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**Letter Report**  
**Results of Special ECMG Mission**  
**to Evaluate Three Archaeological Sites in Cameroon**

Between March 11 and March 17, 2003, a special mission to Cameroon was conducted by ECMG team member William J. Johnson, P.G. supported by archaeologist Dr. Clark A. Dobbs. The purpose of the mission was to investigate reports of potential impact to three high priority archaeological sites (ECA-68, ECA-15 and ECA-163) in Cameroon. Consistent with the ECMG letter No. 00-573-A73, dated March 19, 2003, the following sections address the three sites and refer to specific EMP sections of Appendix E, Volume 1.

**ECA 68**

One of the most significant of the archaeological sites encountered prior to the excavation of the Pipeline is ECA 68 – Ndtoua, is considered to be one of the first, if not the first, occupied rock shelters discovered in the southern forests of Cameroon. According to the site Treatment Plan prepared by the project archaeologist, at this location, 4 to 5 m<sup>2</sup> unit excavations were planned, but only 2 m<sup>2</sup> were completed. The implementation of the Site Treatment Plan then indicates that the overhanging rock was blasted for construction needs. The single excavation to bedrock encountered 5 unmixed occupation layers, the oldest probably dating to the Late Stone Age. The archaeologists think that portions of the lowest horizon(s) of the site may still be intact.

Based on this information, the possibility that construction activities could have had adverse impact to the site was recognized and this site was identified for this special mission. The following sections provide a comparison of the EMP requirements for cultural resource management and the field observations.

**Assessment of Importance (Section 6.1)**

The site was assessed by the Project as a "High Priority Site". According to the Project the site is *".. one of the first if not the first occupied rock shelters discovered in the Southern*

*forest of Cameroon...*” and the site was recognized as “...*an important site...*” in written material provided by the Project.

<b>EMP Methods to Minimize Impacts to Cultural Properties (Section 6.3)</b>	<b>ECMG Field Observation</b>	<b>ECMG Comments</b>
6.3.1 Site Avoidance	The site was not avoided.  There are no obvious obstacles to rerouting the pipeline.	The site was discovered during the pre-construction survey (September 12, 2001 and construction at the site started on January 14, 2002). ECMG considers that there was sufficient time to reroute the pipeline.
6.3.2 ROW Reduction	No reduction has been adopted.  Additional work space outside the ROW was not requested by the Project. ECMG was informed that Project did not want to cut additional forest.	Additional work space has been routinely approved in other location along the ROW.
6.3.3 Hand Clearing/no Brushing or Grading		Not applicable to the site
6.3.4 Intentional Site Burial		Not applicable to the site
6.3.5 Monitoring	ECMG was informed that monitoring of the trench took place but nothing was found	
6.3.6 Data Recovery	Project performed data recovery through controlled excavation unit over a 2 sqm out of 23 sqm identified as site area.  The Project archaeological advisor considers that significant cultural information has not been lost because “... <i>the significant cultural material had already been excavated...</i> ”	Data recovery performed by the Project was suitable to verify the importance of the site but not enough to gather an adequate sample of the important information at the site before construction activities (e.g. excavation and blasting) started.  Much of the site has not been excavated. Based on the geologic setting and uniqueness of this archaeological site type, it is likely that the extent and the diversity of buried materials is more than was excavated. In any case, the conclusion of the Project archaeological advisor is not substantiated by the available information.

**Contractor Training and Awareness Program (Section 6.4)**

Project was not able to produce, under specific request by ECMG, documentation to demonstrate the communication to the Contractor (WSJV) of the presence of the site and how to manage the site during construction. According to the information given to ECMG, the

decision to blast the rock shelter was taken by COTCO and verbally transmitted to WSJV. The decision making process, including the analysis of alternatives is not documented.

### **Conclusions of ECMG**

The site was discovered during the pre-construction survey and could easily have been avoided. The importance of the site has been identified by the Project and recognized by ECMG. The integrity of the site has been compromised by blasting and the extent of the remaining archaeological deposits is unknown.

### **ECA 15**

Site ECA 15 in Mbong is reported by the Project as a "Tazunu" site containing megalithic monuments and one of a class of sites noted in the EMP as important cultural heritage sites that are poorly known in Cameroon. According to the implementation of the site treatment plan, a 2 m<sup>2</sup>-test pit was opened next to the monument at ECA 15, but excavations had to be stopped because of groundwater seeping into the pit. Then, the "Tazunu" was reportedly marked off for protection during grading operations, but it was removed before the treatment plan could be fully implemented.

Based on this information, the possibility that construction activities could have had adverse impact to the site was recognized and this site was identified for this special mission.

### **Assessment of Importance (Section 6.1)**

The site was initially assessed as High Priority based on visual inspection of the standing stones and their similarity to other Tazunu sites identified in the Central African Republic. Excavations to test the assumption that the stones were a Tazunu were initiated in July 2002, but site assessment was not completed.

The interpretation of the ECMG is that the standing stones are natural: the local rock is a strongly banded gneiss with a variable composition of plagioclase feldspar, biotite, hornblende and, where it is most resistant to erosion, quartz. The hornblende and biotite weather the most rapidly, leaving behind near vertical slabs of gneiss where feldspar and quartz predominate. Sometimes there are slabs that are several meters high, although in most cases the slabs are less than about 1.5 meters above the ground. In nearly all cases it is possible to observe that the slabs are connected to bedrock where the predominant strike of the near-vertical foliation is N-S. In a few cases, it is difficult to observe the bedrock connection, but when the foliation of such features is N-S and nearly vertical, it is apparent that the rocks were not placed by man.

<b>EMP Methods to Minimize Impacts to Cultural Properties (Section 6.3)</b>	<b>ECMG Field Observation</b>	<b>ECMG Comments</b>
6.3.1 Site Avoidance	The site was not avoided.	The site was discovered during the pre-construction survey (June 25, 2001) and construction started in August 2002. The stones identified as a Tazunu were removed on August 23, 2002. Archaeologists returned to the site on August 31, 2002 and gave permission for construction activities to continue on September 1, 2002. ECMG considers that there was sufficient time to reroute the pipeline.
6.3.2 ROW Reduction	No reduction has been adopted.	ROW reduction should have been the preferred option. Based on available information this option was not considered by the Project.  ECMG notes that approximately 500 meters from the site the Project did reduce the ROW to avoid graves.
6.3.3 Hand Clearing/no Brushing or Grading	The option of hand clearing/no brushing or grading was not implemented	Based on available information the option was not considered.
6.3.4 Intentional Site Burial		Not applicable to the site
6.3.5 Monitoring	ECMG was informed that monitoring did not take place during trenching operations. Ceramics were found on the graded surface, but controlled surface collection was not implemented.	
6.3.6 Data Recovery	Data recovery was partially accomplished.	

**Contractor Training and Awareness Program (Section 6.4)**

Project was able to produce, under specific request by ECMG, documentation to demonstrate the communication to the Contractor (WSJV) of the presence of the site and how to manage the site during construction.

**Conclusions of ECMG**

The site was discovered during the pre-construction survey and more than one year passed before any action was taken to evaluate the site or develop appropriate treatment options. This inaction and the initial misidentification of the site led to the current situation, which could have been avoided.

**ECA 163**

ECA 163 – Lom I was discovered on February 13, 2002 during monitoring of construction activities. The site, a well-delimited archaeological layer identified in the treatment plan as covering 20 x 20 meters (400 m<sup>2</sup>) was found in the embankment of a graded area and was interpreted to be an iron working area. The available information provided by the Project was that 2m<sup>2</sup> were excavated before grading operations proceeded.

Based on this information, the possibility that construction activities could have had adverse impact to the site was recognized and this site was identified for this special mission as being representative of several sites identified during construction monitoring.

**Assessment of Importance (Section 6.1)**

The site was discovered during the construction clearing activities (February 13, 2002). The site was assessed as High Priority and the following was discovered: two types of pottery, slag, tuyeres, bricks and the remains of two furnaces just (about 10 meters) outside the ROW. This site was considered to be especially interesting as pottery was discovered associated with the specialized metallurgy artifacts, which could be indicative of the proximity of a living space. A specific Site Treatment Plan was developed by the Project.

More recently the summary document presented to ECMG for this special mission states: “... *no significant material was discovered during the excavation...*” (March 2003). The Project also claims that the most important part of the site is untouched and outside the ROW, but the Project did not provide supporting evidence of this assessment.

Based on available information (Project findings, photos, and ECMG field observations) ECMG considers this site as an important site.

<b>EMP Methods to Minimize Impacts to Cultural Properties (Section 6.3)</b>	<b>ECMG Field Observation</b>	<b>ECMG Comments</b>
6.3.1 Site Avoidance		Not applicable. The site was discovered during clearing operations.
6.3.2 ROW Reduction	No reduction has been adopted.	ROW reduction should have been the preferred option. Based on available information this option was not considered by the Project.
6.3.3 Hand Clearing/no Brushing or Grading		Not applicable. The site was discovered during clearing operations.
6.3.4 Intentional Site Burial		Not applicable to the site

<b>EMP Methods to Minimize Impacts to Cultural Properties (Section 6.3)</b>	<b>ECMG Field Observation</b>	<b>ECMG Comments</b>
6.3.5 Monitoring	ECMG was informed that monitoring did take place during trenching operations. No cultural materials were identified.	It is expected that the topsoil containing the near surface archaeological deposit was removed prior to trenching. The presence of pit features is not excluded.
6.3.6 Data Recovery	Data recovery was partially accomplished.	

**Contractor Training and Awareness Program (Section 6.4)**

Project was not able to produce, under specific request by ECMG, documentation to show any EMP or WSJV communication related to this site. ECMG was informed that the communication was verbal and that COTCO verbally transmitted the permission to proceed with pipeline construction operations at the site.

**Conclusions of ECMG**

The site inside the ROW was originally assessed as high priority; the site was not treated according to the defined treatment plan and was not protected from further impacts before any further investigation could take place. More recently, the Project claims that “.. *Additional more significant cultural material,....was observed extending well beyond the edge of the ROW...*”. This statement is not supported by project documentation or field observations during this mission.

**SUMMARY CONCLUSION**

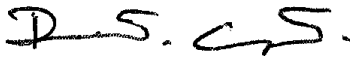
ECMG has observed weakness in the management of the three archaeological sites reviewed during this mission. Specifically:

- ECA 68 was properly assessed, inadequately mitigated, and the integrity of the site was severely impacted by the blasting;
- ECA 15 was never a cultural property, was misidentified during the initial survey and its assessment was never completed;
- ECA 163 was assessed, inadequately mitigated (graded before the site could be protected and/or data recovery completed) and evidence has not been provided to show that the significant part of the site is outside the ROW.

ECMG considers that:

- The results of the three site reviews represent systemic problems with the CRM program;
- The impacts at two of these sites could have been avoided, but it is important to note that more than 300 individual archaeological sites were identified and more than 50 of them appear to be important;
- Within the context of the overall CRM program, remedial actions can be taken that would replace, in large measure, the information loss at these two sites;
- Although the CRM program implementation at these sites is in non compliance with the EMP, the information loss does not appear to be irreversible.

Best regards,



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WJJ/CAD/PAL/RC