










|   |                                  |                           |   |   |         |  |  |  |            |             |                            |      |                    |     |
|---|----------------------------------|---------------------------|---|---|---------|--|--|--|------------|-------------|----------------------------|------|--------------------|-----|
| Grunt-Test Dawid Matusiak<br>61-689 Poznań, os. Przyjaźni 19/85                         |                                  |                           | KARTA OTWORU GEOTECHNICZNEGO<br><br>Profil numer 2  |   |         |  |  | Zał.Nr: 2.2<br><br>Wiertnica: Wamet H13P |            |             |                            |      |                    |     |
| Miejscowość: Wągrowiec<br>Gmina: -<br>Powiat: wągrowiecki<br>Województwo: wielkopolskie |                                  |                           | Obiekt: Rozbudowa oczyszczalni ścieków<br>Inwestor: NBM Technologie<br>Wiercenie: Grunt-Test<br>Dozór geol.: mgr Robert Woźniak |   |         |  |  | System wiercenia: Mechaniczno-obrotowy   |            |             |                            |      |                    |     |
|   |                                  |                           |   |   |         |  |  | Rzędna: 83.17 m n.p.m.                   |            |             |                            |      |                    |     |
|   |                                  |                           |   |   |         |  |  | Skala 1 : 45                             |            |             | Data wiercenia: 2019-11-18 |      |                    |     |
| Wiercenie   | Głębokość<br>zwierciadła<br>wody | Stratygrafia              | Profil<br>litologiczny  |   | Przelot | Opis litologiczny  | Symbol gruntu  | Warstwa<br>geotechniczna                 | Wilgotność | Stan gruntu | ID                         | IL   | Ilość<br>wałeczków |     |
| 1   | 2                                | 3                         | 4   | 5 | 6       |  | 7  | 8  | 9          | 10          | 11                         | 12   | 13                 | 14  |
|        |                                  | Nasypy                    |    |   |         | nasyp niekontrolowany brązowo-szary (piasek drobny próchniczny, piasek drobny, piasek średni, żwir, cegła) | nN(PdH, Pd, Ps, Ż, C)  |  |            | In          |                            |      |                    |     |
|   |                                  | Nasyp                     |   |   |         |  |  |  |            |             |                            |      |                    |     |
|   |                                  | Czwartorzęd<br>Pleistocen |   |   |         | 1.0  | piasek średni ciemnobrązowy  | Ps                                       | IVe        | w           |                            | 0.46 |                    |     |
|   |                                  |                           |   |   |         | 2.0  | piasek średni ciemnobrązowy przewarstwiony pospółką z domieszką glin | Ps  Po+G                                 | IVf        | nw          | szg                        | 0.59 |                    |     |
|   |                                  |                           |   |   |         | 3.0  | piasek średni ciemnobrązowy przewarstwiony pospółką z domieszką glin |  |            |             | zg                         | 0.69 |                    |     |
|   |                                  |                           |   |   |         | 3.20   | glina piaszczysta ciemnobrązowa                                      | Gp                                       | Ve         | w           | pl                         |      | 0.3                | 2/3 |
|   |                                  |                           |   |   |         | 3.70   | glina piaszczysta ciemnobrązowa                                      |  | Vc         |             |                            |      | 0.2                | 2/1 |
|   |                                  |                           |   |   |         | 4.10   | glina piaszczysta ciemnoniebieski                                    |  | Vb         |             | tpl                        |      | 0.1                | 0/1 |
|   |                                  |                           |   |   |         | 5.0  |  |  |            |             |                            |      |                    |     |
|   |                                  |                           |   |   |         | 6.0  |  |  |            |             |                            |      |                    |     |
|   |                                  |                           |   |   |         |  |  |  |            |             |                            |      |                    |     |


|   |                                  |              |  |     |         |   |  |                          |            |  |     |                            |                    |       |
|---|----------------------------------|--------------|--|-----|---------|---|--|--------------------------|------------|--|-----|----------------------------|--------------------|-------|
| Grunt-Test Dawid Matusiak<br>61-689 Poznań, os. Przyjaźni 19/85                         |                                  |              |  |     |         | KARTA OTWORU GEOTECHNICZNEGO<br><br>Profil numer 3  |  |                          |            | Zał.Nr: 2.3<br><br>Wiertnica: Wamet H13P |     |                            |                    |       |
| Miejscowość: Wągrowiec<br>Gmina: -<br>Powiat: wągrowiecki<br>Województwo: wielkopolskie |                                  |              |  |     |         | Objekt: Rozbudowa oczyszczalni ścieków<br>Inwestor: NBM Technologie<br>Wiercenie: Grunt-Test<br>Dozór geol.: mgr Robert Woźniak |  |                          |            | System wiercenia: Mechaniczno-obrotowy   |     |                            |                    |       |
|   |                                  |              |  |     |         |   |  |                          |            | Rzędna: 82.82 m n.p.m.                   |     |                            |                    |       |
|   |                                  |              |  |     |         |   |  |                          |            | Skala 1 : 45                             |     | Data wiercenia: 2019-11-18 |                    |       |
| Wiercenie   | Głębokość<br>zwierciadła<br>wody | Stratygrafia | Profil<br>litologiczny   |     | Przelot | Opis litologiczny   | Symbol gruntu                          | Warstwa<br>geotechniczna | Wilgotność | Stan gruntu                              | ID  | IL                         | Ilość<br>wałeczków |       |
|   | [m.p.p.t]                        |              | [m]  | [m] |         |   |  |                          |            |  |     |                            |                    |       |
| 1   | 2                                | 3            | 4  | 5   | 6       | 7   | 8                                      | 9                        | 10         | 11                                       | 12  | 13                         | 14                 |       |
|        |                                  |              |  |     |         | nasyp niekontrolowany ciemnobrązowy (piasek drobny próchniczny, piasek drobny, żwir, kamienie)                                  | nN(PdH, Pd, Ż, K)                      |                          | w          | In                                       |     |                            |                    |       |
|   |                                  |              |  |     |         | 1.00  | piasek średni brązowy z domieszką glin | Ps+G                     | IVf        |  | szg | 0.66                       |                    |       |
|   |                                  |              |  |     |         | 1.30  | piasek średni brązowy                  | Ps                       | IVg        |  | zg  | 0.68                       |                    |       |
|   |                                  |              |  |     |         | 1.60  | piasek drobny szaro-brązowy            |                          |            | nw                                       |     |                            |                    |       |
|   |                                  |              |  |     |         |   |  |                          |            |  | szg | 0.59                       |                    |       |
|   |                                  |              |  |     |         | 2.60  | piasek gliniasty ciemnobrązowy         | Pd                       | IVb        |  |     |                            |                    |       |
|   |                                  |              |  |     |         |   |  | Pg                       | Ve         |  | pl  |                            | 0.3                | 1/2/1 |
|   |                                  |              |  |     |         | 3.30  | glina piaszczysta ciemnoszara          |                          | Vc         |  |     |                            | 0.2                | 2/1   |
|   |                                  |              |  |     |         | 3.80  | glina piaszczysta ciemnoszara          |                          |            |  |     |                            |                    |       |
|   |                                  |              |  |     |         |   |  | Gp                       | Vb         | w  | tpl |                            | 0.1                | 0/1   |
|   |                                  |              |  |     |         |   |  |                          |            |  |     |                            |                    |       |
|   |                                  |              | 6.0  |     | 6.00    |   |  |                          |            |  |     |                            |                    |       |



|   |                                  |              |   |     |         |  |                |  |            |             |                            |     |                     |  |  |
|---|----------------------------------|--------------|---|-----|---------|--|----------------|--|------------|-------------|----------------------------|-----|---------------------|--|--|
| Grunt-Test Dawid Matusiak   |                                  |              | KARTA OTWORU GEOTECHNICZNEGO  |     |         |  |                | Zał.Nr: 2.5                            |            |             |                            |     |                     |  |  |
| 61-689 Poznań, os. Przyjaźni 19/85  |                                  |              |   |     |         |  |                | Wiertnica: Wamet H13P                  |            |             |                            |     |                     |  |  |
|   |                                  |              | Profil numer 5  |     |         |  |                |  |            |             |                            |     |                     |  |  |
| Miejscowość: Wągrowiec<br>Gmina: -<br>Powiat: wągrowiecki<br>Województwo: wielkopolskie |                                  |              | Objekt: Rozbudowa oczyszczalni ścieków<br>Inwestor: NBM Technologie<br>Wiercenie: Grunt-Test<br>Dozór geol.: mgr Robert Woźniak |     |         |  |                | System wiercenia: Mechaniczno-obrotowy |            |             |                            |     |                     |  |  |
|   |                                  |              |   |     |         |  |                | Rzędna: 83.27 m n.p.m.                 |            |             |                            |     |                     |  |  |
|   |                                  |              |   |     |         |  |                | Skala 1 : 45                           |            |             | Data wiercenia: 2019-11-18 |     |                     |  |  |
| Wiercenie   | Głębokość<br>zwierciadła<br>wody | Stratygrafia | Profil<br>litologiczny  |     | Przelot | Opis litologiczny  | Symbol gruntu  | Warstwa<br>geotechniczna               | Wilgotność | Stan gruntu | ID                         | IL  | Ilość<br>wałczkowań |  |  |
|   |                                  |              | [m]   | [m] |         |  |                |  |            |             |                            |     |                     |  |  |
| 1   | 2                                | 3            | 4   | 5   | 6       | 7  | 8              | 9                                      | 10         | 11          | 12                         | 13  | 14                  |  |  |
| <div><div></div><div></div><div>1.50</div></div>  |                                  | Nasypany     |   |     |         | nasyp niekontrolowany ciemnoszary (piasek drobny próchniczny, piasek drobny, żwir) | nN(PdH, Pd, Z) |  |            | In          |                            |     |                     |  |  |
|   |                                  | Nasypany     |   |     | 0.60    | piasek drobny brązowy  | Pd             | IVb                                    | w          | szg         | 0.59                       |     |                     |  |  |
|   |                                  |              | 1.0   |     | 1.50    | piasek drobny brązowy  |                |  |            |             |                            |     |                     |  |  |
|   |                                  |              |   |     | 1.90    | piasek drobny brązowy  |                | IVc                                    |            | zg          | 0.69                       |     |                     |  |  |
|   |                                  |              | 2.0   |     | 2.20    | piasek drobny brązowo-szary z domieszką glin                                       | Pd+G           | IVa                                    | nw         |             | 0.55                       |     |                     |  |  |
|   |                                  |              |   |     | 3.10    | piasek drobny brązowo-szary z domieszką glin                                       |                | IVb                                    |            | szg         | 0.62                       |     |                     |  |  |
|   |                                  |              |   |     | 3.70    | glina piaszczysta ciemnoniebieski  | Gp             | Vc                                     | w          |             |                            | 0.2 | 2/1                 |  |  |
|   |                                  |              | 4.0   |     | 4.10    | glina piaszczysta ciemnoszara  |                |  |            |             |                            |     |                     |  |  |
|   |                                  |              |   |     |         |  |                |  |            |             |                            |     |                     |  |  |
|   |                                  |              |   |     |         |  |                |  |            |             |                            |     |                     |  |  |
|   |                                  |              |   |     |         |  |                |  |            |             |                            |     |                     |  |  |
|   |                                  |              |   |     |         |  |                |  |            |             |                            |     |                     |  |  |
|   |                                  |              |   |     |         |  |                |  |            |             |                            |     |                     |  |  |
|   |                                  |              |   |     |         |  |                |  |            |             |                            |     |                     |  |  |
|   |                                  |              |   |     |         |  |                |  |            |             |                            |     |                     |  |  |
|   |                                  |              |   |     |         |  |                |  |            |             |                            |     |                     |  |  |
|   |                                  |              |   |     |         |  |                |  |            |             |                            |     |                     |  |  |
|   |                                  |              |   |     |         |  |                |  |            |             |                            |     |                     |  |  |
|   |                                  |              |   |     |         |  |                |  |            |             |                            |     |                     |  |  |
|   |                                  |              |   |     |         |  |                |  |            |             |                            |     |                     |  |  |
|   |                                  |              |   |     |         |  |                |  |            |             |                            |     |                     |  |  |
|   |                                  |              |   |     |         |  |                |  |            |             |                            |     |                     |  |  |
|   |                                  |              |   |     |         |  |                |  |            |             |                            |     |                     |  |  |
|   |                                  |              |   |     |         |  |                |  |            |             |                            |     |                     |  |  |
|   |                                  |              |   |     |         |  |                |  |            |             |                            |     |                     |  |  |
|   |                                  |              |   |     |         |  |                |  |            |             |                            |     |                     |  |  |
|   |                                  |              |   |     |         |  |                |  |            |             |                            |     |                     |  |  |
|   |                                  |              |   |     |         |  |                |  |            |             |                            |     |                     |  |  |
|   |                                  |              |   |     |         |  |                |  |            |             |                            |     |                     |  |  |
|   |                                  |              |   |     |         |  |                |  |            |             |                            |     |                     |  |  |
|   |                                  |              |   |     |         |  |                |  |            |             |                            |     |                     |  |  |
|   |                                  |              |   |     |         |  |                |  |            |             |                            |     |                     |  |  |
|   |                                  |              |   |     |         |  |                |  |            |             |                            |     |                     |  |  |
|   |                                  |              |   |     |         |  |                |  |            |             |                            |     |                     |  |  |
|   |                                  |              |   |     |         |  |                |  |            |             |                            |     |                     |  |  |
|   |                                  |              |   |     |         |  |                |  |            |             |                            |     |                     |  |  |
|   |                                  |              |   |     |         |  |                |  |            |             |                            |     |                     |  |  |
|   |                                  |              |   |     |         |  |                |  |            |             |                            |     |                     |  |  |
|   |                                  |              |   |     |         |  |                |  |            |             |                            |     |                     |  |  |
|   |                                  |              |   |     |         |  |                |  |            |             |                            |     |                     |  |  |
|   |                                  |              |   |     |         |  |                |  |            |             |                            |     |                     |  |  |
|   |                                  |              |   |     |         |  |                |  |            |             |                            |     |                     |  |  |
|   |                                  |              |   |     |         |  |                |  |            |             |                            |     |                     |  |  |
|   |                                  |              |   |     |         |  |                |  |            |             |                            |     |                     |  |  |
|   |                                  |              |   |     |         |  |                |  |            |             |                            |     |                     |  |  |
|   |                                  |              |   |     |         |  |                |  |            |             |                            |     |                     |  |  |
|   |                                  |              |   |     |         |  |                |  |            |             |                            |     |                     |  |  |
|   |                                  |              |   |     |         |  |                |  |            |             |                            |     |                     |  |  |
|   |                                  |              |   |     |         |  |                |  |            |             |                            |     |                     |  |  |
|   |                                  |              |   |     |         |  |                |  |            |             |                            |     |                     |  |  |
|   |                                  |              |   |     |         |  |                |  |            |             |                            |     |                     |  |  |
|   |                                  |              |   |     |         |  |                |  |            |             |                            |     |                     |  |  |
|   |                                  |              |   |     |         |  |                |  |            |             |                            |     |                     |  |  |
|   |                                  |              |   |     |         |  |                |  |            |             |                            |     |                     |  |  |
|   |                                  |              |   |     |         |  |                |  |            |             |                            |     |                     |  |  |
|   |                                  |              |   |     |         |  |                |  |            |             |                            |     |                     |  |  |
|   |                                  |              |   |     |         |  |                |  |            |             |                            |     |                     |  |  |
|   |                                  |              |   |     |         |  |                |  |            |             |                            |     |                     |  |  |
|   |                                  |              |   |     |         |  |                |  |            |             |                            |     |                     |  |  |
|   |                                  |              |   |     |         |  |                |  |            |             |                            |     |                     |  |  |
|   |                                  |              |   |     |         |  |                |  |            |             |                            |     |                     |  |  |
|   |                                  |              |   |     |         |  |                |  |            |             |                            |     |                     |  |  |
|   |                                  |              |   |     |         |  |                |  |            |             |                            |     |                     |  |  |
|   |                                  |              |   |     |         |  |                |  |            |             |                            |     |                     |  |  |
|   |                                  |              |   |     |         |  |                |  |            |             |                            |     |                     |  |  |
|   |                                  |              |   |     |         |  |                |  |            |             |                            |     |                     |  |  |
|   |                                  |              |   |     |         |  |                |  |            |             |                            |     |                     |  |  |
|   |                                  |              |   |     |         |  |                |  |            |             |                            |     |                     |  |  |
|   |                                  |              |   |     |         |  |                |  |            |             |                            |     |                     |  |  |
|   |                                  |              |   |     |         |  |                |  |            |             |                            |     |                     |  |  |
|   |                                  |              |   |     |         |  |                |  |            |             |                            |     |                     |  |  |
|   |                                  |              |   |     |         |  |                |  |            |             |                            |     |                     |  |  |
|   |                                  |              |   |     |         |  |                |  |            |             |                            |     |                     |  |  |
|   |                                  |              |   |     |         |  |                |  |            |             |                            |     |                     |  |  |
|   |                                  |              |   |     |         |  |                |  |            |             |                            |     |                     |  |  |
|   |                                  |              |   |     |         |  |                |  |            |             |                            |     |                     |  |  |
|   |                                  |              |   |     |         |  |                |  |            |             |                            |     |                     |  |  |
|   |                                  |              |   |     |         |  |                |  |            |             |                            |     |                     |  |  |
|   |                                  |              |   |     |         |  |                |  |            |             |                            |     |                     |  |  |
|   |                                  |              |   |     |         |  |                |  |            |             |                            |     |                     |  |  |
|   |                                  |              |   |     |         |  |                |  |            |             |                            |     |                     |  |  |
|   |                                  |              |   |     |         |  |                |  |            |             |                            |     |                     |  |  |
|   |                                  |              |   |     |         |  |                |  |            |             |                            |     |                     |  |  |
|   |                                  |              |   |     |         |  |                |  |            |             |                            |     |                     |  |  |
|   |                                  |              |   |     |         |  |                |  |            |             |                            |     |                     |  |  |
|   |                                  |              |   |     |         |  |                |  |            |             |                            |     |                     |  |  |
|   |                                  |              |   |     |         |  |                |  |            |             |                            |     |                     |  |  |
|   |                                  |              |   |     |         |  |                |  |            |             |                            |     |                     |  |  |
|   |                                  |              |   |     |         |  |                |  |            |             |                            |     |                     |  |  |
|   |                                  |              |   |     |         |  |                |  |            |             |                            |     |                     |  |  |
|   |                                  |              |   |     |         |  |                |  |            |             |                            |     |                     |  |  |
|   |                                  |              |   |     |         |  |                |  |            |             |                            |     |                     |  |  |




|   |                                  |  |                        |  |   |  |                |      |      |  |               |                            |            |             |    |    |                     |
|---|----------------------------------|--|------------------------|--|---|--|----------------|------|------|--|---------------|----------------------------|------------|-------------|----|----|---------------------|
| Grunt-Test Dawid Matusiak<br>61-689 Poznań, os. Przyjaźni 19/85                         |                                  |  |                        |  | KARTA OTWORU GEOTECHNICZNEGO<br><br>Profil numer 6  |  |                |      |      | Zał.Nr: 2.6<br><br>Wiertnica: Wamet H13P |               |                            |            |             |    |    |                     |
| Miejscowość: Wągrowiec<br>Gmina: -<br>Powiat: wągrowiecki<br>Województwo: wielkopolskie |                                  |  |                        |  | Objekt: Rozbudowa oczyszczalni ścieków<br>Inwestor: NBM Technologie<br>Wiercenie: Grunt-Test<br>Dozór geol.: mgr Robert Woźniak |  |                |      |      | System wiercenia: Mechaniczno-obrotowy   |               |                            |            |             |    |    |                     |
|   |                                  |  |                        |  |   |  |                |      |      | Rzędna: 83.98 m n.p.m.                   |               |                            |            |             |    |    |                     |
|   |                                  |  |                        |  |   |  |                |      |      | Skala 1 : 45                             |               | Data wiercenia: 2019-11-18 |            |             |    |    |                     |
| Wiercenie   | Głębokość<br>zwierciadła<br>wody | Stratygrafia   | Profil<br>litologiczny |  | Przelot   | Opis litologiczny  |                |      |      |  | Symbol gruntu | Warstwa<br>geotechniczna   | Wilgotność | Stan gruntu | ID | IL | Ilość<br>wałczkowań |
| 1   | 2                                | 3  | 4                      | 5  | 6   |  |                |      |      |  | 7             | 8                          | 9          | 10          | 11 | 12 | 13                  |
|   |                                  | <div>Nasyty</div> <div>Nasyt</div> <div>Holocen</div> <div>Czwartorzęd</div> <div>Pleistocen</div> |                        |  |   | nasyp niekontrolowany ciemnobrązowy (piasek drobny próchniczny, piasek średni, żwir, kamienie) | nN(PdH,Ps,Ż,K) |      | w    | In                                       |               |                            |            |             |    |    |                     |
|   |                                  |  | 1.0                    | 0.70   | piasek średni brązowy   | Ps   | IVe            |      |      |  | 0.48          |                            |            |             |    |    |                     |
|   |                                  |  | 1.10                   | piasek średni brązowy                                    | IVf   |  | 0.66           |      |      |  |               |                            |            |             |    |    |                     |
|   |                                  |  | 1.50                   | piasek średni próchniczny ciemnobrązowy                  | PsH   | IIb  |                | 0.63 |      |  |               |                            |            |             |    |    |                     |
|   |                                  |  | 2.00                   | piasek średni brązowo-szary                              | Ps  | IVf  | nw             | szg  | 0.59 |  |               |                            |            |             |    |    |                     |
|   |                                  |  | 2.60                   | piasek średni próchniczny ciemnoszary                    | PsH   | IIa  |                |      | 0.56 |  |               |                            |            |             |    |    |                     |
|   |                                  |  | 3.20                   | piasek średni próchniczny ciemnoszary                    | IIc   | zg   |                |      | 0.71 |  |               |                            |            |             |    |    |                     |
|   |                                  |  | 3.70                   | piasek gliniasty brązowy przewarstwiony piaskiem średnim | Pg  Ps  | Vf   | w//m           | pl   |      | 0.35                                     | 1/2/1         |                            |            |             |    |    |                     |
|   |                                  |  | 4.40                   | glina piaszczysta ciemnoszara                            | Gp  | Vb   | w              | tpl  |      | 0.1                                      | 0/1           |                            |            |             |    |    |                     |
|   |                                  |  | 6.00                   |  |   |  |                |      |      |  |               |                            |            |             |    |    |                     |





|   |   |              |   |      |  |   |                               |  |            |                            |      |      |                     |     |
|---|---|--------------|---|------|--|---|-------------------------------|--|------------|----------------------------|------|------|---------------------|-----|
| Grunt-Test Dawid Matusiak<br>61-689 Poznań, os. Przyjaźni 19/85                         |   |              | KARTA OTWORU GEOTECHNICZNEGO<br><br>Profil numer 7  |      |  |   |                               | Zał.Nr: 2.7<br><br>Wiertnica: Wamet H13P |            |                            |      |      |                     |     |
| Miejscowość: Wągrowiec<br>Gmina: -<br>Powiat: wągrowiecki<br>Województwo: wielkopolskie |   |              | Objekt: Rozbudowa oczyszczalni ścieków<br>Inwestor: NBM Technologie<br>Wiercenie: Grunt-Test<br>Dozór geol.: mgr Robert Woźniak |      |  | System wiercenia: Mechaniczno-obrotowy  |                               |  |            |                            |      |      |                     |     |
|   |   |              |   |      |  | Rzędna: 82.04 m n.p.m.  |                               |  |            |                            |      |      |                     |     |
|   |   |              |   |      |  | Skala 1 : 45  |                               |  |            | Data wiercenia: 2019-11-18 |      |      |                     |     |
| Wiercenie   | Głębokość<br>zwiarcia<br>wody   | Stratygrafia | Profil<br>litologiczny  |      | Przelot  | Opis litologiczny   | Symbol gruntu                 | Warstwa<br>geotechniczna                 | Wilgotność | Stan gruntu                | ID   | IL   | Ilość<br>wałczkowań |     |
|   | [m.p.p.t]   |              | [m]   | [m]  |  |   |                               |  |            |                            |      |      |                     |     |
| 1   | 2   | 3            | 4   | 5    | 6  | 7   | 8                             | 9  | 10         | 11                         | 12   | 13   | 14                  |     |
|        |  | Nasyp        |   | 0.40 | 0.40   | nasyp niekontrolowany ciemnoszary (piasek drobny<br>próchniczny, piasek drobny, piasek<br>gliniasty, żwir, cegła) | nN(PdH, Pd, Pg, Ż, C)         | w  | In         |                            |      |      |                     |     |
|   |   | Nasyp        |   |      |  |   |                               |  |            |                            |      |      |                     |     |
|   |   | Holocen      | 1.0   | 0.70 | nasyp niekontrolowany ciemnoszary (piasek drobny<br>próchniczny, piasek drobny, piasek<br>gliniasty, żwir, cegła)<br>pył piaszczysty brązowo-szary przewarstwiony<br>piaskiem pylastym | ΠP  Pπ  | IIIa                          | w/m                                      | tpl        |                            | 0.25 |      |                     |     |
|   |   | Czwartorzęd  |   | 1.40 | 1.40   | piasek średni brązowy   | Ps                            | IVe                                      | nw         | szg                        | 0.53 | 0.63 |                     |     |
|   |   |              |   | 2.0  | 2.00   | piasek średni brązowy   |                               |  |            |                            |      |      |                     |     |
|   |   |              |   | 3.0  | 2.40   | glina szaro-brązowa   | G                             | Ve                                       |            | pl                         |      | 0.3  | 2/3                 |     |
|   |   |              | Plejstocen  |      | 3.30   | 3.30  | glina piaszczysta ciemnoszara | Gp                                       | Vb         | w                          | tpl  |      | 0.1                 | 0/1 |
|   |   |              |   |      | 4.0  |   |                               |  |            |                            |      |      |                     |     |
|   |   |              |   |      | 5.0  |   |                               |  |            |                            |      |      |                     |     |
|   |   |              | 6.0   | 6.00 |  |   |                               |  |            |                            |      |      |                     |     |




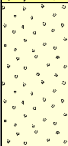


|   |                                 |                           |   |      |         |  |  |  |            |                            |      |     |                     |
|---|---------------------------------|---------------------------|---|------|---------|--|--|--|------------|----------------------------|------|-----|---------------------|
| Grunt-Test Dawid Matusiak<br>61-689 Poznań, os. Przyjaźni 19/85                         |                                 |                           | KARTA OTWORU GEOTECHNICZNEGO<br><br>Profil numer 8  |      |         |  |  | Zał.Nr: 2.8<br><br>Wiertnica: Wamet H13P |            |                            |      |     |                     |
| Miejscowość: Wągrowiec<br>Gmina: -<br>Powiat: wągrowiecki<br>Województwo: wielkopolskie |                                 |                           | Objekt: Rozbudowa oczyszczalni ścieków<br>Inwestor: NBM Technologie<br>Wiercenie: Grunt-Test<br>Dozór geol.: mgr Robert Woźniak |      |         |  | System wiercenia: Mechaniczno-obrotowy |  |            |                            |      |     |                     |
|   |                                 |                           |   |      |         |  | Rzędna: 82.43 m n.p.m.                 |  |            |                            |      |     |                     |
|   |                                 |                           |   |      |         |  | Skala 1 : 45                           |  |            | Data wiercenia: 2019-11-18 |      |     |                     |
| Wiercenie   | Głębokość<br>zwirowadła<br>wody | Stratygrafia              | Profil<br>litologiczny  |      | Przelot | Opis litologiczny  | Symbol gruntu                          | Warstwa<br>geotechniczna                 | Wilgotność | Stan gruntu                | ID   | IL  | Ilość<br>wałczkowań |
| 1   | 2                               | 3                         | 4   | 5    | 6       |  | 7                                      | 8  | 9          | 10                         | 11   | 12  | 13                  |
|        | 1.20                            | Nasyt<br>Nasyt            | 1.00  | 1.00 | 1.00    | nasyp niekontrolowany ciemnoszary (piasek drobny<br>próchniczny, piasek średni, piasek gruby, żwir, cegła) | nN(PdH,Ps,Pr,Ż,C)                      | w  | In         | 0.65                       | 0.52 | 0.1 | 0/1                 |
|   |                                 |                           |   |      |         | piasek średni brązowy  |  |  |            |                            |      |     |                     |
|   |                                 |                           |   |      |         | piasek drobny jasnobrązowy   |  |  |            |                            |      |     |                     |
|   |                                 |                           |   |      |         | piasek drobny jasnobrązowy   |  |  |            |                            |      |     |                     |
|   |                                 |                           |   |      |         | glina piaszczysta ciemnoszara  |  |  |            |                            |      |     |                     |
|   |                                 | Czwartorzęd<br>Plejstocen | 1.00  | 1.00 | 1.00    |  | Pd                                     | IVb                                      | nw         | szg                        | 0.52 | 0.1 | 0/1                 |
|   |                                 |                           |   |      |         |  |  |  |            |                            |      |     |                     |
|   |                                 |                           |   |      |         |  |  |  |            |                            |      |     |                     |
|   |                                 |                           |   |      |         |  |  |  |            |                            |      |     |                     |
|   |                                 |                           |   |      |         |  |  |  |            |                            |      |     |                     |
|   |                                 | Czwartorzęd<br>Plejstocen | 1.00  | 1.00 | 1.00    |  | Gp                                     | Vb                                       | w          | tpl                        | 0.1  | 0/1 |                     |
|   |                                 |                           |   |      |         |  |  |  |            |                            |      |     |                     |
|   |                                 |                           |   |      |         |  |  |  |            |                            |      |     |                     |
|   |                                 |                           |   |      |         |  |  |  |            |                            |      |     |                     |
|   |                                 |                           |   |      |         |  |  |  |            |                            |      |     |                     |
|   |                                 | Czwartorzęd<br>Plejstocen | 1.00  | 1.00 | 1.00    |  | Gp                                     | Vb                                       | w          | tpl                        | 0.1  | 0/1 |                     |
|   |                                 |                           |   |      |         |  |  |  |            |                            |      |     |                     |
|   |                                 |                           |   |      |         |  |  |  |            |                            |      |     |                     |
|   |                                 |                           |   |      |         |  |  |  |            |                            |      |     |                     |
|   |                                 |                           |   |      |         |  |  |  |            |                            |      |     |                     |
|   |                                 | Czwartorzęd<br>Plejstocen | 1.00  | 1.00 | 1.00    |  | Gp                                     | Vb                                       | w          | tpl                        | 0.1  | 0/1 |                     |
|   |                                 |                           |   |      |         |  |  |  |            |                            |      |     |                     |
|   |                                 |                           |   |      |         |  |  |  |            |                            |      |     |                     |
|   |                                 |                           |   |      |         |  |  |  |            |                            |      |     |                     |
|   |                                 |                           |   |      |         |  |  |  |            |                            |      |     |                     |
|   |                                 | Czwartorzęd<br>Plejstocen | 1.00  | 1.00 | 1.00    |  | Gp                                     | Vb                                       | w          | tpl                        | 0.1  | 0/1 |                     |
|   |                                 |                           |   |      |         |  |  |  |            |                            |      |     |                     |
|   |                                 |                           |   |      |         |  |  |  |            |                            |      |     |                     |
|   |                                 |                           |   |      |         |  |  |  |            |                            |      |     |                     |
|   |                                 |                           |   |      |         |  |  |  |            |                            |      |     |                     |
|   |                                 | Czwartorzęd<br>Plejstocen | 1.00  | 1.00 | 1.00    |  | Gp                                     | Vb                                       | w          | tpl                        | 0.1  | 0/1 |                     |
|   |                                 |                           |   |      |         |  |  |  |            |                            |      |     |                     |
|   |                                 |                           |   |      |         |  |  |  |            |                            |      |     |                     |
|   |                                 |                           |   |      |         |  |  |  |            |                            |      |     |                     |
|   |                                 |                           |   |      |         |  |  |  |            |                            |      |     |                     |
|   |                                 | Czwartorzęd<br>Plejstocen | 1.00  | 1.00 | 1.00    |  | Gp                                     | Vb                                       | w          | tpl                        | 0.1  | 0/1 |                     |
|   |                                 |                           |   |      |         |  |  |  |            |                            |      |     |                     |
|   |                                 |                           |   |      |         |  |  |  |            |                            |      |     |                     |
|   |                                 |                           |   |      |         |  |  |  |            |                            |      |     |                     |
|   |                                 |                           |   |      |         |  |  |  |            |                            |      |     |                     |
|   |                                 | Czwartorzęd<br>Plejstocen | 1.00  | 1.00 | 1.00    |  | Gp                                     | Vb                                       | w          | tpl                        | 0.1  | 0/1 |                     |
|   |                                 |                           |   |      |         |  |  |  |            |                            |      |     |                     |
|   |                                 |                           |   |      |         |  |  |  |            |                            |      |     |                     |
|   |                                 |                           |   |      |         |  |  |  |            |                            |      |     |                     |
|   |                                 |                           |   |      |         |  |  |  |            |                            |      |     |                     |
|   |                                 | Czwartorzęd<br>Plejstocen | 1.00  | 1.00 | 1.00    |  | Gp                                     | Vb                                       | w          | tpl                        | 0.1  | 0/1 |                     |
|   |                                 |                           |   |      |         |  |  |  |            |                            |      |     |                     |
|   |                                 |                           |   |      |         |  |  |  |            |                            |      |     |                     |
|   |                                 |                           |   |      |         |  |  |  |            |                            |      |     |                     |
|   |                                 |                           |   |      |         |  |  |  |            |                            |      |     |                     |
|   |                                 | Czwartorzęd<br>Plejstocen | 1.00  | 1.00 | 1.00    |  | Gp                                     | Vb                                       | w          | tpl                        | 0.1  | 0/1 |                     |
|   |                                 |                           |   |      |         |  |  |  |            |                            |      |     |                     |
|   |                                 |                           |   |      |         |  |  |  |            |                            |      |     |                     |
|   |                                 |                           |   |      |         |  |  |  |            |                            |      |     |                     |
|   |                                 |                           |   |      |         |  |  |  |            |                            |      |     |                     |
|   |                                 | Czwartorzęd<br>Plejstocen | 1.00  | 1.00 | 1.00    |  | Gp                                     | Vb                                       | w          | tpl                        | 0.1  | 0/1 |                     |
|   |                                 |                           |   |      |         |  |  |  |            |                            |      |     |                     |
|   |                                 |                           |   |      |         |  |  |  |            |                            |      |     |                     |
|   |                                 |                           |   |      |         |  |  |  |            |                            |      |     |                     |
|   |                                 |                           |   |      |         |  |  |  |            |                            |      |     |                     |
|   |                                 | Czwartorzęd<br>Plejstocen | 1.00  | 1.00 | 1.00    |  | Gp                                     | Vb                                       | w          | tpl                        | 0.1  | 0/1 |                     |
|   |                                 |                           |   |      |         |  |  |  |            |                            |      |     |                     |
|   |                                 |                           |   |      |         |  |  |  |            |                            |      |     |                     |
|   |                                 |                           |   |      |         |  |  |  |            |                            |      |     |                     |
|   |                                 |                           |   |      |         |  |  |  |            |                            |      |     |                     |
|   |                                 | Czwartorzęd<br>Plejstocen | 1.00  | 1.00 | 1.00    |  | Gp                                     | Vb                                       | w          | tpl                        | 0.1  | 0/1 |                     |
|   |                                 |                           |   |      |         |  |  |  |            |                            |      |     |                     |
|   |                                 |                           |   |      |         |  |  |  |            |                            |      |     |                     |
|   |                                 |                           |   |      |         |  |  |  |            |                            |      |     |                     |
|   |                                 |                           |   |      |         |  |  |  |            |                            |      |     |                     |
|   |                                 | Czwartorzęd<br>Plejstocen | 1.00  | 1.00 | 1.00    |  | Gp                                     | Vb                                       | w          | tpl                        | 0.1  | 0/1 |                     |
|   |                                 |                           |   |      |         |  |  |  |            |                            |      |     |                     |
|   |                                 |                           |   |      |         |  |  |  |            |                            |      |     |                     |
|   |                                 |                           |   |      |         |  |  |  |            |                            |      |     |                     |
|   |                                 |                           |   |      |         |  |  |  |            |                            |      |     |                     |
|   |                                 | Czwartorzęd<br>Plejstocen | 1.00  | 1.00 | 1.00    |  | Gp                                     | Vb                                       | w          | tpl                        | 0.1  | 0/1 |                     |
|   |                                 |                           |   |      |         |  |  |  |            |                            |      |     |                     |
|   |                                 |                           |   |      |         |  |  |  |            |                            |      |     |                     |
|   |                                 |                           |   |      |         |  |  |  |            |                            |      |     |                     |
|   |                                 |                           |   |      |         |  |  |  |            |                            |      |     |                     |
|   |                                 | Czwartorzęd<br>Plejstocen | 1.00  | 1.00 | 1.00    |  | Gp                                     | Vb                                       | w          | tpl                        | 0.1  | 0/1 |                     |
|   |                                 |                           |   |      |         |  |  |  |            |                            |      |     |                     |
|   |                                 |                           |   |      |         |  |  |  |            |                            |      |     |                     |
|   |                                 |                           |   |      |         |  |  |  |            |                            |      |     |                     |
|   |                                 |                           |   |      |         |  |  |  |            |                            |      |     |                     |
|   |                                 | Czwartorzęd<br>Plejstocen | 1.00  | 1.00 | 1.00    |  | Gp                                     | Vb                                       | w          | tpl                        | 0.1  | 0/1 |                     |
|   |                                 |                           |   |      |         |  |  |  |            |                            |      |     |                     |
|   |                                 |                           |   |      |         |  |  |  |            |                            |      |     |                     |
|   |                                 |                           |   |      |         |  |  |  |            |                            |      |     |                     |
|   |                                 |                           |   |      |         |  |  |  |            |                            |      |     |                     |
|   |                                 | Czwartorzęd<br>Plejstocen | 1.00  | 1.00 | 1.00    |  | Gp                                     | Vb                                       | w          | tpl                        | 0.1  | 0/1 |                     |
|   |                                 |                           |   |      |         |  |  |  |            |                            |      |     |                     |
|   |                                 |                           |   |      |         |  |  |  |            |                            |      |     |                     |
|   |                                 |                           |   |      |         |  |  |  |            |                            |      |     |                     |
|   |                                 |                           |   |      |         |  |  |  |            |                            |      |     |                     |
|   |                                 | Czwartorzęd<br>Plejstocen | 1.00  | 1.00 | 1.00    |  | Gp                                     | Vb                                       | w          | tpl                        | 0.1  | 0/1 |                     |
|   |                                 |                           |   |      |         |  |  |  |            |                            |      |     |                     |
|   |                                 |                           |   |      |         |  |  |  |            |                            |      |     |                     |
|   |                                 |                           |   |      |         |  |  |  |            |                            |      |     |                     |
|   |                                 |                           |   |      |         |  |  |  |            |                            |      |     |                     |
|   |                                 | Czwartorzęd<br>Plejstocen | 1.00  | 1.00 | 1.00    |  | Gp                                     | Vb                                       | w          | tpl                        | 0.1  | 0/1 |                     |
|   |                                 |                           |   |      |         |  |  |  |            |                            |      |     |                     |
|   |                                 |                           |   |      |         |  |  |  |            |                            |      |     |                     |
|   |                                 |                           |   |      |         |  |  |  |            |                            |      |     |                     |
|   |                                 |                           |   |      |         |  |  |  |            |                            |      |     |                     |
|   |                                 | Czwartorzęd<br>Plejstocen | 1.00  | 1.00 | 1.00    |  | Gp                                     | Vb                                       | w          | tpl                        | 0.1  | 0/1 |                     |
|   |                                 |                           |   |      |         |  |  |  |            |                            |      |     |                     |
|   |                                 |                           |   |      |         |  |  |  |            |                            |      |     |                     |
|   |                                 |                           |   |      |         |  |  |  |            |                            |      |     |                     |
|   |                                 |                           |   |      |         |  |  |  |            |                            |      |     |                     |
|   |                                 | Czwartorzęd<br>Plejstocen | 1.00  | 1.00 | 1.00    |  | Gp                                     | Vb                                       | w          | tpl                        | 0.1  | 0/1 |                     |
|   |                                 |                           |   |      |         |  |  |  |            |                            |      |     |                     |
|   |                                 |                           |   |      |         |  |  |  |            |                            |      |     |                     |
|   |                                 |                           |   |      |         |  |  |  |            |                            |      |     |                     |
|   |                                 |                           |   |      |         |  |  |  |            |                            |      |     |                     |
|   |                                 | Czwartorzęd<br>Plejstocen | 1.00  | 1.00 | 1.00    |  | Gp                                     | Vb                                       | w          | tpl                        | 0.1  | 0/1 |                     |
|   |                                 |                           |   |      |         |  |  |  |            |                            |      |     |                     |
|   |                                 |                           |   |      |         |  |  |  |            |                            |      |     |                     |
|   |                                 |                           |   |      |         |  |  |  |            |                            |      |     |                     |
|   |                                 |                           |   |      |         |  |  |  |            |                            |      |     |                     |
|   |                                 | Czwartorzęd<br>Plejstocen | 1.00  | 1.00 | 1.00    |  | Gp                                     | Vb                                       | w          | tpl                        | 0.1  | 0/1 |                     |
|   |                                 |                           |   |      |         |  |  |  |            |                            |      |     |                     |
|   |                                 |                           |   |      |         |  |  |  |            |                            |      |     |                     |
|   |                                 |                           |   |      |         |  |  |  |            |                            |      |     |                     |
|   |                                 |                           |   |      |         |  |  |  |            |                            |      |     |                     |
|   |                                 | Czwartorzęd<br>Plejstocen | 1.00  | 1.00 | 1.00    |  | Gp                                     | Vb                                       | w          | tpl                        | 0.1  | 0/1 |                     |
|   |                                 |                           |   |      |         |  |  |  |            |                            |      |     |                     |
|   |                                 |                           |   |      |         |  |  |  |            |                            |      |     |                     |
|   |                                 |                           |   |      |         |  |  |  |            |                            |      |     |                     |
|   |                                 |                           |   |      |         |  |  |  |            |                            |      |     |                     |
|   |                                 | Czwartorzęd<br>Plejstocen | 1.00  | 1.00 | 1.00    |  | Gp                                     | Vb                                       | w          | tpl                        | 0.1  | 0/1 |                     |
|   |                                 |                           |   |      |         |  |  |  |            |                            |      |     |                     |
|   |                                 |                           |   |      |         |  |  |  |            |                            |      |     |                     |
|   |                                 |                           |   |      |         |  |  |  |            |                            |      |     |                     |
|   |                                 |                           |   |      |         |  |  |  |            |                            |      |     |                     |
|   |                                 | Czwartorzęd<br>Plejstocen | 1.00  | 1.00 | 1.00    |  | Gp                                     | Vb                                       | w          | tpl                        | 0.1  | 0/1 |                     |
|   |                                 |                           |   |      |         |  |  |  |            |                            |      |     |                     |
|   |                                 |                           |   |      |         |  |  |  |            |                            |      |     |                     |
|   |                                 |                           |   |      |         |  |  |  |            |                            |      |     |                     |
|   |                                 |                           |   |      |         |  |  |  |            |                            |      |     |                     |
|   |                                 | Czwartorzęd<br>Plejstocen | 1.00  | 1.00 | 1.00    |  | Gp                                     | Vb                                       | w          | tpl                        | 0.1  | 0/1 |                     |
|   |                                 |                           |   |      |         |  |  |  |            |                            |      |     |                     |
|   |                                 |                           |   |      |         |  |  |  |            |                            |      |     |                     |
|   |                                 |                           |   |      |         |  |  |  |            |                            |      |     |                     |
|   |                                 |                           |   |      |         |  |  |  |            |                            |      |     |                     |
|   |                                 | Czwartorzęd<br>Plejstocen | 1.00  | 1.00 | 1.00    |  | Gp                                     | Vb                                       | w          | tpl                        | 0.1  | 0/1 |                     |
|   |                                 |                           |   |      |         |  |  |  |            |                            |      |     |                     |
|   |                                 |                           |   |      |         |  |  |  |            |                            |      |     |                     |
|   |                                 |                           |   |      |         |  |  |  |            |                            |      |     |                     |
|   |                                 |                           |   |      |         |  |  |  |            |                            |      |     |                     |
|   |                                 | Czwartorzęd<br>Plejstocen | 1.00  | 1.00 | 1.00    |  | Gp                                     | Vb                                       | w          | tpl                        | 0.1  | 0/1 |                     |
|   |                                 |                           |   |      |         |  |  |  |            |                            |      |     |                     |
|   |                                 |                           |   |      |         |  |  |  |            |                            |      |     |                     |
|   |                                 |                           |   |      |         |  |  |  |            |                            |      |     |                     |
|   |                                 |                           |   |      |         |  |  |  |            |                            |      |     |                     |
|   |                                 | Czwartorzęd<br>Plejstocen | 1.00  | 1.00 | 1.00    |  | Gp                                     | Vb                                       | w          | tpl                        | 0.1  | 0/1 |                     |
|   |                                 |                           |   |      |         |  |  |  |            |                            |      |     |                     |
|   |                                 |                           |   |      |         |  |  |  |            |                            |      |     |                     |
|   |                                 |                           |   |      |         |  |  |  |            |                            |      |     |                     |
|   |                                 |                           |   |      |         |  |  |  |            |                            |      |     |                     |
|   |                                 | Czwartorzęd<br>Plejstocen | 1.00  | 1.00 | 1.00    |  | Gp                                     | Vb                                       | w          | tpl                        | 0.1  | 0/1 |                     |
|   |                                 |                           |   |      |         |  |  |  |            |                            |      |     |                     |
|   |                                 |                           |   |      |         |  |  |  |            |                            |      |     |                     |
|   |                                 |                           |   |      |         |  |  |  |            |                            |      |     |                     |
|   |                                 |                           |   |      |         |  |  |  |            |                            |      |     |                     |
|   |                                 | Czwartorzęd<br>Plejstocen | 1.00  | 1.00 | 1.00    |  | Gp                                     | Vb                                       | w          | tpl                        | 0.1  | 0/1 |                     |
|   |                                 |                           |   |      |         |  |  |  |            |                            |      |     |                     |
|   |                                 |                           |   |      |         |  |  |  |            |                            |      |     |                     |
|   |                                 |                           |   |      |         |  |  |  |            |                            |      |     |                     |
|   |                                 |                           |   |      |         |  |  |  |            |                            |      |     |                     |
|   |                                 | Czwartorzęd<br>Plejstocen | 1.00  | 1.00 | 1.00    |  | Gp                                     | Vb                                       | w          | tpl                        | 0.1  | 0/1 |                     |
|   |                                 |                           |   |      |         |  |  |  |            |                            |      |     |                     |
|   |                                 |                           |   |      |         |  |  |  |            |                            |      |     |                     |
|   |                                 |                           |   |      |         |  |  |  |            |                            |      |     |                     |
|   |                                 |                           |   |      |         |  |  |  |            |                            |      |     |                     |
|   |                                 | Czwartorzęd<br>Plejstocen | 1.00  | 1.00 | 1.00    |  | Gp                                     | Vb                                       | w          | tpl                        | 0.1  | 0/1 |                     |
|   |                                 |                           |   |      |         |  |  |  |            |                            |      |     |                     |
|   |                                 |                           |   |      |         |  |  |  |            |                            |      |     |                     |
|   |                                 |                           |   |      |         |  |  |  |            |                            |      |     |                     |
|   |                                 |                           |   |      |         |  |  |  |            |                            |      |     |                     |
|   |                                 | Czwartorzęd<br>Plejstocen | 1.00  | 1.00 | 1.00    |  | Gp                                     | Vb                                       | w          | tpl                        | 0.1  | 0/1 |                     |
|   |                                 |                           |   |      |         |  |  |  |            |                            |      |     |                     |
|   |                                 |                           |   |      |         |  |  |  |            |                            |      |     |                     |
|   |                                 |                           |   |      |         |  |  |  |            |                            |      |     |                     |
|   |                                 |                           |   |      |         |  |  |  |            |                            |      |     |                     |
|   |                                 | Czwartorzęd<br>Plejstocen | 1.00  | 1.00 | 1.00    |  | Gp                                     | Vb                                       | w          | tpl                        | 0.1  | 0/1 |                     |
|   |                                 |                           |   |      |         |  |  |  |            |                            |      |     |                     |
|   |                                 |                           |   |      |         |  |  |  |            |                            |      |     |                     |
|   |                                 |                           |   |      |         |  |  |  |            |                            |      |     |                     |
|   |                                 |                           |   |      |         |  |  |  |            |                            |      |     |                     |
|   |                                 | Czwartorzęd<br>Plejstocen | 1.00  | 1.00 | 1.00    |  | Gp                                     | Vb                                       | w          | tpl                        | 0.1  | 0/1 |                     |
|   |                                 |                           |   |      |         |  |  |  |            |                            |      |     |                     |
|   |                                 |                           |   |      |         |  |  |  |            |                            |      |     |                     |
|   |                                 |                           |   |      |         |  |  |  |            |                            |      |     |                     |
|   |                                 |                           |   |      |         |  |  |  |            |                            |      |     |                     |
|   |                                 | Czwartorzęd<br>Plejstocen | 1.00  | 1.00 | 1.00    |  | Gp                                     | Vb                                       | w          | tpl                        | 0.1  | 0/1 |                     |
|   |                                 |                           |   |      |         |  |  |  |            |                            |      |     |                     |
|   |                                 |                           |   |      |         |  |  |  |            |                            |      |     |                     |
|   |                                 |                           |   |      |         |  |  |  |            |                            |      |     |                     |
|   |                                 |                           |   |      |         |  |  |  |            |                            |      |     |                     |
|   |                                 | Czwartorzęd<br>Plejstocen | 1.00  | 1.00 | 1.00    |  | Gp                                     | Vb                                       | w          | tpl                        | 0.1  | 0/1 |                     |
|   |                                 |                           |   |      |         |  |  |  |            |                            |      |     |                     |
|   |                                 |                           |   |      |         |  |  |  |            |                            |      |     |                     |
|   |                                 |                           |   |      |         |  |  |  |            |                            |      |     |                     |
|   |                                 |                           |   |      |         |  |  |  |            |                            |      |     |                     |
|   |                                 | Czwartorzęd<br>Plejstocen | 1.00  | 1.00 | 1.00    |  | Gp                                     | Vb                                       | w          | tpl                        | 0.1  | 0/1 |                     |
|   |                                 |                           |   |      |         |  |  |  |            |                            |      |     |                     |
|   |                                 |                           |   |      |         |  |  |  |            |                            |      |     |                     |
|   |                                 |                           |   |      |         |  |  |  |            |                            |      |     |                     |
|   |                                 |                           |   |      |         |  |  |  |            |                            |      |     |                     |
|   |                                 | Czwartorzęd<br>Plejstocen | 1.00  | 1.00 | 1.00    |  | Gp                                     | Vb                                       | w          | tpl                        | 0.1  | 0/1 |                     |
|   |                                 |                           |   |      |         |  |  |  |            |                            |      |     |                     |
|   |                                 |                           |   |      |         |  |  |  |            |                            |      |     |                     |
|   |                                 |                           |   |      |         |  |  |  |            |                            |      |     |                     |
|   |                                 |                           |   |      |         |  |  |  |            |                            |      |     |                     |
|   |                                 | Czwartorzęd<br>Plejstocen | 1.00  | 1.00 | 1.00    |  | Gp                                     | Vb                                       | w          | tpl                        | 0.1  | 0/1 |                     |
|   |                                 |                           |   |      |         |  |  |  |            |                            |      |     |                     |
|   |                                 |                           |   |      |         |  |  |  |            |                            |      |     |                     |
|   |                                 |                           |   |      |         |  |  |  |            |                            |      |     |                     |
|   |                                 |                           |   |      |         |  |  |  |            |                            |      |     |                     |
|   |                                 | Czwartorzęd<br>Plejstocen | 1.00  | 1.00 | 1.00    |  | Gp                                     | Vb                                       | w          | tpl                        | 0.1  | 0/1 |                     |
|   |                                 |                           |   |      |         |  |  |  |            |                            |      |     |                     |
|   |                                 |                           |   |      |         |  |  |  |            |                            |      |     |                     |
|   |                                 |                           |   |      |         |  |  |  |            |                            |      |     |                     |
|   |                                 |                           |   |      |         |  |  |  |            |                            |      |     |                     |
|   |                                 | Czwartorzęd<br>Plejstocen | 1.00  | 1.00 | 1.00    |  | Gp                                     | Vb                                       | w          | tpl                        | 0.1  | 0/1 |                     |
|   |                                 |                           |   |      |         |  |  |  |            |                            |      |     |                     |
|   |                                 |                           |   |      |         |  |  |  |            |                            |      |     |                     |
|   |                                 |                           |   |      |         |  |  |  |            |                            |      |     |                     |
|   |                                 |                           |   |      |         |  |  |  |            |                            |      |     |                     |
|   |                                 | Czwartorzęd<br>Plejstocen | 1.00  | 1.00 | 1.00    |  | Gp                                     | Vb                                       | w          | tpl                        | 0.1  | 0/1 |                     |
|   |                                 |                           |   |      |         |  |  |  |            |                            |      |     |                     |
|   |                                 |                           |   |      |         |  |  |  |            |                            |      |     |                     |
|   |                                 |                           |   |      |         |  |  |  |            |                            |      |     |                     |
|   |                                 |                           |   |      |         |  |  |  |            |                            |      |     |                     |
|   |                                 | Czwartorzęd<br>Plejstocen | 1.00  | 1.00 | 1.00    |  | Gp                                     | Vb                                       | w          | tpl                        | 0.1  | 0/1 |                     |
|   |                                 |                           |   |      |         |  |  |  |            |                            |      |     |                     |
|   |                                 |                           |   |      |         |  |  |  |            |                            |      |     |                     |
|   |                                 |                           |   |      |         |  |  |  |            |                            |      |     |                     |
|   |                                 |                           |   |      |         |  |  |  |            |                            |      |     |                     |
|   |                                 | Czwartorzęd<br>Plejstocen | 1.00  | 1.00 | 1.00    |  | Gp                                     | Vb                                       | w          | tpl                        | 0.1  | 0/1 |                     |
|   |                                 |                           |   |      |         |  |  |  |            |                            |      |     |                     |
|   |                                 |                           |   |      |         |  |  |  |            |                            |      |     |                     |
|   |                                 |                           |   |      |         |  |  |  |            |                            |      |     |                     |
|   |                                 |                           |   |      |         |  |  |  |            |                            |      |     |                     |
|   |                                 | Czwartorzęd<br>Plejstocen | 1.00  | 1.00 | 1.00    |  | Gp                                     | Vb                                       | w          | tpl                        | 0.1  | 0/1 |                     |
|   |                                 |                           |   |      |         |  |  |  |            |                            |      |     |                     |
|   |                                 |                           |   |      |         |  |  |  |            |                            |      |     |                     |
|   |                                 |                           |   |      |         |  |  |  |            |                            |      |     |                     |
|   |                                 |                           |   |      |         |  |  |  |            |                            |      |     |                     |
|   |                                 | Czwartorzęd<br>Plejstocen | 1.00  | 1.00 | 1.00    |  | Gp                                     | Vb                                       | w          | tpl                        | 0.1  | 0/1 |                     |
|   |                                 |                           |   |      |         |  |  |  |            |                            |      |     |                     |
|   |                                 |                           |   |      |         |  |  |  |            |                            |      |     |                     |
|   |                                 |                           |   |      |         |  |  |  |            |                            |      |     |                     |
|   |                                 |                           |   |      |         |  |  |  |            |                            |      |     |                     |
|   |                                 | Czwartorzęd<br>Plejstocen | 1.00  | 1.00 | 1.00    |  | Gp                                     | Vb                                       | w          | tpl                        | 0.1  | 0/1 |                     |
|   |                                 |                           |   |      |         |  |  |  |            |                            |      |     |                     |
|   |                                 |                           |   |      |         |  |  |  |            |                            |      |     |                     |
|   |                                 |                           |   |      |         |  |  |  |            |                            |      |     |                     |
|   |                                 |                           |   |      |         |  |  |  |            |                            |      |     |                     |
|   |                                 | Czwartorzęd<br>Plejstocen | 1.00  | 1.00 | 1.00    |  | Gp                                     | Vb                                       | w          | tpl                        | 0.1  | 0/1 |                     |
|   |                                 |                           |   |      |         |  |  |  |            |                            |      |     |                     |
|   |                                 |                           |   |      |         |  |  |  |            |                            |      |     |                     |
|   |                                 |                           |   |      |         |  |  |  |            |                            |      |     |                     |
|   |                                 |                           |   |      |         |  |  |  |            |                            |      |     |                     |
|   |                                 | Czwartorzęd<br>Plejstocen | 1.00  | 1.00 | 1.00    |  | Gp                                     | Vb                                       | w          | tpl                        | 0.1  | 0/1 |                     |
|   |                                 |                           |   |      |         |  |  |  |            |                            |      |     |                     |
|   |                                 |                           |   |      |         |  |  |  |            |                            |      |     |                     |
|   |                                 |                           |   |      |         |  |  |  |            |                            |      |     |                     |
|   |                                 |                           |   |      |         |  |  |  |            |                            |      |     |                     |
|   |                                 | Czwartorzęd<br>Plejstocen | 1.00  | 1.00 | 1.00    |  | Gp                                     | Vb                                       | w          | tpl                        | 0.1  | 0/1 |                     |
|   |                                 |                           |   |      |         |  |  |  |            |                            |      |     |                     |
|   |                                 |                           |   |      |         |  |  |  |            |                            |      |     |                     |
|   |                                 |                           |   |      |         |  |  |  |            |                            |      |     |                     |
|   |                                 |                           |   |      |         |  |  |  |            |                            |      |     |                     |
|   |                                 | Czwartorzęd<br>Plejstocen | 1.00  | 1.00 | 1.00    |  | Gp                                     | Vb                                       | w          | tpl                        | 0.1  | 0/1 |                     |
|   |                                 |                           |   |      |         |  |  |  |            |                            |      |     |                     |
|   |                                 |                           |   |      |         |  |  |  |            |                            |      |     |                     |
|   |                                 |                           |   |      |         |  |  |  |            |                            |      |     |                     |
|   |                                 |                           |   |      |         |  |  |  |            |                            |      |     |                     |
|   |                                 | Czwartorzęd<br>Plejstocen | 1.00  | 1.00 | 1.00    |  | Gp                                     | Vb                                       | w          | tpl                        | 0.1  | 0/1 |                     |
|   |                                 |                           |   |      |         |  |  |  |            |                            |      |     |                     |
|   |                                 |                           |   |      |         |  |  |  |            |                            |      |     |                     |
|   |                                 |                           |   |      |         |  |  |  |            |                            |      |     |                     |
|   |                                 |                           |   |      |         |  |  |  |            |                            |      |     |                     |
|   |                                 | Czwartorzęd<br>Plejstocen | 1.00  | 1.00 | 1.00    |  | Gp                                     | Vb                                       | w          | tpl                        | 0.1  | 0/1 |                     |
|   |                                 |                           |   |      |         |  |  |  |            |                            |      |     |                     |
|   |                                 |                           |   |      |         |  |  |  |            |                            |      |     |                     |
|   |                                 |                           |   |      |         |  |  |  |            |                            |      |     |                     |
|   |                                 |                           |   |      |         |  |  |  |            |                            |      |     |                     |
|   |                                 | Czwartorzęd<br>Plejstocen | 1.00  | 1.00 | 1.00    |  | Gp                                     | Vb                                       | w          | tpl                        | 0.1  | 0/1 |                     |
|   |                                 |                           |   |      |         |  |  |  |            |                            |      |     |                     |
|   |                                 |                           |   |      |         |  |  |  |            |                            |      |     |                     |
|   |                                 |                           |   |      |         |  |  |  |            |                            |      |     |                     |
|   |                                 |                           |   |      |         |  |  |  |            |                            |      |     |                     |
|   |                                 | Czwartorzęd<br>Plejstocen | 1.00  | 1.00 | 1.00    |  | Gp                                     | Vb                                       | w          | tpl                        | 0.1  | 0/1 |                     |
|   |                                 |                           |   |      |         |  |  |  |            |                            |      |     |                     |
|   |                                 |                           |   |      |         |  |  |  |            |                            |      |     |                     |
|   |                                 |                           |   |      |         |  |  |  |            |                            |      |     |                     |
|   |                                 |                           |   |      |         |  |  |  |            |                            |      |     |                     |
|   |                                 | Czwartorzęd<br>Plejstocen | 1.00  | 1.00 | 1.00    |  | Gp                                     | Vb                                       | w          | tpl                        | 0.1  | 0/1 |                     |
|   |                                 |                           |   |      |         |  |  |  |            |                            |      |     |                     |
|   |                                 |                           |   |      |         |  |  |  |            |                            |      |     |                     |
|   |                                 |                           |   |      |         |  |  |  |            |                            |      |     |                     |
|   |                                 |                           |   |      |         |  |  |  |            |                            |      |     |                     |
|   |                                 | Czwartorzęd<br>Plejstocen | 1.00  | 1.00 | 1.00    |  | Gp                                     | Vb                                       | w          | tpl                        | 0.1  | 0/1 |                     |
|   |                                 |                           |   |      |         |  |  |  |            |                            |      |     |                     |
|   |                                 |                           |   |      |         |  |  |  |            |                            |      |     |                     |
|   |                                 |                           |   |      |         |  |  |  |            |                            |      |     |                     |
|   |                                 |                           |   |      |         |  |  |  |            |                            |      |     |                     |
|   |                                 | Czwartorzęd<br>Plejstocen | 1.00  | 1.00 | 1.00    |  | Gp                                     | Vb                                       | w          | tpl                        | 0.1  | 0/1 |                     |
|   |                                 |                           |   |      |         |  |  |  |            |                            |      |     |                     |
|   |                                 |                           |   |      |         |  |  |  |            |                            |      |     |                     |
|   |                                 |                           |   |      |         |  |  |  |            |                            |      |     |                     |
|   |                                 |                           |   |      |         |  |  |  |            |                            |      |     |                     |
|   |                                 | Czwartorzęd<br>Plejstocen | 1.00  | 1.00 | 1.00    |  | Gp                                     | Vb                                       | w          | tpl                        | 0.1  | 0/1 |                     |
|   |                                 |                           |   |      |         |  |  |  |            |                            |      |     |                     |
|   |                                 |                           |   |      |         |  |  |  |            |                            |      |     |                     |
|   |                                 |                           |   |      |         |  |  |  |            |                            |      |     |                     |
|   |                                 |                           |   |      |         |  |  |  |            |                            |      |     |                     |
|   |                                 | Czwartorzęd<br>Plejstocen | 1.00  | 1.00 | 1.00    |  | Gp                                     | Vb                                       | w          | tpl                        | 0.1  | 0/1 |                     |
|   |                                 |                           |   |      |         |  |  |  |            |                            |      |     |                     |
|   |                                 |                           |   |      |         |  |  |  |            |                            |      |     |                     |
|   |                                 |                           |   |      |         |  |  |  |            |                            |      |     |                     |
|   |                                 |                           |   |      |         |  |  |  |            |                            |      |     |                     |
|   |                                 | Czwartorzęd<br>Plejstocen | 1.00  | 1.00 | 1.00    |  | Gp                                     |  |            |                            |      |     |                     |

Rysunek wykonano programem "GeoStar"







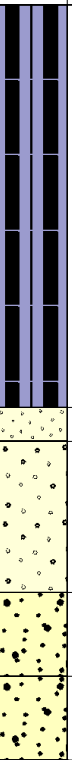
|   |   |              |   |     |         |   |                  |                          |            |             |  |    |                            |    |  |  |  |
|---|---|--------------|---|-----|---------|---|------------------|--------------------------|------------|-------------|--|----|----------------------------|----|--|--|--|
| Grunt-Test Dawid Matusiak<br>61-689 Poznań, os. Przyjaźni 19/85                           |   |              |   |     |         | KARTA OTWORU GEOTECHNICZNEGO<br><br>Profil numer 9  |                  |                          |            |             | Zał.Nr: 2.9<br><br>Wiertnica: Wamet H13P |    |                            |    |  |  |  |
| Miejscowość: Wągrowiec<br>Gmina: -<br>Powiat: wągrowiecki<br>Województwo: wielkopolskie   |   |              |   |     |         | Objekt: Rozbudowa oczyszczalni ścieków<br>Inwestor: NBM Technologie<br>Wiercenie: Grunt-Test<br>Dozór geol.: mgr Robert Woźniak |                  |                          |            |             | System wiercenia: Mechaniczno-obrotowy   |    |                            |    |  |  |  |
|   |   |              |   |     |         |   |                  |                          |            |             | Rzędna: 82.87 m n.p.m.                   |    |                            |    |  |  |  |
|   |   |              |   |     |         |   |                  |                          |            |             | Skala 1 : 45                             |    | Data wiercenia: 2019-11-18 |    |  |  |  |
| Wiercenie   | Głębokość<br>zwiarcia<br>wody   | Stratygrafia | Profil<br>litologiczny  |     | Przelot | Opis litologiczny   | Symbol gruntu    | Warstwa<br>geotechniczna | Wilgotność | Stan gruntu | ID                                       | IL | Ilość<br>wałczkowań        |    |  |  |  |
| 1   | 2   | 3            | 4   | 5   | 6       |   | 7                | 8                        | 9          | 10          | 11                                       | 12 | 13                         | 14 |  |  |  |
| <br>1.10 |  | Nasyp        |  | 1.0 | 1.10    | nasyp niekontrolowany ciemnoszary (piasek drobny próchniczny, piasek średni, pył, żwir, cegła)                                  | nN(PdH,Ps,Π,Z,C) |                          | w          | In          |  |    |                            |    |  |  |  |
|   |   | Nasyp        |   |     |         |   |                  |                          |            |             |  |    |                            |    |  |  |  |
|   |   |              |   |     |         |   |                  |                          |            |             |  |    |                            |    |  |  |  |
|   |   |              |   |     |         |   |                  |                          |            |             |  |    |                            |    |  |  |  |
|   |   |              |   |     |         |   |                  |                          |            |             |  |    |                            |    |  |  |  |
|   |   |              |   |     |         |   |                  |                          |            |             |  |    |                            |    |  |  |  |
|   |   |              |   |     |         |   |                  |                          |            |             |  |    |                            |    |  |  |  |
|   |   |              |   |     |         |   |                  |                          |            |             |  |    |                            |    |  |  |  |
|   |   |              |   |     |         |   |                  |                          |            |             |  |    |                            |    |  |  |  |
|   |   |              |   |     |         |   |                  |                          |            |             |  |    |                            |    |  |  |  |
|   |   |              |   |     |         |   |                  |                          |            |             |  |    |                            |    |  |  |  |
|   |   |              |   |     |         |   |                  |                          |            |             |  |    |                            |    |  |  |  |
|   |   |              |   |     |         |   |                  |                          |            |             |  |    |                            |    |  |  |  |
|   |   |              |   |     |         |   |                  |                          |            |             |  |    |                            |    |  |  |  |
|   |   |              |   |     |         |   |                  |                          |            |             |  |    |                            |    |  |  |  |
|   |   |              |   |     |         |   |                  |                          |            |             |  |    |                            |    |  |  |  |
|   |   |              |   |     |         |   |                  |                          |            |             |  |    |                            |    |  |  |  |
|   |   |              |   |     |         |   |                  |                          |            |             |  |    |                            |    |  |  |  |
|   |   |              |   |     |         |   |                  |                          |            |             |  |    |                            |    |  |  |  |
|   |   |              |   |     |         |   |                  |                          |            |             |  |    |                            |    |  |  |  |
|   |   |              |   |     |         |   |                  |                          |            |             |  |    |                            |    |  |  |  |
|   |   |              |   |     |         |   |                  |                          |            |             |  |    |                            |    |  |  |  |
|   |   |              |   |     |         |   |                  |                          |            |             |  |    |                            |    |  |  |  |
|   |   |              |   |     |         |   |                  |                          |            |             |  |    |                            |    |  |  |  |
|   |   |              |   |     |         |   |                  |                          |            |             |  |    |                            |    |  |  |  |
|   |   |              |   |     |         |   |                  |                          |            |             |  |    |                            |    |  |  |  |
|   |   |              |   |     |         |   |                  |                          |            |             |  |    |                            |    |  |  |  |
|   |   |              |   |     |         |   |                  |                          |            |             |  |    |                            |    |  |  |  |
|   |   |              |   |     |         |   |                  |                          |            |             |  |    |                            |    |  |  |  |
|   |   |              |   |     |         |   |                  |                          |            |             |  |    |                            |    |  |  |  |
|   |   |              |   |     |         |   |                  |                          |            |             |  |    |                            |    |  |  |  |
|   |   |              |   |     |         |   |                  |                          |            |             |  |    |                            |    |  |  |  |
|   |   |              |   |     |         |   |                  |                          |            |             |  |    |                            |    |  |  |  |
|   |   |              |   |     |         |   |                  |                          |            |             |  |    |                            |    |  |  |  |
|   |   |              |   |     |         |   |                  |                          |            |             |  |    |                            |    |  |  |  |
|   |   |              |   |     |         |   |                  |                          |            |             |  |    |                            |    |  |  |  |
|   |   |              |   |     |         |   |                  |                          |            |             |  |    |                            |    |  |  |  |
|   |   |              |   |     |         |   |                  |                          |            |             |  |    |                            |    |  |  |  |
|   |   |              |   |     |         |   |                  |                          |            |             |  |    |                            |    |  |  |  |
|   |   |              |   |     |         |   |                  |                          |            |             |  |    |                            |    |  |  |  |
|   |   |              |   |     |         |   |                  |                          |            |             |  |    |                            |    |  |  |  |
|   |   |              |   |     |         |   |                  |                          |            |             |  |    |                            |    |  |  |  |
|   |   |              |   |     |         |   |                  |                          |            |             |  |    |                            |    |  |  |  |
|   |   |              |   |     |         |   |                  |                          |            |             |  |    |                            |    |  |  |  |
|   |   |              |   |     |         |   |                  |                          |            |             |  |    |                            |    |  |  |  |
|   |   |              |   |     |         |   |                  |                          |            |             |  |    |                            |    |  |  |  |
|   |   |              |   |     |         |   |                  |                          |            |             |  |    |                            |    |  |  |  |
|   |   |              |   |     |         |   |                  |                          |            |             |  |    |                            |    |  |  |  |
|   |   |              |   |     |         |   |                  |                          |            |             |  |    |                            |    |  |  |  |
|   |   |              |   |     |         |   |                  |                          |            |             |  |    |                            |    |  |  |  |
|   |   |              |   |     |         |   |                  |                          |            |             |  |    |                            |    |  |  |  |
|   |   |              |   |     |         |   |                  |                          |            |             |  |    |                            |    |  |  |  |
|   |   |              |   |     |         |   |                  |                          |            |             |  |    |                            |    |  |  |  |
|   |   |              |   |     |         |   |                  |                          |            |             |  |    |                            |    |  |  |  |
|   |   |              |   |     |         |   |                  |                          |            |             |  |    |                            |    |  |  |  |
|   |   |              |   |     |         |   |                  |                          |            |             |  |    |                            |    |  |  |  |
|   |   |              |   |     |         |   |                  |                          |            |             |  |    |                            |    |  |  |  |
|   |   |              |   |     |         |   |                  |                          |            |             |  |    |                            |    |  |  |  |
|   |   |              |   |     |         |   |                  |                          |            |             |  |    |                            |    |  |  |  |
|   |   |              |   |     |         |   |                  |                          |            |             |  |    |                            |    |  |  |  |
|   |   |              |   |     |         |   |                  |                          |            |             |  |    |                            |    |  |  |  |
|   |   |              |   |     |         |   |                  |                          |            |             |  |    |                            |    |  |  |  |
|   |   |              |   |     |         |   |                  |                          |            |             |  |    |                            |    |  |  |  |
|   |   |              |   |     |         |   |                  |                          |            |             |  |    |                            |    |  |  |  |
|   |   |              |   |     |         |   |                  |                          |            |             |  |    |                            |    |  |  |  |
|   |   |              |   |     |         |   |                  |                          |            |             |  |    |                            |    |  |  |  |
|   |   |              |   |     |         |   |                  |                          |            |             |  |    |                            |    |  |  |  |
|   |   |              |   |     |         |   |                  |                          |            |             |  |    |                            |    |  |  |  |
|   |   |              |   |     |         |   |                  |                          |            |             |  |    |                            |    |  |  |  |
|   |   |              |   |     |         |   |                  |                          |            |             |  |    |                            |    |  |  |  |
|   |   |              |   |     |         |   |                  |                          |            |             |  |    |                            |    |  |  |  |
|   |   |              |   |     |         |   |                  |                          |            |             |  |    |                            |    |  |  |  |
|   |   |              |   |     |         |   |                  |                          |            |             |  |    |                            |    |  |  |  |
|   |   |              |   |     |         |   |                  |                          |            |             |  |    |                            |    |  |  |  |
|   |   |              |   |     |         |   |                  |                          |            |             |  |    |                            |    |  |  |  |
|   |   |              |   |     |         |   |                  |                          |            |             |  |    |                            |    |  |  |  |
|   |   |              |   |     |         |   |                  |                          |            |             |  |    |                            |    |  |  |  |
|   |   |              |   |     |         |   |                  |                          |            |             |  |    |                            |    |  |  |  |
|   |   |              |   |     |         |   |                  |                          |            |             |  |    |                            |    |  |  |  |
|   |   |              |   |     |         |   |                  |                          |            |             |  |    |                            |    |  |  |  |
|   |   |              |   |     |         |   |                  |                          |            |             |  |    |                            |    |  |  |  |
|   |   |              |   |     |         |   |                  |                          |            |             |  |    |                            |    |  |  |  |
|   |   |              |   |     |         |   |                  |                          |            |             |  |    |                            |    |  |  |  |
|   |   |              |   |     |         |   |                  |                          |            |             |  |    |                            |    |  |  |  |
|   |   |              |   |     |         |   |                  |                          |            |             |  |    |                            |    |  |  |  |
|   |   |              |   |     |         |   |                  |                          |            |             |  |    |                            |    |  |  |  |
|   |   |              |   |     |         |   |                  |                          |            |             |  |    |                            |    |  |  |  |
|   |   |              |   |     |         |   |                  |                          |            |             |  |    |                            |    |  |  |  |
|   |   |              |   |     |         |   |                  |                          |            |             |  |    |                            |    |  |  |  |
|   |   |              |   |     |         |   |                  |                          |            |             |  |    |                            |    |  |  |  |
|   |   |              |   |     |         |   |                  |                          |            |             |  |    |                            |    |  |  |  |
|   |   |              |   |     |         |   |                  |                          |            |             |  |    |                            |    |  |  |  |
|   |   |              |   |     |         |   |                  |                          |            |             |  |    |                            |    |  |  |  |
|   |   |              |   |     |         |   |                  |                          |            |             |  |    |                            |    |  |  |  |
|   |   |              |   |     |         |   |                  |                          |            |             |  |    |                            |    |  |  |  |
|   |   |              |   |     |         |   |                  |                          |            |             |  |    |                            |    |  |  |  |
|   |   |              |   |     |         |   |                  |                          |            |             |  |    |                            |    |  |  |  |
|   |   |              |   |     |         |   |                  |                          |            |             |  |    |                            |    |  |  |  |
|   |   |              |   |     |         |   |                  |                          |            |             |  |    |                            |    |  |  |  |
|   |   |              |   |     |         |   |                  |                          |            |             |  |    |                            |    |  |  |  |
|   |   |              |   |     |         |   |                  |                          |            |             |  |    |                            |    |  |  |  |

|   |   |                 |   |                                      |   |                   |               |   |            |             |                            |     |                    |  |  |
|---|---|-----------------|---|--------------------------------------|---|-------------------|---------------|---|------------|-------------|----------------------------|-----|--------------------|--|--|
| Grunt-Test Dawid Matusiak<br>61-689 Poznań, os. Przyjaźni 19/85                           |   |                 | KARTA OTWORU GEOTECHNICZNEGO<br><br>Profil numer 10   |                                      |   |                   |               | Zał.Nr: 2.10<br><br>Wiertnica: Wamet H13P |            |             |                            |     |                    |  |  |
| Miejscowość: Wągrowiec<br>Gmina: -<br>Powiat: wągrowiecki<br>Województwo: wielkopolskie   |   |                 | Obiekt: Rozbudowa oczyszczalni ścieków<br>Inwestor: NBM Technologie<br>Wiercenie: Grunt-Test<br>Dozór geol.: mgr Robert Woźniak |                                      |   |                   |               | System wiercenia: Mechaniczno-obrotowy    |            |             |                            |     |                    |  |  |
|   |   |                 |   |                                      |   |                   |               | Rzędna: 82.47 m n.p.m.                    |            |             |                            |     |                    |  |  |
|   |   |                 |   |                                      |   |                   |               | Skala 1 : 45                              |            |             | Data wiercenia: 2019-11-18 |     |                    |  |  |
| Wiercenie   | Głębokość<br>zwierciadła<br>wody  | Stratygrafia    | Profil<br>litologiczny  |                                      | Przelot   | Opis litologiczny | Symbol gruntu | Warstwa<br>geotechniczna                  | Wilgotność | Stan gruntu | ID                         | IL  | Ilość<br>wałeczków |  |  |
|   | [m.p.p.t]   |                 | [m]   | [m]                                  |   |                   |               |   |            |             |                            |     |                    |  |  |
| 1   | 2   | 3               | 4   | 5                                    | 6   | 7                 | 8             | 9   | 10         | 11          | 12                         | 13  | 14                 |  |  |
| <br>1.00 | <br>1.00 | Nasypy<br>Nasyp |    | 1.00<br>1.20<br>1.80<br>3.80<br>7.00 | nasyp niekontrolowany ciemnoniebieski (piasek drobny próchniczny, piasek średni, żwir, kamienie, cegła) | nN(PdH,Ps,Ż,K,C)  |               | w   | In         |             |                            |     |                    |  |  |
|   |   |                 |   |                                      | piasek drobny brązowy przewarstwiony piaskiem średnim   | Pd  Ps            |               |   | 0.69       |             |                            |     |                    |  |  |
|   |   |                 |   |                                      | piasek drobny jasnobrązowy  |                   |               |   | 0.68       |             |                            |     |                    |  |  |
|   |   |                 |   |                                      | piasek drobny jasnobrązowy  | Pd                | IVc           | nw  | zg         | 0.73        |                            |     |                    |  |  |
|   |   |                 |   |                                      | glina piaszczysta ciemnoszara   |                   |               |   |            |             |                            |     |                    |  |  |
| Czwartorzęd<br>Pleistocen   |   |                 |    | 3.80<br>7.00                         |   | Gp                | Vb            | w   | tpl        |             | 0.1                        | 0/1 |                    |  |  |
|   |   |                 |   |                                      |   |                   |               |   |            |             |                            |     |                    |  |  |
|   |   |                 |   |                                      |   |                   |               |   |            |             |                            |     |                    |  |  |
|   |   |                 |   |                                      |   |                   |               |   |            |             |                            |     |                    |  |  |
|   |   |                 |   |                                      |   |                   |               |   |            |             |                            |     |                    |  |  |










|   |                                  |   |   |   |         |                                   |               |  |            |             |      |     |                     |     |     |
|---|----------------------------------|---|---|---|---------|-----------------------------------|---------------|--|------------|-------------|------|-----|---------------------|-----|-----|
| Grunt-Test Dawid Matusiak<br>61-689 Poznań, os. Przyjaźni 19/85                           |                                  |   | KARTA OTWORU GEOTECHNICZNEGO<br><br>Profil numer 11   |   |         |                                   |               | Zał.Nr: 2.11<br><br>Wiertnica: Wamet H13P  |            |             |      |     |                     |     |     |
| Miejscowość: Wągrowiec<br>Gmina: -<br>Powiat: wągrowiecki<br>Województwo: wielkopolskie   |                                  |   | Obiekt: Rozbudowa oczyszczalni ścieków<br>Inwestor: NBM Technologie<br>Wiercenie: Grunt-Test<br>Dozór geol.: mgr Robert Woźniak |   |         |                                   |               | System wiercenia: Mechaniczno-obrotowy<br><br>Rzędna: 81.07 m n.p.m.<br><br>Skala 1 : 45      Data wiercenia: 2019-11-18 |            |             |      |     |                     |     |     |
| Wiercenie   | Głębokość<br>zwierciadła<br>wody | Stratygrafia  | Profil<br>litologiczny  |   | Przelot | Opis litologiczny                 | Symbol gruntu | Warstwa<br>geotechniczna   | Wilgotność | Stan gruntu | ID   | IL  | Ilość<br>wałczkowań |     |     |
|   | [m.p.p.t]                        |   | [m]   |   | [m]     |                                   |               |  |            |             |      |     |                     |     |     |
| 1   | 2                                | 3   | 4   | 5   | 6       | 7                                 | 8             | 9  | 10         | 11          | 12   | 13  | 14                  |     |     |
| <br>1.00 |                                  | <div>Holocen</div> <div>Czwartorzęd</div> <div>Plejstocen</div> |   |    |         | gleba ciemnoszara                 | Gb            |  | w          | In          |      | 0.3 | 2/3                 |     |     |
|   |                                  |   |   |    | 0.50    | piasek drobny brązowy             | Pd            | IVa  | m          |             | 0.48 |     |                     |     |     |
|   |                                  |   | 1.0   |    | 1.00    | piasek średni brązowo-szary       | Ps            | IVd  | nw         | szg         | 0.4  |     |                     |     |     |
|   |                                  |   | 2.0   |   | 1.90    | glina piaszczysta ciemnoniebieski | Gp            | Ve   | w          | pl          |      |     |                     | 0.2 | 2/1 |
|   |                                  |   | 3.0   |   |         |                                   |               |  |            |             |      |     |                     |     |     |
|   |                                  |   |   |  | 3.30    | glina piaszczysta ciemnoszara     |               | Vc   |            | tpl         |      |     |                     |     |     |
|   |                                  |   | 4.0   |   | 4.00    |                                   |               |  |            |             |      |     |                     |     |     |



|   |                                  |  |   |      |                            |                   |               |  |            |             |    |    |                    |
|---|----------------------------------|--|---|------|----------------------------|-------------------|---------------|--|------------|-------------|----|----|--------------------|
| Grunt-Test Dawid Matusiak<br>61-689 Poznań, os. Przyjaźni 19/85                         |                                  |  | <b>KARTA OTWORU GEOTECHNICZNEGO</b><br><br><b>Profil numer 13</b>   |      |                            |                   |               | Zał.Nr: 2.13   |            |             |    |    |                    |
|   |                                  |  |   |      |                            |                   |               | Wiertnica: Wamet H13P  |            |             |    |    |                    |
| Miejscowość: Wągrowiec<br>Gmina: -<br>Powiat: wągrowiecki<br>Województwo: wielkopolskie |                                  |  | Objekt: Rozbudowa oczyszczalni ścieków<br>Inwestor: NBM Technologie<br>Wiercenie: Grunt-Test<br>Dozór geol.: mgr Robert Woźniak |      |                            |                   |               | System wiercenia: Mechaniczno-obrotowy<br>Rzędna: 81.96 m n.p.m.<br>Skala 1 : 45      Data wiercenia: 2019-11-18 |            |             |    |    |                    |
| Wiercenie   | Głębokość<br>zwierciadła<br>wody | Stratygrafia   | Profil<br>litologiczny  |      | Przelot                    | Opis litologiczny | Symbol gruntu | Warstwa<br>geotechniczna   | Wilgotność | Stan gruntu | ID | IL | Ilość<br>wałeczków |
| 1   | 2                                | 3  | 4   | 5    | 6                          |                   | 8             | 9  | 10         | 11          | 12 | 13 | 14                 |
|        |                                  | <div><div>Holocen</div><div>Czwartorzęd</div><div>Plejstocen</div></div> |   |      |                            | gleba ciemnoszara | Gb            |  | w          |             |    |    |                    |
|   |                                  |  |   | 0.70 | piasek średni brązowy      | Ps                | IVf           |  |            | 0.61        |    |    |                    |
|   |                                  |  |   | 1.80 | piasek średni jasnobrązowy |                   | IVe           |  | szg        | 0.48        |    |    |                    |
|   |                                  |  |   | 2.40 | piasek gruby brązowy       | Pr                | IVf           | nw   |            | 0.61        |    |    |                    |
|   |                                  |  |   | 3.00 |                            |                   |               |  |            |             |    |    |                    |

|   |                                  |              |   |  |         |  |               |                          |            |                            |      |    |                     |
|---|----------------------------------|--------------|---|--|---------|--|---------------|--------------------------|------------|----------------------------|------|----|---------------------|
| Grun-Test Dawid Matusiak<br>61-689 Poznań, os. Przyjaźni 19/85                          |                                  |              | KARTA OTWORU GEOTECHNICZNEGO  |  |         |  |               | Zał.Nr: 2.14             |            |                            |      |    |                     |
|   |                                  |              | Profil numer 14   |  |         |  |               | Wiertnica: Wamet H13P    |            |                            |      |    |                     |
| Miejscowość: Wągrowiec<br>Gmina: -<br>Powiat: wągrowiecki<br>Województwo: wielkopolskie |                                  |              | Obiekt: Rozbudowa oczyszczalni ścieków<br>Inwestor: NBM Technologie<br>Wiercenie: Grunt-Test<br>Dozór geol.: mgr Robert Woźniak |  |         | System wiercenia: Mechaniczno-obrotowy                   |               |                          |            |                            |      |    |                     |
|   |                                  |              |   |  |         | Rzędna: 77.81 m n.p.m.                                   |               |                          |            |                            |      |    |                     |
|   |                                  |              |   |  |         | Skala 1 : 45   |               |                          |            | Data wiercenia: 2019-11-18 |      |    |                     |
| Wiercenie   | Głębokość<br>zwierciadła<br>wody | Stratygrafia | Profil<br>litologiczny  |  | Przelot | Opis litologiczny  | Symbol gruntu | Warstwa<br>geotechniczna | Wilgotność | Stan gruntu                | ID   | IL | Ilość<br>wałczkowań |
|   | [m.p.p.t]                        |              | [m]   |  | [m]     |  |               |                          |            |                            |      |    |                     |
| 1   | 2                                | 3            | 4   | 5  | 6       | 7  | 8             | 9                        | 10         | 11                         | 12   | 13 | 14                  |
|        | 0.40                             | Czwartorzęd  |   |  |         | torf czarny z domieszką piasku drobnego<br>próchnicznego | T+PdH         |                          | w          | In                         |      |    |                     |
|   |                                  |              |   |  | 2.40    | piasek średni próchniczny ciemnoszary                    | PsH           | Ila                      |            |                            |      |    |                     |
|   |                                  |              |   |  | 2.60    | piasek grubo szary                                       | Pr            | IVe                      |            |                            | 0.5  |    |                     |
|   |                                  |              |   |  | 3.50    | pospółka szara   | Po            | IVh                      | nw         | szg                        | 0.46 |    |                     |
|   |                                  |              |   |  | 4.00    | pospółka szara   | Po            | IVi                      |            |                            | 0.6  |    |                     |
|   |                                  |              |   |  | 4.50    |  |               |                          |            |                            |      |    |                     |

Rysunek wykonano programem "GeoStar"

|   |                                  |              |                        |   |         |   |               |                          |            |  |      |                            |                     |
|---|----------------------------------|--------------|------------------------|---|---------|---|---------------|--------------------------|------------|--|------|----------------------------|---------------------|
| Grunt-Test Dawid Matusiak<br>61-689 Poznań, os. Przyjaźni 19/85                           |                                  |              |                        |   |         | KARTA OTWORU GEOTECHNICZNEGO  |               |                          |            | Zał.Nr: 2.15                           |      |                            |                     |
|   |                                  |              |                        |   |         | Profil numer 15   |               |                          |            | Wiertnica: Wamet H13P                  |      |                            |                     |
| Miejscowość: Wągrowiec<br>Gmina: -<br>Powiat: wągrowiecki<br>Województwo: wielkopolskie   |                                  |              |                        |   |         | Obiekt: Rozbudowa oczyszczalni ścieków<br>Inwestor: NBM Technologie<br>Wiercenie: Grunt-Test<br>Dozór geol.: mgr Robert Woźniak             |               |                          |            | System wiercenia: Mechaniczno-obrotowy |      |                            |                     |
|   |                                  |              |                        |   |         |   |               |                          |            | Rzędna: 79.21 m n.p.m.                 |      |                            |                     |
|   |                                  |              |                        |   |         |   |               |                          |            | Skala 1 : 45                           |      | Data wiercenia: 2019-11-18 |                     |
| Wiercenie   | Głębokość<br>zwierciadła<br>wody | Stratygrafia | Profil<br>litologiczny |   | Przelot | Opis litologiczny   | Symbol gruntu | Warstwa<br>geotechniczna | Wilgotność | Stan gruntu                            | ID   | IL                         | Ilość<br>wałczkowań |
|   |                                  |              | [m]                    | [m]   |         |   |               |                          |            |  |      |                            |                     |
| 1   | 2                                | 3            | 4                      | 5   | 6       | 7   | 8             | 9                        | 10         | 11                                     | 12   | 13                         | 14                  |
| <br>2.20 |                                  | Nasyt        |                        |    |         | nasyp niekontrolowany ciemnoszary (piasek drobny<br>próchniczny, piasek średni, piasek<br>drobny, żwir, cegła)<br><br>nN(PdH, Ps, Pd, Ż, C) |               |                          | w          | In                                     |      |                            |                     |
|   |                                  | Nasyt        |                        |   |         |   |               |                          |            |  |      |                            |                     |
|   |                                  | Hobcen       | 1.0                    |    | 0.70    | piasek średni jasnobrązowy  | Ps            | IVf                      |            | szg                                    | 0.61 |                            |                     |
|   |                                  |              | 1.20                   |    | 1.20    | pospółka brązowa z domieszką glin   | Po+G          | IVj                      |            | zg                                     | 0.68 |                            |                     |
|   |                                  |              | 1.60                   |    | 1.60    | piasek średni próchniczny ciemnoszary   | PsH           | Ilb                      |            | 0.62                                   |      |                            |                     |
|   |                                  | Czwartorzęd  | 2.20                   |    | 2.20    | piasek gruby brązowo-szary przewarstwiony piaskiem<br>średnim   | Pr  Ps        | IVf                      | nw         |  | 0.58 |                            |                     |
|   |                                  |              | 3.0                    |   | 2.90    | piasek średni brązowo-szary   | Ps            | IVe                      |            | szg                                    | 0.5  |                            |                     |
|   |                                  |              | 4.60                   |  | 4.60    | piasek średni brązowo-szary   |               |                          |            |  | 0.62 |                            |                     |
|   |                                  |              | 6.60                   |  | 6.60    | piasek drobny brązowy   | Pd            | IVc                      |            | zg                                     | 0.69 |                            |                     |
|   |                                  |              | 8.0                    |   | 8.00    |   |               |                          |            |  |      |                            |                     |