ENVIRONMENTAL AUDIT & REVIEW

MARLIN MINE PROJECT

Guatemala

Prepared For:

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1.0 INTRODUCTION

1.1 General

The Marlin Project (Project) is a gold/silver mining and processing project located in western Guatemala. Montana Exploradora de Guatemala S. A. (Montana), the owner and operator of the project, is in the process of developing the project with a production startup date scheduled for the late summer of 2005.

Figure 1.1 shows the general facilities arrangement of the project. Project related access to the mine was established in 2004 with the construction of a road from the Pan American Highway, located some 20 kilometers (km) to the northeast of the project site.

The project will involve the simultaneous mining of the ore, by underground and open pit methods, at a combined rate of approximately 5000 tonnes per day (tpd). Ore will be hauled approximately 2km from the mine areas to a crushing and grinding circuit. The ground ore will be then processed in tanks by an agitated leach in a weak cyanide solution. The resulting tailings product will be passed through a counter current decant (CCD) system. Gold and silver will be recovered from solution by a zinc precipitation/Merryl-Crowe system.

The tailings from the CCD will be treated to detoxify the residual cyanide in the supernatant solution prior to disposal in a tailings storage facility (TSF). Mine waste rock and sub-economic ore material will be disposed of in an area adjacent to and north of the mine. The waste rock facility (WRF) lies in the headwaters of the drainage that contains the TSF.

Guatemalan legislation required the preparation and approval of an Environmental and Social Impact Assessment (Estudio de Evaluación de Impacto Ambiental y Social) (EIA&S) prior to mine development. The EIA&S (Montana, 2003) was approved by the Guatemalan government on September 29, 2003. In May 2004, Montana received all of the permit approvals required to initiate construction of the project, and construction commenced immediately thereafter.

In October 2004, at the time of the initial audit site visit, the project was primarily a construction site, rather than an operating mining facility, with the exception of the activities in the underground access tunnel. In this area the tunnel had advanced some

600 meters (m) from the portal. Construction of the access road was essentially complete, and the major earth work at the mill area had been completed with the erection of the crushers, mill and processing facilities underway. In the TSF area construction of a Coffer dam across the valley has been completed and the grout curtain for the embankment was being installed. Preparation for the construction of the Phase 1 TSF facilities had also been initiated.

1.2 Purpose and Need

Montana and its parent company, Glamis Gold Ltd., have a defined environmental management policy, and the Marlin Project has committed to comply with best management practices accepted by the International Mining Industry, all Guatemalan environmental laws and regulations, and the conditions of all environmental permits issued for the project. In addition to the internal preparation and submittal of quarterly environmental monitoring and activity reports to the regulatory agencies in Guatemala and the performance of internal audits of the project, Montana has committed to conduct an annual environmental audit of the project. This audit is to be performed by an independent, third party organization qualified in the performance of environmental audits.

The International Finance Corp (IFC) has provided a portion of the finance for the project in the form of a loan. A requirement of the World Bank/IFC guidelines related to participation in projects such as the Marlin Project, is the performance of an environmental audit at a minimum of once per year. This environmental audit is also to be performed by a qualified, independent third party. In discussion with IFC representatives, it was agreed that the audit could be performed by Dorey & Associates, an international environmental and engineering consulting firm, in conjunction with, and under the direction of, Patricia Acker Consulting. Dorey & Associates is familiar with the project and several aspects of the project development through the participation of its principal, Mr. Rob Dorey. Patricia Acker is also familiar with the project through her participation in the EIA&S; and is a recognized expert in the performance of environmental audits. This audit report has been prepared by Dorey & Associates and reviewed by Patricia Acker Consulting.

1.3 Scope of Audit

The scope of the environmental audit follows generally accepted auditing principles. As part of the background review, an evaluation of the permitting and regulatory

environment surrounding the project was performed. This included a review of the currently issued permits and permits that are pending or in the process of being obtained. During the EIA&S process, a number of commitments were made by the project in the form of preparing and adopting a series of Environmental Management Plans (EMPs). The content, status and implementation of these plans was reviewed and assessed. The EMP review and the implementation of the environmental management process required for the project was also assessed in terms of the status of the project during the audit. Included in this aspect of the audit was a review of the monitoring of the project by Montana's corporate personnel, and the project's compliance with its permits and internationally accepted best management practices.

In late October 2004, the environmental audit team visited the project. The team consisted of Patricia Acker, Rob Dorey and Dan Pervance, the environmental manager of Glamis Gold, Inc. During the site visit, the audit team met with the on-site environmental manager, Alejandro Arauz, and the superintendents responsible for the various parts of the project. At the completion of the site visit, a verbal assessment of the project, which identified several aspects of the project in which corrective action should be implemented, was given to Montana. Immediately prior to the issue of this report, a supplemental site visit was performed by Mr. Dorey to assess the progress made as a result of the initial audit comments. The corrective action plan, included in this report, has considered the improvements and procedures that have been implemented following the initial audit site visit.

2.0 PERMITS & REGULATORY ENVIRONMENT

2.1 Current and Pending Permits

As mentioned above, the project completed an EIA&S in 2003. The EIA&S was submitted to the Ministry of the Environment and Natural Resources (MARN); and approval was received in September 2003. Appendix A to this report contains a copy of the approval document (RES. No. 779-2003/CRMM/EM). Appendix A also includes the English language version of the EIA&S Executive Summary which contains a description of the EMPs to be developed for the project and a summary document of the commitments made relative to various activities and compliance aspects identified in the EIA&S.

Following the approval of the EIA&S, the Ministry of Energy and Mines (MEM) issued the Exploitation License (Resolution No. 3329, dated November 2003) for the project. A copy of this license is included in Appendix A. The license allows for the exploitation of mineral resources within the concession containing the project. It is reported that the exploitation license has been recently revised to incorporate the exploitation of rock and gravel for construction purposes from within the Marlin Project's concessions.

In May 2004, the forestry management plan, prepared for the project by Peridot S.A. on behalf of Montana, was approved by the National Institute of Forestry. Appendix A contains a copy of the forestry license (No. DR-VI-016-M-2004). The initial forestry plan identified the various areas of the project in which trees would be removed to facilitate project development and operation over time. Mitigation measures in the form of reforestation and land improvement is described in the forestry management plan. The forestry management plan has reportedly been revised and updated on a quarterly basis in regards to the sequence and schedule for areas of tree removal and the performance of mitigation and reforestation procedures.

In October 2004, MEM issued a license to the project for the use of hydrocarbons. This license (No. 003032) has a five-year life and will expire in October 2009 (Appendix A). In conjunction with the hydrocarbon license, the project is required, under the Law of Hydrocarbons, to complete an EIA for the establishment of fuel storage tanks at the project. This EIA was in progress at the time of issue of this report. Discussions with Dr. Adrian Juarez of Consultoría y Tecnología Ambiental,

S.A. (CTA), a Guatemalan environmental consulting firm responsible for preparing the EIA, indicate that the review and approval of the EIA is a routine and perfunctory process. The approval to allow Montana to complete and commission its fuel storage facilities is anticipated within the next few months.

A separate EIA was required by the project in regards to the construction of the overhead power line between Tejutla and the project. This EIA was approved by MARN in October 2004 (Resolution No. 1133-2004/MAGC/EM). A copy of the resolution is contained in Appendix A. In conjunction with the power line, the project applied to the Council of INDE, the national organization which oversees electrical power distribution, for the approval to commission and operate the line. This approval is still pending; however, discussions with Montana personnel familiar with the approval process suggest that the approval in perfunctory.

The one remaining key license, for which the project has applied, is for the storage and use of explosives. The project has coordinated the development of the necessary infrastructure and explosives management processes with the appropriate authorities. Explosive use in Guatemala is overseen by the Guatemalan military. In late January 2005, a final inspection of the project was performed. Processing of the explosives license is anticipated in the near future and is reported to be perfunctory at this date.

Finally, a minor license is required for the use of radioactive equipment. Such equipment will be part of the monitoring system of the milling and beneficiation process. It is reported at this time that a list of the equipment that is to be incorporated into the project is pending. Again, obtaining this license is considered to be perfunctory.

2.2 Regulatory Environment

As mentioned above, Montana has agreed to supply MARN with a quarterly report on the activities at the project and the results of the environmental monitoring program; and submissions and general information required under the EIA&S. These reports have currently been prepared by CTA and have been submitted in a timely manner.

Considerable interest by the regulatory and governmental authorities has developed in regards to the project. Although no additional regulatory reporting requirements other than those identified above are believed to be required, the continued provision of supplemental information to the regulatory agencies has been identified by Montana as a key aspect of the project. In this regard, the submission of the detailed design

report relating to the TSF is anticipated as part of the next quarterly report (January 2005). In January 2005, the final design report for the TSF was also submitted to the IFC independent dam safety review panel. The review panel subsequently notified the project of its approval of the TSF design. A report by the dam safety review panel to the IFC documenting the approval is scheduled for February 2005.

Recently, an increased level of activity related to the project by non-government organizations (NGOs) has been observed. The political influence generated by the NGOs has resulted in a corresponding increase in the government agencies' interest in the project. At this time, however, this activity is not foreseen to result in any material impact to the project or project development. Formation of a government sponsored oversight committee, or forum, for mining activities in the country took place in late 2004. Representatives of the forum are tasked with providing input to government policy related to the mining industry activities and development. The current position of the government however is seen to be strongly supportive of the Marlin Project and the sustainable development of other mining properties in the country.

3.0 ENVIRONMENTAL MANAGEMENT PLANS

3.1 Scope of Plans

The EIA&S contains a list and general description of nearly a dozen environmental management plan components which are required to be developed and applied at the project. These include the following:

- *Environment, Health and Safety Organization Plan* – Montana is required to develop a plan of the organization it will adopt to manage, apply and oversee the environmental management plans and health and safety plans for the project.

- *Forestry Management Plan* – This plan is required to document how the reforestation and overall sustainable development of forestry resources within the project area will be performed.

- *Wildlife Management Plan* – This plan is required to establish how the project will manage and protect fauna within the project area.

- *Water Management Plan* – This plan is required to describe the management of industrial and domestic waste waters and their treatment prior to any releases to the environment.

- *Acid Rock Drainage Management Plan* – This plan, as part of the overall mine waste rock management plan (WRMP), is required to document the management of potentially acid generating materials, the testing of waste rock derived from the mines and the alleviation of potential adverse effects due to acid rock drainage.

- *Surface Water Management Plan* – This plan is to establish the management procedures for the control over meteoric water at the project; and to establish the mitigation measures related to storm events and their potential impact on the receiving environment.

- *Cyanide Management Plan* – This plan is required to identify specific procedures and management practices related to all aspects of cyanide associated with the project, including purchasing, transport, handling and

storage, use, closure and decommissioning, worker safety, emergency response, training, and public consultation and disclosure

- *Waste Management Plan* – This plan is required to establish the management procedures related to solid waste, inert industrial wastes and hydrocarbon-contaminated soils at the project. In addition, the plan is to define how the management and disposal of "special" waste and of any hazardous wastes derived from the project activities will be performed.

- *Environmental Monitoring Plan* – This plan is required to identify the procedures and specific aspects of the project that will be monitored throughout the life of the mine. Part of this plan includes the establishment of an "Observer Commission" consisting of local government and national agency representatives who will assess the implementation of the environmental monitoring plan.

- *Contingency Plan* – This plan is required to identify potential impacts related to project development and operation; and to document the procedures for actions in the event of unforeseen events or an "upset" condition at the project. This plan is required to document notification procedures in addition to training and emergency response preparedness.

- *Closure and Reclamation Plan* – This plan is required to identify the concurrent and ultimate reclamation and closure of the mine area and any off-site impacts or disturbances.

In addition to the EMPs described above, several related documents are required as part of the IFC Dam Safety Guidelines, and the general environmental management guidelines of the World Bank/IFC. In regards to the TSF, a specific Monitoring Plan, Emergency Preparedness Plan, and Closure Plan are required.

3.2 Status of Plans

At the time of the Environmental Audit, the EMPs were in various stages of development. It is appropriate to acknowledge that not all of the plans, such as the cyanide management plan, are required to be complete at this time; and, further, the plans themselves are intrinsically "living documents" which will require periodic updating and revision throughout the mine life. Several of the plans were developed in draft form as part of the EIA&S and in early 2004. However, little progress appears

to have been made in advancing the plans since that time. Discussions with Montana personnel tasked with developing the plans suggest that completion of a number of the plans will be achieved in early 2005. The development and implementation of the plans is seen as a key aspect of overall project environmental management as discussed further in the Corrective Action Plan contained at the end of this report.

The Monitoring Plan for the TSF was issued in December 2004. The additional plans required to comply with the IFC guidelines for Dam Safety are scheduled for finalization in the first half of 2005.

4.0 MONITORING & COMPLIANCE

4.1 Marlin Organization and Structure

At the time of the audit, the project environmental department consisted of an environmental manager, an environmental engineer tasked with the management of the reforestation and the "greenhouse" projects at the site, and a number of technicians who were primarily involved in the revegetation, replanting and reclamation activities. Considerable reliance has been placed upon the personnel from CTA who conduct the periodic project monitoring activities. The environmental manager reports directly to the mine manager.

In December 2004, Montana hired a senior environmental manager responsible for the project and other properties in Guatemala. This senior environmental manager has been tasked with the development and completion of the EMPs

As discussed further in regards to the current ability for monitoring and compliance oversight capabilities, the organizational structure at the time of the audit did not appear to be suited to the requirements that will exist during the remainder of project development and operations. Recommendations for modifications to the organizational structure are given in the Corrective Action Plan section of this report. Modification of the organization structure to allow for the implementation of the appropriate level of environmental monitoring and compliance oversight has been initiated by Montana since the initial audit.

4.2 Receiving Environment

Within the project and surrounding area, a number of discreet monitoring locations were established as part of the baseline study for the EIA&S. In addition, as project development has continued, additional monitoring locations, such as the project water supply well, have been established.

4.2.1 On-Site Monitoring

Review of the records of on-site monitoring by project personnel indicates that a routine monitoring and data recording procedure has not currently been established. The on-site weather station has not been maintained; and the recording of data has not resulted in a reliable or consistent data set. Several flow monitoring instruments

installed in the drainages surrounding the project have also not been monitored or maintained; resulting in limited data from these locations. In December 2004, these stations were re-established and the data recording devices commissioned so that on-going data could be recorded.

As required under the current waste rock management plan, monitoring of the materials removed from the underground workings, and the establishment of on-site waste rock characterization capability has not been performed. At the time of the supplemental site visit in January 2005, samples were regularly being taken of waste rock from the underground workings and monitoring of groundwater entering the workings had been initiated.

The project plans to develop an appropriate level of on-site water quality monitoring capabilities in conjunction with the construction of its on-site metallurgical laboratory. This capability is anticipated to be in place by the middle of 2005.

As identified in the following section related to the field audit, the performance of the environmental department in enforcing environmental management procedures over both Montana personnel and the contractors performing the construction activity has been limited. Similarly, enforcement of the normal level of environmental management by the construction contractors did not appear to have been performed. This has resulted in a level of "housekeeping" and environmental compliance which is not compatible with normal industry practice. During the supplemental site visit in January 2005, considerable improvement in this aspect of environmental compliance was observed. In addition, routine review of the environmental compliance of the construction contractors was being performed by January 2005.

4.2.2 Off-Site Monitoring

During 2004, CTA performed a number of discreet project monitoring events which included surface water, groundwater, meteorology/climate, air quality, and general observation. This monitoring, however, is primarily related the surrounding project environment. The results of these monitoring events are well documented in the quarterly reports submitted to MARN. Review of the data indicates that no detectable impacts have occurred to the receiving environment based upon the items monitored by CTA.

5.0 FIELD AUDIT

During the initial audit, the audit team performed an in-depth inspection of all of the components of the project, which are discussed below. Again, the majority of activities at the project were related to the construction of the various components of the project.

It is appropriate to state that the purpose of the audit was to assess environmental management practices and identify environmental management issues which need to be addressed. The following sections, by the very nature of the audit, identify such issues. In general, however, the current conditions at the site are, for the most part, good; and do not show conditions that are significantly different from large construction projects of this nature.

5.1 Access Road

At the time of the audit, the primary access road from Kilometer 241 on the Pan-American Highway to the project site was essentially complete. The initial portion of the access road is a public highway which pre-dates mine development. Improvements in this section of the road have been performed by the local government and national highway department. The remaining section of the road has been constructed specifically for the project and includes a bridge crossing of the Rio Cuilco at the town of Siete Platos. Previously it was not possible to cross the river at this location during most of the rainy season.

Two aspects of the road were identified as having potential environmental effects along its route. These are dust control and surface water management. Although the project has established a watering program to control the dust, air emissions from the road surface were observed to be significant in several locations. Significant erosion of the road and excess road cut material was observed immediately below the mine site. Sediment from this source was seen to have migrated into the minor drainage below this area. The establishment of surface water management and erosion control measures for the road surface was still in the process of development during the audit. Additional management activities in this regard are anticipated to be required to provide better environmental management of stormwater runoff prior to the rainy season of 2005. In January 2005, the placement of curbs and gutters was observed to

have been initiated; and the establishment of better management of this aspect of the road is anticipated prior to the next rainy season.

The bridge at Siete Platos was observed to be used extensively by the local population, and the use of the access road by local traffic has increased following its completion. Some concern as to the safety of pedestrians on the bridge resulted in the construction of a pedestrian walkway alongside the bridge. The project has established a maximum speed limit of 40 kilometers per hour (km/hr) on the access road. However, this does not seem to apply to the local traffic.

5.2 Original Office Complex

The original office complex was established during the exploration phase of the project. At the time of the audit, new offices were under construction adjacent to the mill site area.

A temporary fueling station and vehicle maintenance shop exists in the original office complex area, in addition to the laydown and equipment yards which have been used by various drilling contractors. Observation of the storage and management of hydrocarbons in this area indicate that additional management is required. Oil spills and petroleum product releases to the ground were observed. In addition, the management of fuel drums, lubricants and maintenance fluids requires improvement. Used oil is currently stored at the project and is removed from the site for recycling by a third party contractor. Two new diesel fuel tanks have been constructed and are placed within a concrete berm area. However, the drainage valves from the berm of these tanks were observed to be free-flowing. Although it is recognized that the maintenance facilities are temporary in nature, improved management of this area is also required. In addition, the “housekeeping” in the original office complex area requires improvement. Numerous piles of debris and waste material have been left around the area.

In January 2005, significant improvement in the environmental management of this area was observed. A partially buried fuel tank had been removed and the area reclaimed; and the majority of the barrels and immediate debris within the maintenance area had been removed. It was reported that hydrocarbon contaminated soils had been excavated and placed in a specific area for bio-remediation. The original office complex area lies directly within the initial area of open pit

development; and the demolition and removal of all facilities are scheduled to occur prior to the third quarter of 2005.

5.3 Mill Site

5.3.1 Crushing and Grinding

The crushing and grinding area to the west of the overall mill site area had been excavated to the required grades for installation of the major crushing and grinding components. Several of the work areas exist adjacent to relatively high and steep cut faces. Some minor failures of the cut faces were observed and were reported to relate to intense rain events during the latter half of the rainy season of 2004, and an incomplete surface water management system in the area. The project has initiated remedial activities in this area; and has restricted personnel access to areas of concern. On-going construction activities and the partial regrading of a number of the cut slopes will alleviate the potential of accidents or damage to facilities in this area.

5.3.2 Process Area

In a similar manner to the crushing and grinding area, the major earthworks for the construction of the mill facilities had been completed at the time of the audit. A normal level of construction related debris was observed within this area. However, no significant environmental issues were identified.

5.3.3 Waste Dump Area

The majority of the material excavated from the crushing and grinding and process area has been deposited in a controlled manner in the valley to the south of the mill site. The surface of this area is being used as a storage area for materials delivered for the construction and will ultimately be used for a haul truck maintenance area, a warehouse and permanent offices. At the downstream limit of the waste area, a fill slope extends to the bottom of the valley. During the rainy season of 2004, significant erosion occurred on the face of the fill slope, and the eroded material had migrated into the drainage below the fill area.

At the time of the audit, work had been initiated on providing erosion control for the slope, including the establishment of sediment berms and revegetation activities. This slope, however, will present a significant source of sediment until a stable slope surface has been established. Sediment derived from the slope can be traced for a

considerable distance below the dump and downstream of the confluence with this drainage and the tributary drainage from the TSF area. The potential that this sediment will continue down slope during subsequent rainy seasons suggests that additional management activities will be required in the drainage.

5.3.4 Contractors Yards

Several contractors' yards have been erected in and around the mill site area. Each of these yards is reviewed below.

5.3.4.1 SOCOCO

SOCOCO is the main earthwork contractor for the project. Its shop lies directly below the temporary office building complex north of the mill site. The yard consists of a maintenance building, offices, fuel tanks, and equipment storage areas. In general, the housekeeping and environmental management in this yard is of poor quality. Spills of hydrocarbon products within the maintenance and fuel storage areas and from parked vehicles were observed. No surface water control of this yard has been established; and runoff discharges into the adjacent drainage. Containers of used oil filters and barrels of debris and used equipment parts are scattered across the area. The fuel tank station has no leakage collection system; and drainage from this area has contaminated the soils immediately downstream of the tanks. Environmental management in this area does not meet normally accepted standards.

5.3.4.2 Astaldi

At the time of the audit, the yard used by a haulage subcontractor to SOCOCO, located adjacent to the public road running west from the mill site area, had been abandoned. The subcontractor has demobilized from the site. Hydrocarbon contaminated soils, used tires and debris exist in this site area. Cleanup and reclamation of this area is required.

5.3.4.3 IASA

IASA is the lead contractor for the mill site construction. A limited amount of maintenance activity takes place within this yard. Although to a lesser degree than at the SOCOCO yard, similar issues in relation to hydrocarbon management and general

housekeeping exist in this area. Surface water management is lacking and direct runoff from this area enters into the adjacent drainage.

5.3.4.4 Concrete Contractor

Downgradient from the IASA yard is the yard of the on-site concrete contractor. In general, maintenance of this area is good. However, no surface water management exists and spills of cement and erosion of stockpiles can be observed to have migrated from the yard area. This concrete contractor, and other concrete contractors at the site, had not adopted appropriate procedures for cleaning and disposing of waste concrete materials from mix trucks. Several areas have been observed where this concrete waste material has been dumped. In December 2004, a specific location for truck washing was established; and this issue has been resolved.

5.3.5 Underground Portal Area

At the time of the audit, construction in the underground portal area was on-going; and only temporary maintenance and equipment management areas had been established. Nevertheless, this area had adopted industry standard procedures for managing its fuel, oils and maintenance products. One area was observed where cleaning of the explosive truck was being performed in such a manner as to leave a deposit of ANFO (ammonium nitrate and fuel oil) on the ground. This procedure has been corrected.

Water being pumped from the underground workings is being released into the drainage which is tributary to the TSF area. The water contains a high level of sediment and is released in an uncontrolled manner. Improved water management and the potential use of flocculants and the reduction of suspended solids being released is recommended in this area. Establishment of the permanent underground water management system is anticipated in the first quarter of 2005 which should alleviate the issues related to this release. The establishment of a permanent surface water management system and the reclamation of the disturbed area above the portal are identified as a required management activity.

5.3.6 New Housing

A new housing area has been developed by the mine in the local town of San Jose. This housing is for the relocation of some of the former residents of the mine area.

These houses were partially completed at the time of the audit. No environmental issues were identified at this location.

5.3.7 La Hamaca Area

The La Hamaca area is located to the southwest of the mine area and has been disturbed during exploration of the area. The extensive development of drill pads and access roads required for the exploration activities has resulted in areas subject to surface erosion. Some excavated soil materials were observed to have entered the Rio Quivichil drainage that passes through this area. In September 2004, higher than normal rains occurred and the resulting flooding of the Rio Quivichil scoured the river bed and removed this material.

Reclamation activities have been initiated with the placement of sediment fences on, and revegetation of, the disturbed slope areas. Additional erosion may occur from this area during the next rainy season and additional work to maintain the slope stabilization is recommended.

5.3.8 TSF Area

Construction activities in the TSF area have involved the logging and stripping of a significant area within the footprint of the tailings embankment. In the dry season of 2004, a Coffer dam was constructed across the drainage at the upstream limit of the embankment. This Coffer dam has acted as a sediment control facility for the area upstream of the embankment. This area includes the underground portal, the majority of the contractors' workshop areas and the northern half of the mill site. Significant quantities of sediment have accumulated within the Coffer dam impoundment.

At the time of the audit, the contractor performing the foundation grouting for the TSF embankment was active in the area immediately downstream of the Coffer dam. Runoff from the drilling activities and from the water supply system used by the contractor was entering the drainage and migrating downstream. The runoff contained elevated suspended solids resulting from the drilling and grouting process.

The earthworks contractor was also working in the bottom of the valley in removing topsoil and excavated material from the footprint of the embankment. Sediment generated from this activity was observed to have migrated downstream and into the receiving drainage. The contractors have established a number of sediment control facilities in the drainage. However, these were not adequate to prevent the migration

of all of the sediment. Improvement of the erosion control and surface water management within this area will be required prior to the next rainy season in order to mitigate future sediment migration. Improved water management by the grouting contractor is also required to reduce the quantity of water being introduced to the drainage, along with drill cuttings and sediment during the current dry season.

In January 2005, the grouting contractor was observed to have improved the management of water draining from his work areas. Due to the onset of the dry season, the runoff and sediment derived from the disturbed areas has ceased

Uncontrolled placement of waste material derived from the mill site area has occurred in the upper portion of the east abutment to the TSF area. This dump was observed to have undergone some liquefaction with the migration of saturated materials into the adjacent drainage. Removal of a portion of this material, regrading of the dump and the establishment of a permanent reclaimed area is required to alleviate the potential of significant impacts from this dump. In January 2005, this work had been initiated.

Currently, access to the TSF area is uncontrolled and a number of local inhabitants can regularly be seen crossing the work area. This poses a significant health and safety issue which can only be mitigated when controlled access to the area is established. Montana is in the process of erecting a chain link fence around the work area.

5.3.9 Tree Farm(s)/Greenhouses

The project has established a number of tree farms and greenhouses at the site. Inspection of these areas indicates no environmental management issues.

5.3.10 Solid Waste

A number of pits have been excavated on the east abutment of the TSF area. These pits were described as being temporary in nature; and are being used for disposal of construction debris, packaging, and other solid waste materials generated at the site. Prior to the establishment of a permanent solid waste disposal area, the material in these pits is periodically burnt.

Some used oil filters and “special waste” materials were seen to have been placed in the pits. Currently, no control over access to, or placement of material in, the pits appears to exist. In addition, these pits have been graded so that drainage of leachate and rainfall falling onto the pits is released to the adjacent drainage. Additional

management of this area and the establishment of a permanent solid waste management facility are required.

Montana has reportedly identified the permanent location for the project's solid waste landfill which will be available in the first quarter of 2005.

5.3.11 Siete Platos Aggregate Plant

The development of an aggregate source from the Rio Cuilco, adjacent to the town of Siete Platos, had been performed. Aggregate from this source has been used in the manufacture of concrete at the site. At the time of the audit, the aggregate plant had been removed. Although the property upon which the aggregate plant was located belongs to a local inhabitant, cleanup and reclamation of this area should be performed. No additional aggregate production or gravel removal from the Rio Cuilco is anticipated.

5.3.12 General Site Area

It must be recognized that the general site area lies within an area of relatively dense population. Several parts of the project contain the remnants of the former houses and evidence of local residents' activities. Although assessment of these peripheral areas is beyond the scope of this audit, the general housekeeping within the project shows a similar approach to its management. A philosophy of proactive management that will engender better housekeeping on the project needs to be established.

In general, the noise emissions from the project are limited; and tend to be associated with normal construction activity. Dust control from roads and disturbed areas during the dry season poses a significant management challenge. The fine particulate nature of the in-situ soils is prone to dust generation, even shortly after rainfall events. Consideration of surfacing and/or dust control on the major roadways should be given to alleviate this issue.

Surface water management of the general area of the site is recognized to be difficult during the period of construction. However, a proactive management program appears to be required prior to the onset of the next rainy season. A general review of the surface water management requirements should be undertaken, and the appropriate management steps taken, in the next few months.

5.3.13 Off-Site Impacts

The off-site impacts currently occurring are primarily related to sediment migration. Stabilization and the localized removal of sediment which has migrated into drainages outside of the immediate work areas should be performed prior to the next rainy season.

6.0 CORRECTIVE ACTION PLANS

6.1 Summary

The key issues identified in the audit relate to the following:

- Establishment of an organization and structure that will meet the objectives of the monitoring and compliance aspects of the project;
- Development of the project's environmental management plans;
- Improvement in housekeeping and general environmental management and controls;
- Mitigation of dust emissions; and
- Mitigation and remediation of sediment releases.

Since the initial audit Montana has taken several actions to alleviate these issues and the corrective action plans described below have been initiated. Again, in general, the current conditions at the site do not pose a significant environmental risk and, rather, are related to management issues.

6.2 Corrective Action Plan

6.2.1 Environmental Management Structure

The current organizational structure for environmental management and compliance at the project needs to be modified to allow the appropriate performance of the environmental management plans and compliance issues related to the project. The monitoring plans require an extensive amount of data collection and observation which involves all parts of the mining activities. It is recommended that a broad-based environmental committee be established which would include senior managers, or their representatives, from all of the project components. The integrated nature of the project components is such that the activities in one area can have an immediate impact upon the adjacent and interrelated areas. With the establishment of this committee, the ownership of the environmental management required for the project can be engendered. The participation of senior management in the environmental aspects of the project will also increase the level of authority that is required for the

implementation of the EMPs. The actual environmental department and its senior representatives need to have the qualifications and resources necessary to perform the environmental management function; and it is recommended that this department reports directly to the general manager of the project.

The details of structuring the environmental management organization are beyond the scope of this audit. However, the requirement that this plan be documented, and issued as part of the EIA&S requirements, should be given high priority.

6.2.2 Environmental Management Plans

Development and finalization of the various environmental management plans should be given high priority. The status of each plan should be assessed, and each plan's priority should be established. The amount of work required to develop these plans may exceed the resources immediately available at the project for their expedited completion. Once the status of the plans has been assessed, it is recommended that the appropriate resources, either in-house or from external sources, be assigned so that the plan development can be expedited. Such external sources could include Glamis' corporate environmental management personnel or outside consultants qualified in this area of work.

6.2.3 General Environmental Management

It is recommended that the project establish a specific role for the environmental management team to perform regular compliance reviews of specific project areas. This "policeman" role should have the full authority of the mine's management team, particularly in regards to the activities of the contractors at the project. The establishment of some mechanism to either penalize or reward contractors and the various areas of the mine is recommended.

6.2.4 Mitigation of Dust Emissions

One of the most apparent environmental issues at the project is related to dust emissions. Both the visual and health and safety aspects of such emissions require the project to be proactive in its management activities related to dust. Surface stabilization using chemicals and/or permanent road surfaces not subject to dust emissions should be implemented.

6.2.5 Sediment Control

The second, and perhaps more significant environmental issue at the project, is related to the erosion and sediment migration from disturbed areas. Within the period prior to the next rainy season, the project should perform a specific review of all areas subject to erosion. The implementation of best management practices to alleviate the migration of sediment should be performed. In areas where sediment has entered the natural drainage systems of the project area, stabilization of the sediment and selective removal of sediment from the drainages should be performed.

CORRECTIVE ACTION PLAN

2004 Environmental Audit Items (Internal)

Recommended Action	Status	Completion Date	Responsible Person	Coordinate With:	Comment or Proposed Alternative Action
Secure explosives permit	Pending	01/04/05	M.Saravia		Waiting to complete items, then call for final inspection
Secure license for radioactive equipment	Pending	TBD	M.Saravia		
Attach TSF design report to next quarterly regulatory report	Completed	04/03/05	L.Wade	R.Dorey, CTA	Summary doc submitted in 2004 4th quarter report
Develop Policy & Commitment (Vision) Statement	Pending				Review conducted with Site Dept. Mgrs 21/02/05
Establish Senior Level Environment Committee	Completed	18/02/05			Committee established at meeting: A.King, C.Baptista, L.Wade, V.Flores, S.Saenz, J.Schenck, J.Jacobsen, J.McKenney, B.Brodsky, T.O'Shea
Develop EHS Organization Plan	Pending	01/06/05	L.Wade, V.Flores	T.Miller, S.Saenz	
Develop Health & Safety Plan	Pending	TBD	V.Flores		
Develop Forestry Management Plan	Complete				
Develop Wildlife Management Plan	Draft complete				
Develop Water Management Plan	Pending		R.Dorey, L.Wade		
Develop ARD Management Plan	Draft complete - pending revisions		L.Wade	J.Jacobsen, R.Dorey, C.Baptista, S.Saenz	Waiting review comments on SWMP and revision of WRMP
Develop Surface Water Management Plan (SWMP)	Draft complete	31/03/05	L.Wade	Various	Waiting review comments
Develop Waste Management Plan	Draft pending	01/06/05	L.Wade	Various	Develop & Review w/Dept Mgrs input
Develop Material Management Plan	Draft complete	01/06/05	L.Wade	Various	Develop & Review w/Dept Mgrs input
Develop Environmental Monitoring Plan	Draft complete	01/06/05	L.Wade	R.Dorey	Review Dorey proposal, revise if

					necessary, implement
Develop Contingency Plan	Draft complete	01/08/05	T.Miller	All Dept. Mgrs	Combine various existing draft plans. Incident levels, notification levels, outside notification, etc.
Develop Closure Plan	Draft complete	01/08/05	R. Dorey	L.Wade	
Develop TSF Emergency Preparedness Plan	Draft complete	01/08/05	R.Dorey	A.King, L.Wade, T.Miller	
Develop TSF Closure Plan	Draft complete	01/08/05	R.Dorey	A.King, L.Wade, T.Miller	
Modify Env Department Organization	Pending	01/06/05	L.Wade	T.Miller, S.Saenz, E. Morales	Review staffing needs and implement as necessary
Improve Monitoring Program	Pending	01/06/05	L.Wade	R.Dorey	Review Dorey proposal, revise if necessary, add any "internal" requirements, review lab capabilities, implement
Increase Enforcement of Env Procedures	Completed				This is part of the Sr. Env Committee's objective
Implement Reward and Penalty System for Contractors and Mine Personnel	Pending	01/08/05	L.Wade	All Dept. Mgrs	Agreed to implement general concept. L.Wade to send fine schedule out for review. Reconvene later to define.
Increase Dust Control on Access Road	Pending	31/12/05	S.Saenz		Will look for professional to be in charge of road watering, dust suppresant application, and road maintenance. Short term solution is to improve management of the water trucks. Long term solution will be in place prior to next dry season.
Increase Surface Water Mgmt on Access Road	Pending	01/05/05	S.Saenz		Will look for professional to be in charge of road watering, dust suppresant application, and road maintenance.
Reduce Local Traffic Speed at Siete Platos Bridge	Completed				Installed speed bumps, etc.
Improve Housekeeping at Temp Fuel Station & Shop	Pending	01/04/05	T.O'Shea		Significant improvement has been

					completed. Pickup of used oil completed (2355 gallons), sent for recycle. Empty drums to be picked up and reconditioned.
Improve Housekeeping at Original Office Complex	Completed				
Improve Water Mgmt from Cut Slope at Crushing/Grinding Facility	Pending	01/08/05	A.King	Fluor	Include in final grading plan
Install Erosion Control for Fill Slope South of Mill Site	Pending	01/08/05	A.King	L.Wade	Coordinate slope stabilization and placement of topsoil for reveg
Improve Housekeeping at Sococco Complex	Pending	01/05/05	A.King	MEC	
Improve Surface Water Mgmt at Sococco Complex	Pending	01/05/05	A.King	MEC	
Reclaim Yard of Haulage Subcontractor to Sococco (Istaldi)	Complete		A.King	V. Flores	
Improve Housekeeping at IASA Yard	Pending	01/04/04	A.King	Fluor	
Improve Surface Water Management at IASA yard	Pending	01/04/04	A.King	Fluor	
Improve Housekeeping of Concrete Contractors	Pending	01/04/04	A.King	Fluor	
Improve Water Mgmt of Water Pumped from Underground Workings (Sediment Control)	Pending	01/05/05	J.Jacobsen	L.Wade	L.Wade to provide serpentine specs to J.Jacobsen and to follow up on nearby tree cutting/removal schedule. L.Wade to support development of long term strategy.
Reclaim Disturbed Area Above Portal	Pending	31/12/05	J.Jacobsen	L.Wade	
Reclaim Exploration Disturbance at La Hamaca	Pending	31/05/05	B.Brodsky	L.Wade	Field visit complete, roads for reclamation identified. Earthwork to be completed 01/05/05, reveg by 31/05/05
Improve Sediment Control on Unreclaimed Disturbance at La Hamaca	Pending	31/05/05	B.Brodsky	L.Wade	See note above. What isn't reclaimed will be compacted/revegetated/improved
Improve Water Management at TSF Construction Site (Sediment Control)	Pending	01/05/05	A.King	L.Wade, R.Dorey, Sococco	Final action plan, schedule, and responsibilities pending from MEC
Regrade, Remove, and Reclaim Material from Mill Site Placed in Upper Portion of East Abutment of TSF Area	Pending, 50% completed	01/04/05	A.King	L.Wade, R.Dorey, Sococco	
Improve Access Control in TSF Area	Pending	TBD	J.Schenk		

Improve Control of Material Placement in Temporary Disposal Pits on East Abutment of TSF Area	Pending	01/06/05	L.Wade		These pits will be closed and new landfill developed with fencing and monitoring
Improve Water Management at Temporary Disposal Pits on East Abutment of TSF Area	Pending	01/06/05	L.Wade		These pits will be closed and new landfill developed with fencing and monitoring
Reclaim Siete Platos Aggregate Plant Area	Pending	TBD	A.King	L.Wade, Fluor	Pending field review w/L.Wade & S. Garcia
Conduct Selective Removal of Sediment from Impacted Drainages	Pending	01/05/05	L.Wade	A.King, Sococco, R. Dorey, C.Baptista	

CORRECTIVE ACTION PLAN

2004 Environmental Audit Items (External, MEM/MARN 15-17 Dec 2004)

Recommended Action	Status	Completion Date	Responsible Person	Coordinate With:	Comment or Proposed Alternative Action
Submit notification of changes since the EIA	Completed				
Submit a drawing of site installations	Completed				
Improve road watering for dust contol	Pending	31/12/05	S.Saenz		See above related finding
Improve signage for property access	Completed				
Ensure proper PPE use where necessary	Completed				
Improve sediment control/surface water management	Pending	31/05/05	L.Wade/A.King/ C.Baptista		See above related findings
Install additional monitoring wells	Pending	TBD	L.Wade		Install G-11
Future monitoring should be conducted with MEM	Pending	TBD	L.Wade		
Send a copy of this report to MEM & the Delegado of San Marcos					Check w/Milton