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**MINISTRY OF CULTURE AND MEDIA**

Trg Nikole Pasica 11,

Belgrade

**REPORT ON THE PRECEDING ARCHAEOLOGICAL EXCAVATION INVESTIGATIONS**

in the area of the planned Wind farm "Čibuk 1" and of the 400 kV Connecting Overhead transmission line, from the 400 kV Overhead transmission line number 453 Drmno - Pancevo 2 to the entry into the 400 kV Substation of the Wind farm "Čibuk", i.e. in the area of the planned foot foundation of the Overhead transmission line pylon No. 10 (cadastre land plot no. 4000/45 Dolovo Cadastral Municipality), 23, 24 and 25 (cadastre land plot no. 3894/22, 3894/12 and 3894/5 Bavanište Cadastral Municipality).

Institute for the Protection of Cultural Monuments in Pancevo, according to the Article 27, Paragraph 1, Item 1, 36, paragraph 1, item 4, 100, Paragraph 1, 104 and the Article 109 of the Law on Cultural Property ("Official Gazette of RS", no. 71/94) and the Article 131 of the Law on General Administrative Procedure ("Official Gazette of FRY no. 33/97) in the subject of determining the conditions in the purpose of preparing the technical documentation for the Wind farm "Čibuk 1" and 400 kV Connecting Overhead transmission line, from the 400 kV Overhead transmission line No. 453 Drmno - Pancevo 2 to the entry into the 400 kV Substation of the Wind farm "Čibuk 1", at the request of the client WIND ENERGY BALCAN GROUP – VETROELEKTRANE BALKANA LTD, Belgrade, Djure Jaksica 6, no. 88/2012 dated 24/04/12 ( Institute Ref. no. 314 dated 24/04/12) passed the Decision (Institute Ref. No. 314/11 dated 24/04/12) on the need for preceding and conserving archaeological investigations and excavation on the location in question.

According to the Decision of the Institute on the necessary preceding and conserving archaeological excavations (Institute Ref. No. 314/11 dated 24/04/12), the Investor WIND ENERGY BALCAN GROUP – VETROELEKTRANE BALKANA L.T.D. Djure Jaksica street 6, Belgrade, addressed to the Institute a request for the Issuance of a legal and expert opinion on the terms and conditions, dated 21/03/ 2013 by its note no. 15/2013. (Institute Ref. No. 216 dated 21/03/2013).

On 28/03/13 the Institute has given an official Opinion (Ref. No. 216/2 dated 28/03/13) regarding the



terms and conditions (Ref. No. 314/11 of 26/10/12), and in response to a request for clarification of the terms and conditions by the investor WIND ENERGY BALCAN GROUP – VETROELEKTRANE BALKAN L.T.D. Belgrade, Djure Jaksica 6, in order to obtain a building permit. In the Official opinion of the Institute is stated the necessity of preceding conserving archaeological excavations in the area in question.

Institute for the Protection of Cultural Monuments of RS in Belgrade passed the Decision 0305 no. 2/1538 dated 08/06/13 (Institute Ref.no. 216/15 dated 07/08/13) concerning the technical protection measures for the Study of preceding archaeological excavations and investigations in the area of the Wind farm "Čibuk 1" and of the 400 kV Connecting Overhead transmission line, from the 400 kV Overhead transmission line number 453 Drmno - Pancevo 2 to the entry into the 400 kV Substation of the Wind farm "Čibuk 1".

According to the Study on preceding archaeological excavations and investigations in the area of the planned Wind farm "Čibuk 1" and of the 400 kV Connecting Overhead transmission line, from the 400 kV Overhead transmission line number 453 Drmno - Pancevo 2 to the entry into the 400 kV Substation of the Wind farm "Čibuk " ( Institute Ref. no. 216 / 16 dated 22/07/13), the Institute has sent a Request to the Ministry of Culture and Information dated 29/07/13 in order to obtain an approval to perform the preceding conserving archaeological investigations on the location in question(Institute Ref. no. 216/9 dated 29/07/13).

The Ministry of Culture and Information of RS passed a Decision No. 633-00-245 / 2013-02 (Institute Ref. no. 216/19 dated 12/08/13), by which the Institute is allowed to perform conserving archaeological excavations for the Project of conserving archaeological excavations in the area of the planned Wind farm "Čibuk 1" and of the 400 kV Connecting Overhead transmission line, from the 400 kV Overhead transmission line number 453 Drmno - Pancevo 2 to the entry into the 400 kV Substation of the Wind farm "Čibuk 1" on the planned Foot foundations of the Overhead transmission line pylons no.10,23,24 and 25.

According to the Decision of the Ministry of Culture and Information of RS No. 633-00-245 / 2013-02 (Institute Ref.no. 216/19) dated 08/05/13, the members of the expert team, students and laborers started the field work on 15/08/13, when they started conserving archaeological investigations in the field as well as processing of the removable archaeological findings in the archaeological base in Skorenovac. Field work lasted continuously until 21/09/13, and the work on documentation and processing of the removable archaeological findings lasted until 25/09/13, however with a slightly diminished number of team members.

The project manager was Maja Zivkovic, archaeologist conservator at the Institute for Protection of Cultural Monuments in Pancevo and professional consultant approved by the decision of the Ministry of Culture and Information of RS was Dimitrije Madas, M.Sc. in archaeology, archaeologist advisor. Members of the professional archaeological team were: Dragana Antonović, Ph.D. at the Archaeological Institute SASA, Jasna Jovanov, archaeologist conservator, Aleksandra Golubov, M.Sc. in archaeology, curator at the National Museum in Pancevo, Miroslav Birclin, B.Sc. In archaeology, MA Marija Svilar archaeologist curator, Tatjana Rajkovic, M.Sc. in archaeology, curator, Nada Benjocki archaeologist



conservator at the Institute for Protection of Cultural Monuments in Zrenjanin, Ildiko Medović, archaeologist curator, Aleksandar Medovic, archaeological botanist at the Museum of Vojvodina in Novi Sad, Tibor Kartali and Damir Prašnikar, technicians-conservators at the Institute for protection of Cultural Monuments in Pancevo. In addition to members of this professional team, 12 students of archeology were engaged. The Investor has also provided 16 laborers.

The area that was planned for Overhead line transmission pylons (pylons no. 10, 23, 24 and 25) was investigated, with a total area of approximately 270 m<sup>2</sup>. Four investigation pits measuring 4 x 4 meters were opened for each Overhead line transmission pylon area that was investigated, on the location of the future pylons' foot foundations, some investigation pits being slightly enlarged according to the situation on the ground. Each 4 x 4 meters investigation pit was named in accordance with their numbering assigned by the Investor, i.e. Foot foundation 1, 2, 3 and 4, starting from the east in a clockwise direction. As these are so far unknown and unexplored archaeological sites, excavation layers were being mechanically removed, with excavation layers of approximately 10-15 cm of thickness (excluding the surface layer).



**Figure 1:** Removal of the surface layer on the site "Stub 10"



**Figure 2:** Investigation pit 1, base of the 7th excavation layer, investigation pit 2

From 15/08/13 to 04/09/13 one part of the professional team and laborers was engaged in the investigations of the future foot foundation of the Pylon 10 of the Overhead transmission line (site "Stub 10"), in the area called Jaruga "Morava". A surface area measuring 17m x 17 m (**Figure 1**) was opened there, surface layer of arable land of 25cm of thickness being taken off, followed by the opening of four investigation pits measuring 4 x 4m, in the corners of this larger excavation, in places provided for the foot foundations of the pylons.



In all four investigation pits, layers of thickness of approximately 10-15 cm were being removed, to a relative depth of about 1.4-1.5 meters (**Figure 3**), when a yellow clay layer was encountered. There were no continuous habitation layers nor specific archaeological objects (graves, housing, etc.) found in the excavation layers, however all the investigation pits contained a certain amount of pottery shreds, animal bones, the remains of house plaster, fragmented bricks, as well as small metal objects and chipped stone. The finding of two small fragments of obsidian should be pointed up, unfortunately without a specific context.

Among chronologically sensitive findings, what stand out are the remains of Late Antiquity pottery that can be linked with great certainty to the Sarmatians, this findings being also by far the most numerous. Sarmatian findings in this region are generally dated to the 3<sup>rd</sup> and 4<sup>th</sup> century. In addition to the Late Antiquity pottery, findings of the Medieval pottery are also numerous, roughly dated to the period of 11<sup>th</sup>-12<sup>th</sup> century. Also, the fragments of prehistoric, mostly Bronze Age ceramics occurred occasionally, those of the Middle and Late Bronze Age. The same findings pattern was confirmed by the findings from the immediate surroundings of the investigation pits on the site "Stub10", and we can assume with great certainty the existence of the late antique Sarmatian settlements, with overhead or partly dug in dwellings within 100-200 meters of the excavation itself, which is to say that we revealed here the very outskirts of the village. Also, the proximity of the medieval settlements of the 11<sup>th</sup>-12<sup>th</sup> centuries is certain.



**Figure 3:** Base and profiles at the  
end of the excavation



**Figure 4:** Completion of works on the site "Stub 10"

The site "Stub 10" is completely archaeologically investigated, documented and submitted to the Investor ending with 04/09/13, for further earthworks (**Figure 4**).

Along with the work on the site "Stub 10", one part of the professional archaeological team together with laborers, worked on the investigations of the site "Stub 23" on the location "Bezubica" north of Bavanište. Pylon 23 was being investigated in the period from 15/08/13 to 18/09/2013. First of all, surface excavation layer of about 25 cm of thickness was removed, with the surface of 12 x 12 meters



(**Figure 5**), and after polishing, four investigation pits measuring 4 x 4 meters were formed in the corners, which correspond to the foot foundations of the future Overhead line transmission pylon (foot foundations 1- 4). After founding dark brown earth in the surface layer, already at the relative depth of about 0.3 meters, dark yellow earth occurred, without any special zones standing out, which did not indicate the presence of archaeological remains of buildings nor of the continuous cultural layers. There were also not many findings of pottery fragments in these layers. They were mainly fragments of the Late Antiquity, Sarmatian pottery, with occasional fragments of prehistoric pottery, of the Late Bronze Age.

In the base of the excavation layer 5, in the investigation pit 1, some tibia bones, which belonged to the human skeleton, were discovered. As the bones were largely entering the northern profile of the investigation pit, 1 meter width enlargement was made, to the north and the north-east. There were discovered rather friable remains of a human skeleton, buried in the extended position, oriented northwest-southeast, with the head to the northwest (Grave 1/23). Near the skeleton were not discovered any grave objects, and according to the osteological material it was determined that it was a younger female person. The skeleton was technically filmed and photographed (**Figure 6**), and then elevated. There were no traces of the grave.

In the base of the next excavation layer in the investigation pit 1, two more skeletal graves were discovered, one of which is the Grave 2/23, located directly beneath the Grave 1/23, and the Grave 3/23 was in the southwestern part of the investigation pit 1.



**Figure 5:** Site 23, after the removal of the surface excavation layer



**Figure 6:** Investigation pit 1, Grave 1, base 5 of the excavation layer

Grave 2/23 contained fully dislocated parts of the skeleton (**Figure 7**), along with a few small bronze objects, around 10 glass beads and fragments of Sarmatian pottery. Only after removing two more excavation layers in the area of the Grave 2/23 were discovered the outlines of a rectangular grave, oriented east-west, with the bones of one hand in situ (**Figure 8**). Then it became clear that the dislocated parts of the skeleton that were excavated in the upper two layers of the excavation were, in fact, parts of the skeleton that had been removed from the grave when looting the Grave 2/23, and bronze applications and beads findings that had been left in the tomb after the robbery, indicate the existence of more valuable objects that the deceased had been buried with, and that the robbers had taken.



**Figure 7:** Dislocated skeletal bones from the Grave 2 in the base of the exc. layer 7



**Figure 8:** Traces of the Grave 2 in the base of the excav. layer 9

Grave 2/23 was fully documented, along with technical drawings and photographs. Grave 3/23 contained the skeleton of a male person buried in an extended position oriented northwest-southeast, with the head to the southeast. The deceased was discovered in the primary position, with all the grave objects, which consisted of a small, gray, ceramic cup on the round pedestal, made on the potter's wheel, with polished surfaces (Sarmatian pottery), and several bronze ornamental / utilitarian artifacts (hardware and yarn of the belt buckles; small, arched, "T" type fibula), pruned stone, as well as a small ceramic artifact. The skeleton was technically filmed and photographed (**Figures 9-10**) with all C findings in situ, even after lifting the findings and the skeleton itself.

Levels of excavation in all four investigation pits (future footings 1-4) were lowered to a relative depth of 1.5 meters and the occurrence of the yellow layer, in order to be sure that the other investigation pits do not contain any more graves. As this was not the case, we can assume the existence of a Sarmatian necropolis that stretches towards the east and the south, as seen from the investigation pit 1 of our excavation.



**Figure 9:** Grave 3/23 after cleaning the skeleton



**Figure 10:** Grave 3/23 after cleaning the skeleton



Site "Stub 23" is completely archaeologically investigated, documented and submitted to the Investor ending with 18/9/13 for further earthworks.

In the period from 20/08/13 to 21/09/13 one part of the professional archaeological team was working on the investigations of the site 'Stub 24 "on the location "Bezubica" north of Bavanište and 500 meters south of the site "Stub 23".

Once again, after clearing up the land from vegetation, an area measuring 12 x 12 meters was opened, and a thicker, surface, excavation layer was removed (**Figure 11**). After that, four 4 x 4 meters investigation pits were formed in all four corners of a larger open area.

In the area next to the excavation, it was recognized and noted a number of pottery fragments from the period of the early Iron Age, and to a lesser extent of the Sarmatian pottery, Bronze Age pottery and rarely medieval pottery and the same pattern of pottery findings is repeated in the excavation layers of all the four investigation pits on the site ' Stub 24 ".

One can single out the findings of a group of pottery and pieces of burned plaster in the base of the 1st and 3rd excavation layer in the investigation pit 2, where were found the shreds of a larger fragmented bowl, along with some pieces of burned plaster and animal bones (**Figure 12**).

The investigation pit 1, in the level of bases 6 and 7 of the excavation layer, revealed an irregular circular hole filled with ashes, animal bones and fragments of pottery vessels from the Early Iron Age period, that was most likely a waste pit (**Figure 13**). In this hole were also discovered some fragmented bronze items, and bone tools, too.



**Figure11:**Base after the removal of the surface layer



**Figure12:** Investigation pit 2, the base of excavation the layer 2, Group of pottery 1/24



In the investigation pit a waste pit was also discovered and discharged, containing pieces of burned plaster, of which several pieces had prints of wooden logs and house plaster, animal bones, traces of soot and fragments of pottery from the Early Iron Age (**Figure 14**). The pit has a circular base, and it narrows towards the bottom in the shape of a funnel.



**Figure 13:** Investigation pit 1 ,emptied south half  
of the grave 1/24



**Figure 14:** Investigation pit 2, Grave 2/24  
in the base of excavation layer 4

Both pits, as well as the excavated layers on the site "Stub 24", are dominated by the early Iron Age pottery, with distinctive, decorated bowls with inverted edges, by the parts of the hearthstone utensils and urns with flaring rim and sloping ornaments on the neck of the vessel. Based on these objects and present ornaments it can be concluded that most of the findings are dating back from the time of the oldest period of the Hallstatts and that they belong to the group of Bosut IVA- Kalakaca horizon.

A large amount of Iron Age pottery fragments and two waste pits with pieces of house plaster, animal bones and other findings typical of the settlements suggest the existence of an early Iron Age settlement in the immediate proximity of the site "Stub 24".

All four investigation pits on this site were at the relative depth of approximately 1.3 to 1.5 meters when a yellow clay layer occurred, without any findings.

Site "Stub 24" was completely archaeologically investigated, documented and submitted the Investor ending with 21/09/13, for further earthworks (**Figure 15**).



**Figure 15:** Site "Stub 24", completion of works



**Figure 16:** Investigation pit 4, Base of the 2<sup>nd</sup>

excavation layer, group of pottery and bones

In the period from 04/09/2013 to 21/09/2013, one part of the professional team and laborers was engaged in the investigations of the site 'Stub 25 "on the location" Bezubica "north of Bavanište, about 500 meters south of the site ' Stub 24".

After cleaning up the ground, a square area measuring 12 x 12 meters was formed, surface layer of plowed fields being taken off, to a thickness of approximately 0.25 m. Thereafter, as well as on the other investigated sites, in the corners of the area were set four small investigation pits, measuring 4 x 4 meters. These investigation pits are named Foot foundation 1-4 i.e. 1-4 investigation pits.

The excavated layers of the investigation pits on the site 25 revealed the fragments of pottery vessels, animal bones and small pieces of plaster. The findings of pottery fragments are generally dated back to the Late Antiquity period, between the 2<sup>nd</sup> and the 4<sup>th</sup> IV century AD, with the rare occurrence of fragments of pottery from the prehistoric period. The findings of the medieval pottery were localized in the area of the investigation pit 4. On the site 25 were also detected two fragments of obsidian, one in the fourth excavation layer of the investigation pit 1 and the other in the investigation pit 2, in level 3 and 4 of the excavation layers.

The investigation pit 1, on the basis of the third layer of the excavation, discovered a skeletal grave (Grave 1/25), the deceased passed on his back, lying in the northwest-southeast direction, with the head to the east. The content of the grave 1/25 revealed more findings clearly indicating the grave is dating back to the Late Antiquity, therefore it is probably a Sarmatian grave. Findings of two bronze coins from the fourth century during the reign of Constantine the Great are standing out, as well as a fragmented iron knife, fragmented fibula and a smaller ceramic vessel (**Figure 18**), typical for Sarmatian graves. The skeleton and the grave were photographed (**Figure 17**), technically documented and dimensioned.



**Figure 17:** Invest.pit 1 Grave 1/25, base



**Figure 18:** Invest.pit 1, Grave 1/25, a detail

Grave 2/25 was discovered when removing the layer 5 of the excavation in the investigation pit 3. It was a skeleton buried with the deceased passed on his back, in an extended position. Grave 2 was oriented northwest-southeast, with the head of the deceased to the southeast (**Figure 19**). A fragmented iron object was found in the height of the pelvis, probably a knife, together with two identical bronze objects (**Figure 22**), as well as a bronze arch fibula, discovered in the level of the feet of the deceased (**Figure 21**). Traces of organic matter, probably wood, were found on the basis of the grave. The samples were taken for paleobotanical analysis.



**Figure 19:** Invest.pit 3, Grave 2/25, base



**Figure 20:** Invest.pit 4, Furnace

In the investigation pit 4, in the basis of the excavation layer II was discovered a zone with fragments of pottery, animal and fragmented human bones (**Figure 16**). In the same investigation pit, the remains of a furnace with dome were found. The furnace was noted in the basis of the excavation layer IV, as the remains of reddish burnt clay appeared, the furnace itself being of irregular circular shape, and it was completely investigated when removing excavation layers 5 and 6. Dimensions of the furnace were 0.75 x 0.65 meters, except that its longer side was oriented north-south, and the mouth of the furnace was turned towards the south (**Figure 20**). The cross section was made through the bottom of the furnace



and the preserved part of the dome. A number of larger fragments of medieval pottery were found on the bottom wall of the furnace. Therefore it has been dated to this period.

The discovery of two graves suggests that there is a larger Sarmatian necropolis or a group of graves that may be located in the immediate vicinity of the site "Stub 25". Also, the discovery of medieval furnaces with ceramics and bones indicates a short-term stay of people in this area during that period or a vicinity of the medieval village.



**Figure 21:** Invest.pit 3, Grave 2/25, Fibula



**Figure 22:** Invest.pit 3, Grave 2/25, Bronze object

Site "Stub 25" was completely archaeologically investigated, documented and submitted to the Investor ending with 21/09/2013, for further earthworks.

The results of conserving archaeological investigations in the area of the 400 kV Connecting overhead transmission line, from the 400 kV Overhead transmission line number 453 Drmno - Pancevo 2 to the entry into the 400 kV Substation in the Wind farm "Čibuk" area, i.e. in the area of the planned foots of the pylons (Foots No. 10, 23, 24 and 25) are satisfactory.

It was noted the existence of the Late Antiquity Sarmatian settlements on the banks of the creek along the southeastern rim Dolovo (location "Morava" gully), of which we explored the periphery on the site "Stub 10" as well as we unveiled the medieval material on this location.

South of there, on the loess beam extending in a north-south between Dolovo and Bavanište (eastern edge of the location "Bezubica"), the sites' Stub 23 ", " Stub 24 "and" Stub 25 " were investigated. On the sites' Stub 23 "and" Stub 25 ", with a distance between them of about 1 km, two groups of skeletal burials were discovered, belonging to Sarmatian population from the period of the 3rd and the 4<sup>th</sup> century, with contributions in the form of money, and decorative objects for everyday use. On the site "Stub 24", two burial waste pits were explored, with pottery findings, belonging in their entirety to cultural groups of the early Iron Age, and judging by their contents (house plaster, animal bones and vessels for food preparation), we can say that there was a settlement of the same period in the immediate proximity.

Therefore, after exploring a total area of approximately 270 m<sup>2</sup>, we have discovered so far unknown settlement and two Sarmatian necropolises from the Late Antiquity, as well as indirect indicators of the existence of another settlement of the carriers of Bosut Iva-Kalakaca culture, from the early Iron Age. In



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In addition, the continuity of settling in the explored area was confirmed, from the period of the late Bronze Age until the late Middle Ages.

According to the results of archaeological excavations, it was concluded that the investigated area is located within multilayer settlements and a necropolis, and that further work on the Project Wind farm Čibuk 1 and the 400 KV Over head transmission line, from the 400 KV Over head transmission line number 453 "Drmno Pancevo 2" to the entry into the planned 400 KV Substation of the Wind farm "Čibuk 1" is allowed with special consideration and constant supervision of archaeologists during the earthworks on the construction of foundation pits, in order to prevent the destruction or damaging of archaeological material from the cultural layers.

Pancevo,

19.12.2013.

Arranged by:

Maja Zivkovic, archaeologist conservator

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