5.3  CULTURAL BASELINE

5.3.1  ARCHEOLOGY

The GNL-2 Quarry is situated between the Cañete river basin and the Culebrilla gorge (Pisco). The Cañete valley spreads south of Lima, between Parallels 11° 58’ and 13° 09’ Latitude South. The other coastal valleys consist of irrigated land, which use water brought by the main rivers, which descend from the highlands. The Cañete river basin originates from Lake Ticllacocha where it divides with the Mala river, at an altitude of approximately 4,800 m.

5.3.1.1  RESEARCH BACKGROUND

Archaeological prospecting in the GNL-2 Quarry area has been undertaken only recently, in contrast to the number of studies performed in the Cañete valley. Cañete is situated on the cultural border between the large ancient cultures of the central coast and the southern coast.

By the Late Intermediate, the Cañete river valley became important to local ethnic groups such as the Guarco and the Lunaguana. The Guarca dominated the lower valley while the Lunaguana controlled the middle part of the Cañete valley. The towns of the Yauyos confederation lie toward the highlands (Rostworowsky: 1989). The Tahuantinsuyo Empire later annexed these towns.

Over the past five years, the area identified for the GNL-2 Quarry has been extensively studied as part of the archaeological evaluations conducted for the Camisea project and for the Concon – Topará irrigation project. Both projects have identified a series of settlements of they have proposed to demarcate the remains discovered.

5.3.1.2  RESULTS OF THE STUDY

Prior to the fieldwork, a review was performed of bibliographical information on the study area. The strategy for field work was based on the review of available data and maps on the area. The archaeology team systematically surveyed the surface of the future access road and quarry in order to ascertaining the existence or absence of archaeological evidence. Where archaeological evidence was present, the team identified its nature, surface boundaries, cultural ties and degree of impact. The sites were identified with the help of global positioning satellite (GPS) equipment, recorded in the respective maps, and delimited with the assistance of small sampling pits.

Archaeological Potential

The access road to the site runs from the Panamerican Highway at kilometer 168 and crosses hilly terrain that is characterized by the presence of sand dunes. The road then crosses the Camisea gas pipeline and two high tension lines until it reaches the desert area to the south of the Lomas Negras hills and north of the Topará gorge. The Culebrilla gorge forms the entrance to the quarry area. The road runs through the gorge until it reaches its mouth, where
it meets the exploitation area. The hills in the quarry area feature some escarpments and very large rocks over the slopes. The bottom of the gorge is filled with the remains of water rushes which left an abundance of very large rocks, plus a bed that changes from superficial to relatively deep depending on the width of the gorge’s bottom.

The archaeological study revealed that the Cinco Cruces desert plain, Pampa Cañete and the southern part of Lomas Negras contain scattered evidence of ancient human groups. The sites contain shell deposits, temporary hunter and collector camps and even burial areas. A pre-Hispanic trail is located in the section directly linked to the works. According to the review made of the corresponding documentation and the prospecting work carried out on the land, the road runs from the Topará gorge – where the Huaquina archaeological site is situated – to the Culebrilla gorge, through the gorge, then up the mountains north towards the Lunahuaná valley. According to the records, the road travels as far as the Incawasi site, located in Lunahuaná, Cañete. As is the case with many findings from the pre-Hispanic period, especially if associated with the Late Intermediate Horizon (Incas), the road is connected to a series of small settlements and construction works, which catered for the needs of ancient travelers. In addition to the trail, the archaeology team identified construction works of a formal and ritual nature inside the Culebrilla gorge.

The sites identified during the fieldwork are as follows:

A. Windbreak:
UTM Reference: 364331 E 8538294 N

The windbreak comprises the remains of a small construction site made of rounded stone, arranged on a non-mortared wall. It is semi-circular and includes some ceramic fragments and shell material. The windbreak has a length of 1.20 meters and a width of 80 centimeters. It is located 40 meters from Vertex 9, between Sites 12 and 15, eight meters from the axis of the access road leading to the quarry.

Impact: It is eight meters from the axis of the access road leading to the quarry – adjacent to the road.

Mitigation: Generate a protection area for the windbreak of at least 10 square meters considering the close distance to the site, the small size of the archaeological evidence and the type of vehicles that will be used in the area. The recommendation is to move the present location of Vertex 9 to twenty or thirty meters to the north or south of the current position, with the objective to move it away from the archaeological evidence. Install a sign to identify the location of the site.

B. Pre-Hispanic trail:
UTM Reference: 375017 E 8545878 N; 376239 E 8547064 N; 376055 E 8548224 N; etc.

This is comprised of an ancient pre-Hispanic trail, which, seemingly dates back to periods prior to the Late Horizon (Inca – 1,400 A.D.). This trail was in by the residents of the present Topará area and its vicinity until the last century.
The road’s width ranges from 3.5 meters to 5 meters. It is straight in the flat sections and readily identifiable by visual observation. Small stones line the sides of the road. In steep sections – the gorge with a huayco (mudflow) – large and medium size rocks line the road on both sides. Containment walls have also been built for huayco crossings. Steps are present in areas where the road runs through land with quick vertical changes. The road appears to start at the Huaquina archaeological site in the Topará gorge, travels north through the La Capilla site, then turns to the northwest going into the Culebrilla gorge (this is where it meets the access road leading to the quarry), moves northeast through the gorge, then moves up in elevation traveling towards the north, finally reaching the Inkawasi site in the Lunahuaná valley (according to the INC Cápac Ñam Project’s records). The road can only be observed in certain stretches, since it has been cut off by the huayco that descends along the Culebrilla gorge’s base. However, it can be observed in at least six areas.

Impact: the road is affected by the access road leading to the quarry in at least four stretches and by the exploitation area in at least two stretches.

Mitigation: Give the archaeological road a protection area of seven meters on each side of the course. Change the course of the access road to steer clear of the archaeological road – at least 10 meters in the narrowest sector of the gorge. For the sectors affected by the exploitation area exclude the area occupied by the archaeological road of the exploitation area; maintain the area occupied by the archaeological road as an protected zone; and place signs (at least three in each stretch of the archaeological road) in the area with an archaeological evidence during quarry operations.

C. Site 01:
UTM Reference: 373697 E  8543852 N.

This site is comprised of a set of quadrangular and circular structures that are in poor condition. There are three structures located over the alluvial plain at the foot of hills. The structures are made of partially rounded or rounded stone, arranged on short double-row walls without concrete. Towards the southeast end, there is also a wall made of 120-centimeter long double-faced stone. Ceramic fragments and a modern circular structure on the foot of the hill are observable on the surface.

Impact: It is adjacent to the southeastern side of the access road.

Mitigation: This is not affected by the route of the access road. The recommendation is to demarcate the area and to place signs during the period that the quarry will be in operation.

D. Rectangular Structure:
UTM Reference: 373674 E  8544454 N.

This is a rectangular structure with sides of approximately 4.80 meters by 3 meters. It has a possible access point opening towards the north. The walls are 60 centimeters thick and the height has not been determined. They are made of angled stones arranged in a double line. The structure is deteriorated to a great extent; it is possible that this structure, which appears to be isolated, may be associated with the pre-Hispanic trail going along the entire Culebrilla gorge.
Impact: It is not presently affected by the access road route – it is adjacent to the road.

Mitigation: The recommendation is to delimit the area and to place signs during the implementation of the quarry project. If changes are made to the route of the access road, the road should be kept as far away from the archaeological site as possible.

E. Geoglyph:
UTM Reference: 373899 E 8544656 N, 682 m elevation.

This is a geological glyph structure with a diameter of approximately five meters, located between Vertices 27 and 28 of the access road, approximately 100 meters from the axis. The glyph lies over an alluvial plain, on which slightly flat stones are arranged in a concentric form, forming a spiral. It has associated ceramic material spread over the surface. Apparently, this geoglyph has been recorded by the Capaq Nam Project in July 2004 and is called “Culebrilla Geoglyph.”

Impact: At present, it is not affected by the access road route. The geoglyph is adjacent to the road.

Mitigation: The recommendation is to delimit and to place signs during the implementation of the quarry project. If changes are made to the access road route, the road should be kept as far away from the archaeological site as possible.

F. Possible Tambo:
Meter: 376437 E 8547072 N

The possible tambo is comprised of the remains of a possible rectangular or quadrangular structure with a length of approximately nine meters. This is a possible Inca “tambo” because of the size of the structure, its presence near the road, and the construction techniques used. The wall is made of edged stones arranged on a double row, joined by concrete. The wall’s width is approximately 70 centimeters and its height is 80 centimeters at the best-preserved sections. The wall’s inner and outer sides have an even surface and associated ceramic material.

Impact: It is affected, since it is within the area defined as the exploitation zone.

Mitigation: Delimit and post signs on the works. Exclude the archaeological evidence area from the exploitation area, so as to guarantee its preservation.

Site 2:
UTM Reference: 376885 E 8547706 N; 376743 E 8547920 N, 1021 and 1040 m.a.s.l.

This site is located in the initial part of a boxed-in gorge. The gorge curves and then joins the Culebrilla gorge. At least seven sites can be found in the curve area. They are comprised of small spaces of quadrangular shape, small terraces, a possible “chulpa” underneath a large rock and several containment walls to support the structures. These sites are adapted to the surface’s terrain (quite steep) or, vice-versa, the surface adapted to the structures. Towards
the high part of the hills, one can see a series of containment walls and small terraces going up the slope. They appear to comprise a control point to monitor entry to the initial part of the gorge. At the source of the gorge, there is a formation in the shape of a cave, located in the middle lower section of the rocky escarpment. The cave is formed by large rocky, quite high escarpment, which goes as far as the highest parts of the mountain chain. Because of the cave shaped formation and the surface of the rocky walls, water existed in the cave at some point. Over the rocky escarpment there are containment walls and steps forming an upward trail that goes towards the highest part of the escarpment. The containment walls have been renewed at least three times, and they are made of semi-edged stones from the area. The walls’ outer faces are rather flat and the containment fill is quite thick. This site may be associated with some sort of an ancient rite.

Impact: It is directly affected by the quarry area.

Mitigation: As much as 30% of the site is within the area defined as the exploitation area, and the remaining 70 percent (cave section and certain construction sites) is located within the quarry area. The recommendation is to delimit and to post signs during the period of the quarry operation, and to exclude the archaeological evidence zone from the quarry area which would guarantee the preservation of the site.

The archaeology team also identified fragmented ceramics, but in most of these cases they are related to the archaeological trail. The archaeological trail is protected, so the isolated ceramics would be protected too.

5.3.1.3 CONCLUSIONS AND RECOMMENDATIONS

The most important archaeological evidence identified is the pre-Hispanic trail which may possibly be associated with the Inca culture (according to existing records). It is with respect to this trail that there is associated evidence, such as Site 1, the rectangular structure and the possible tambo. This statement is made on the basis of published studies for Inca trails that exist. In addition, Site 2 and the geoglyph apparently function differently, although they are also related to inter-valley access route control.

There are few records of inter-valley pre-Hispanic trails on the Coast. Therefore, the existence of this trail through the Culebrilla gorge, joining the Topara gorge and the Lunahuana valley has importance in the archaeological world. This also forms the basis for the protection policy of the INC as well as the registration of the Inca trail system; therefore, it is essential to render protection and preservation of the pre-Hispanic trail sections identified within the associated area of the study.

It is recommended that the project’s technical personnel adopt the necessary measures to preserve the archaeological evidence and prevent any type of deterioration which may occur as a result of the exploitation of the GNL-2 Quarry. This specifically refers to the vibration problem experienced as a result of the use of explosives and heavy equipment in the area, as well as the erosion that will be generated in the exploitation area.

It is also recommended that the archaeological sites be adequately signed in the quarry work plans so that the technical personnel will be fully aware of their locations.