

ENVIRONMENTAL AND SOCIAL MONITORING REPORT

Camisea Natural Gas and Natural Gas Liquids Pipeline Project, Peru

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1.0 INTRODUCTION

The Inter-American Development Bank (IDB) and the Corporación Andina de Fomento (CAF) (collectively the Lead Arrangers or “MLAs”) have been performing independent environmental and social monitoring (IESM) of the Camisea natural gas and natural gas liquids pipeline project (“Downstream Project”) in Peru since September 2002. The MLAs are planning to provide partial financing to Transportadora de Gas del Peru (TGP), the company sponsoring the downstream component of the Camisea Project.

The Camisea Project consists of three sub-projects:

1. The gas field in Block 88 and the Fractionation Plant and Export Terminal near Pisco (“Upstream Project”),
1. The natural gas and liquids transportation pipeline (“Downstream Project”), and
2. The natural gas distribution network in Lima and Callao (“Distribution Project”).

The Downstream Project consists of a 33-year concession agreement with TGP to build, own, operate and transfer two major pipeline systems: a 697 kilometer (km) natural gas pipeline and a 575 km natural gas liquids (NGL) pipeline. The two pipelines have been laid in parallel trenches on a common right-of-way (ROW) extending from a gas processing plant at Las Malvinas, located in the Ucayali Basin 431 km east of Lima, to a proposed NGL processing and shipping facility near the port of Pisco, 200 km south of Lima. The natural gas pipeline runs north to the Lima City gate at Lurin from a point east of Pisco.

This monthly report summarizes the construction monitoring activities performed as part of the overall Environmental and Social Due Diligence review in considering financing for the Downstream Project. The monitoring activities conducted during June 2004 are covered in this report.

1.1 Monitoring Objectives

URS Corporation (URS), an international environmental and engineering consulting firm under contract with IDB/CAF, initiated the IESM of the project in September 2002. The MLAs’ review primarily focuses on the Downstream Project, however both the Upstream and Distribution projects are being monitored by URS field personnel because of the overlapping and cumulative environmental and social sensitivity of the tropical rainforest location and impacts. The objectives of the IESM are to provide the MLAs with reliable and unbiased information regarding the project's compliance with environmental and social management plans and procedures, as well as construction best management practices (BMPs).

The IESM team consists of full-time environmental and social monitors in the field who perform the following principal activities:

- Conduct daily field observations and documents environmental and social procedures and processes that are being implemented by TGP and its contractors;
- Review other construction monitoring activities that are being carried out by TGP and its contractors;
- Prepare daily reports to IDB/CAF regarding ongoing activities in the field;

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ENVIRONMENTAL AND SOCIAL MONITORING REPORT

Camisea Natural Gas and Natural Gas Liquids Pipeline Project, Peru

- Provide immediate recommendations, as necessary and appropriate, to TGP, Pluspetrol, and their field representatives regarding ways to improve management practices.

The IESM does not include redundant sampling, testing, and other measures that are performed by others for TGP's environmental and social monitoring programs. For sampling and testing results, one can refer to other available monitoring reports.

These monthly summary reports are also being prepared to document the effectiveness of the project's environmental management plans and procedures (Plan de Manejo Ambiental [PMA]) and the recommendations for improvement wherever applicable. The monthly monitoring reports are available to public through the Camisea Web page, www.camisea.com.pe.

1.2 Report Organization

This monthly monitoring report is a summary of the environmental and social daily and weekly reports and is organized into four major sections:

- Introduction
- Project status and construction activities completed during the current reporting period
- Environmental, health and safety monitoring completed along with observations and recommendations
- Social monitoring completed along with observations and recommendations.

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2.0 PROJECT STATUS AND CONSTRUCTION ACTIVITIES

Refer to Pluspetrol and TGP monthly reports for information regarding the project status and construction activities during June 2004.

3.0 ENVIRONMENTAL, HEALTH AND SAFETY MONITORING

3.1 Introduction

URS provided independent monitoring of the effectiveness of environmental, health and safety (EHS) and social mitigation measures during construction. The monitoring was conducted by visiting active construction sites to observe implementation of measures contained in the Plan de Manejo Ambiental (PMA), TGP's Health and Safety (H&S) Plans and the construction specifications.

Specific works that were observed included project infrastructure facilities, such as potable water intake, treatment and distribution; collection, treatment and disposal of sanitary and storm water; installation of erosion and sediment control measures; drilling mud management; work camp safety and sanitary

ENVIRONMENTAL AND SOCIAL MONITORING REPORT

Camisea Natural Gas and Natural Gas Liquids Pipeline Project, Peru

conditions; and work on the ROW and helipads. Monitoring observations also covered implementation of health and safety control. The following sites were visited during the June reporting period:

Upstream Facilities

Malvinas Pluspetrol Camp

Well Clusters SM-1 and SM-3.

KP 1+550 (Submarine pipeline)

KP 2+000 (Submarine pipeline)

San Martin Harbor

Fractionation Plant site near Pisco.

Upstream Flow Lines

KPs 0+000 to 26+000 (Malvinas – SM 1)

KPs 0+000 to 9+500 (SM 1 - SM 3).

Downstream Facilities

Chimparina Camp

Alto Itariato Camp

Kiteni Storage Area

Gallo Camp

Toccate Camp

Pacobamba Camp

Patibamba Camp

Rumichaca Camp

Acoccro Camps

Humay Camp

Humay pipe storage area

Scraper trap at PS-3 Pumping Station

PS-4 Pumping Station

Scraper trap at KP 337

Downstream Pipeline ROW

KPs 0+000 to 270+000

KPs 300+000 to 500+000

KPs 555+000 to 730+000

Monte Carmelo – Chimparina Road

Puente Cumpirushiato – Alto Itariato – PS 2 Road

ENVIRONMENTAL AND SOCIAL MONITORING REPORT

Camisea Natural Gas and Natural Gas Liquids Pipeline Project, Peru

Pertinent sections of the PMA that were the focus of monitoring included:

- Prevention, correction and/or mitigation plan.
- Waste management plan
- Environmental training plan
- Contingency plan
- TGP's/Pluspetrol's Health and Safety Plans

3.2 Observations of Proper PMA Implementation

A summary of activities where the PMA was properly implemented, as observed during June, is described in the following subsections:

3.2.1 Upstream Project

Camps, Drill Pads and Other Facilities

Fractionation Plant

1. Clean up of waste and soil contaminated with oil and fish grease from the area surrounding the plant continues. To date, approximately 2,750 tons of waste has been removed.

Zone of Direct Impact (ZDI)

1. The Environmental Surveillance and Monitoring Program implemented by local people is under way.

Submarine Pipelines

1. Backfilling of the sub-sea trench with selected materials using dump barges and large bags filled with selected materials from San Martin Harbor.

Pisco Pluspetrol Fractionation Plant

1. In general, the plant appears clean and tidy in all the sectors where the operations will take place.
2. All workers are provided with the necessary personal protective equipment.
3. It was verified that the area formerly contaminated with fish oil and residue has been acceptably cleaned up.
4. A landscaping project will be initiated during the first week of July, once the Plant's assembly and installation work is completed.
5. Pluspetrol's black water treatment plant is now operating, allowing for the reduction of effluent volumes to be treated at the G&M-Skanska Plants. As reported in previous reports, tanker trucks transported the effluent to the sewage treatment system in the city of San Andrés until the plant became operational.
6. All working areas are properly delineated. Areas where unauthorized personnel are prohibited have been adequately signed and fenced.
7. Ongoing implementation of the Environmental Quality Monitoring (air quality, noise, groundwater, soil, etc.), complies with the Plan submitted to the DGAA.
8. Safety measures are properly implemented in all work areas including:
 - a. Proper use of PPE by all workers.
 - b. Exclusion fences have been installed around open trenches and pits.

ENVIRONMENTAL AND SOCIAL MONITORING REPORT

Camisea Natural Gas and Natural Gas Liquids Pipeline Project, Peru

- c. Handrails installed on bridges and stairs
 - d. Scaffolding has been properly installed.
9. Valves from diesel containing pipelines are adequately signed and secured with padlocks, to prevent it from accidentally being manipulated.
 10. The secondary containment systems for storage tanks containing natural gas liquids, propane, butane, gasoline, and diesel are being lined with geomembrane.
 11. Wire security fencing has been installed around the perimeter of the 46 ha plant site.

San Martin 1 Drilling Rig

1. The well pad embankments appear to be stable and show very good natural vegetation coverage. Final restoration work will begin near the end of June.

San Martin 3 Drilling Rig

1. The well pad embankments near the rig, and the mud pits appear to be stable and show very good natural vegetation coverage. No erosion problems were observed.

Backfill of the Submarine pipeline

1. No turbidity was observed at the surface after emptying the dump barges or the placement of large bags.
2. The technical and support staff assigned to the “Leila” pontoon and the dump barge were provided with personal protective equipment, which included live vests.
3. The technical and support staff on board the “Don Ramón” barge was provided with personal protective equipment, which included live vests.
4. ERM provides daily monitoring of dissolved oxygen, temperature, pH and seawater turbidity in the vicinity of the backfill operations, as well as bimonthly monitoring of physiochemical, microbiological and biological parameters (including marine fauna).

San Martin Harbor

1. Compliance with discharge procedures to dump barges was verified.

Flow Lines

ROW Malvinas to San Martin 1

1. Erosion control systems are being properly maintained. No significant erosion problems or land sliding were observed. Restored slopes are stable and show a very good natural revegetation. The El Caracol sector (a critical area) appears stable and revegetated.
2. Areas adjacent to the circulation corridor appear densely revegetated. *Paja pichi* is being gradually displaced by native vegetation.

ROW SM 1 to SM 3

1. Vegetation cover appears much denser since previous inspections. No significant erosion problems were observed.

3.2.2 Downstream Project

General

Selva Sector

ENVIRONMENTAL AND SOCIAL MONITORING REPORT

Camisea Natural Gas and Natural Gas Liquids Pipeline Project, Peru

1. A total of 6 working fronts (620 workers) have been mobilized to execute geotechnical and revegetation works, which currently are in progress.
2. In compliance with the EIS and in order to gather qualitative and quantitative information on aquatic fauna in the rivers traversing the Monte Carmelo Native Community (Igoritoshiari, Manugali and Mapitunari Rivers), an aquatic biological monitoring program was initiated. This monitoring consists of quarterly collection, identification and enumeration of *plankton*, *benthos* and fish samples, as well as a daily “creel census” by 2 community members. Personnel from the Museum of Natural History of the *Universidad Nacional Mayor de San Marcos* are in charge of these activities, which will last until May of 2005.
3. Activities associated with the Alto Urubamba *Social and Environmental Community Monitoring Plan* (PMAC) have been underway since May. The PMAC is being undertaken in association with the Peruvian Foundation for Nature Conservancy (Pro Naturaleza). The purpose of PMAC is to allow local population to effectively participate in the monitoring, control and anticipation of social and environmental modifications that may occur within the project’s area of influence. The native communities included in this plan include: Poyentimari, Monte Carmelo, Shima, Aendoshiari, Mazokiato and Manitinkari.

Sierra Sector

1. A total of 5 working fronts (520 workers) has been mobilized to execute geotechnical, revegetation and road maintenance work.

Costa Sector

1. Restoration work was at La Luna Pond. Additionally, crews are implementing erosion control work revegetation at the crossings of the ROW and the Valley of Chinchic irrigation channels.

Camps, Pump Stations and Other Facilities

Toccate Camp

1. Camp demobilization activities. The following equipment has been moved to San Antonio so far: 3 C-type, 1 D-type and 3 A-type tents. About 70 people currently reside in this camp. The cleared areas are being restored.
2. Gabions are being constructed near the camp’s entrance to provide protection of the creek bed.
3. Management of solid and liquid waste complies with protocols set for the temporary storage and transport of non-biodegradable, recyclable or special wastes, and for the treatment of liquid wastes. Likewise, proper organic waste treatment procedures are being used in disposal pits (i.e. covering with layers of lime).
4. Proper flocculation and disinfecting procedures for potable water treatment are being used.
5. Used oil cylinders are properly stored within a secondary containment system, provided with spill containment berms.

Pacobamba Camp

1. Camp demobilization activities. About 50% of its housing infrastructure has been demobilized so far. 70 to 80 people currently reside in this camp.
2. Restoration activities north of the camp in areas formerly occupied by tents are nearly complete. Only the removal of electrical wires is pending.
3. Management of solid and liquid waste complies with established procedures for the temporary storage and transport of non-biodegradable, recyclable or special wastes, and for the treatment of

ENVIRONMENTAL AND SOCIAL MONITORING REPORT

Camisea Natural Gas and Natural Gas Liquids Pipeline Project, Peru

liquid waste. Likewise, the organic waste treatment protocol is being used in disposal pits (i.e. covered with layers of lime).

4. The site where the explosives storage magazine was located has been restored.

PS-4 Pump Station

1. Valve welding activities, excavation of septic pits and general clean up.
2. The station has been provided with two 38" x 144" absorbing cloth rolls for spill clean up and two bags with spill protection sleeves.

Rumichaca Camp

1. This camp is no longer in use and only security guards and personnel serving the diesel faucet remain on duty.

Scraper Trap at KP 337

1. In general, the facilities appear clean and restoration work on the slope cuts is of excellent quality. Vegetation has begun to appear in some areas.

Acoccro Camp

1. This camp is no longer in use and only security guards remain on duty (5 people in total).
2. The community has claimed the few facilities remaining, including:
 - a. Three wooden structures roofed with steel plates and supported by eucalyptus poles, with no walls (former inorganic waste storage area, former maintenance shop with concrete pad, and a structure located in front of the shop).
 - b. One wooden hut roofed with steel plates.
 - c. One structure roofed with straw supported by eucalyptus poles (main area of the former outdoor dinning room), surrounded by concrete corridors in present poor condition.
 - d. A wooden cabin made from eucalyptus that is located east of the camp.
 - e. One structure where the electric generators were located (unroofed with 3 adobe walls and concrete pad).
3. According to the information provided and in addition to the above-mentioned facilities, the community has requested the 2 pads constructed for pipe storage, as well as the pad 100 m north of the camp where the fuel faucet was located. Those pads will be used for agricultural fairs.

Humay Camp

1. In general, all areas are clean and tidy.
2. The compost pit is adequate, and it is provided with a roof and a surrounding fence.
3. According to information provided by Dr. Juan Bailetti, there is a complete stock of medicines and emergency medical supplies at the Camp.
4. The radiographic storage facility is clean and tidy.
5. The recommendations for improved spill containment systems and relocation of cylinders made by the URS IESM monitor were satisfactorily addressed.

Former Gallo Camp (KP 81+750)

ENVIRONMENTAL AND SOCIAL MONITORING REPORT

Camisea Natural Gas and Natural Gas Liquids Pipeline Project, Peru

1. The area where the former Gallo Camp was located is clean and shows good natural revegetation. Consequently, closure of this camp can be considered satisfactory.

Kiteni Storage Area

1. Signing of potential safety hazards around the area has been improved.

Kiteni – Alto Itariato – PS 2 Road

1. The road between the Cumpirushiato Bridge and Pump Station PS2 is being upgraded (stabilization work and leveling of the road base). It is noted that the access road to PS2 will be permanent.

Pressure Reduction Plant No. 2 at KP 471

1. Restoration and geotechnical work were satisfactorily completed near KP 469 in the vicinity of the reduction plant.
2. In general, the reduction plant appears clean and tidy.

Pipeline Right-of-Way

ROW between KP 0+000 and KP 153+000 (overflight)

1. Restoration work that was completed between Malvinas and the Urubamba crossing (KP 0+000 to KP 12+400) is functioning well. The geotechnical works provide effective runoff control. Neither erosive processes nor sediment transport were observed. Seeded grasses show excellent development and coverage.
2. Areas where permanent erosion control work was completed generally show good stabilization and the installations are of excellent quality and detail.
3. In order to stabilize filled lateral slopes (fill embankments), runoff diversion channels are being constructed, which will allow for the interception and proper channeling of rainwater, preventing it from reaching the slope. In addition, in some critical areas, slopes are being partially lined with geotextile. In areas where the risk of land sliding could potentially affect croplands and/or water sources, erosion control works were installed over the entire lateral slope. In many areas, the restored slopes show volunteer revegetation.

ROW between KP 153+000 and KP 180+500 (Downstream, overflight)

1. Geotechnical stabilization and revegetation work is in progress. The working front consists of approximately 130 workers. It is important to note that the stretch located between KPs 160+000 and 174+000 (Aendoshiari 2 - Aendoshiari 4), is of critical priority in terms of controlling land sliding of filled lateral slopes.

ROW stretch between KPs 180+500 and 270+000 (Downstream, overflight)

1. Geotechnical and revegetation works have practically concluded, while stabilization and revegetation of lateral slopes in the El Abra – Pacobamba stretch are pending.
2. According to the information provided by TGP, the possibility of using hydro-seeding on the steep side slopes located between the Toccate Camp and the PS 3 Plant (KPs 203+000 to 209+000), is being considered.
3. As stated in previous reports, the restoration, geotechnical and revegetation work that has been completed through this ROW segment are of excellent quality and detail. No erosion processes were observed.

ROW at KP 207

1. Revegetation activities were concluded in April and the right-of-way presently shows excellent germination.

ENVIRONMENTAL AND SOCIAL MONITORING REPORT

Camisea Natural Gas and Natural Gas Liquids Pipeline Project, Peru

ROW at KP 207+600

1. The geotechnical and revegetation work completed in the area where there was previously significant land sliding appears to be satisfactory, and the revegetation shows good germination and growth.

ROW at KP 210+750

1. The former pipe storage site has been restored and revegetation shows good germination and growth.

ROW at KP 211+080

1. The restored road crossing area shows good germination and growth.

ROW at KP 212+900

1. The area which was once used for material storage has been restored and the revegetation shows good germination and growth.

ROW between KP 220+000 and KP 232+800

1. Most areas in this ROW segment show good revegetation success.
2. The area in front of Pacobamba Camp shows good revegetation success.
3. In the Chillinga area, the revegetation shows an excellent response. Landowners are harvesting barley from the restored ROW.

ROW between KP 263+100 and KP 270

1. Landowners have successfully harvested potatoes and barley along several portions of the restored ROW. Revegetation in uncultivated lands also shows a good response.
2. Geotechnical works completed in the rocky areas near the Acoccro River (KP 267) are of excellent quality and the revegetation of the agricultural areas shows good success.
3. Geotechnical works performed in the vicinity of the Yucay River crossing are of excellent quality, with good revegetation success observed in areas where geotextile was used.

ROW between KP 337 and KP 374

1. The seed vegetation cover through this stretch naturally mixes with native vegetation. Cattle grazing in the restored ROW could be observed.
2. Wetland areas near the Churia Village show good revegetation.

Monte Carmelo – Chimparina Road

1. The road, which previously experienced constant land sliding problems, now appears to be stabilized. Lateral slopes show good natural revegetation.

ROW between KP 476+400 and KP 482+000 (Characas Creek, Huáncano)

1. As previously reported, the ROW crosses the Characas Creek and other minor dry channels which are highly erosion-prone. To avoid the generation of huaycos and/or erosion processes, special restoration and stabilization activities were implemented (some of them on recommendation of the Civil Defense Institute).
2. A number of sedimentation dikes were constructed at in the channels.
3. At bends in the channel, rock rip-rap was placed on the banks. Rock armoring was placed where the ROW crosses of the channels
4. Some narrow sections of the channels were widened to avoid the venture effect during periods of flow.

ENVIRONMENTAL AND SOCIAL MONITORING REPORT

Camisea Natural Gas and Natural Gas Liquids Pipeline Project, Peru

5. To ensure pipeline stability in erosion-prone locations, the Characas Creek channel was moved to the west of the pipeline ROW. Approximately 60,000 m³ of soil were removed to accomplish this work.
6. At the Huáncano Settlement, old, dilapidated dwellings that posed a safety risk were demolished in order to prevent reoccupation.

ROW between KP 554+000 and KP 730+000

1. Restoration of La Luna Pond is completed and the work is of excellent quality and detail. Mr. Arturo Asencios, an inspector from National Cultural Institute, indicated that the restoration work was completed in conformance with the plan that was approved by the Institute.
2. All observations made by the Valley of Chincha Irrigation District Technical Administration related to undermining problems of the banks of irrigation channels and lack of revegetation at the ROW crossings, are being resolved. Bank stabilization work is being done and *carrizo* is being plant for revegetation.

ROW crossing of irrigation and drainage channels between KP 609 and KP 624

1. All the main and secondary irrigation channels are operational and their walls, altered during the pipeline crossing within the ROW, show clear signs of natural revegetation.
2. Likewise, the drainage channels are operational and show abundant evidence of natural revegetation with terrestrial and aquatic species.

ROW in the Cañete Agricultural Areas

1. In most of the agricultural areas visited during the irrigation channel inspections, the ROW has been adequately restored for agricultural use. In most cases, it is difficult to distinguish the ROW amidst the crops.

3.3 Deficiencies Observed

As can be seen in Section 3.2 above and in previous monthly reports, considerable environmental mitigation, restoration and stabilization work is being undertaken in an acceptable manner. The following discussion focuses on general issues rather than specific occurrences or deficiencies. For the overall Project during June, IESM Monitors provided 82 recommendations for improvements or corrective action, which represents approximately 9% decrease over the May reporting period. Specific details of these recommendations have been provided to the respective company representatives, as appropriate, via URS' weekly monitoring reports. Appendix A contains the complete list of deficiencies and recommendations for corrective action.

The relative number of recommendations associated with waste management and final restoration is high (combined total of 46.1%). This is not considered unusual, and as such, these recommendations may be classified as "punch-list" items that need to be reconciled at some point during the restoration and early operations phases. Most of the waste management issues were associated with camps and ancillary work areas (18.4%), while the restoration issues focused mainly on the ROW (27.7%).

As has been discussed in previous reports, despite the reduction of overall construction activity and camp closures, observations of deficient SPCC implementation and contamination prevention practices continue to be a prominent deficiency (35.5%). Disappointingly, the number of recommendations for corrective action for this issue remains relatively high. It would be expected that recurrence of this concern would have diminished by this point in the project.

The recommendations provided by IESM Monitors during the month of June 2004 can be grouped into four general categories for the overall project (Upstream and Downstream). These categories of observed deficiencies and the probable underlying causes are generally the same as those reported in previous monitoring reports. The numbers in parentheses indicate the number and associated percentage of IESM Monitor Recommendations for corrective action in each category for the month.

ENVIRONMENTAL AND SOCIAL MONITORING REPORT

Camisea Natural Gas and Natural Gas Liquids Pipeline Project, Peru

1. Timely implementation of spill prevention and secondary containment measures (SPCC) at locations where fuels, lubricants, and other potential contaminants (including contaminated soils) are stored (**27 recommendations this month = 35.7% of total; previous month, 17 recommendations = 34.1% of total**). Note: 2 observations associated with Upstream project.
2. Effective Health and Safety Management (H&SM) (**14 recommendations this month = 18.4% of total; previous month, 15 recommendations = 18.3% of total**). Note: 0 observations associated with Upstream project.
3. Effective waste management and sanitary practices at camps and along the ROW (**14 recommendations this month = 18.4% of total; previous month, 20 recommendations = 24.4% of total**). Note: 3 observations associated with Upstream project.
4. Implementation of effective clean-up/restoration and slope stabilization, including timely remediation of failed efforts (**21 recommendations this month = 27.7% of total; previous month, 18 recommendations = 21.9% of total**). Note: 1 observation was associated with Upstream project.

Spill Prevention and Secondary Containment

Despite the reduction of overall construction activity and camp closures, observations of deficient SPCC implementation and contamination prevention practices continue to be a significant concern, as it has throughout construction. The most common deficiencies continue to be associated with the lack of secondary containment measures at warehouse areas for bulk fuel/lubricant storage and storage of other potential contaminants used for construction. Other problems are associated with the need for isolating contaminated soils at semi-permanent work sites (e.g., maintenance areas, fabrication areas, bulk storage areas). Fortunately, nearly all the deficiencies were observed at semi-permanent work areas (e.g., camps, pump stations, and staging areas) rather than the ROW, where spills would have a greater opportunity to cause offsite contamination.

Health and Safety Management

Most recommendations by IESM Monitors focused on general housekeeping at camps and worksites to remove potential hazards, or at least to provide signage to alert personnel or public as to potential hazards such as open infiltration pits.

Sanitary and Waste Management

In most instances, acceptable waste management practices are being followed along the ROW and in the camps. Most of the deficiencies identified during June were associated with provision of adequate sanitary facilities and monitoring, as well as general housekeeping (trash pickup) at work camps, ancillary work sites, and along the ROW. Other issues pertained to clean-up tasks that should be completed in conjunction with the final closure of work camps.

Effective Cleanup/Restoration and Stabilization

As can be seen in Section 3.2.2 above, considerable work has successfully been completed during the cleanup and restoration phase to date. The recommendations associated with this issue during June mostly concerned repair of failed erosion control structures, failure of steep slopes (land sliding), poor germination in seeded sections of the ROW, final waste management, and, proper closure of work camps and other temporary use sites.

These are activities that should be incorporated into the overall construction restoration program (i.e., prior to operations phase).

Long-term monitoring of revegetation success, fertilizer application, permanent erosion control measures and slope stability should be implemented for the remaining construction period as well as the operations phase. Punch lists compiled by TGP and IESM Monitors should continue to record recurring problem sites so that corrective action can be scheduled and that critical sites are not overlooked.

ENVIRONMENTAL AND SOCIAL MONITORING REPORT

Camisea Natural Gas and Natural Gas Liquids Pipeline Project, Peru

4.0 SOCIAL MONITORING

4.1 Introduction

URS also monitored the effectiveness of Pluspetrol and TGP's Community Relations Plan (CRP). The purpose of this plan is to identify, understand, and manage key social aspects of the project that impact the communities within the project's area of influence. Pluspetrol and TGP have implemented a Community Relations Office to implement the different programs included in the CRP. The Community Relations Office is composed of a community relation manager, a supervisor, and a team of coordinators, who are responsible for the fieldwork.

The monitoring was conducted by visiting active construction camps, communities, and settlements. The following sites were visited during June 2004.

- Las Malvinas, Chocoriari, Tocate, San Antonio, Rumichaca, Huaytara and Humay camps
- Communities of Camisea, Nuevo Mundo, Segakiato, Chocoriari, Kirigeti, Segakiato, Tupac Amaru, Ticumpinia, Camana, Aendoshiari, Nueva Vida, Miaria, Shivankoreni, Sepahua, Kiteni, Huayrapata, Huaytara, Huallhua, and Huayllahura.

Specific monitoring of the following programs was conducted:

- Community Relations and Training Program
- Communications and Consultation Program
- Local Development Program
- Temporary local hiring programs

In general, the programs specified in TGP's and Pluspetrol's CRP are underway. The following is a summary of the observations and recommendations for the reporting period.

4.1.1 Observations

Community Relations and Training Program

The TGP Community Relations Training Program is designed to prevent, minimize, and manage negative social impacts within the area of influence. Under this program, Pluspetrol and TGP conducted the following activities:

- As part of its community relation's policy, TGP has initiated the Environmental Community Monitoring Program in the Selva 2 sector. The program is being implemented by Pro-Naturaleza with the participation of six communities: Poyentimari, Monte Carmelo, Shima, Aendoshiari, Mazokiato and Manintinkari. The objectives are to identify and organized groups for the implementation, training and execution of the program. The program will be implemented and executed within the next three months.
- On June 11, 12 and 13, 2004, Pro Naturaleza conducted the 5th Environmental Community Monitoring Program (PMAC in Spanish) workshop at the Camisea Community for the Lower Urubamba communities (Pluspetrol's and TGP's area of influence). The objectives of the PMAC are organize and train community monitors, conduct social and environmental monitoring of the construction activities, and communicate and spread the results of the monitoring.
- TGP and members of the Camana community scheduled a final inspection of the ROW around the community for June 26 and 27, to verify the closure of the ROW and resolve issues that may arise during the inspection.
- Pluspetrol is evaluating the best way to handle the distribution of the answers to the PAMAC observations. Three alternatives are considered: distribute the answers to the Committee for further distribution to the community monitors; distribute directly to the

ENVIRONMENTAL AND SOCIAL MONITORING REPORT

Camisea Natural Gas and Natural Gas Liquids Pipeline Project, Peru

community monitors previous radio announcement; or distribute directly to the community monitors during the monthly workshops. A decision has not yet been taken.

- TGP conducted a safety session for the operations phase for members of the Timpia community.
- On June 15 members of the PAMAC visited Pluspetrol's camp at Las Malvinas installation to monitor the waste disposal and management site, the water treatment plant, fuel storage and Sodexo storage facilities, as part of the community monitoring program.

Communication and Consultation Program

- On June 2, 2004, a meeting was held between the IDB monitors and members of US government committee that visited the project. During the meeting issues such as the Environmental Community Monitoring Program, Erosion Control, the dismantling of the Camisea River bridge, Biodiversity Monitoring, Fishing Monitoring, Compensation Plan for Non-Contacted communities, fluvial compensation plan, monitoring of air emissions, spill contingency plan and re-injection of produce water were discussed.
- On June 8, 2004, IDB monitors met with Ms. Leslie Johnson from USAID to talk about the Environmental Community Monitoring Program.
- TGP is conducting informative meetings on gas pipeline safety issues in the communities located in the Selva sector. During the informative meetings, TGP distributed an 8-page printed document "The Camisea gas pipeline is a very safe system". The document contains things that can be done in the ROW and things that cannot be done in the ROW. During the month of June the informative meetings were held at Chocoriari, Tupac Amaru, Camana, Aendoshiari,
- Continue the Sunday schedule between 8 and 11 am at the Kepashiato camp where TGP's Community Relations Officers meet with natives, and attend and resolve their claims.
- Pluspetrol's Native Community Communication Department has initiated the presentation of its Archeological Heritage Lecture Program for grade and high school students from the Lower Urubamba communities. The program includes thirteen lectures in twelve communities from Sepahua to Chocoriari and Camisea. The program intends to educate students to identify and preserve their cultural and archeological heritage, to inform about the discovery of archeological sites an its importance and to incentive the production of art and cultural values.

Local Product Acquisition Program

See the June 2004 Pluspetrol Monthly Report for information regarding local product acquisition at the upstream project. TGP under this program does not purchase local products, however, Geotec in charge of the geotechnical work is purchasing 600,000 stumps and 30 Kg. of seeds of "paja pichi" from the Timpia community, and 345,000 stumps and 20 Kg of seeds of "paja pichi" from the Chocoriari community.

Land Compensation Program

Pluspetrol renegotiated the rent of the Nuevo Mundo Camp land with the Nuevo Mundo community, and paid all outstanding rent invoices to date.

Pluspetrol disbursed the second and third quotas of the compensation agreement to OIRA, so far OIRA has received 46,000 nuevos soles.

The last of the five families whose houses were impacted by the construction of the ROW at the Huancano community has move into the new houses build by TGP under the involuntary relocation program.

ENVIRONMENTAL AND SOCIAL MONITORING REPORT

Camisea Natural Gas and Natural Gas Liquids Pipeline Project, Peru

A TGP Community Officer met with Mr. Esteban Cardenas to evaluate the damages cause by a Techint helicopter on Mr. Cardenas crop, who claim that 110 plans of Yucca has been lost. Based on the evaluation, TGP will compensate Mr. Cardenas for his losses.

TGP continue with the compensation payments for land affected outside the ROW in the Selva sector. Out of 248 colonos, only 48 had not negotiated the compensation with TGP due to delays on the Special Title Program Commission. It is anticipated that by mid July these negotiations will be completed.

Local Development Program

Pluspetrol completed the construction of the Student's Shelter at the Camisea community. At the Segakiato community the construction of the Community Hall continues and is near completion; the pre-feasibility studies being prepared by SER consultants for the water distribution system is well in advance. Construction of the Maldonadillo Municipal Hall was restarted. Also, ITDG consultants on behalf of Pluspetrol presented the pre-feasibility studies for the construction of mini hydroelectrical plants for the communities of Camisea and Segakiato.

Under this program TGP held a meeting with Aendoshiari and Sankibeni native communities authorities to discuss and select the location of the new school schedule for construction. SENCICO will be the contractor. At Huayrapata, the construction of the Communal Hall has been completed.

TGP has plans to videotape the shearing of Vicuñas at the Chaco communities (Huaytara, Ayavi and Tambo). This videotape is part of others that TGP has been doing along the ROW.

The Vicuña population at the Chaco communities has increased by 800 since the start of the program sponsored by TGP. The program includes the construction of a security perimeter fence, and provisions for monitoring, equipment and salary for the staff, and support to CONACS. The increase of population has benefited the communities that sold the extra wool to buy more shearing tools.

Temporary Local Hiring Programs

Pluspetrol has been hiring local people through its different programs with the fisher's associations, so far 178 people have been hired to conduct environmental and social monitoring. For more details and information see the June 2004 Pluspetrol Monthly Report. TGP has been hiring local workers for the implementation of the restoration, revegetation and geotechnical programs along the ROW and for the construction of the City Gate, during the month of June 2004, 83 local workers were hired from the Selva sector communities. For more details and information, see the Pluspetrol June 2004 Monthly Report.

Other Issues

- Pluspetrol Medical Department continues providing medical assistance to the communities in the area of influence of the Upstream Project. Since the beginning of the year 152 people received medical attention
- Techint donated 120 desks to the Miguel Grau School in Kiteni. At the community of Toccate donated mattresses, blankets, beds, and utensils (plates, silverware, pans) from dismantlement of the Toccate camp. The water purifier was donated to the Chinqirtica community.
- Walsh donated tools to the owners of the land where the greenhouses were located in the Tupac Amaru, Monte Carlo and Timpia communities.

ENVIRONMENTAL AND SOCIAL MONITORING REPORT

Camisea Natural Gas and Natural Gas Liquids Pipeline Project, Peru

4.1.2 Recommendations

Community Relations and Training Program

As construction is almost complete and operations are beginning, new contractors are arriving while others are gone or ready to leave the project, such as the case of COGA whom will be the contractor for the operation phase. TGP and Pluspetrol should evaluate and review its community relations programs for a smooth transition, and improve and reinforce those areas that are critical to maintain a good relationship with the communities within the area of influence of the project. During the month of June several observations were made and/or claims received from people, landowners and authorities that have been impacted by the construction activities.

- TGP should inform clearly to those communities, where an antenna has been installed, regarding the Antennas Surveillance Program implemented during the operation phase under COGA (the operation's contractor). URS recommends that the information should include at least the number of people required and the rotation schedule to benefit as much as possible to the members of these communities.
- Pluspetrol and TGP should define as soon as possible the mechanism to distribute the responses to PMAC forms. Currently Pluspetrol has implemented a mechanism to receive and answer the forms, however, it should define an efficient and transparent way to distribute them back to the PMAC members. TGP should define both a mechanism to answer the form and one to distribute them back.
- TGP should take a more proactive attitude to resolve the issue of the fence and the cattle at the Chocoriari camp. The fence was installed to close to the dorms and the cattle are being attracted by the new fresh grass in this area and created a nuisance to the people at the dorms. Presence of bad odor and the proliferation of mosquitoes have been observed in this area.
- Pluspetrol and its subcontractor CSM should resolve the issues of pending work certificates and payment of profit bonuses to their local ex-workers in the communities of Kirigueta, Camisea, Shivankoreni, Kuwait and Chocoriari, and clarify pending claims by four members of the Sepahua community that they were not paid their profit bonuses.
- TGP should clarify as soon as possible the issue of the involuntary relocation at the Huayllahura community. A total of nine families were affected by the construction of the ROW, two of them agreed to be relocated in San Antonio, the other seven families were planned to be relocated in the lots but a few meters away. Currently the plan shows that these houses will be located within 50 m of the ROW. However, in its document "The Camisea gas pipeline is a very safe system" TGP states that, "no fire is allowed within 50 m of the ROW". This is clearly a contradiction that needs to be clarified URS recommends that the minimum distance be determined in accordance with current Peruvian Regulations and IDB's policies and applied to the Huayllahura community.

Communication and Consultation Program

As construction is approaching its end, it is important that TGP and Pluspetrol reinforce and increase its communication and consultation program with the communities. Operators for the upstream facilities and the gas pipelines will be different from the construction ones, therefore, communication between the companies and the communities is important to introduce the new comers and maintain or improve the relations with the communities within the area of influence of the project.

Although the distribution of the document "The Camisea gas pipeline is a very safe system" to the communities through informative meeting is a positive action by TGP, however, it important that the document be also translated to Machiguenga for the benefit of the Machiguenga communities.

ENVIRONMENTAL AND SOCIAL MONITORING REPORT

Camisea Natural Gas and Natural Gas Liquids Pipeline Project, Peru

It should also introduce COGA and explain what its role and responsibilities are going to be in the project.

Pluspetrol should also prepare a didactic communications document for the Cashiriari, Shivankoreni and Camisea communities regarding safety issues of the gas pipelines that were places across these communities.

Pluspetrol should make sure that all didactic materials to be used on future scheduled presentation are in place before these take place. During the Archeological presentation at Chocoriari, key materials were not available and were schedule to arrive within the next days.

Land Compensation Program

Pluspetrol should provide assistance to the members of the Tupac Amaru settlement to resolve the issue of the pending payment for the fluvial transportation compensation. Currently part of the remaining first payment, about \$2,600, corresponding to 2002, and the second for year 2003 are delayed due to lack of resolution by the community on how to invest the money.

TGP should proceed as soon as possible to resolve pending claims for impact cause by the construction of the ROW. URS monitors have received claims from several landowners at various communities. At Tupac Amaru settlement two claims were received for damage outside the ROW, at Kp 10+753 another landowner claimed lost of profits due to damages his coffee and achoite crop, between Kp's 5+700, and 10+700 claims that tress were cut outside the ROW were also received.

Local Development Program

Continue the delays in the implementation of the LPD program during June 2004 no improvement were observed. As included on previous reports, in the Selva and Costa sectors the delays are particularly more critical where only 9 out of the 28 identified projects have a technical file. No schedule is available for the implementation of the remaining 19 projects. TGP should prioritize the LDP due to the fact that construction activities are close to finish and the sense at the communities is that these projects will never be done.

As in our previous monthly reports URS recommends that TGP's LDP should concentrate on productive activities of sustainable nature, this includes the communities' requests to leave some of the temporary infrastructure at the camp sites for use by the communities (such as in Huaytara, Asia, Acocro, Patibamba and Rumichaca), that may become inactive and a burden to the community. This can be accomplished by establishing institutional agreements with organizations such as FAO and NGO's that have experience in productive regional activities.

Temporary Local Hiring Program

As the construction activities of the ROW are coming to an end the demand of local work is decreasing, and the demand and anxiety of certain sector is increasing. It is important then that TGP and Pluspetrol continue communicating the level of local hiring that is expected for the remaining of the construction and the operations phase, and focus more in the Local Development Programs where more local labor participation could be expected.

Others Issues

The Fluvial Community Surveillance Monitor from the Nueva Vida community reported that the cargo ship "Bermejo: under Plaupetrol contract spend the night at the community port even thought the community monitor advise the ship not to do so. This is a violation of the Fluvial Navegation Code and lack of respect to the community monitor. Pluspetrol should take corrective action and fine and fire the Bermejo cargo ship, also should reinforce the Fluvial Navegation Code among their subcontractors.

ENVIRONMENTAL AND SOCIAL MONITORING REPORT

Camisea Natural Gas and Natural Gas Liquids Pipeline Project, Peru

Soldiers from Peruvian Army in charge of the security at the San Antonio Camp were observed with their weapons at the dining room. On previous reports URS has recommended that for safety reason and while in the dining room solders at the different camps should not be armed. TGP should make sure that the officers in charge of the platoon comply with this policy.

5.0 FOLLOW-UP ACTIONS

The observations and recommendations discussed above have been discussed with TGP's and Pluspetrols' on-site inspection staff and will be tracked for compliance during subsequent monitoring.

ENVIRONMENTAL AND SOCIAL MONITORING REPORT

Camisea Natural Gas and Natural Gas Liquids Pipeline Project, Peru

APPENDIX A: EH&S Deficiencies Observed and Recommendations

Abbreviations

EH&S – Environmental, Health and Safety

SPCC – Spill Prevention, Control/Containment, and Countermeasure

H&SM – Health and Safety Management

WM&S – Waste Management and Sanitary

CRSS – Cleanup, Restoration and Slope Stabilization

UPSTREAM PROJECT

Fractionation Plant

1. The four Therminol 55 tanks, each one with a capacity of 6,340 gallons, should be provided secondary containment (SPCC).

Malvinas Camp

2. A management plan to prevent Kudzu from invading the transition area between the landing strip and the forest should be investigated (CRSS).
3. The septic pit where effluents from portable toilettes installed in the Gas Treatment Plant are discharged, should be closed. This pit was excavated a few meters away from a small creek and the effluents are seeping into it (WM&S).

Pisco Pluspetrol Fractionation Plant

4. Although the plant is clean and tidy in all operational areas, the traditional waste storage area located in the northern section of the plant has been filled to capacity by wastes coming from the cleaned areas. The wastes should be classified and properly disposed (WM&S).
5. Approximately 2 cubic meters of hydrocarbon-contaminated soils resulting from the Loberia spill cleanup are stored in the Sade – Skanska waste storage area, directly on the ground and with no secondary containment. A lined spill containment system should be installed to store this waste until they can be properly disposed (WM&S).
6. In the western sector of the plant, where intense activity was observed prior to the installation of the scrapper located before the drilling rig, there is a small diesel generator that was not provided with a secondary containment system (SPCC).

DOWNTREAM PROJECT

Facilities

Toccate Camp

1. Existing concrete pads still remain onsite and some of them are broken. They should be removed and disposed of according to specified procedures (CRSS).
2. Waste materials have been discarded at various locations within the camp. These wastes should be classified and disposed (WM&S).
3. Oil spills were observed on the ground, as well as uncapped cylinders containing oily wastes in the lubricant storage facilities, near the maintenance shop. Stained soil should be removed and properly disposed of, and an adequate location must be provided for the storage of cylinders containing oily waste (SPCC).

ENVIRONMENTAL AND SOCIAL MONITORING REPORT

Camisea Natural Gas and Natural Gas Liquids Pipeline Project, Peru

4. There is a pile of scrap mixed with various wastes near the maintenance shop, which should be collected and properly stored until final removal (WM&S).
5. The secondary containment system for oil-containing cylinders stored in the electrical generator shed is rather precarious (only soil bags with absorbing cloth) and does not have an impermeable lining (SPCC).

Pacobamba Camp

6. Scrap lumber with nails was discarded at various locations around the camp. After removal of nails, it should be stored in a single location until final disposal (WM&S).
7. A new infiltration ditch was excavated but is not in use yet and the organic waste disposal pit, which is rather deep, is not provided with protection barriers or warning signals. Although the area is fenced, the gates are left open and there are no warning signage (at both entrances) to keep people from entering (H&SM).
8. The expiration date of the fire extinguishers located near the electrical generator facilities is February of 2004. Fire extinguishers should be checked regularly and recharged/replaced as needed (H&SM).
9. The fuel storage tank for the electrical generator is placed with a rather precarious secondary containment system (an unlined spill containment pad and only absorbent cloth). A functional secondary containment system should be provided (SPCC).
10. Approximately 25 drums contain fuel and oil are stored in a shed located in front of the generator facility, with no lining or secondary spill containment (SPCC).
11. North of the camp there is an area located near a tent, where bottles of various gases (e.g. oxygen, nitrogen, acetylene) haphazardly left out in the open. They should be separated by type and stored in a secure fashion (H&SM).
12. In the northeastern portion of the camp, discarded mixed wastes are scattered about. These wastes should be picked up, sorted and properly stored until final disposal (WM&S).

Pump Station PS-4

13. The diesel generator is placed in an inadequate, unlined secondary containment system made of soil bags and absorbent cloth. A functional secondary containment system should be provided (SPCC).
14. Following removal of fuel drums and secondary containment systems, evidence of numerous small spills pending remediation were detected. According to the information provided, a total of 170 bags of contaminated soil were removed by the end of May. The residual soil still has a distinct hydrocarbon smell, suggesting that the need for further testing and remediation may be required (SPCC).

Patibamba Camp

15. Various wastes as well as bags filled with contaminated soil are scattered around the camp. The liner from the secondary containment system of the former fuel storage facility still remains. There is evidence of hydrocarbon contamination of soils around the former lubricant storage facility and in the former maintenance shop, which need to be removed and properly disposed of (SPCC).
16. Open infiltration ponds of black and gray waters have filled with liquid and mud instead of proper backfill. The pits should be closed according to proper procedures (WM&S).
17. Various materials (e.g. tanks from the former water treatment plant, sandbags and scrap pipe) should be removed and disposed of (CRSS).
18. The remaining compost pit should be properly closed (CRSS).

Rumichaca Camp



ENVIRONMENTAL AND SOCIAL MONITORING REPORT

Camisea Natural Gas and Natural Gas Liquids Pipeline Project, Peru

19. Various materials remain onsite, such as PVC pipes, a metal sledge, 35 lime sacs, a used oil containing cylinder laid on the ground, five 500-liter buried plastic containers from the former water treatment plant and one 1,000-liter half-buried plastic container. These materials must be removed and properly disposed of (CRSS).
20. There are still concrete pads present in the former water treatment plant which should be removed and disposed of (CRSS).
21. There are scrap wastes and 2 piles of asphalt that were left behind by the Cosapi Company, which had previously used these facilities. The responsible party should arrange for proper disposal (CRSS).
22. There are about 20 buried 500-liter plastic containers remaining from the camp's former black water collection system, some of which still contain residue. The containers should be removed and properly disposed of (CRSS).
23. Soils stained with fuel in sectors where it was poured from one container to another, in the existing fuel faucet (see Photo 14). Fuel-stained soils near the refueling area should be removed and properly disposed of (SPCC).
24. The expiration date of one of the existing fire extinguishers placed near the fuel dispenser was September of 2003. Fire extinguishers should be checked and replaced/recharged as needed (H&SM).
25. There are 70 bags filled with contaminated soils which were placed within the fueling area secondary containment system. Prior to final closure, these wastes need to be properly disposed of (CRSS).
26. Contaminated soils stored around the former special waste oil storage facility should be exhumed and disposed of (CRSS).

Acocro Camp

27. The drinking water storage pit at the southern boundary of the camp is still open and presents a safety hazard for people and/or animals (H&SM).
28. A large piece of discarded geomembrane and some water pipes were left at the drinking water storage pit at the southern boundary of the camp. Those materials should be removed and properly disposed of (CRSS).

Humay Camp

29. Repair couplings and valves in the diesel supply system (diesel pump), which are presently leaking (SPCC).
30. The area used to store radiographic film developing reagents should have secondary containment (SPCC).
31. There are outdated fire extinguishers near the diesel and compressed gas storage facilities (H&SM).
32. Drums containing diesel fuel are stored in the open on wooden pallets (SPCC).

Humay Pipe Storage Area

33. The oil/grease separation chamber located at the machinery and equipment washing installation, is not working properly, and has resulted in contamination of the water that drains to the infiltration pit (SPCC).
34. Workers have complained about the sanitary conditions of latrines installed at the location (H&SM).
35. Hydrocarbon containers should be placed within spill contention pads. Inadequate handling and disposal has caused soil contamination in different areas around the site (SPCC).

ENVIRONMENTAL AND SOCIAL MONITORING REPORT

Camisea Natural Gas and Natural Gas Liquids Pipeline Project, Peru

36. The storage facility that contains contaminated waste and hydrocarbon drums requires additional secondary containment measures. Polyethylene sheeting was used to cover the floor and it has been torn and degraded. The soils around the area show evidence of contamination (SPCC).

Pressure Reduction Plant N° 2 at KP 471

37. The fuel storage tank is placed on absorbent cloth, with no proper containment system with the capacity to hold 110% of the tank's volume in case of spills. A proper secondary containment system with adequate lining and holding capacity should be installed (SPCC).
38. The expiration date of the fire extinguishers placed next to the fuel storage tank has passed (November of 2003 and May of 2004). They should be recharged or replaced as appropriate (H&SM).

Humay Camp

39. Spent radiographic film developing chemicals are being precariously stored without adequate secondary containment (SPCC).

Humay Equipment Storage

40. In the area used to clean vehicles and equipment, a new wastewater infiltration pit was installed without railings or exclusion fencing (H&SM).
41. The former infiltration pit that was used to receive discharge of water from machinery cleaning activities is filled with oily black water and its walls are stained with hydrocarbon waste (SPCC).

Chimparina Camp

42. The camp is being reactivated and its current population is 120 people. There is no proper waste classification and storage system in operations. Currently, unclassified wastes are stored in bags left on the ground and out in the open (WM&S).
43. The fire extinguishers near the fuel supply area have expired (H&SM).
44. Oxygen, acetylene and LPG bottles should be properly stored (H&SM).
45. Empty fuel drums and oil cylinders have been discarded on ground and out in the open. These should be stored in a covered facility with secondary containment (SPCC).
46. At the time of the inspection, the bathroom facilities located next to the dining area, was found absolutely unclean, with a leaking lavatory discharge pipe (H&SM).
47. Corrective action has not been implemented for safety issues reported previously (H&SM).

Alto Itariato Camp

Current population: 120 people.

48. Improve housekeeping practices at the different sectors of the camp. Waste and construction debris were observed scattered around the camp on the ground and out in the open (WM&S).
49. Replace expired fire extinguishers (H&SM).
50. The lining of the 1,500-gallon fuel tank's secondary containment pad should be improved. The prop wash generated by the helicopter (the heliport is located very near) causes the current lining to rise (SPCC).
51. The fuel tank's secondary containment facility valve should be kept closed. Leaving the valve open has already caused soil contamination around the facility (SPCC).
52. A new compost pit should be installed, as the existing one is completely full and ineffective (WM&S).

ENVIRONMENTAL AND SOCIAL MONITORING REPORT

Camisea Natural Gas and Natural Gas Liquids Pipeline Project, Peru

53. Several fuel and oil cylinders were observed on the natural ground and out in the open, even though the hydrocarbon storage facility has plenty of space available for storage (SPCC).

Kiteni Storage Area

54. A large quantity of construction debris, used tires, plastic, card boards, scrap, empty cylinders, etc., are being stored in a haphazard manner (WM&S).
55. There is an over-accumulation of contaminated wastes stored onsite which should be disposed (WM&S).
56. Reinstall the fuel storage tank for the electrical generator within a spill containment pad. The surrounding contaminated soils should be removed (SPCC).
57. Corrective action has not been implemented for spill prevention issues reported previously - the chemical products storage facility is not provided with a containment berm, lubricant cylinders lay on the natural ground and out in the open, there is contaminated soil around the maintenance shop, the secondary containment system for the fuel tanks is not provided with an oil/grease separator (SPCC).
58. Corrective action has not been implemented for safety issues reported previously - expired fire extinguishers have not been recharged/replaced (H&SM).

Right of Way

KP 209

59. Revegetation in this area shows a poor response. Further follow up is required to determine the need to perform additional seeding (CRSS).

KP 214 to KP 216+400

60. The pipeline lays parallel to the road/path in this stretch. In addition to being narrow and shallow, fallen rocks obstruct the roadside drainage ditches. The ditches should be cleared and improved (CRSS).

KP 216+700 and KP 218+300; KP 234+500

61. At some locations, revegetation appears to be unsuccessful. The area should be evaluated to determine the need to perform additional seeding (CRSS).

KP 270+500

62. Local community inhabitants requested that a circulation road be kept open to facilitate their access to their property located on the ROW. Borrow areas that were used to obtain materials to maintain the road have not been revegetated (CRSS).

ROW between KP 180+500 and KP 270+000 (overflight)

63. KPs 185 to 222, El Abra - Pacobamba. Due to the soil type and the magnitude of the sliding (approximately 150 ha affected - see Photo 18), specific procedures should be prepared for the stabilization and revegetation works, which are anticipated to be extremely complicated (CRSS).
64. KP 219, Huayllahura Village. The platform constructed for pipe storage must be stabilized and revegetated (consider the need to implement contention systems at the foot of the slope with rock gabions). The soccer field should be revegetated (CRSS).

ROW between KPs 75+400 and 81+750 (Mangoriari – Gallo)

65. The stretch has not been restored yet and the temporary erosion control systems implemented are quite deteriorated. If the sector is not restored before the next rainy season, temporary erosion control systems must be implemented (CRSS).

ENVIRONMENTAL AND SOCIAL MONITORING REPORT

Camisea Natural Gas and Natural Gas Liquids Pipeline Project, Peru

66. KPs 77+200 to 80+100. In order to speed up natural stabilization and revegetation processes, the performance of management systems of surface water must be prioritized. Active erosive processes and sliding in lateral slopes are still present – approximately 10 ha of land sliding has occurred (CRSS).
 67. In areas where active erosive processes are present due to concentrated surface runoff (KPs 77+000, 78+800 - see Photo 18 - and 79+500), runoff collection and diversion channels should be constructed (CRSS).
 68. KP 75+600 (valve station). A large quantity of waste scattered in various places of the camp could be observed, as well as within a nearby creek bed (WM&S).
 69. Secondary containment should be provided for hydrocarbon-containing cylinders near the electric generator and the diesel storage bladder (SPCC).
- ROW Crossing with the Casablanca drainage channel at KP 622+100
70. The southern bank of the drainage channel at the ROW crossing has failed. The area requires additional stabilization (CRSS).