1        | 2        | 1            |                                  |      | 90                          |                    | 77    | 53                 | 2.60                |                                |                | 98   | 94         | 92   |    |
| 17       | SS-14  | 100          |          |                |      |  | 3        | 2        | 2            |                                  |      |                             |                    |       |                    |                     |                                |                |      |            |      | -  |
|          | SS-15  | 100          |          |                |      |  | 7        | 2        | 2            |                                  |      |                             |                    |       |                    |                     |                                |                |      |            |      |    |
|          | SS-16  |              |          |                |      |  | 2        | 2        | 1            |                                  |      | 97                          |                    | 79    | 56                 | 2.60                |                                |                | 100  | 99         | 98   |    |
|          | SS-17  |              | X : · :  |                |      | Poorly Graded SAND; dark gray; 71% fine<br>sand; 19% non-plastic fines; 9% medium<br>sand; DENSE to VERY DENSE.                                | Τ        |          | 15           |                                  |      |                             |                    |       |                    |                     |                                |                |      | 55         |      |    |
| F        |        | -            | B        | ASI            | СТ   |  | CH       |          | -            |                                  | ACE  | I                           | T                  | EGE   | ND:                | l                   | I                              | L              |      |            |      |    |
| ſ        | -      |              | M.<br>2n | ANA<br>d F     | GE   | Prudential Bank Building,  | ILL      | EF       | <b>t</b> : . | R. DA                            |      |                             | _                  |       | X                  | v                   | S - SPI<br>/S - W/<br>DS - U   | ASH S          | AMPL | E          |      |    |
| -        |        |              | 13       | 77 A           | A. M | abini St., Ermita, Manila SU   | PEI      | RV       | IS           | OR: M. EST                       | AURA |                             |                    | Ш     |                    |                     | R - CC                         |                |      |            | 212  |    |

SHEET 2 OF 2

|          |              |            |             |                | FIN              | IAL BOREHOLE LOC   | G              | 11 | ١D  | ) {      | SUMN   | <b>IAR</b>      | <b>r</b> 0 | )F          | TE                           | ST    | R      | ES    |                     | TS                             |                  | 2<br>B | он<br><b>R</b> - |             |  |
|----------|--------------|------------|-------------|----------------|------------------|--|----------------|----|-----|----------|--------|-----------------|------------|-------------|------------------------------|-------|--------|-------|---------------------|--------------------------------|------------------|--------|------------------|-------------|--|
| PR       | OJ           | EC.        | T: F        | asi            | - and the second | arikina River Channel Im   | and the second | -  |     | 0        | ROUND  | ELEV.           |            |             |                              |       | T      |       | -                   |                                | R:               | -      | .00              |             | . m.   |
|          |              | ION        |             |                |                  | t Bank, Roxas Bridge, Man  |                |    | £   | 1 .      | TATION |                 |            | 0 + 7       |                              |       | 1      |       |                     |                                | D:(              | 00000  |                  |             | 0  |
| BH       |              |            |             |                |                  | DRILLED: 27 Nov 02 De  |                | 00 | 0   | -        | VEATHE |                 |            | FAII<br>161 |                              | 9 5   | 1      |       |                     |                                | 963 <sup>.</sup> |        |                  | AM          | -  |
| T        |              | (%)        | T           | _              |                  | 27.1101. 02.00   |                | BL | LOW | vs       |        | AIES            |            | 101         |                              |       | ATTER  | RBERG | I,                  | UNCO                           | FINED            | SIE    | VE AM            |             |  |
| E        | SAMPLE NO    | RY (       | SYMBOL      | CLASSIFICATION |                  |  |                | (  | SPT |          |        | STANDA          |            | т           | NATURAL MOIST.<br>CONTENT, % | g/cc  | LIM    | ITS   | SPECIFIC<br>GRAVITY | COMP                           | TEST             | % P    | ASSIN            | IG SIE      | EVE  |
| DEPTH, m | MPL          | RECOVERY ( | S S         | SSIF           | RaD              | DESCRIPTION  |                |    |     | 15<br>cm |        | (SPT)           |            |             | TURAL                        | FIGHT | DINC % | XICIT | SPECI               | STRENGTH<br>kg/cm <sup>2</sup> | STRAIN           | 4      | 10               | 40          | 200  |
|          | SP           | REC        | DO<br>LOG   | CLA            |                  |  |                |    |     |          | 10 2   | (N-VALU<br>0 30 |            | 50          | NO                           | . 2   | LLE    | PLAS  |                     | STR                            | M ST             |        |                  |             |  |
|          |              |            | <b>≬∷</b> : |                |                  |  |                |    |     | Π        |        |                 |            |             |                              |       |        |       |                     |                                |                  |        |                  |             |  |
| - 21     | S-18         | 67         | X           |                |                  | Poorty Graded SAND; dark gra<br>71% fine sand; 19% non-plast     | ay;            | 8  | 20  | 25       |        |                 | /          |             |                              |       |        | -     |                     |                                |                  |        |                  |             | -  |
| - 22     | SS-19        | 44         | <b>`</b> ∷  | SP             |                  | fines; 9% medium sand; DENS<br>to VERY DENSE.                    | E              | 6  | 13  | 26       |        |                 | Y          |             | 54                           |       |        |       | 2.63                |                                |                  | 100    | 99               | 90          | 19   |
| -        |              |            | 1::         | J              |                  | OVERT DENSE.   |                |    |     |          |        |                 | N          |             |                              |       |        |       |                     |                                |                  |        |                  |             |  |
| - 23     | S-20         | 44         |             |                |                  | Gravelly SAND; dark gray; sul                                    | ib-            | 20 | 22  | 32       |        |                 |            | 1           | -                            |       |        |       |                     |                                |                  |        |                  |             | -  |
| -        | SS-21        | 100        |             |                |                  | angular gravel with coarse sand ar shell fragments; VERY DENSE.  | nd             | 42 | 32  | 18       |        |                 |            |             |                              |       |        |       |                     |                                |                  |        |                  |             |  |
| - 24     |              |            |             |                |                  | 2  |                |    |     |          |        |                 |            |             |                              |       |        |       |                     |                                |                  |        |                  |             |  |
| - 25     | 55-22        | 44         |             | 1              |                  |  |                | 16 | 24  | 30       |        |                 |            |             | 56                           |       | 63     | 42    | 2.60                |                                |                  | 98     | 97               | 95          | 89   |
| -26      | \$5.23       | 44         | Y           |                |                  | Silty CLAY; creamy brown; 7<br>90% medium to high plasticity cla |                | 9  | 25  | 27       |        |                 |            |             |                              |       |        |       |                     |                                |                  |        |                  |             |  |
| -20      | 10-20        |            |             | СН             |                  | 6-14% fine sand; presence of peasize gravel; VERY DENSE.         | a-             | Ĭ  |     |          |        |                 |            |             |                              |       |        |       |                     |                                |                  |        |                  |             |  |
| -27      | SS-24        | 33         |             | ]              |                  |  |                | 20 | 26  | 30       |        |                 |            |             | -                            |       |        |       |                     |                                |                  |        |                  |             | -  |
| -        | 0.05         | 44         |             |                |                  |  |                |    | ~   | 07       |        |                 |            |             |                              |       |        |       |                     |                                |                  |        |                  |             |  |
| -28      | 55-25        | 44         |             |                |                  |  |                | 18 | 24  | 3/       |        |                 |            |             | 47                           |       | 53     | 28    | 2.61                |                                |                  | 94     | 92               | 90          | 76   |
| -29      | SS-26        | 56         |             | SM             |                  | Silty SAND; light brown; 82% fir to coarse sand; 16% silty fine  |                | 23 | 25  | 27       |        |                 |            |             |                              |       |        |       |                     |                                |                  |        |                  |             |  |
|          |              |            |             |                |                  | traces of gravel; VERY DENSE                                     | E.             |    |     |          |        |                 |            |             |                              |       |        |       |                     |                                |                  |        |                  |             |  |
| -30      | <u>SS-27</u> | 44         | +1+         |                |                  | END OF BOREHOLE  | -              | 28 | 30  | 25       |        |                 | +          | -           | 28                           |       |        |       | 2.63                |                                |                  | 98     | 81               | 35          | 16   |
| - 31     |              |            |             |                |                  | (30.00 m)  |                |    |     |          |        |                 |            |             |                              |       |        |       |                     |                                |                  |        |                  |             |  |
| -        |              |            |             |                |                  |  |                |    |     |          |        |                 |            |             |                              |       |        |       |                     |                                |                  |        |                  |             |  |
| -32      |              |            |             |                |                  |  |                |    |     |          |        |                 |            |             |                              |       |        |       |                     |                                | -                |        |                  |             |  |
| -33      |              |            |             |                |                  |  |                |    |     |          |        |                 |            |             |                              |       |        |       |                     |                                |                  |        |                  |             |  |
| -        |              |            |             |                |                  |  |                |    |     |          |        |                 |            |             |                              |       |        |       |                     |                                |                  |        |                  |             |  |
| -34      |              |            |             |                |                  |  |                |    |     |          |        |                 |            |             |                              |       |        |       |                     |                                |                  |        |                  |             |  |
| 35       |              |            |             |                |                  |  |                |    |     |          |        |                 |            |             |                              |       |        |       |                     |                                |                  |        |                  |             |  |
| -        |              |            |             |                |                  |  |                |    |     |          |        |                 |            |             |                              |       |        |       |                     |                                |                  |        |                  |             |  |
| -36      |              |            |             |                |                  |  |                |    |     |          |        |                 |            |             |                              |       |        |       |                     |                                |                  |        |                  |             |  |
| -37      |              |            |             |                |                  |  |                |    |     |          |        |                 |            |             |                              |       |        |       |                     |                                |                  |        |                  |             |  |
| -        |              |            |             |                |                  |  |                |    |     |          |        |                 |            |             |                              |       |        |       |                     |                                |                  |        |                  |             |  |
| -38      |              |            |             |                |                  |  |                |    |     |          |        |                 |            |             |                              |       |        |       |                     |                                |                  |        |                  |             |  |
| -39      |              |            |             |                |                  |  |                |    |     |          |        |                 |            |             |                              |       |        |       |                     |                                |                  |        |                  |             |  |
| -        |              |            |             |                |                  |  |                |    |     |          |        |                 |            |             |                              |       |        |       |                     |                                |                  |        |                  |             |  |
| 40       |              |            | B           | ASI            | СТ               |  |                | H  |     | L.<br>F· |        | ACKE            |            |             | I                            | T     | LEGE   | ND:   | 1                   |                                | L                | L      |                  | L           | L  |
| F        | 71           |            | M           | AN/            | AGE              | MENT CORPORATION   |                |    |     |          |        | R. D            |            |             |                              | -     |        | ×     | v                   | /\$ - W                        | LIT SP<br>ASH S  |        | E                |             |  |
| 1_       |              | ĹΪ         | 2n<br>13    | a F<br>77 /    | ioor<br>A. M     | Frudential bank building,  |                |    |     |          | DR:    |                 |            |             |                              |       |        |       | C                   | R-CO                           | DRE SA           | MPL    | E                |             | Ξ  |
|          |              |            |             |                |                  | Figure 5-3-3 (199/22   |                |    |     |          |        |                 |            |             | EI)                          |       |        |       | V                   | // ATC                         | ROME             | TER    |                  | rsis<br>5-: | <u>,</u> ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,, |

| SHEET | 4 | OF | 2 |
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| PR       | OJ         | EC           | T: _   | Pasi           | ig-N | larikina River Channel   | Imp.   | Pro  | j.   | G<br>(N | ROUND ELEV.<br>ILLW = Zero Da   | tum)+  | 12.5                         | 50                         |        |                   |                     | NATE                           |             |       | 0.50          | _ |
|----------|------------|--------------|--------|----------------|------|--|--------|------|------|---------|---------------------------------|--|------------------------------|----------------------------|--------|-------------------|---------------------|--------------------------------|-------------|-------|---------------|---|
| LO       | CAT        | ION          | :      | R              | ight | Bank, Quezon Bridge, I   | Manila | a    |      |         | TATION NO.:                     |  | 475                          |                            | 1      |                   |                     |                                | D: _0       |       | ec. :<br>00 A |   |
| BH       | NO:        | в            | R-2    | C              | ATI  | E DRILLED: _28 Nov 01  | Dec. 2 | 2000 |      |         | EATHER:                         | and the second second  | IR<br>1421                   | 7 9                        | 1      |                   | NEAS                |                                | 9798        |       |               |   |
|          |            |              |        |                |      |  |        | BL   | .ows | s       | ORDINATED.                      |  | 1                            |                            | ATTER  | RBERG             | <u> </u>            | UNCON                          | NFINED      | SIE   | EVE A         |   |
| DEPTH, m | SAMPLE NO. | RECOVERY (%) | SYMBOL | CLASSIFICATION | RQD  | DESCRIPTION  | 1      | T    | SPT) | 15      | STANDAR<br>PENETRATION<br>(SPT) | the second s | NATURAL MOIST.<br>CONTENT, % | TOTAL UNIT<br>WEIGHT, g/cc |        | its<br>≿≉         | SPECIFIC<br>GRAVITY | -                              | Z           | % P   | ASSI          | 2 |
| DEP      | SAMF       | RECO         | FOG S  | CLASS          |      |  |        |      |      | cm      | (N-VALUI<br>10 20 30            |  | NATUR                        | TOT                        | LIMIT, | PLASTIC<br>INDEX, | R R                 | STRENGTH<br>kg/cm <sup>2</sup> | STRAI       | 4     | 10            |   |
| - 1      | SS-1       | 56           |        |                |      | Gravelly SAND; brownish 67% fine to coarse sand;   | 22%    | 3    | 2    | 2       |                                 |  | 43                           |                            |        |                   | 2.63                |                                |             | 78    | 61            |   |
| - 2      | SS-2       | 67           | X      | SW<br>SM       |      | sub-angular gravel; 11% sl<br>plastic fines; higher N-Value<br>depth (could be due to g    | at 2m  | 3    | 13   | 16      |                                 |  |                              |                            |        |                   |                     |                                |             |       |               |   |
| -3       | SS-3       | 56           | X      |                |      | concentration); LOOS<br>DENSE.   |        | 3    | 3    | 1       |                                 |  |                              |                            |        |                   |                     |                                |             |       |               |   |
| - 3      |            | 89           |        |                |      |  |        | 1    | 0    | 1       |                                 |  | 61                           |                            |        |                   | 2.62                |                                |             | 80    | 80            |   |
| - 4      | SS-4       |              |        | sc             | -    | Clayey SAND; dark gray;<br>clay mixtures with 11% sub-ar                                   |        |      |      |         |                                 |  |                              |                            |        |                   | 2.02                |                                |             | 89    | 00            |   |
| - 5      | SS-5       | 44           |        |                |      | gravle; VERY LOOSE.  |        |      |      | 1       |                                 |  |                              |                            |        |                   |                     |                                |             |       |               |   |
| - 6      | SS-6       | 67           | X      |                |      | Silty SAND; dark gray; 70%   | % fine |      | 1    |         |                                 |  |                              |                            |        |                   |                     |                                |             |       |               |   |
| -7<br>-  | SS-7       | 78           | X      | SM             |      | to medium sand with some c<br>sand and gravel and 199<br>MEDIUM DENSE.                     | oarse  | 8    | 9    | 10      |                                 |  | 29                           |                            |        |                   | 2.63                |                                |             | 97    | 89            |   |
| - 8      | SS-8       | 67           |        |                |      |  |        | 6    | 10   | 14      |                                 |  | -                            |                            |        |                   |                     |                                |             |       |               |   |
| - 9      | SS-9       | 44           |        |                |      | Silty CLAY; dark gray; 80<br>very high plasticity clay an                                  | d 10-  | 1    | 1    | 0       |                                 |  |                              |                            |        |                   |                     |                                |             |       | -             |   |
| - 10     | SS-10      | 67           |        | СН             |      | 19% fine to coarse sand;<br>SOFT.  | /ERY   | 1    | 0    | 0       |                                 |  | 63                           |                            | 74     | 40                | 2.61                | Cc                             | Pc<br>1.950 | 16.53 | 91            |   |
| - 11     | UDS-1      | 56           |        | SM             | -    | Silty SAND; dark gray; most<br>sand with non-plastic silt; ME                              |        | PRI  | ESSE | ED      |                                 |  | 59                           | 1.53                       | 81     | 56                | 2.60                |                                | 8.57        |       | 99            |   |
| -12      | SS-11      | 67           |        | SIVI           |      | DENSE.   | DIOM   | 6    | 9    | 3       |                                 |  | -                            |                            |        |                   |                     |                                |             |       |               |   |
| -13      | SS-12      | 67           | ľ      |                |      |  |        | 3    | 1    | 0       |                                 |  | -                            |                            |        |                   |                     | Cc                             | Pc          |       | _             |   |
| -14      | UDS-2      | 100          |        |                |      | Silty CLAY; dark gray; 90<br>very high plasticity silty clay<br>10% fine to coarse sand; \ | with   | PR   | ESSE | ED      |                                 |  | 108                          | 1.40                       | 79     | 51                | 2.60                | 1.260                          | 0.950       | 99    | 95            |   |
| -15      | SS-13      | 89           |        |                |      | SOFT.  |        | 1    | 0    | 1       |                                 |  | 94                           | -                          | 77     | 52                | 2.60                |                                |             | 96    | 97            |   |
| -16      | SS-14      | 89           |        | сн             |      |  |        | 2    | 0    | 2       |                                 |  | _                            |                            |        |                   |                     |                                |             |       |               |   |
| -17      | SS-15      | 89           |        |                |      | Sandy CLAY; dark gray; 60% plasticity clayey fines with 35%                                |        | 3    | 0    | 2       |                                 |  | _                            |                            |        |                   |                     |                                |             |       |               |   |
| -18      | SS-16      | 89           |        |                |      | sand and traces of shell fragn<br>VERY SOFT to FIRM.                                       | nents; | 2    | 1    | 2       |                                 |  | 53                           | -                          | 66     | 44                | 261                 |                                |             | 99    | 97            |   |
| - 19     | SS-17      | 89           |        |                |      | Silty CLAY; (same descr  | intics | 4    | 4    | 5       |                                 |  |                              |                            |        |                   |                     |                                |             |       |               |   |
| 20       | SS-18      | 89           |        | 1              |      | below)   | ipuon  | 4    | 5    | 9       | $\setminus$                     |  |                              |                            |        |                   |                     |                                |             |       |               |   |
| E        |            | -1           |        |                |      | ECHNOLOGY AND  | MAG    | CHI  | NE   | :       | ACKEI                           | RACE   |                              |                            | LEGE   | ND:               |                     | 5.00                           |             | 001   | SAM           |   |
|          | :+         | ĺ.           |        |                |      | MENT CORPORATION<br>Prudential Bank Building,  | DRI    | LLE  | ER:  | _       | E. RI                           | EZA  |                              | _                          | C      | ×                 | v                   | /s - W                         | ASH SA      | AMPL  | E             |   |

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| R  | OJ   | EC                   | Г: <u>г</u> | asi            | ig-N  | larikina River Channel   | mp.          | Pro           | oj.      | 0                              | ROUND ELEV.<br>MLLW = Zero Datu               | ım) _ + ′ | 12.55                        | 50                         |        |            |   | VATE  |                |                      | .50         |     | . m |
|--|--|----------------------|-------------|----------------|-------|--|--------------|---------------|----------|--------------------------------|---|-----------|------------------------------|----------------------------|--------|------------|---|---|----------------|----------------------|-------------|-----|-----|
| 0  | CAT  | ION                  | :           | R              | light | Bank, Quezon Bridge, M   | Manila       | a             |          | 5                              | STATION NO.:                                  | 2+4       | 175                          |                            |        |            |   | URE   |                |                      |             |     | 0   |
| н  | NO:  | в                    | R-2         |                | 1.25  | E DRILLED: _28 Nov 01  |              |               | 0        | -                              | VEATHER:<br>OORDINATES:                       | FA<br>16  | IR<br>1421                   | 7 91                       | -      |            |   |   | 9798           |                      |             |     | F   |
| 1  |  | (%                   | 17          | -              |       |  |              | в             | LOW      | IS                             |   |           | 1                            |                            | ATTER  | BERG       | <u>,                                     </u> | UNCON   | IFINED         | SIE                  | VE AN       |     | SIS |
|  | SAMPLE NO  | RECOVERY (           | LOG SYMBOL  | CLASSIFICATION | RQD   | DESCRIPTION  |              | 15            | 15<br>cm | 15                             | STANDARE<br>PENETRATION<br>(SPT)<br>(N-VALUE) | TEST      | NATURAL MOIST.<br>CONTENT, % | TOTAL UNIT<br>WEIGHT, g/cc | LIQUID | PLASTICITY | SPECIFIC<br>GRAVITY                           | STRENGTH Strength                                 |                | 4                    | ASSIN       | 40  | T   |
| 22   | SS-19<br>SS-20<br>SS-21                          | 89<br>89             |             | СН             |       | Silty CLAY; greenish gray;<br>medium to high plasticity clay;<br>pea-size gravel and 10% fir<br>coarse sand; STIFF to V<br>STIFF.      | 15%<br>ne to | 13            | 8        | 11                             |   | 0 50      | 39                           |                            | 59     | _          | 2.61  |   |                | 85                   | 82          | 80  |     |
| 24   | SS-22<br>SS-23                                   | 67                   |             |                |       | Sandy CLAY; yellowish br<br>57% medium to high plas<br>clayey fines; 14% fine sand; tr<br>of gravel; VERY STIFF.                       | ticity       | 13            | 8        | 12                             |   |           | 35                           |                            | 53     | 28         | 2.62  |   |                | 95                   | 95          | 89  |     |
| 2 6<br>27<br>2 8<br>2 9  | SS-24<br>SS-25<br>SS-26<br>SS-27<br><u>SS-28</u> | 89<br>89<br>89<br>56 |             | SM             |       | Silty SAND; brown; 70% fi<br>medium sand with some co<br>sand and sub-angular gravel;<br>non-plastic silt; MEDIUM DE<br>to VERY DENSE. | parse<br>26% | 9<br>13<br>41 | 11       | 16<br>15<br>29<br>15/5<br>12/8 |   |           |                              |                            |        |            | 2.63  |   |                | 96                   | 88          | 51  |     |
| · 31<br>· 32<br>· 33<br>· 33<br>· 33<br>· 33<br>· 33<br>· 35<br>· 35<br>· - 35<br>· - 37<br>· - 38<br>· - 39 |  |                      |             |                |       | End of Boring<br>(30.00 m)   |              |               |          |                                |   |           |                              |                            |        |            |   |   |                |                      |             |     |     |
| 40   | :  |                      | N<br>2      | IAN<br>nd F    |       | FECHNOLOGY AND<br>MENT CORPORATION<br>Prudential Bank Building,<br>Mabini St., Ermita, Manila  |              | ILL           | .EF      | <b>२</b> :                     | ACKEF<br>E. RI<br>OR:K. Es                    | EZA       |                              | _                          |        |            |   | SS - SF<br>WS - W<br>UDS - U<br>CR - CO<br>W/ HYD | JNDIS<br>DRE S | ampi<br>Turb<br>Ampl | LE<br>ED S/ | MPL |     |

| PI   | ROJ            | EC           | T:         | Pas            | ig-l | Marikina River Channel  | Imp.    | Proi.          | GR       |       | ELEV.            | um) <u>+ 1</u> | 4 36                        | 50                         | D        | ЕРТН                   | OF                  | VATE                           | R:                       | 0             | .85        |    |
|--|----------------|--------------|------------|----------------|------|---|---------|----------------|----------|-------|------------------|----------------|-----------------------------|----------------------------|----------|------------------------|---------------------|--------------------------------|--------------------------|---------------|------------|----|
|  | CAT            |              |            |                |      |   |         |                |          |       | ero Dati<br>NO.: |                |                             | <u></u>                    |          |                        |                     |                                | D:                       |               | lov.       | 2  |
| -  |                |              |            |                |      | Bank, M. Atienza, Mala  |         | ~              |          | ATHE  |                  | FA             |                             |                            | ТІ       | ME                     | MEAS                | URE                            | D:                       | 8:            | 00 /       | A  |
| Bł   | INO            |              |            |                |      | E DRILLED: 25 - 29 Nove   | ember   | 1              |          | ORDIN | ATES:            | 16             | 1441                        | 5.16                       |          | N                      |                     | 1                              | 9969                     | 95.4          | 35         | _  |
| ε  | ġ              | (%) J        | B          | ATIO           |      |   |         | BLOW<br>(SPT   |          | C.    | TANDARI          |                | IST.<br>%                   | F 8                        |          | RBERG<br>MITS          |                     | COMP                           | TEST                     |               | VE AN      |    |
| DEPTH, m   | SAMPLE NO      | RECOVERY (%) | LOG SYMBOL | CLASSIFICATION | RQD  | DESCRIPTION   | I       | 15 15<br>cm cm | 15<br>cm | PENET | (SPT)<br>N-VALUE | TEST           | NATURAL MOIST<br>CONTENT, % | TOTAL UNIT<br>WEIGHT, g/cc | LIMIT, % | PLASTICITY<br>INDEX, % | SPECIFIC<br>GRAVITY | STRENGTH<br>kg/cm <sup>2</sup> | STRAIN<br>& , %          | 4             | 10         |    |
| -  | SS-1           | 67           |            |                |      | Sandy CLAY; brown;<br>medium to high plasticity cla<br>20% fine to medium sand; S                                 | y with  | 2 2            | 2        |       |                  |                | 36                          |                            | 58       |                        | 2.61                |                                |                          | 99            | 97         |    |
| 2<br>2<br>3  | SS-2<br>SS-3   | 67<br>67     |            | сн             |      |   |         | 2 2            | 1        |       |                  |                |                             |                            |          |                        |                     |                                |                          |               |            |    |
| s<br>huuluului                                       | UDS-1          | 67           |            |                |      | Sandy CLAY; dark gray;<br>medium to high plasticity cla   | v with  | PRESS          |          | Á     |                  |                | 59                          | 1.55                       | 58       | 33                     | 2.61                | Cc<br>0.285<br>0.20            | Pc<br>0.940<br>8.00      | 100           | 99         |    |
| մահահո   | SS-4           | 67           |            |                |      | 15% fine sand and shell fragn<br>SOFT.  | nents;  | 22             | 6        |       |                  |                |                             |                            |          |                        |                     |                                |                          |               |            |    |
| $\begin{array}{cccccccccccccccccccccccccccccccccccc$ | SS-5<br>SS-6   | 67<br>67     |            |                |      |   |         | 4 2            |          |       |                  |                |                             |                            |          |                        |                     |                                |                          |               |            |    |
| and and and and and a                                | SS-7           | 67           |            | sм             |      | Silty SAND; dark gray; 67%<br>to coarse sand; 23% low pla<br>clayey silt; 10% gravel with                         | sticity | 2 2            | 2        |       |                  |                | 50                          |                            |          |                        | 2.63                |                                |                          | 90            | 79         |    |
| 9  | SS-8<br>SS-9   | 67<br>67     |            |                |      | fragments; SOFT to FIRM.  |         | 3 1            |          |       |                  |                |                             |                            |          |                        | <u> </u>            |                                |                          |               |            |    |
| 10   | SS-10          | 67           |            |                |      |   |         | 2 1<br>7 5     | 4        |       |                  |                | 46                          |                            | 70       | 49                     | 2.60                |                                |                          |               | 100        |    |
|  | SS-11          | Ľ            |            |                |      |   |         | 63             |          |       |                  |                |                             |                            |          |                        |                     |                                |                          |               |            |    |
|  | SS-12<br>SS-13 | X            |            |                |      |   |         | 2 3<br>3 2     |          |       |                  |                | 73                          |                            | 80       | 49                     | 2.60                |                                |                          | 100           | 99         |    |
| ind.   | SS-14          | 67           |            | сн             |      | Sitty CLAY; dark gray; 90<br>very high plasticity sitty clay<br>very little amount of sand part<br>FIRM to STIFF. | with    | 2 2            | 2        |       |                  |                |                             |                            |          |                        |                     |                                |                          |               |            |    |
| -16  | SS-15<br>SS-16 | 67<br>78     |            |                |      |   |         | 3 4            | 5        |       |                  |                | 87                          |                            | 79       | 40                     | 2.60                |                                |                          | 97            | 95         |    |
| 18   | SS-17          | 67<br>X      |            |                |      |   |         | 4 3            | 3        |       |                  |                |                             |                            |          |                        |                     |                                |                          |               |            |    |
| mhu  | SS-18<br>SS-19 | 78<br>67     |            |                |      |   |         | 3 3 3 3 3 2    | 2        |       |                  |                | 60                          |                            | 78       | 51                     | 2.60                |                                |                          |               |            |    |
| F  |                | -1           |            |                |      | ECHNOLOGY AND   | MAC     | HINE           | :        | A     | CKER             | ACE            |                             | _ [                        | EGE      | ND:                    | S                   | S - SPI                        |                          | OON           | SAME       | 2  |
|  | 1              | L)           | 2nc        | FI             | oor  | MENT CORPORATION<br>Prudential Bank Building,<br>abini St., Ermita, Manila  |         | LER:           |          |       | R. AN<br>I. Esta |                |                             | -                          |          |                        | W<br>U<br>C         | /s - w/<br>DS - U<br>R - CO    | ASH SA<br>NDIST<br>RE SA | AMPLI<br>URBE | E<br>ED SA | AM |

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|  |           |          |          |         |                | FIN | IAL BOREHOLE LOG   | A       | N         | D        | 9  | SUMI         | AN               | RY                       | O     | F 1         | E:      | ST                         | RI       | ESI                    | UL                  | гs                             |                 | B               | R -           | 3b  | ,       |
|--|-----------|----------|----------|---------|----------------|-----|--|---------|-----------|----------|----|--------------|------------------|--------------------------|-------|-------------|---------|----------------------------|----------|------------------------|---------------------|--------------------------------|-----------------|-----------------|---------------|-----|---------|
| -  | 0.11      | EC       | т:       | Pa      | asi            | g-M | arikina River Channel Imp  | ). Pi   | roj       |          | G  | ROUNE        | ) EL             | EV.<br>Datu              | im) . | + 14        | .36     | 0                          | DE       | PTH                    | OF V                | VATE                           | R:              | 0.              | .85           |     | m.      |
|  |           |          |          |         |                |     | Bank, M. Atienza, Malacaña   |         |           |          |    | TATIO        |                  |                          |       | + 72        |         |                            |          |                        |                     |                                | D:2             |                 |               |     | 2       |
| LOC  |           |          |          |         |                | -   |  |         | 000       | -        |    | VEATH        |                  |                          |       | AIF         |         | - 10                       | 1        |                        |                     | URED                           |                 |                 | 00 A          |     | =       |
| BH   | NO:       | 1000     |          | 3       | -              |     | DRILLED: 25 - 29 Novembe   |         |           |          | -  | OORDI        | NAT              | ES:                      |       | <u>1614</u> | 41      | 5.16                       |          |                        | ,                   | 4<br>UNCON                     | 9969            |                 | 35<br>VE AN   |     | E       |
| e  | NO.       | (%)      | цĪ       | STMBUL  | ATIO           |     |  |         |           | PT)      |    |              | STAN             | DARD                     | )     |             | %<br>%  | D/cc                       | LIM      | ITS                    | 22                  | COMP.                          |                 |                 | ASSIN         |     |         |
| DEPTH, m   | SAMPLE NO | RECOVERY | <b>~</b> | LUG 21N | CLASSIFICATION | Rad | DESCRIPTION  | 1<br>ci |           | 15<br>:m |    | PEN          | (S               | (TION '<br>PT)<br>(ALUE) |       |             | CONTENT | TOTAL UNIT<br>WEIGHT, g/cc | LIMIT, % | PLASTICITY<br>INDEX, % | SPECIFIC<br>GRAVITY | STRENGTH<br>kg/cm <sup>2</sup> | STRAIN<br>& , % | 4               | 10            | 40  | 200     |
| -  | S         | RE       |          |         | ช              |     |  | +       | +         | +        | _  | 10           |                  | 30 4                     |       |             |         |                            | _        | <b>c</b> =             | <u> </u>            | s<br>s                         |                 | $ \rightarrow $ | $\rightarrow$ |     | _       |
| 21   | 55-20     | 67       |          |         |                |     |  | ;       | 3         | 2        | 2  | $\backslash$ |                  |                          |       |             |         |                            |          |                        |                     |                                |                 |                 |               |     | _       |
| 22   | SS-21     | 67       | Æ        |         |                |     | Silty CLAY; dark gray; 90-99%  | 6       | 4         | 4        | 4  |              |                  |                          |       |             |         |                            |          |                        |                     |                                |                 |                 |               | _   |         |
| 23   | 55-22     | 67       | X        |         | сн             |     | very high plasticity clay with very<br>little amount of sand particles<br>FIRM to STIFF. |         | 2         | 3        | 3  |              |                  |                          |       |             | 65      |                            | 76       | 50                     | 2.60                |                                |                 |                 | 100           | 99  | 97      |
| 24   | SS-23     | 56       | X        | 1       |                |     |  | -       | 2         | 5        | 13 |              |                  |                          |       |             |         |                            |          |                        |                     | -                              |                 |                 |               |     | _       |
| 25   | SS-24     | 67       | X        |         |                |     |  |         | 3         | 4        | 3  |              |                  |                          |       |             | _       |                            |          |                        |                     |                                |                 |                 |               |     |         |
| 1<br>1<br>1<br>1<br>2<br>6   | SS-25     | 67       | XI       |         |                |     |  | -       | 5         | 4        | 6  |              |                  |                          |       |             | 56      |                            | 73       | 48                     | 2.60                |                                |                 |                 | 100           | 99  | 99      |
| 27   | SS-26     | 56       | X        |         |                |     | Silty SAND; dark gray; 78% sand  |         | 8         | 6        | 7  | $ \rangle$   |                  |                          |       |             |         |                            |          | -                      | -                   |                                |                 |                 |               |     |         |
| 28   | SS-27     | 67       | X        |         | SM             |     | (mostly medium size) with 7%<br>gravel and 15% non-plastic silt<br>STIFF to VERY STIFF.  | 6       | 7         | 7        | 7  |              |                  |                          |       |             |         |                            |          | -                      | -                   | -                              |                 |                 |               |     | _       |
| 29   | SS-28     | 78       | X        |         |                |     |  | -       | 10        | 7        | 9  |              |                  |                          |       |             | 27      |                            |          | -                      | 2.63                |                                |                 | 93              | 75            | 26  | 15      |
| 30   |           | 78       |          |         |                |     |  | +       | 10        | 12       | 14 |              | $\left  \right $ |                          |       |             |         |                            |          |                        | -                   |                                | -               |                 |               |     |         |
| 31   | CR-1      | 50       |          |         |                | 47  |  | c       | 20        | RI       | NG |              |                  |                          | Ν     |             |         |                            |          | $\vdash$               |                     |                                | -               |                 |               |     |         |
| 32   | CR-2      | 50       |          |         | тѕ             | 50  | Tuffaceous SANDSTONE<br>brown to dark dray; gravelly<br>broken rock cores; VERY HARD     | y;      | 20        | RI       | NG |              |                  |                          |       |             |         |                            | -        | -                      | -                   | +                              | -               | $\square$       | -             | -   |         |
| 33   | CR-3      | 50       |          | 0       |                | 50  |  | c       | 20        | RI       | NG |              |                  |                          |       |             |         |                            | -        | -                      | -                   | -                              |                 |                 |               |     |         |
| -34  | CR-4      | 50       |          | mm      |                | 49  |  |         | 20        | RI       | NG |              |                  |                          |       |             |         |                            |          |                        |                     |                                |                 |                 |               |     |         |
| 11 35  | CR-5      | 57       |          |         | SS             | 48  | SILTSTONE; dark gray; broke<br>cores; VERY HARD.   | - 1     | <u>co</u> | RI       | NG |              |                  |                          |       |             |         |                            |          |                        |                     |                                |                 |                 |               |     |         |
| 1111136  |           |          |          |         |                |     | END OF BOREHOLE<br>(35.00 m)   |         |           |          |    |              |                  |                          |       |             |         |                            |          |                        |                     |                                |                 |                 |               |     |         |
| 111137   |           |          |          |         |                |     |  |         |           |          |    |              |                  |                          |       |             |         |                            |          |                        |                     |                                |                 |                 |               |     |         |
| 31<br>32<br>33<br>34<br>35<br>36<br>36<br>37<br>38<br>38<br>38<br>38<br>38 |           |          |          |         |                |     |  |         |           |          |    |              |                  |                          |       |             |         |                            |          |                        |                     |                                |                 |                 |               |     |         |
| uluula 30  |           |          |          |         |                |     |  |         |           |          |    |              |                  |                          |       |             |         |                            |          |                        |                     |                                |                 |                 |               |     |         |
| uluu4  |           |          |          |         |                |     |  |         |           |          |    |              |                  |                          |       |             |         |                            |          |                        |                     |                                |                 |                 |               |     |         |
|  |           |          |          |         |                |     |  | /AC     | H         | INI      | E: |              | AC               | KEF                      | RAC   | CE          |         |                            | LEGI     | END:                   |                     | SS-S                           |                 |                 | SAM           | PLE | <b></b> |
|  | :         |          |          |         |                |     | Prudential Bank Building,  | RIL     | L         | ER       | ł: |              | F                | A A                      | NDC   | )           |         | _                          |          | ×                      | ,                   | WS-V                           | VASH S          | SAMP            | LE            |     | E       |
| L  |           | Ш.       | 7        |         |                |     |  | SUP     | EF        | ٦V       | IS | OR:          | Μ                | . Eş                     | taur  | a           |         | _                          |          | *                      |                     | CR-C                           | ORE S           | SAMPL           | .E            |     |         |
|  |           |          |          |         |                |     | Figure 5-3-3 (203  | 3/22    | 1)        | ) 1      | RC | RIN          | GI               | OG                       | S (   | рн          | AS      | EL                         |          |                        |                     |                                | -               |                 |               |     |         |

|  |                             |              |            |                 |            |                |   |                       |           |            |            |     |      |                      |  |      |                  |          |                        |          |               | S                   | HEE                            | Т  | 1    | OF                 | 1    | 1       |
|--|-----------------------------|--------------|------------|-----------------|------------|----------------|---|-----------------------|-----------|------------|------------|-----|------|----------------------|--|------|------------------|----------|------------------------|----------|---------------|---------------------|--------------------------------|--|------|--------------------|------|---------|
|  |                             |              |            |                 |            |                | AL BOREHOLE LO  | and the second second |           |            |            | -   |      |                      | No. of Lot of Lo | OF   | = т              | E        | ST                     | R        | ES            | UL                  | rs                             |  | -    | <b>R</b> -         | 4    |         |
| DR   | OJI                         | EC.          | Т:         | Pa              | sig        | J-M            | arikina River Channel Ir  | np. F                 | Pro       | <u>j</u> . | (1         | MLL |      | Zero                 | Datu   |      | + 14             | .34      | 0                      |          |               |                     |                                | R:<br>D: _0                                |      | .10                | 2000 | m.<br>) |
| 10   | CAT                         | ION          | :          | F               | R. E       | Ban            | k, PUP Compound, Sta.   | Mesa                  | a         | _          |            |     |      |                      | .:   |      | + 06<br>A I      | -        |                        |          |               |                     | URE                            |  |      | 00 A               |      | _       |
| DH   | NO:                         | В            | R-4        |                 | D/         | ATE            | DRILLED: 29 Nov 02 [  | Dec.2                 | 200       | 0_         |            |     | RDIN |                      | S: _   |      | 1614             |          | 0.18                   | 8        | N             | I,                  | 5                              | 010  | 10.7 | 41                 |      | E       |
| DI   |                             | (%)          | J          | NOL             |            |                |   |                       |           | SPT)       |            |     |      | STANE                |  |      | TSI              | . *      | 100                    | ATTER    | RBERG         |                     | UNCON<br>COMP                  |  |      | VE AN              |      |         |
| DEPTH, m                                   | SAMPLE NO                   | RECOVERY (%) | LOG SYMBOL | OI ASSIEICATION |            | RaD            | DESCRIPTION   |                       |           | 15<br>cm   |            |     | PENE | TRAT<br>(SF<br>(N-VA | TION T<br>(Tr<br>LUE)  | TEST | OM INCLITAIN     | CONTENT, | TOTAL UNI<br>WEIGHT, g | LIMIT, % | PLASTICITY SI | SPECIFIC<br>GRAVITY | STRENGTH<br>kg/cm <sup>2</sup> | STRAIN<br>A. %                             | 4    | 10                 | 40   | 200     |
| Innhun                                     | <b>SS-1</b>                 | 22           |            | s               | м          |                | Silty SAND; dark gray; 29% slig<br>plastic silt; 55% fine to coarse sand;<br>gravel with shell fragments; LOOSE | 15%                   | 3         | 4          | 5          |     | ,    |                      |  |      | _                | 39       |                        |          |               | 2.63                |                                |  | 84   | 64                 | 39   | 29      |
| hundun                                     | 55-2                        | 89           |            |                 |            |                |   |                       | 1         | 1          | 2          | /   |      |                      |  |      | -                |          |                        |          |               |                     |                                |  |      |                    |      |         |
| indunda 3                                  | SS-3                        | 78           |            | C               | н          |                | Silty CLAY; dark gray; 89-9<br>high plasticity silty clay with 8-<br>fine sand; SOFT.                           | 90%<br>-9%            | 1         | 1          | 1          |     |      |                      |  |      | -                |          |                        |          |               |                     |                                |  |      |                    |      |         |
| uluulu 4                                   | SS-4                        | 78           |            |                 |            |                |   |                       | 1         | 1          | 1          |     |      |                      |  |      | $\left  \right $ | 63       |                        | 72       | 39            | 2.60                |                                |  | 100  | 99                 | 98   | 89      |
| uluulu 5                                   | SS-5                        | 78           |            | -               | -          | _              | Gravelly SAND; dark gray; 80% sand with about 10 - 15% gravel   | fine                  | 1         | 1          | 1          | L   |      |                      |  |      |                  | 80       |                        | 83       | 55            | 2.60                |                                |  | 99   | 98                 | 98   | 90*     |
| III.                                       | SS-6                        | 22           | <u> </u>   | S               | P          | _              | little fines; VERY DENSE.   | and                   | 22        | 35         |            |     |      |                      | $\neg$   |      | -                |          |                        |          |               |                     |                                |  |      |                    |      | -       |
| nhuduuluuluuluuluuluuluuluuluuluuluuluuluu | CR-1<br>CR-2                | 37           |            |                 | 'S         | 15<br>18<br>40 | Tuffaceous SANDSTONE; of gray; medium grained; fa cemented; broken cores; HA                                    | airly                 | c         |            | NG         |     |      |                      |  |      |                  | 34       | 1.85                   |          |               |                     | 62,6205                        | 1.425                                      |      |                    |      |         |
| มมโลปลมโลปลมโลปลมโลปลมโลป                  | CR-4                        | 5 47         |            |                 | 5 <b>5</b> | 30<br>30       | SILTSTONE; brown to dark g<br>fine grained; fairly cemen<br>broken cores; HARD.                                 |                       | c         |            | NG         |     |      |                      |  |      |                  |          |                        |          |               |                     |                                |  |      |                    |      |         |
| huhuduuluuluuluulu                         | 5 CR-<br>6<br>7<br>19<br>20 |              |            |                 |            | 45             | End of Borehole<br>(15.00 m)  |                       |           |            |            |     |      |                      |  |      |                  |          |                        |          |               |                     |                                |  |      |                    |      |         |
| L  | :                           |              |            | MA<br>2nd       | NA<br>Fl   |                | <b>TECHNOLOGY AND</b><br><b>MENT CORPORATION</b><br>Prudential Bank Building,<br>Mabini St., Ermita, Manila     |                       | ILL<br>PE | .EF<br>RV  | R:<br>VISO | OR  | l:   | I.<br>M. V           | AN<br>VILI   |      | YO<br>UEF        | RTE      | -                      |          |               | 1                   | NS-V<br>JDS-<br>CR-C           | PLIT S<br>VASH S<br>UNDIS<br>ORE S<br>DROM | TURE | LE<br>BED S.<br>_E | AMPL | .E      |

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Figure 5-3-3 (204/221) BORING LOGS (PHASEI)

| R             | OJ             | ЕСТ                    | : F        | Pasi           | g-N | larikina River Channel I  | mp.            | Pro              | j.        |         |      | ELEV.<br>Zero Dati                     | um) <u>+</u> | 14.12                        | 20                         | 1      |                           |                     | VATE   |                                       |           | .80         |           |
|---------------|----------------|------------------------|------------|----------------|-----|---|----------------|------------------|-----------|---------|------|--|--------------|------------------------------|----------------------------|--------|---------------------------|---------------------|--|---------------------------------------|-----------|-------------|-----------|
| 0             | CAT            | ON:                    |            | R              | aht | Bank, Punta, Sta. Ana, I  | Manil          | 2                | -         |         |      | NO.: _                                 |              |                              |                            |        |                           |                     |  | D: <u>2</u>                           |           |             |           |
| 1             |                | BF                     |            |                |     | E DRILLED: 25 - 28 Nove   |                |                  |           |         | ATHE |  | FA           | IR<br>1282                   | 0.5                        | _      |                           |                     | URED   |                                       |           | 00 A        | M         |
| 1             | NO.            |                        | -          |                |     | _ DIGEELD. <u>20-20 NOVE</u>  | TIDEL          | 1                | ows       | 1       | RDIN | ATES:                                  | 10           | T                            |                            | ATTER  | BERG                      | I,                  |  | 0101                                  |           | VE AN       |           |
|               | SAMPLE NO      | RECOVERY (%)<br>SAMPLE | LOG SYMBOL | CLASSIFICATION | RQD | DESCRIPTION   |                | 15               |           | 15<br>m | PENE | TANDAR<br>TRATION<br>(SPT)<br>(N-VALUE | TEST         | NATURAL MOIST.<br>CONTENT, % | TOTAL UNIT<br>WEIGHT, g/cc | LIQUID | PLASTICITY ST<br>INDEX, % | SPECIFIC<br>GRAVITY | STRENGTH Str |                                       |           | ASSIN<br>10 | G S<br>40 |
| -             |                | 2                      |            | СН             |     | Sandy CLAY; brown; 79% plasticity clay with 15% fine s  | high<br>sand;  | $\left  \right $ |           | +       |      | 0 30 4                                 |              | +                            |                            |        |                           |                     | S  |                                       | +         |             |           |
| 1             | SS-1           | 100<br>100             |            | CL             |     | FIRM.<br>Sandy to Gravelly CLAY; dark<br>66% medium to low plasticity<br>15% fine sand and 13% gravel; f            | clay;          |                  | 3<br>ESSE | 3<br>D  |      |  |              | 34                           | 1.71                       | 62     |                           | 2.61                | Cc<br>0.270  | Pc<br>1.430                           | 100<br>87 | 98<br>84    | 94        |
| 2             | UDS-1<br>SS-2  | 100                    |            |                |     |   |                | 4                | 5         |         |      |  |              |                              |                            |        |                           | 2.01                |  |                                       |           |             |           |
| 4             | SS-3           | 100                    |            |                |     |   |                | 4                | 6         | 4       |      |  |              |                              |                            |        |                           |                     |  |                                       |           |             |           |
| 5             | SS-4           | 89                     |            |                |     | Fine SAND; dark gray; 62  |                | 5                | 4         | 5       |      |  |              | 35                           |                            |        |                           | 2.64                |  |                                       | 86        | 82          | 7         |
| 6             | SS-5           | 89                     |            | SP             |     | fine sand; 4-9% medium to co<br>sand and 0-14% gravel; with<br>non-plastic silty fines; LOOS<br>MEDIUM DENSE.       | little         | 5                | 4         | 6       |      |  |              | -                            |                            |        |                           |                     |  |                                       |           |             |           |
| 7             | SS-6           | 78                     |            |                |     |   |                | 4                | 4         |         |      |  |              |                              |                            |        |                           |                     |  |                                       |           |             |           |
| 8             | SS-7<br>SS-8   | 89<br>89               |            |                |     |   |                | 5                | 4         |         |      |  |              | 33                           |                            |        |                           | 2.63                |  |                                       |           | 100         | 9         |
| •10           | SS-9           | 89                     |            |                |     |   |                | 6                | 6         | 5       |      |  |              |                              |                            |        |                           |                     |  |                                       |           |             |           |
| 11            | SS-10          | 56                     |            | sw             |     | Gravelly SAND; dark gray;<br>well-graded sand; 10% grave<br>non-plastic fines; MED<br>DENSE.                        | el; 6%         | 7                | 10        | 12      |      |  |              | 15                           |                            |        |                           | 2.63                |  |                                       | 90        | 71          | 6         |
|               | SS-11          |                        |            |                |     |   |                |                  | 10        |         |      |  |              |                              |                            |        |                           |                     |  |                                       |           |             | -         |
| -             | SS-12<br>UDS-2 |                        | P          | сн             |     | Sandy to Silty CLAY; gray<br>91% high plasticity silty clay<br>6-20% fine sand; present<br>coarse sand and gavel; N | /with<br>ceof  |                  | 0<br>ESS  |         |      |  |              | 65                           | 1.43                       | 56     | 30                        | 2.61                | Cc<br>0.940<br>0.25  | Pc<br>1.590<br>9.14                   |           | 86          | 8         |
| ł             | SS-13          |                        |            |                |     | SOFT to FIRM.   |                | 2                | 3         | 3       |      |  |              | 94                           |                            | 73     | 48                        | 2.60                |  |                                       | 100       | 99          | 9         |
| -16           | SS-14          | 100                    |            |                |     | Fine to MEDIUM SAND;<br>gray; 77% fine to medium  | sand           | 9                | 8         | 8       |      |  |              | -                            |                            |        |                           | -                   |  |                                       |           |             |           |
| ł             | SS-15          |                        |            | SP             |     | with 14% non-plastic silt an coarse sand; MEDIUM DEN  | d 8%           |                  | 9         |         |      |  |              | -                            |                            |        |                           |                     |  |                                       |           |             |           |
| -<br>-19<br>- | SS-16<br>SS-17 | 89                     | X          | SM             |     | Silty SAND; dark gray to<br>fine to coarse sand with<br>fragments; MEDIUM DEN                                       | shell          | 7                | 8         | 7       |      |  |              | 33                           |                            |        |                           | 2.63                |  |                                       | 99        | 91          | 5         |
| 20            | SS-18          | 89                     |            |                |     | LOOSE.  | 1              | 6                |           | 2       | Δ    |  |              |                              | $\bot$                     | LEGE   | END:                      |                     |  |                                       |           |             | L         |
| Į             | •              |                        | M<br>2r    | ANA<br>nd F    | AGE | <b>TECHNOLOGY AND</b><br><b>EMENT CORPORATION</b><br>Prudential Bank Building,<br>Mabini St., Ermita, Manila        | MA<br>DR<br>SU |                  | ER        | _       |      | J. MC                                  |              |                              | _                          |        |                           | v                   | NS - W   | PLIT SF<br>/ASH S<br>JNDIST<br>ORE S/ | TURB      | LE<br>ED SA |           |

|              |   |                        |            |                |     |  |                       |     |               |                |      |              |                 |                   |            |         |             |                    |                 | S                   | HEE                            | T  | 2                    | OF               | 2    | :    |
|--------------|---|------------------------|------------|----------------|-----|--|-----------------------|-----|---------------|----------------|------|--------------|-----------------|-------------------|------------|---------|-------------|--------------------|-----------------|---------------------|--------------------------------|--|----------------------|------------------|------|------|
|              |   |                        |            |                | -   | AL BOREHOLE LOG  | and the second second |     |               | and the second |      | -            |                 | OF                | = т        | ES      | T           | -                  |                 |                     | 10000                          |  | -                    | R -              | 5k   | >    |
| PR           | OJE   | C                      | r: P       | asi            | g-M | arikina River Channel Imp  | p. P                  | roj | : (           | MLL            |      | Zero         | Datu            | im) <u>1</u>      |            |         | )           |                    |                 |                     |                                | R:   |                      |                  |      | . m. |
|              | CATI  |                        |            | Ri             | ght | Bank, Punta, Sta. Ana, Ma  | nila                  |     | 1             |                | ATHE |              | .: _            | <u>8</u> 4        | + 825      |         |             |                    |                 |                     |                                | ):   |                      |                  |      | ~    |
| BH           | NO:   | В                      | R-5        | _ D            | ATE | DRILLED: 25 - 28 Novemb  | er 20                 |     |               | 00             | RDIN | IATE         | ES:             |                   | 1612       |         | ).54        | 4                  | N               | I,                  | 5                              | 010  | 15.1                 | 77               |      | E    |
|              |   | (%)                    | OL         | TION           |     |  |                       |     | DWS<br>PT)    |                | 5    | STAN         | DAR             | 0                 | DIST.      | 8       | 20/00       | ATTER              | RBERG           | 0.                  | UNCON                          | FINED  |                      | VE AN<br>ASSIN   |      |      |
| DEPTH, m     | SAMPLE NO.  | RECOVERY (%)<br>SAMPLE | LOG SYMBOL | CLASSIFICATION | RQD | DESCRIPTION  |                       |     | 15 15<br>m cm |                |      | (SF<br>(N-V/ | PT)<br>ALUE     | TEST<br>)<br>0 50 | NATURAL MC | CONTENT | WEIGHT, S   | LIQUID<br>LIMIT, % | PLASTICITY STER | SPECIFIC<br>GRAVITY | STRENGTH<br>kg/cm <sup>2</sup> | STRAIN<br>Æ, %                               | 4                    | 10               | 40   | 200  |
| 21           | SS-19   |                        |            | SP<br>SM       |     | Silty Fine SAND; dark gray; 50% fir<br>sand; 43% medium plasticity silty fine<br>MEDIUM DENSE.   | s;                    | 5   | 7 6           |                | r    |              |                 |                   | Ę          | 56      |             | 46                 | 20              | 2.62                |                                |  | 100                  | 97               | 93   | 43   |
| 22           | SS-20   | 100                    |            | сн             |     | Sandy CLAY; dark gray; 67% hig<br>plasticity clay with 33% fine san                              | gh<br>id;             |     | 65            | 1              |      |              |                 |                   | -          |         |             |                    |                 |                     |                                |  |                      |                  |      |      |
| dundu<br>123 | SS-21   |                        |            |                |     | STIFF.   |                       |     | 6 5<br>6 8    |                |      |              |                 |                   |            | 37      |             | 59                 | 32              | 2.61                |                                |  |                      |                  | 100  | 67   |
| 24           | SS-23   | Ň                      |            |                |     |  |                       | 8   | 79            |                |      |              |                 |                   | -          |         |             |                    |                 |                     |                                |  |                      |                  |      |      |
| undunda      | ss-24   | 1                      |            | CL             |     | Sandy to Silty CLAY; dark gra<br>53-58% low to medium plastic<br>clay with 39-42% fine sand; VEF | ity                   |     | 8 10<br>9 18  |                |      |              |                 |                   |            | 42      | _           | 43                 | 10              | 2.61                |                                |  | 100                  | 99               | 07   | 58   |
| F            | SS-26   |                        | 11/        |                |     | STIFF to HARD.   |                       |     | 18 13         |                |      | $ \rangle$   |                 |                   |            | 42      |             | 43                 | 19              | 2.01                |                                |  | 100                  | 99               | 97   | 30   |
| E            | 9 SS-2  |                        |            |                |     |  |                       | 13  | <u>16 17</u>  | ,              |      |              | $\left \right $ |                   | -          | _       |             |                    |                 |                     |                                |  |                      |                  |      |      |
| huluulu      | <u>SS-2</u>   | 8 100                  |            | 1              |     | END OF BOREHOLE<br>(30.00 m)   |                       | 17  | 20 23         | 3              |      |              |                 |                   |            | 81      |             | 44                 | 18              | 2.62                |                                |  |                      | 100              | 97   | 53   |
| huduuduu     | 2   |                        |            |                |     |  |                       |     |               |                |      |              |                 |                   |            |         |             |                    |                 |                     |                                |  |                      |                  |      |      |
| Junjunju     | 3   |                        |            |                |     |  |                       |     |               |                |      |              |                 |                   |            |         |             |                    |                 |                     |                                | -  |                      |                  |      |      |
| uhuhuh       | 5   |                        |            |                |     |  |                       |     |               |                |      |              |                 |                   |            |         |             |                    |                 |                     |                                |  |                      |                  |      |      |
| mumun        | 96  |                        |            |                |     |  |                       |     |               |                |      |              |                 |                   |            |         |             |                    |                 |                     |                                |  |                      |                  |      |      |
| huludin      | 37  | 5                      |            |                |     |  |                       |     |               |                |      |              |                 |                   |            |         |             |                    |                 |                     |                                |  |                      |                  |      |      |
| Junfunfi     | 38  | 4                      |            |                |     |  |                       |     |               |                |      |              |                 |                   |            |         |             |                    |                 |                     |                                |  |                      |                  |      |      |
| mlun         | 40  |                        |            |                |     |  |                       |     |               |                |      |              |                 |                   |            |         |             |                    |                 |                     |                                |  |                      |                  |      |      |
|              | BASIC TECHNOLOGY AND<br>MANAGEMENT CORPORATION<br>2nd Floor Prudential Bank Building,<br>1377 A. Mabini St., Ermita, Manila |                        |            |                |     |  |                       |     | ER:<br>RVIS   | SOF            | २ः _ | J.<br>M.     | MC<br>Es        | R AC              | 1          |         | -<br>-<br>- | 0                  |                 |                     | VS - W<br>IDS - L<br>R - CC    | LIT SP<br>ASH S<br>JNDIST<br>DRE S/<br>DROME | ampl<br>Turb<br>Ampl | LE<br>ED SA<br>E | MPLE | E    |

Figure 5-3-3 (206/221) BORING LOGS (PHASEI)

| -               | 0.11           | -01                    | : P        | asi            | a-M | arikina River Channel Ir  | np. F | Proi       |         | GRO     | UND<br>W = 2 | ELE                            | V.<br>Datu             | m)                 | + 12      | 3.61                         | 0                         |       |               |                     |                      | R:                             | _   | .00          |     | -  |
|-----------------|----------------|------------------------|------------|----------------|-----|---|-------|------------|---------|---------|--------------|--------------------------------|------------------------|--------------------|-----------|------------------------------|---------------------------|-------|---------------|---------------------|----------------------|--------------------------------|-----|--------------|-----|----|
|                 |                |                        |            |                |     |   |       |            |         |         | TION         |                                |                        |                    |           |                              | <u> </u>                  |       |               |                     |                      | D: <u>2</u>                    |     |              |     | (  |
| 1000            | CAT            |                        |            |                |     | k, Castañeda, Namayan,  |       |            | -  -    |         | ATHE         |                                |                        |                    | FAI       |                              |                           | 1     |               |                     | URE                  |                                |     | 00 P         | M   |    |
| 3H              | NO:            |                        |            |                |     | DRILLED: 21 - 28 Novem  |       |            | y<br>ws | -       | RDIN         | ATE                            | S: _                   |                    | 161:<br>1 |                              |                           | ATTER | DEDC          | l,                  | LINCON               | 0178                           |     | 26<br>VE AN  |     | -  |
| UEFIH, M        | SAMPLE NO.     | RECOVERY (%)<br>SAMPLE | LOG SYMBOL | CLASSIFICATION | RQD | DESCRIPTION   |       | (S         | PT)     | 5       | PENE         | STANI<br>ETRAT<br>(SF<br>(N-VA | rion '<br>PT)<br>NLUE) | TEST               |           | NATURAL MOIST.<br>CONTENT, % | TOTAL UNIT<br>WEIGHT, g/∞ |       | PLASTICITY SI | SPECIFIC<br>GRAVITY | STRENGTH OS          | TEST                           |     | 10           |     |    |
| - 1             | SS-1           | 33                     |            | sм             |     | Silty SAND; brown; very fine s<br>with some medium and coa<br>sand gravel; 44% non-plastic<br>VERY LOOSE. | arse  |            |         | 2       |              |                                |                        |                    |           | 27                           |                           |       |               | 2.63                |                      |                                | 89  | 82           | 71  |    |
| - 2<br>-<br>- 3 | SS-2<br>SS-3   | 33<br>33               |            |                |     |   |       | 1          |         |         |              |                                |                        |                    |           |                              |                           |       |               |                     |                      |                                |     |              |     | -  |
| - 4             | SS-4           | 44                     |            | SP             |     | Silty Fine SAND; dark gray;<br>fine sand with 29% non- plastic<br>VERY LOOSE to LOOSE.                    |       |            | 2       | 2       |              |                                |                        |                    |           | 30                           |                           |       |               | 2.63                |                      |                                |     | 100          | 9   | 9  |
| - 5<br>-<br>- 6 | SS-5<br>SS-6   | 33<br>22               | · · ·      |                |     |   |       | Π          |         | 4       |              |                                |                        |                    |           |                              |                           |       |               |                     |                      |                                |     |              |     |    |
| -7<br>-7        | SS-7           | 33                     | 0          | GW             |     | Sandy GRAVEL; dark gray;<br>sub-angular gravel; 37% me  |       | 5          | 6       | 9       | $\backslash$ |                                |                        |                    |           | 10                           |                           |       |               | 2.64                |                      |                                | 50  | 28           |     | 13 |
| - 8<br>-<br>- 9 | SS-8<br>SS-9   | 22<br>44               | 0<br>0     |                |     | to coarse sand; MEDIUM DEI  | NSE.  | 5<br>6     | 13<br>8 | 8       |              |                                |                        |                    |           |                              |                           |       |               |                     |                      |                                |     |              |     |    |
| -               | SS-10          | 67                     | X          |                |     | Clayey SAND; gray to gree<br>gray; sand-clay mixture with   |       | 5          | 6       | 6       |              |                                |                        |                    |           | 25                           |                           |       |               | 2.6                 | 4                    |                                | 76  | 63           |     | 51 |
| ł               | SS-11          |                        |            | SC             |     | sub-angular gravel; MED<br>DENSE.   |       |            | 6       |         |              |                                |                        |                    |           | -                            |                           |       |               |                     |                      | -                              |     |              |     |    |
| -               | SS-12<br>SS-13 |                        | X          | GN             | 1   | Sandy GRAVEL; light g<br>angular gravel with coarse s<br>MEDIUM DENSE,                                    |       |            | 6       |         |              |                                |                        |                    |           | 16                           |                           |       |               | 2.6                 | 5                    |                                | 52  | 42           | T   | 3  |
| -<br>-14<br>-   | SS-14          | 11                     | △          |                |     |   |       | 16         | 35      | 15<br>5 |              |                                |                        |                    |           | -                            |                           |       |               |                     |                      |                                |     |              |     |    |
| -15             |                |                        |            |                | 7   |   | المله |            | RI      |         |              |                                |                        |                    |           |                              |                           |       |               |                     |                      |                                |     |              | +   |    |
| - 17            |                |                        |            | SI             |     | gray to light brown; fine to me   | dium  | <u>c (</u> | RI      | NG      |              |                                |                        |                    |           | -                            |                           |       | -             | -                   |                      |                                |     |              |     |    |
| ł               | CR-4           |                        |            |                | 20  |   |       |            | RI      |         |              |                                |                        |                    |           | -                            |                           |       |               |                     |                      |                                |     | -            | +   |    |
| -19             | 0 CR-6         |                        |            |                | 18  | End of Borehole<br>(20.00 m)  | 1     | co         | RI      | NG      |              |                                |                        |                    |           |                              |                           | LEG   | END:          |                     |                      |                                |     |              |     | _  |
|                 | •              |                        | 12         | nd             | AG  | TECHNOLOGY AND<br>EMENT CORPORATION<br>r Prudential Bank Building,<br>Mabini St., Ermita, Manila          |       |            | ER      | : _     | R: _         | F                              | <u>.</u> [             | <u>ER /</u><br>DAV | VI        |                              | —<br>—                    |       |               |                     | WS - UDS -<br>CR - 0 | PLIT S<br>WASH<br>UNDIS<br>ORE | SAM | PLE<br>BED : | SAN | MF |

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| -        | -          | E         | CT       | : 0        | asi            | a-M | arikina River Channel II   | mp. P          | ro | i.        | G         | ROU | ND   | ELE                            | /.<br>)atum) | + - | 4 82                         | 3                          |            |               |   | VATE          |                                      |      | 85          |            |
|----------|------------|-----------|----------|------------|----------------|-----|--|----------------|----|-----------|-----------|-----|------|--------------------------------|--------------|-----|------------------------------|----------------------------|------------|---------------|---|---------------|--------------------------------------|------|-------------|------------|
|          |            |           |          |            |                |     |  |                |    | e         |           |     |      | NO.:                           |              |     | 275                          | <u> </u>                   |            |               |   |               | D: <u>2</u>                          |      |             |            |
|          | CA         |           |          |            |                |     | ank, Pinatubo St., (near Gua<br>E DRILLED: 20 - 24 Noven   |                |    | -         |           | VEA |      |                                |              | FA  |                              | 0.01                       | 1          |               |   | UREI          |                                      |      | 0 Al        | <u>^</u>   |
| BH       | NO         |           |          | 2-7        |                |     | DRILLED: 20 - 24 NOVEN   |                |    | ow        | -         | JOR | DIN  | ATES                           | <u> </u>     | 10  | 1129                         |                            |            | N             | <u>,                                     </u> | UNCO          | NFINED                               | SIE  | /E AN       |            |
| DEPTH, m | SAMPLE NO. | COVERV (% | SAMPLE   | LOG SYMBOL | CLASSIFICATION | RQD | DESCRIPTION  |                | 15 | 15<br>cm  | 15        | F   | ENE  | TAND<br>TRATI<br>(SPT<br>N-VAL | on tes<br>D  | т   | NATURAL MOIST.<br>CONTENT, % | TOTAL UNIT<br>WEIGHT, g/cc | LIQUID 8   | PLASTICITY SI | SPECIFIC<br>GRAVITY                           | STRENGTH O    | STRAIN<br>8, %<br>8, %               |      | 10          | 3 SI<br>40 |
| F        |            | 0         | =<br>X   | -          | Ö              |     |  |                |    | 1         |           | 10  | ) 20 | 30                             | 40           | 50  | $\square$                    |                            |            |               |   |               |                                      |      |             |            |
| - 1      | SS-1       | 7         | 8<br>X   |            |                |     | Gravelly SAND; dark gray;<br>coarse to medium sand;  | with           | 5  | 5         | 3         | /   |      |                                |              |     | 21                           |                            |            |               | 2.65  |               | $\left  - \right $                   | 64   | 21          | 11         |
| - 2      | SS-2       | 2 1       | 00<br>X  |            | sw             |     | traces of fine sand and 3<br>gravel; VERY LOOSE<br>LOOSE.  |                | 4  | 3         | 1         |     |      |                                |              |     |                              |                            |            |               |   |               |                                      |      |             |            |
| - 3      | SS-        | 3 1       | 00<br>X  | ·::-<br>// | -              |     |  |                | 2  | 3         | 3         |     |      |                                |              |     | -                            | -                          |            |               |   |               |                                      |      | _           |            |
| -4       | SS-        | 4 1       | 00       | V          | сн             |     | CLAY; brown; 88-96% plasticity clay with 4-7% fine s   | high<br>and;   | 2  | 2         | 1         |     |      |                                |              |     | 47                           |                            | 64         | 40            | 2.60  | Cc            | Pc                                   |      |             | 100        |
| -<br>- 5 | UDS        | 1 1       | 00       |            |                |     | FIRM.  |                | PR | ESS       | ED        |     |      |                                |              |     | 47                           | 1.55                       | 62         | 43            | 2.60  | 0.395         |                                      | 100  | 96          | 95         |
| -<br>- 6 | SS-        | 5         | 39 A     |            |                |     | Poorly Graded GRAVEL;<br>gray; mixture of 41% gravel   |                | 10 | 11        | 13        |     | /    |                                |              |     | -                            | -                          |            |               |   |               |                                      |      |             |            |
| -7       | SS-        | 6         | 78       |            | GP             |     | 43% coarse sand with 12%<br>plastic silt and shell fragme<br>DENSE.                              | non-           | 9  | 11        | 14        |     |      | -                              |              |     |                              | -                          | -          |               |   | -             |                                      |      |             |            |
| - 8      | SS-        | 7         | 67       |            |                |     |  |                | 11 | 12        | 12        |     |      |                                |              |     | 21                           | -                          | -          | -             | 2.64  |               | -                                    | 59   | 16          | 13         |
| - 9      | SS-        | 8         | 78       |            |                |     | Gravelly Sitty SAND; dark<br>79% well-graded sand; 9% gr   |                | 7  | 6         | 6         |     |      |                                |              |     | -                            |                            |            | -             | -   |               | +                                    |      |             |            |
| - 10     | ss         | 9         | 67       |            |                |     | 12% non-plastic fines; MED<br>DENSE.   |                | 8  | 9         | 10        |     |      |                                |              |     | -                            | -                          | -          | -             | -   | -             | <u>.</u>                             |      |             |            |
| - 11     | 1 SS-      | 10        | 67       |            | SM<br>SV       |     |  |                | 9  | 10        | 11        |     |      |                                |              |     | 17                           |                            |            |               | 2.63  | 3             | +                                    | 91   | 79          | 4          |
| -12      | SS-        | 11        | 67       |            |                |     | Silty Gravelly SAND; gray;<br>well graded sand; 20% grave  | and            | 12 | 15        | 15        |     |      |                                | $\setminus$  |     | -                            |                            |            |               |   | -             |                                      |      |             | -          |
| -13      | SS-        | 12        | 100      |            |                |     | 15% non-plastic silt; VERY S<br>to FIRM.   | SOFT           | 11 | 17        | 18        |     |      |                                |              |     |                              |                            |            |               | +   |               |                                      |      |             | -          |
| ł        | SS-        |           |          |            |                |     |  |                |    | 16        |           |     |      |                                |              |     | 13                           |                            |            | -             | 2.6   | 3             |                                      | 80   | 63          | 3          |
| ł        | 5 SS-      |           | 67       |            |                |     |  |                |    | 10        |           |     |      |                                |              |     | -                            |                            |            | $\uparrow$    | 1   | 1             | 1                                    |      |             |            |
| ł        | 6 SS-      |           |          |            | SN             |     | Fine to MEDIUM SAND;<br>gray; 56% fine to medium<br>with 38% non-plastic silt an                 | sand           |    | 12        |           |     |      |                                |              |     |                              |                            | -          | +             |   |               | +                                    |      |             |            |
| -        | 7 SS-      |           |          | X          |                |     | coarse sand; MEDIUM DEN  |                |    | 13        |           |     |      |                                |              |     | 34                           | -                          | -          |               | 2.6   | 3             | +                                    | 98   | 94          | 7          |
| -        | 8 SS-      |           | 89<br>67 | X          |                |     |  |                |    | 13        |           |     |      |                                |              |     |                              |                            | $\uparrow$ |               |   | +             |                                      |      |             |            |
| -        | 20 55      |           |          |            | SF             | >   | Silty SAND; dark gray to gray;<br>coarse sand with shell fragm<br>MEDIUM DENSE to LOOSE.         |                | Γ  | 27        |           | 1   |      |                                |              |     | 28                           | 5                          |            |               | 2.6   | 3             |                                      | 98   | 97          | 8          |
|          |            |           | =i<br>   | N<br>2     | IAN<br>nd      | AGI | TECHNOLOGY AND<br>EMENT CORPORATION<br>r Prudential Bank Building,<br>Mabini St., Ermita, Manila | MA<br>DR<br>SU |    | IIN<br>EF | IE:<br>R: | _   |      | J. N                           | KER<br>MADI  | ERA |                              | _                          | LEG        | END:          |   | WS -<br>UDS - | SPLIT S<br>WASH<br>- UNDIS<br>CORE S | SAMP | LE<br>BED S |            |

F. 5-342

|                 | 0.1               | EC           | Г:         | Pa | sig            | g-M | arikina River Channel Ir   | mp. P        | ro | j.       | G          | ROUNI   | Zero | V.<br>Datu | ım)  | + 1 | 4.8                          | 23                         |       |                           |                     |                   | R:                                  |      | .85         |     |
|-----------------|-------------------|--------------|------------|----|----------------|-----|--|--------------|----|----------|------------|---------|------|------------|------|-----|------------------------------|----------------------------|-------|---------------------------|---------------------|-------------------|-------------------------------------|------|-------------|-----|
| 100             |                   |              |            |    |                |     | ink, Pinatubo St., (near Gua   |              |    | -        |            | TATIO   |      |            |      | 4 + |                              |                            |       |                           |                     |                   | D: <u>2</u>                         |      |             |     |
|                 | CAT               |              |            |    | -              |     | DRILLED: 20 - 24 Noven   |              |    | 0        |            | VEATH   |      | -0.        |      | =AI | R<br>1129                    | 09.6                       | I     |                           |                     |                   | ):<br>5046                          |      |             |     |
| BH              | NO:               |              |            | T  | _              |     |  |              | BL | .ow      | IS         | OORD    |      | :5.        |      |     |                              |                            | ATTER | RBERG                     | I,                  | UNCON             | FINED                               | SIE  |             | NAI |
| DEPTH, m        | SAMPLE NO.        | RECOVERY (%) | LOG SYMBOL |    | CLASSIFICATION | RQD | DESCRIPTION  |              | 15 | 15<br>cm | 15         | PEN     |      |            | TEST | k,  | NATURAL MOIST.<br>CONTENT, % | TOTAL UNIT<br>WEIGHT, g/cc | -     | PLASTICITY ST<br>INDEX, % | SPECIFIC<br>GRAVITY | STRENGTH Strength |                                     | % P/ | 10          | 4G  |
|                 |                   |              |            | T  | M              | _   | Silty Fine SAND; (Same above); MEDIUM DENSE.   | as           | 14 | 15       | 10         | 10      | 20 3 |            |      |     |                              |                            |       | 2 2                       |                     | io<br>I           | -                                   |      |             | -   |
|                 | SS-20<br>SS-21    | 89<br>89     |            |    |                |     | Fine to MEDIUM SAND; of  | dark         |    | 14       |            |         |      | \;         |      |     |                              |                            |       |                           |                     |                   |                                     |      |             |     |
|                 | SS-22             | 89           |            |    |                |     | gray; over 90% fine to med<br>sand with shell fragments; v<br>little fines; MEDIUM DENSI     | tium<br>evry | 10 | 18       | 20         |         |      |            |      |     | 21                           |                            |       |                           | 2.63                |                   |                                     | 99   | 94          |     |
|                 | <del>SS-2</del> 3 | 89           |            |    | \$P            |     | DENSE.   | 0004         | 13 | 19       | 20         |         |      |            |      |     |                              |                            |       |                           |                     |                   |                                     |      |             |     |
| -               | SS-24             |              |            | •  |                |     | Fine SAND; dark gray; over s<br>fine sand with shell fragments;<br>fines; DENSE.             | little       |    | 23       |            |         |      |            |      |     | 31                           |                            |       |                           | 2.63                |                   |                                     |      | 100         | +   |
| -26<br>-<br>-27 | <u>SS-25</u>      |              |            |    |                |     | END OF BOREHOLE<br>(26.00 m)   |              |    |          |            |         |      |            |      |     |                              |                            |       |                           |                     |                   |                                     |      |             | Γ   |
|                 | 2                 |              |            |    |                |     |  |              |    |          |            |         |      |            |      |     |                              |                            |       |                           |                     |                   |                                     |      |             |     |
| -29<br>-        |                   |              |            |    |                |     |  |              |    |          |            |         |      |            |      |     |                              |                            |       |                           |                     |                   |                                     |      |             |     |
| -30<br>-<br>-31 |                   |              |            |    |                |     |  |              | 1  |          |            |         |      |            |      |     |                              |                            |       |                           |                     |                   |                                     |      |             |     |
| -32             |                   |              |            |    |                |     |  |              |    |          |            |         |      |            |      |     |                              |                            |       |                           |                     |                   |                                     |      |             |     |
| <br>-33<br>     |                   |              |            |    |                |     |  |              |    |          |            |         |      |            |      |     |                              |                            |       |                           |                     |                   |                                     |      |             |     |
| -34             |                   |              |            |    |                |     |  |              |    |          |            |         |      |            |      |     |                              |                            |       |                           |                     |                   |                                     |      |             |     |
| -35<br>-<br>-36 |                   |              |            |    |                |     |  |              |    |          |            |         |      |            |      |     |                              |                            |       |                           |                     |                   |                                     |      |             |     |
| -37             |                   |              |            |    |                |     |  |              |    |          |            |         |      |            |      |     |                              |                            |       |                           |                     |                   |                                     |      |             |     |
| -38             |                   |              |            |    |                |     |  |              |    |          |            |         |      |            |      |     |                              |                            |       |                           |                     |                   |                                     |      |             |     |
| -39             |                   |              |            |    |                |     |  |              |    |          |            |         |      |            |      |     |                              |                            |       |                           |                     |                   |                                     |      |             |     |
| ĺ               | •                 |              | 2          |    | N/<br>F        |     | ECHNOLOGY AND<br>MENT CORPORATION<br>Prudential Bank Building,<br>Mabini St., Ermita, Manila |              | LL | EF       | <b>२</b> : | <br>OR: |      | MAI        | DEF  | RA  |                              | _                          |       |                           | N                   | WS-W<br>UDS-      | PLIT SF<br>VASH S<br>UNDIS<br>ORE S | TURE | LE<br>BED S |     |

| ľ        |               |                        |        |                |     |  |                    |     |      |     |  |                    |               |      |                  |          |            |           |                | S                   | HEE                            | T         | 1                     | OF           | 1   |     |
|----------|---------------|------------------------|--------|----------------|-----|--|--------------------|-----|------|-----|--|--------------------|---------------|------|------------------|----------|------------|-----------|----------------|---------------------|--------------------------------|-----------|-----------------------|--------------|-----|-----|
|          |               |                        |        |                | -   | AL BOREHOLE LO   | Contraction of the |     | -    | -   |  |                    |               | OF   | Т                | E        | ST         | -         | -              | Contraction of the  |                                |           | and the second second | <b>R</b> -   | 8   |     |
| R        | OJ            | ECT                    | : P    |                |     | arikina River Channel Im   |                    | Pro | į.   | (N  | ROUND  | Zero               | Datu          |      |                  |          |            |           |                |                     |                                | R:<br>D:1 |                       |              |     | m.  |
| .0       | CAT           | ION:                   | -      |                |     | t Bank, Rodriguez, Pine  |                    |     | -    |     | TATION<br>/EATH  |                    |               |      |                  | _        |            | ти        | ME             | MEAS                | URE                            | ):        | 7:0                   | 00 A         | M   |     |
| 3H       | NO:           | BF                     | 2-8    | -              | ATE | DRILLED: 17 Novembe  | r 20               |     |      | -   | DORDI  | NATE               | ES:           |      | T                |          |            |           | 0000           |                     |                                | 5064      |                       | 532<br>VE AN |     | E   |
| UEFIH, M | SAMPLE NO.    | RECOVERY (%)<br>SAMPLE | SYMBOL | CLASSIFICATION | RQD | DESCRIPTION  |                    | 15  |      | 15  |  | STAN<br>ETRA<br>(S |               |      | TOIM IN DI       | NTENT, % | IGHT, g/cc | LIM<br>Of |                | SPECIFIC<br>GRAVITY | COMP.                          |           |                       | ASSIN        |     |     |
| UEY      | SAMP          | RECO                   | FOG    | CLASS          |     |  |                    | cm  | cm d | m   | 10   |                    | ALUE)<br>10 4 | 0 50 | LVN              | CO O     | 5 Å        |           | PLAST<br>INDE) | 00                  | STRENGTH<br>kg/cm <sup>2</sup> | M STR     | 4                     | 10           | 40  | 200 |
| 1        | <b>SS-1</b>   | 100                    |        |                |     | Silty CLAY; brown; 88% media   | um                 | 2   | 2    | 2   | 1  |                    |               |      | -                | 34       |            | 59        | 38             | 2.60                |                                |           |                       | 100          | 99  | 88  |
| . 2      | <b>SS-2</b>   | 100                    | ĺ      | сн             |     | to high plasticity clay; 11% very f sand; SOFT.  |                    | 1   | 2    | 2   |  |                    |               |      | $\left  \right $ |          |            |           |                |                     |                                |           |                       |              |     |     |
| .3       | SS-3          | 100                    |        | CL             |     | Sandy CLAY; dark gray;84<br>medium plasticity clay; 16% f  | 4%<br>ine          | 2   | 1    | 2   |  |                    |               |      |                  |          |            |           |                |                     |                                |           |                       |              |     | -   |
| - 4      | SS-4          | 100                    |        |                |     | sand; VERY SOFT.   |                    | 1   | 1    | 1   | $\backslash$   |                    |               |      | ł                | 48       |            | 46        | 26             | 2.60                |                                |           |                       |              | 100 | 84  |
| - 5      | SS-5          | 78                     |        |                |     | Gravelly SAND; dark gray; 6<br>medium to fine sand with 1<br>gravel and traces of sh<br>fragments; contains 6% coa | 3%<br>nell         | 12  | 7    | 8   |  |                    |               |      |                  |          |            |           |                |                     |                                |           |                       |              |     | -   |
| - 6      | SS-6          | 67                     |        |                |     | sand and 15% non-plastic s<br>MEDIUM DENSE to DENSE.   | silt;              |     | 16   |     |  |                    | P             |      | ŀ                |          |            |           |                |                     | -                              |           |                       |              |     |     |
| -7       | SS-7          | 67                     |        |                |     |  |                    |     | 10   |     |  | Í                  |               |      |                  | 15       |            |           |                | 2.64                |                                |           | 87                    | 81           | 46  | 15  |
| - 8      | SS-8          |                        |        |                |     |  |                    |     | 12   |     |  | $\backslash$       |               |      | ŀ                | ,        |            |           |                |                     |                                |           |                       |              |     |     |
| -        | SS-9<br>SS-10 |                        |        | SP             |     |  |                    |     | 12   |     |  |                    |               |      |                  | 21       |            |           |                | 2.63                | 3                              |           | 92                    | 81           | 61  | 15  |
| ł        | SS-11         |                        |        |                |     | Poorly Graded SAND; 46 - 5<br>fine sand with 19% medium s  |                    |     | 12   |     |  |                    |               |      |                  |          |            |           |                |                     |                                |           |                       |              |     |     |
| -12      | SS-12         | 67                     |        |                |     | and 10% coarse sand; contains<br>- 17% non-plastic fines and l<br>than 6-9% gravel; traces of s                    | less<br>shell      | 8   | 13   | 18  |  |                    |               |      |                  |          |            |           |                |                     |                                |           | -                     | _            | -   |     |
| -13      | SS-13         | 67                     |        |                |     | fragments; MEDIUM DENSE<br>DENSE.  | = to               | 16  | 17   | 23  |  |                    |               |      |                  | 20       |            | -         | -              | 2.6                 | 4                              |           | 91                    | 82           | 63  | 1   |
| -14      | SS-14         | 67                     |        |                |     |  |                    | 17  | 20   | 20  |  |                    |               |      |                  |          | -          | -         | -              | -                   |                                |           |                       |              | -   | +   |
| -15      | SS-1          | 67                     |        |                |     |  |                    | 13  | 17   | 20  |  |                    |               |      |                  |          |            |           | +              | -                   | -                              |           | -                     |              | +   | +   |
| -        | SS-16         |                        |        | •              |     |  |                    | 13  | 15   | 25  |  |                    |               |      |                  | 23       |            | +         | +              | 2.6                 | 3                              | +         | .94                   | 84           | 65  | 5 1 |
| ł        |               | 67                     |        | -              | -   | End of Borehole<br>(17.00 m)   |                    | 8   | 19   | 23  |  |                    | +             |      |                  |          | +-         |           |                |                     | -                              | +         | +                     | $\uparrow$   | +   | +   |
| -18      |               |                        |        |                |     |  |                    |     |      |     |  |                    |               |      |                  |          |            |           |                |                     |                                |           |                       |              |     |     |
| 2        |               |                        |        |                |     |  |                    |     |      |     |  |                    |               |      |                  |          |            |           |                |                     |                                |           |                       |              |     |     |
|          | -             | 7                      | N      | IAN            | AG  | TECHNOLOGY AND<br>EMENT CORPORATION<br>Prudential Bank Building,   | MA<br>DR           |     |      |     | the state of the s |                    |               | R AC |                  |          | _          | LEG       |                |                     | WS -                           | WASH      | SAMP                  | PLE          |     | LE  |
|          |               | 1117                   |        |                |     | Mabini St., Ermita, Manila   | SU                 | PE  | RV   | 'IS | OR:  | M.                 | VIL           | LAF  | JEI              | RT       | E_         |           | *              |                     | CR-C                           | ORE       | SAMP                  | LE           |     |     |

Figure 5-3-3 (210/221) BORING LOGS (PHASEI)