SUMMARY AUDIT REPORT

INTERNATIONAL CYANIDE MANAGEMENT CODE
GOLD MINING OPERATION VERIFICATION AUDIT
MARIGOLD MINE, NEVADA

Submitted to
INTERNATIONAL CYANIDE
MANAGEMENT INSTITUTE
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WASHINGTON, D.C.  20005

and
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(A GOLDCORP INC. & BARRICK GOLD CORPORATION COMPANY)
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Prepared by
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Littleton, Colorado
# TABLE OF CONTENTS

0.0 General ................................................................................................................................. 1
  0.1 Operation Contact Information .......................................................................................... 1
  0.2 Location and Description of Operation ............................................................................ 1
  0.3 Cyanide Facilities ............................................................................................................. 3
  0.4 Auditor Information .......................................................................................................... 4
  0.5 Audit Findings .................................................................................................................. 4
  0.6 Summary of ICMC Principles and Standards of Practice .............................................. 5

1.0 Production ............................................................................................................................. 7
  Standard of Practice 1.1 .......................................................................................................... 7

2.0 Transportation ...................................................................................................................... 8
  Standard of Practice 2.1 .......................................................................................................... 8
  Standard of Practice 2.2 .......................................................................................................... 9

3.0 Handling and Storage ......................................................................................................... 10
  Standard of Practice 3.1 ........................................................................................................ 10
  Standard of Practice 3.2 ........................................................................................................ 11

4.0 Operations ........................................................................................................................... 12
  Standard of Practice 4.1 ........................................................................................................ 12
  Standard of Practice 4.2 ........................................................................................................ 14
  Standard of Practice 4.3 ........................................................................................................ 14
  Standard of Practice 4.4 ........................................................................................................ 15
  Standard of Practice 4.5 ........................................................................................................ 16
  Standard of Practice 4.6 ........................................................................................................ 17
  Standard of Practice 4.7 ........................................................................................................ 18
  Standard of Practice 4.8 ........................................................................................................ 19
  Standard of Practice 4.9 ........................................................................................................ 20

5.0 Decommissioning ................................................................................................................. 22
  Standard of Practice 5.1 ........................................................................................................ 22
  Standard of Practice 5.2 ........................................................................................................ 23

6.0 Worker Safety ....................................................................................................................... 25
  Standard of Practice 6.1 ........................................................................................................ 25
  Standard of Practice 6.2 ........................................................................................................ 25
  Standard of Practice 6.3 ........................................................................................................ 27

7.0 Emergency Response .......................................................................................................... 28
  Standard of Practice 7.1 ........................................................................................................ 28
  Standard of Practice 7.2 ........................................................................................................ 29
  Standard of Practice 7.3 ........................................................................................................ 29
  Standard of Practice 7.4 ........................................................................................................ 30
  Standard of Practice 7.5 ........................................................................................................ 31
  Standard of Practice 7.6 ........................................................................................................ 32
8.0 Training ......................................................................................................................................................... 33
   Standard of Practice 8.1..................................................................................................................................... 33
   Standard of Practice 8.2..................................................................................................................................... 34
   Standard of Practice 8.3..................................................................................................................................... 35
9.0 Dialogue ........................................................................................................................................................ 37
   Standard of Practice 9.1..................................................................................................................................... 37
   Standard of Practice 9.2..................................................................................................................................... 37
   Standard of Practice 9.3..................................................................................................................................... 38
10.0 References .................................................................................................................................................... 40

LIST OF TABLES
Table 1 Summary of ICMC Principles and Standards of Practice for Gold Mining Operations

LIST OF FIGURES
Figure 1 Location Map

UNITS OF MEASURE AND ABBREVIATIONS
ADR Adsorption, Desorption and Refining
ARO Asset Retirement Obligations
Barrick Barrick (HMC) Mining Company and Barrick Gold Corporation
BLM U.S. Department of Interior, Bureau of Land Management
Code International Cyanide Management Code
CSR Corporate Sustainability Report
Cyanco Cyanco Company, LLC
DuPont E.I. DuPont De Nemours and Company, Inc.
ERP Emergency Response Plan
GRI Global Reporting Initiative
HCN Hydrogen cyanide
HDPE High-density polyethylene
**UNITS OF MEASURE AND ABBREVIATIONS (CONTINUED)**

<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Description</th>
</tr>
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<tbody>
<tr>
<td>ICMC</td>
<td>International Cyanide Management Code</td>
</tr>
<tr>
<td>ICMI</td>
<td>International Cyanide Management Institute</td>
</tr>
<tr>
<td>LCRS</td>
<td>Leak detection and recovery system</td>
</tr>
<tr>
<td>LEPC</td>
<td>Local Emergency Planning Committee</td>
</tr>
<tr>
<td>Marigold</td>
<td>Marigold Mining Company</td>
</tr>
<tr>
<td>mg/L</td>
<td>milligrams per liter</td>
</tr>
<tr>
<td>MSDS</td>
<td>Material Safety Data Sheet(s)</td>
</tr>
<tr>
<td>MSHA</td>
<td>Mine Safety and Health Administration</td>
</tr>
<tr>
<td>NDEP</td>
<td>Nevada Department of Environmental Protection</td>
</tr>
<tr>
<td>NDOW</td>
<td>Nevada Department of Wildlife</td>
</tr>
<tr>
<td>PPE</td>
<td>Personal protective equipment</td>
</tr>
<tr>
<td>QA/QC</td>
<td>Quality Assurance and Quality Control</td>
</tr>
<tr>
<td>Sentinel</td>
<td>Sentinel Transportation LLC</td>
</tr>
<tr>
<td>SOP</td>
<td>Standard Operating Procedure</td>
</tr>
<tr>
<td>TransWood</td>
<td>TransWood, Inc.</td>
</tr>
<tr>
<td>TSF</td>
<td>Tailings Storage Facility</td>
</tr>
<tr>
<td>WAD</td>
<td>Weak-acid dissociable</td>
</tr>
<tr>
<td>WPCP</td>
<td>Water Pollution Control Permit (Permit No. NEV0088040; 2009 Renewal, Rev. 4)</td>
</tr>
</tbody>
</table>
0.0 GENERAL

0.1 Operation Contact Information

Name of Mine: Marigold Mine

Name of Mine Owner: Joint Venture between Goldcorp Inc. (66.7 percent) and Barrick Gold Corporation (33.3 percent)

Name of Mine Operator: Marigold Mining Company

Name of Responsible Manager: Mr. Duane Peck, General Manager

Address and Contact Information:
Marigold Mining Company
PO Box 160
Valmy, Nevada 89438
Telephone: 775.635.2317
Facsimile: 775.635.2551
Email: duane.peck@goldcorp.com

0.2 Location and Description of Operation
Marigold Mining Company ("Marigold") currently operates the Marigold Mine, an open-pit, heap leach operation utilizing an adsorption, desorption and refining ("ADR") process, located approximately three miles south of Valmy in the southeastern portion of Humboldt County, Nevada (see Figure 1). The mining operation consists of multiple open pits and precious metal processing facilities encompassing approximately 19,000 acres of private and public land. Run-of-mine ore is hauled from the open pits to the heap leach pad. Presently, crushing operations are only conducted for producing "overliner" material for heap leach pad construction.

The "fluid management system" for the heap leach facility consists of pregnant and barren solution ponds, a stormwater collection pond, ADR processing and chemical storage facilities, a lean solution recirculation...
a synthetically lined heap leach pad with multiple cells, and appurtenant structures. The system is designed to contain stormwater flows and draindown from the heap leach cells during simultaneous 100-year, 24-hour storm and 24-hour power outage events. The former mill ceased operations in 2002 and has since been decommissioned and dismantled. With closure of the milling circuit, the existing tailings storage facility (“TSF”) was taken out of service, reclaimed, and is in advanced stages of the closure process and will not be used for further deposition of tailings or impoundment of process solutions. Therefore, the TSF has not been considered by this or previous International Cyanide Management Code (“ICMC” or “Code”) audits.

The leach pad currently has seventeen cells constructed with either a clay liner (non-active cells) or a synthetic liner (active cells) over a compacted composite base. The heap leach cells are stacked with run-of-mine ore, which is truck hauled to one of the active heap leach cells and end-dumped in lifts. Once a lift or portion of a lift is complete, the surface is ripped to enhance solution percolation. Solution distribution lines are then placed on top of the ore, and barren solution is applied using either drip emitters or sprays.

The barren solution percolates through the ore collecting precious metals and exits the heap material at one of several collection areas as pregnant solution. The pregnant solution is conveyed, by gravity flow, to the pregnant solution pond or the recirculation system via high-density polyethylene (“HDPE”) pipelines located in synthetic lined ditches. Upon exiting the heap, the pregnant solution can be routed to either the recirculation system or the pregnant solution pond depending upon the precious metal content of the solution. If the precious metal content is low, the solution (lean solution) is routed to the recirculation system to report to the top of the heap for extraction of additional precious metal. If the pregnant solution is high enough, the solution is routed to the pregnant pond.

Marigold currently operates five (5) carbon column trains in parallel. Solution reporting to the pregnant pond is pumped through carbon columns to recover the precious metal. Upon exiting the carbon columns, the solution is barren of precious metal and flows by gravity or is pumped to the barren solution pond. The barren solution is recirculated, using a pump, back to the top of the heap to continue the leaching process.

Carbon from the various carbon column trains is transferred to the Carbon Strip Circuit and processed to recover gold. Within the Carbon Strip Circuit, a hot alkaline solution is used to strip the precious metals from the loaded carbon. The solution eluate is then passed through an electrowinning circuit (located inside the Refinery within the Process Building) where the metals are electroplated. The resultant gold-bearing material is taken to the crucible furnace located in the Refinery, mixed with a flux, and smelted to produce doré. The stripped carbon is washed with acid and then reactivated by heating in a rotary kiln.

There are a total of four pregnant ponds (Pregnant Ponds 1, 2, 3 and 4) and two barren solution ponds (Barren Ponds 1 and 2), interconnected with synthetic-lined channels, that cumulatively make up the “pond system.” The ponds are constructed with primary and secondary HDPE liners over a compacted clay base. A leak detection and recovery system (“LCRS”), designed to meet federal and state standards, is installed between the secondary liner and the compacted clay base of each pond. During 2003, Pregnant Pond 1 was removed from service and the pond currently remains inactive.
0.3 Cyanide Facilities

The active cyanide facilities at the Marigold Mine, which comprise the existing fluid management system, consist of the following:

- Three Cyanide Offload/Storage Facilities (cyanide storage tanks and offload appurtenances);
- Heap Leach Pad (17 cells);
- Solution pipeline containment channels;
- Process Solution Ponds;
  - Barren Ponds 1 and 2;
  - Pregnant Ponds 1, 2, 3 and 4;
- Stormwater Pond;
- ADR circuit;
  - Carbon Columns (five column trains and appurtenances);
  - Carbon Strip Circuit (carbon transfer and holding tanks, strip and acid wash vessels, pregnant and barren solution tanks, and associated process tanks and appurtenances);
- Process solution piping and lined solution collection channels;
- LCRS for the heap leach cells and the solution ponds; and
- Associated concrete and lined secondary containment structures, process solution transfer pipes, valves, and pumps.

It should be noted, that during previous ICMC audits, the Carbon Strip Circuit, located within the existing Process Building, was not audited as a cyanide facility; presumably, because it was thought that weak-acid dissociable ("WAD") cyanide concentrations in the circuit were below 0.5 milligrams per liter ("mg/L") as cyanide is not used in the stripping process or possibly because the Refinery is the source of the residual cyanide contained in the strip circuit solution. This determination may have also been based on the location of the strip circuit (i.e., inside the Process Building next to the Refinery). Nonetheless, in this auditor’s professional judgment, the Carbon Strip Circuit is a cyanide facility as it is not inside the Refinery and because WAD cyanide concentrations in the pregnant and barren solutions range between 40 and 50 mg/L (based on analyses conducted during this 2012 recertification audit).

Based on this determination, during this onsite audit, Marigold installed additional signage on the strip tanks and pipes located outside and inside the Process Building warning of cyanide and provided a history of inspection and maintenance records for the facility. Immediately following the onsite audit, Marigold performed a review of its written procedures related to the operation of the strip circuit facilities to ensure that the risks associated with cyanide were identified, as appropriate, and provided updated training to its workforce on the procedures. It is important to note that, because Marigold has continuously operated this facility as an integral part of and with the same high-quality care as its other process facilities, the only ICMC-related documentation needed following the onsite audit included confirmation regarding the adequacy of the secondary containment provided for the process facilities.
tanks in the circuit and an assessment of the physical integrity of the facilities since the original construction quality control and assurance documentation could not be located (please refer to Sections 4.7 and 4.8 below.)

0.4 Auditor Information

Audit Company: Visus Consulting Group, Inc.
Audit Team Leader: Mark A. Montoya, PE, CEA
Email: mmontoya@visuscorp.com

Audit Dates: October 22 – 26, 2012

I attest that I meet the criteria for knowledge, experience and conflict of interest for Code Verification Audit Team Leader, established by the International Cyanide Management Institute (“ICMI”) and that all members of the audit team meet the applicable criteria established by the ICMI for ICMC Verification Auditors. I further attest that this Summary Audit Report accurately describes the findings of the verification audit conducted for the Marigold Mine located in Humboldt County, Nevada, and that the verification audit was conducted in a professional manner in accordance with the ICMC Verification Protocol for Gold Mine Operations (dated October 2009) and using standard and accepted practices for health, safety and environmental audits.

FOR VISUS CONSULTING GROUP, INC.

Mark A. Montoya, PE, CEA
President / Principal
Lead Auditor and Gold Mining Technical Expert Auditor

0.5 Audit Findings

The operation is in [] Full Compliance with the International Cyanide Management Code. 
[] Substantial Compliance
[] Non-Compliance

During the previous three-year audit cycle, Marigold has experienced cyanide releases (i.e., minor releases of cyanide-bearing solutions to soil), which are subject to listing under Question 3 of the Standard of Practice 9.3. These incidents have not been “significant cyanide incidents” subject to the notification requirements in Item 6 of the ICMC signatory application and do not affect the compliance status. Furthermore, these incidents did not involve worker exposures to cyanide. The operation has only used ICMC certified cyanide suppliers and transporters since the previous ICMC audit conducted in July 2009.
### 0.6 Summary of ICMC Principles and Standards of Practice

For easy reference, Table 1 below provides a summary of the ICMC Principles and associated Standards of Practice.

<table>
<thead>
<tr>
<th>PRINCIPLE</th>
<th>STANDARDS OF PRACTICE</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>1. PRODUCTION:</strong> Encourage responsible cyanide manufacturing by purchasing from manufacturers who operate in a safe and environmentally protective manner.</td>
<td>1.1 Purchase cyanide from manufacturers employing appropriate practices and procedures to limit exposure of their workforce to cyanide and to prevent releases of cyanide to the environment.</td>
</tr>
</tbody>
</table>
| **2. TRANSPORTATION:** Protect communities and the environment during cyanide transport. | 2.1 Establish clear lines of responsibility for safety, security, release prevention, training and emergency response in written agreements with producers, distributors and transporters.  
2.2 Require that cyanide transporters implement appropriate emergency response plans and capabilities, and employ adequate measures for cyanide management. |
| **3. HANDLING AND STORAGE:** Protect workers and the environment during cyanide handling and storage. | 3.1 Design and construct unloading, storage and mixing facilities consistent with sound, accepted engineering practices and quality control and quality assurance procedures, spill prevention and spill containment measures.  
3.2 Operate unloading, storage and mixing facilities using inspections, preventive maintenance and contingency plans to prevent or contain releases and control and respond to worker exposures. |
| **4. OPERATIONS:** Manage cyanide process solutions and waste streams to protect human health and the environment. | 4.1 Implement management and operating systems designed to protect human health and the environment including contingency planning and inspection and preventive maintenance procedures.  
4.2 Introduce management and operating systems to minimize cyanide use, thereby limiting concentrations of cyanide in mill tailings.  
4.3 Implement a comprehensive water management program to protect against unintentional releases.  
4.4 Implement measures to protect birds, other wildlife and livestock from adverse effects of cyanide process solutions.  
4.5 Implement measures to protect fish and wildlife from direct and indirect discharges of cyanide process solutions to surface water.  
4.6 Implement measures designed to manage seepage from cyanide facilities to protect the beneficial uses of ground water.  
4.7 Provide spill prevention or containment measures for process tanks and pipelines.  
4.8 Implement quality control/quality assurance procedures to confirm that cyanide facilities are constructed according to accepted engineering standards and specifications.  
4.9 Implement monitoring programs to evaluate the effects of cyanide use on wildlife, surface and ground water quality. |
### Table 1 (continued)
Summary of ICMC Principles and Standards of Practice for Gold Mining Operations

<table>
<thead>
<tr>
<th>PRINCIPLE</th>
<th>STANDARDS OF PRACTICE</th>
</tr>
</thead>
</table>
| 5. DECOMMISSIONING: Protect communities and the environment from cyanide through development and implementation of decommissioning plans for cyanide facilities. | 5.1 Plan and implement procedures for effective decommissioning of cyanide facilities to protect human health, wildlife and livestock.  
5.2 Establish an assurance mechanism capable of fully funding cyanide-related decommissioning activities. |
| 6. WORKER SAFETY: Protect workers’ health and safety from exposure to cyanide.                                                        | 6.1 Identify potential cyanide exposure scenarios and take measures as necessary to eliminate, reduce and control them.  
6.2 Operate and monitor cyanide facilities to protect worker health and safety and periodically evaluate the effectiveness of health and safety measures.  
6.3 Develop and implement emergency response plans and procedures to respond to worker exposure to cyanide. |
| 7. EMERGENCY RESPONSE: Protect communities and the environment through the development of emergency response strategies and capabilities. | 7.1 Prepare detailed emergency response plans for potential cyanide releases.  
7.2 Involve site personnel and stakeholders in the planning process.  
7.3 Designate appropriate personnel and commit necessary equipment and resources for emergency response.  
7.4 Develop procedures for internal and external emergency notification and reporting.  
7.5 Incorporate into response plans monitoring elements and remediation measures that account for the additional hazards of using cyanide treatment chemicals.  
7.6 Periodically evaluate response procedures and capabilities and revise them as needed. |
| 8. TRAINING: Train workers and emergency response personnel to manage cyanide in a safe and environmentally protective manner. | 8.1 Train workers to understand the hazards associated with cyanide use.  
8.2 Train appropriate personnel to operate the facility according to systems and procedures that protect human health, the community and the environment.  
8.3 Train appropriate workers and personnel to respond to worker exposures and environmental releases of cyanide. |
| 9. DIALOGUE: Engage in public consultation and disclosure.                                                                                  | 9.1 Provide stakeholders the opportunity to communicate issues of concern.  
9.2 Initiate dialogue describing cyanide management procedures and responsively address identified concerns.  
9.3 Make appropriate operational and environmental information regarding cyanide available to stakeholders. |
1.0 PRODUCTION

Encourage responsible cyanide manufacturing by purchasing from manufacturers who operate in a safe and environmentally protective manner.

Standard of Practice 1.1

Purchase cyanide from manufacturers employing appropriate practices and procedures to limit exposure of their workforce to cyanide and to prevent releases of cyanide to the environment.

The operation is in [ ] Full Compliance

☐ Substantial Compliance  ☐ Non-Compliance

with Standard of Practice 1.1.

Discussion of the basis for this Finding and any Identified Deficiencies:

E.I. DuPont De Nemours and Company, Inc. (“DuPont”) is the cyanide producer and supplier for the Marigold Gold Mine. The current contract between Goldcorp and DuPont specifically identifies ICMC certification requirements as a provision. DuPont is signatory to the ICMC and Marigold provided a copy of the ICMC Summary Audit Report for the DuPont Sodium Cyanide Production and Packaging Operations (dated August 10, 2009) demonstrating full compliance with the ICMC production protocol. DuPont received its official recertification from ICMI on December 1, 2009. As of this writing, DuPont’s most recent recertification audit has been conducted and the auditor found the operation to be in full compliance. ICMI is currently reviewing the audit reports for completeness.

In 2011, Marigold purchased cyanide from Cyanco Company, LLC (“Cyanco”) over a one-month period, due to a temporary disruption in its DuPont supply caused by a flood at DuPont’s Memphis Plant. Because this was an isolated and temporary event, Marigold did not enter into a purchase contract with Cyanco. Nonetheless, Cyanco is signatory to the ICMC and Marigold provided a copy of the ICMC Summary Audit Report for the Cyanco Sodium Cyanide Solution Production Operations (dated November 6, 2009) demonstrating full compliance with the ICMC production protocol. Cyanco received its official recertification from ICMI on February 2, 2010.

During the three-year period between ICMC verification audits, Marigold has only purchased cyanide from DuPont and Cyanco, which are both cyanide producers in full compliance with the ICMC. Currently, Marigold purchases cyanide solely from DuPont.
2.0 TRANSPORTATION

Protect communities and the environment during cyanide transport.

Standard of Practice 2.1

Establish clear lines of responsibility for safety, security, release prevention, training and emergency response in written agreements with producers, distributors and transporters.

The operation is in Full Compliance with Standard of Practice 2.1.

Discussion of the basis for this Finding and any Identified Deficiencies:

Marigold’s contract with DuPont to supply and transport cyanide to the Marigold Mine specifies that cyanide delivery occurs when DuPont’s hose has been connected to Marigold’s designated cyanide tank and the cyanide has been transferred through the hose to the tank. Prior to the delivery, DuPont retains responsibility for transportation of the cyanide and risk of loss for the product. Furthermore, the contract specifies that during the contract period, DuPont shall remain a signatory to the ICMC and shall comply and cause DuPont’s cyanide production and transportation personnel, distributors and contract transporters to comply with all applicable ICMC Principles and Standards of Practice, performance goals, audit recommendations and certification requirements applicable to DuPont’s production facilities and applicable to the Marigold site. This includes the specific compliance matters set out in the Code’s production and transportation verification protocols.

The contract specifically states that DuPont shall, with respect to the cyanide delivered to Marigold, be responsible for packaging, labeling, storage prior to shipment, evaluation and selection of routes, storage and security at ports of entry, interim loading, storage and unloading during shipment, transportation to the delivery locations, unloading at the delivery locations, safety and maintenance of the means of transportation throughout transport, task and safety training for transporters and handlers throughout transport, security throughout transport and emergency response throughout transport, all in accordance with the applicable ICMC Principles and Standards of Practice, performance goals, audit recommendations and certification requirements of the Code. The contract further requires that DuPont shall have, in place, emergency response plans relating to the Marigold site and conforming to the recommendations of the Code and requirements of applicable law.
Standard of Practice 2.2

Require that cyanide transporters implement appropriate emergency response plans and capabilities, and employ adequate measures for cyanide management.

The operation is in [ ] Full Compliance [ ] Substantial Compliance [ ] Non-Compliance with Standard of Practice 2.2.

Discussion of the basis for this Finding and any Identified Deficiencies:

As stated in Section 2.1 above, the purchase contract between DuPont and Marigold specifies that during the contract period, DuPont shall remain a signatory to the ICMC and shall comply and cause DuPont’s cyanide production and transportation personnel, distributors and contract transporters to comply with all applicable ICMC Principles and Standards of Practice, performance goals, audit recommendations and certification requirements applicable to DuPont’s production facilities and applicable to the Marigold site.

DuPont produces cyanide at its Memphis, Tennessee plant and distributes the product via rail and truck. Cyanco produces cyanide at its Winnemucca, Nevada plant and delivers the product to mines in Nevada via truck. DuPont contracts Sentinel Transportation LLC (“Sentinel”) to transport liquid cyanide from the DuPont Carlin terminal to the Marigold Mine and Cyanco contracts TransWood, Inc. (“TransWood”) to transport liquid cyanide from the Cyanco Winnemucca plant to the mine.

DuPont and all portions of its US/Canada Road and Rail & Barge cyanide supply chains continue to be in full compliance with ICMC requirements. Sentinel and TransWood are both signatories to the ICMC and both transportation supply chains are in full compliance with the ICMC transportation protocol, from the production facilities to the Marigold Mine. Sentinel and TransWood received official recertification from ICMI on January 14, 2010 and January 20, 2010, respectively. As of this writing, Sentinel’s most recent recertification audit has been conducted and the auditor found the operation to be in full compliance. ICMI is currently reviewing the audit reports for completeness. The DuPont rail/barge and road supply chains received official certification from ICMI on August 30, 2010 and January 25, 2011, respectively and these certifications remain effective through August 29, 2013 and January 24, 2014, respectively.
3.0 HANDLING AND STORAGE

Protect workers and the environment during cyanide handling and storage.

Standard of Practice 3.1

Design and construct unloading, storage and mixing facilities consistent with sound, accepted engineering practices, quality control/quality assurance procedures, spill prevention and spill containment measures.

The operation is in Full Compliance with Standard of Practice 3.1.

Discussion of the basis for this Finding and any Identified Deficiencies:

The Marigold Mine receives sodium cyanide in liquid form at 30 percent strength, and operates three cyanide offload/storage facilities at various locations as follows:

- Area 1 – located at the carbon columns;
- Area 2 – located at the Process/Refinery Building; and
- Area 3 – located at the east toe intersection of Cell 3 and Cell 12 of the leach pad (aka, Smiley Face Area).

During the initial ICMC certification audit (November 2006), auditors verified that DuPont provided written confirmation indicating that the offload facilities and storage tanks (at Area 1 and Area 2) meet their guidelines and requirements. Additionally, a professional engineer conducted an inspection of the Area 1 and Area 2 cyanide offload/storage facilities, and certified that the facilities were installed and have been maintained in excellent condition, and provide adequate protection against releases. The Area 3 cyanide offload/storage facility was constructed following the initial ICMC certification audit as a component of the Cell 13, Phase 3 leach pad expansion in accordance with applicable jurisdictional rules and sound and accepted engineering practices. During this onsite recertification audit, the auditor inspected all three cyanide offload/storage facilities and found the facilities to be in good condition.

All three offloads provide a reinforced concrete pad for the cyanide tanker with drainage to additional secondary containment and the containments provided for all three cyanide storage tanks provide protection against seepage to the subsurface. The Area 1 cyanide offload/storage facility is situated within concrete containment located on the north side of the carbon column area, which drains via gravity to the process ponds. The Area 2 cyanide offload/storage facility is situated on a concrete pad located on the east end of the Process/Refinery Building, which drains into a floor sump located inside the Process/Refinery Building. Solution collected in the sump is pumped to the process ponds via an HDPE pipeline and the steel tank is surrounded by concrete containment walls. The containment floor and walls are covered with HDPE liner, which provides an additional
containment barrier. The Area 3 cyanide offload/storage facility is constructed on a gravel protective layer overlying an HDPE geomembrane liner. An engineered clay liner and compacted rock fill underlay the HDPE geomembrane.

The cyanide offload/storage facilities at Area 1, Area 2, and Area 3 are well situated with respect to surface and groundwater resources and do not present any undue risk for human exposure. No perennial or intermittent streams or groundwater supply wells are nearby. Marigold uses only liquid cyanide stored within enclosed, insulated steel tanks, which are located outside and are well ventilated with minimal potential for hydrogen cyanide ("HCN") gas build-up. Marigold stores cyanide separately from incompatible materials.

Marigold has overfilling alarm and level indicators installed on the cyanide storage tanks located at each cyanide offload/storage area and tests the operation of the alarm systems and documents tank fill values prior to beginning an offload event and during every shift for cyanide inventory control. During this recertification audit, the auditor inspected maintenance records for the tank level instrumentation to verify that Marigold keeps the instrumentation in good working order.

**Standard of Practice 3.2**

*Operate unloading, storage and mixing facilities using inspections, preventive maintenance and contingency plans to prevent or contain releases and control and respond to worker exposures.*

<table>
<thead>
<tr>
<th>The operation is in</th>
<th>☑ Full Compliance</th>
<th>☐ Substantial Compliance</th>
<th>☐ Non-Compliance</th>
</tr>
</thead>
</table>

**Discussion of the basis for this Finding and any Identified Deficiencies:**

Marigold receives liquid cyanide transported to the site in tanker trucks. Therefore, there are no empty cyanide containers that require treatment or disposal.

Marigold has developed and implemented a Standard Operating Procedure ("SOP") that provides systematic steps for offloading cyanide, covering both routine and emergency valve and coupling operation. The procedure defines the valve and coupling operation for the connection of the offload hose to the truck, valve opening, and the emergency shutdown button on the passenger side of the truck. The SOP addresses appropriate personal protective equipment ("PPE") and includes the requirement for full-time observation from a safe distance by the Marigold escort person during the hookup, offload and unhook activities. Additionally, the spotter (observer) must be familiar with emergency shutdown of the equipment as well as emergency procedures involved with cyanide. Procedures for cleaning up cyanide spills occurring both within and outside of concrete containment are covered by this and other SOPs.
4.0 OPERATIONS

Manage cyanide process solutions and waste streams to protect human health and the environment.

Standard of Practice 4.1

Implement management and operating systems designed to protect human health and the environment including contingency planning and inspection and preventive maintenance procedures.

☑ Full Compliance
☐ Substantial Compliance
☐ Non-Compliance

The operation is in [ ] with Standard of Practice 4.1.

Discussion of the basis for this Finding and any Identified Deficiencies:

Please refer to Section 0.3 above for a listing of the active cyanide facilities at the Marigold Mine. Marigold has developed and currently implements written procedural documents (i.e., SOPs), which cover the Marigold cyanide facilities and provide measures for managing cyanide in a manner that prevents or controls releases to the environment and exposures to workers and the community. The SOPs identify required PPE and the risks involved with the operating tasks, and adequately describe safe work practices.

Additionally, the Water Pollution Control Permit (“WPCP”) and the WPCP Renewal Application stipulate operating requirements for the process facilities and identify the parameters and regulatory requirements on which the Marigold process facility (fluid management system) design is based. The fluid management system includes, but is not limited to, the following process components:

- Heap leach pad cells and solution collection areas;
- Process ponds (pregnant and barren solution ponds);
- Solution collection pipes and lined collection ditches;
- Leak detection and recovery systems for the leach pad solution collection areas and the process ponds;
- Groundwater monitoring wells;
- Transfer pipes, valves, and pumps used in conveyance, control or detection of process fluids between process components; and the
- TSF (in closure).

SOPs incorporate the pond design parameters into the operating procedure for maintaining the process ponds at the allowable operating levels and provide procedures to follow in response to varying degrees of upset conditions. Additionally, the WPCP Renewal Application includes emergency and spill contingency procedures for cyanide management in situations where there is an upset in the facility water balance, when monitoring or inspections identify problems, and when temporary closure or cessation of operations become necessary.
Marigold implements comprehensive inspection and preventative maintenance programs for its cyanide facilities. Well documented, routine inspection and maintenance programs address proper management of process solutions at the heap leach pad and process ponds to retain the design storage capacities. Marigold implements a specific SOP to address preventative maintenance related to critical cyanide equipment including the various pumps. Preventive maintenance for other cyanide equipment is addressed through the monthly inspection program conducted by process personnel. The monthly inspection reports describe conditions of signs and labeling, liners, pipelines, secondary containment, high-level alarm systems, pumps, presence of cyanide salts, presence and date of antidote kits, wildlife evidence or mortality, solution ponding, pond levels and levels in sumps. Process Lead Operators monitor process pond levels on a daily basis for entry into the Water Balance Model. In accordance with its Storm Water Pollution Prevention Plan, Marigold inspects its stormwater facilities, including surface water ditches and diversions, annually and following storm events. The Nevada Department of Environmental Protection (“NDEP”) performs quarterly WPCP compliance inspections of the Marigold Mine facility. These inspections identify any issues associated with the process facilities, equipment (including monitoring and control equipment), practices, or operations regulated by the permit.

In addition to the routine visual inspections and preventative maintenance discussed above, a contractor performs annual thickness testing on the three cyanide storage tanks. Marigold inspects the leak detection systems installed in the process ponds and at the leach pad each shift and reports the results to NDEP quarterly.

Marigold implemented a formal “Management of Change” procedure in March 2010 to ensure that it evaluates changes for potential environmental, safety and health risks, and that it takes appropriate actions to ensure existing performance levels are not compromised. Marigold provided complete Management of Change documentation for the cyanide-related operational and facility modifications that occurred at the Marigold operation over the three-year period between the 2009 ICMC audit and this recertification.

The Marigold operation has one diesel-powered generator located at the Booster Pad station capable of powering five pregnant solution pumps or three pregnant solution pumps and one barren solution pump. During line outages, Marigold allocates emergency power to process solution pumps as necessary. Additionally, Marigold indicated that, if necessary during prolonged outages, it could rent additional generators from Reno, Nevada, which can arrive to the site within eight hours. The Marigold truck shop mechanics perform annual preventative maintenance on the generator and the auditor reviewed annual preventative maintenance records over the period 2010 through 2012.
Standard of Practice 4.2

*Introduce management and operating systems to minimize cyanide use, thereby limiting concentrations of cyanide in mill tailings.*

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*Discussion of the basis for this Finding and any Identified Deficiencies:*

This Standard of Practice is not applicable, as Marigold is a heap leach operation and does not currently operate a mill.

Standard of Practice 4.3

*Implement a comprehensive water management program to protect against unintentional releases.*

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*Discussion of the basis for this Finding and any Identified Deficiencies:*

In January 2011, Marigold implemented a new water balance model that is less conservative, more accurate and probabilistic. The Process Manager updates the model on a weekly basis with actual site data and archives the model (i.e., the spreadsheet file) monthly. The model performs a working analysis based on actual data and a probabilistic analysis. Inflows to the model include precipitation and makeup water currently obtained from Marigold water supply wells. The Marigold heap leach facilities are designed and operated as zero-discharge facilities with no direct discharge to surface water required; therefore, outflow from the model is limited to solution losses through evaporation of spray application, pond evaporation and moisture uptake by fresh ore.

The model considers all parameters, as appropriate for the water management system, in a reasonable manner, including daily ore tonnage delivered to the heap, leach solution application rates, precipitation generated by the design storm event, snowpack, evaporation, the active heap height, open pad and channel liner areas, and ore characteristics (e.g., moisture, density, and porosity). The 100-year 24-hour event is used during model runs to simulate available pond capacity and freeboard. The Marigold heap leach facility is designed and operated such that all upgradient stormwater runoff is diverted around the facility.
Marigold collects onsite precipitation daily from a rain gauge located at the Process Building and inputs the data into the water balance model weekly for use in the working analysis. The model uses average monthly evaporation data (i.e., historical data from a Winnemucca weather station) and accounts for sublimation.

The Marigold process pond system is designed to retain runoff generated by the 100-year, 24-hour storm event, and draindown from the heap leach pad over a 24-hour period, while providing two feet of freeboard. Marigold has redundant vertical turbine pond pumps and maintains a diesel-powered emergency generator on site to provide emergency power in the event of a primary power outage. Additionally, if necessary during prolonged power outages, Marigold has the option of renting additional generators from Reno, Nevada, which can arrive to the site within eight hours. Therefore, the water balance model does not account for power outages or pump and equipment failures.

Process Lead Operators monitor process pond levels on a daily basis for entry into the Water Balance Model each day. A written SOP incorporates the pond design parameters into the operating procedure for maintaining the process ponds at the allowable operating levels. The SOP also provides procedures to follow during upset conditions. Review of the operating records indicates that pond levels are maintained consistently at or near the optimal levels. The water balance analyses confirm adequate freeboard for both working and probabilistic scenarios.

Standard of Practice 4.4

Implement measures to protect birds, other wildlife and livestock from adverse effects of cyanide process solutions.

The operation is in Full Compliance with Standard of Practice 4.4.

Discussion of the basis for this Finding and any Identified Deficiencies:

At the Marigold operation, open waters containing WAD cyanide concentrations greater than 50 mg/L consistently occur in the working, process solution ponds (i.e., Pregnant Pond 2, Barren Pond 1 and Barren Pond 2). The other process ponds (i.e., Pregnant Pond 1, Pregnant Pond 3, Pregnant Pond 4 and the Stormwater Pond) provide surge capacity and remain empty under normal operations. Nonetheless, all of the process ponds are provided with avian deterrent systems (i.e., netting and/or bird balls). Pregnant Pond 1 is currently not in use. In addition to the avian deterrent systems, the process ponds are surrounded by chain-link fence and perimeter fencing surrounds the Marigold site to minimize access by terrestrial wildlife and livestock.

Marigold uses netting to cover exposed pump boxes and other areas where open solution or ponding occurs. Other potential areas where open solutions may occur temporarily include the solution pipeline containment...
channels at the heap leach pad and ponds (in the event of a leaking or ruptured pipe), and on the heap itself. Netting is used to protect wildlife from these areas.

Marigold monitors for wildlife activity and mortalities daily as a component of the pre-shift area inspections and submits quarterly Wildlife Mortality Reports to the Nevada Department of Wildlife ("NDOW"), Habitat Bureau in accordance with its Industrial Artificial Pond Permit. This permit also requires immediate verbal reporting of potential or known process solution related wildlife mortalities to NDOW. The auditor reviewed NDOW quarterly Wildlife Mortality Reports and no cyanide-related wildlife mortalities have occurred at the Marigold operation since the 2009 ICMC recertification audit.

The Marigold operation utilizes both drip emitter application as well as wobbler spray application on the run-of-mine heap and rips the heap surface prior to leaching. The Marigold ore types vary, with certain ore material having higher clay content and other material being very durable and free drainage rock. During this onsite recertification audit, some active areas of the heap experienced solution ponding and other active areas did not. Isolated areas with ponding were covered with netting. Marigold implements an SOP to address ponding on the heap by providing a range of control measures. Preventing overspray of solutions off the lined pad area is a component of the heap leach SOP and is monitored by leach operators during pre-shift inspections. Visual inspection during this audit did not identify overspray of solutions off the lined pad area.

**Standard of Practice 4.5**

*Implement measures to protect fish and wildlife from direct and indirect discharges of cyanide process solutions to surface water.*

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<th>with Standard of Practice 4.5.</th>
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**Discussion of the basis for this Finding and any Identified Deficiencies:**

The Marigold operation is designed and operated as a zero-discharge facility with no direct discharge to surface water.

Ephemeral surface water flows occur in the area with stream flow generally in the spring following periods of precipitation. Several springs are present in the mine area; however, mining and processing operations are downstream of the springs or outside of the associated meteoric water collection basins. Trout Creek, an ephemeral stream, is the closest surface water body, located roughly one-half mile to one mile away from the Marigold process facilities. A dam, located upstream from the process facilities, diverts Trout Creek west into Cottonwood Creek (an ephemeral stream) and around the facilities.
Marigold monitors surface water at five onsite locations, with one monitoring point located downgradient of the process facilities. During this recertification audit, the auditor reviewed quarterly monitoring records over the period 2009 through the third quarter of 2012. WAD cyanide levels were below the analytical detection limit (<0.01 mg/L) for all quarters. The applicable regulatory numerical standard for cyanide in surface water is 0.20 mg/L WAD (Drinking Water Standard).

The Marigold operation has not experienced any indirect discharges over the three-year period between ICMC recertification audits that have caused cyanide concentrations in surface water to rise above protective standards. Although, cyanide solution spills have occurred outside of containment, surface water has not been impacted.

**Standard of Practice 4.6**

Implement measures designed to manage seepage from cyanide facilities to protect the beneficial uses of ground water.

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**Discussion of the basis for this Finding and any Identified Deficiencies:**

The Marigold operation is designed and operated as a zero-discharge facility. The project construction and operation include a number of seepage control technologies such as composite liner systems at the heap leach pad consisting of compacted low-permeability soil liner overlain by geomembrane liners, double geomembrane liners with leak detection systems at the process ponds, geomembrane-lined containment channels for solution pipelines, and concrete secondary containment in process areas. The facility design and construction meets NDEP standards. The alluvium is the main groundwater storage unit in the mine area.

The process ponds are constructed with primary and secondary HDPE liners over a compacted clay base. An LCRS installed between the secondary liner and the compacted clay base of each pond is designed to meet federal and state standards. Marigold reports the quantity of solution reporting to the LCRS to the NDEP in accordance with its WPCP. The Stormwater Pond is constructed with a single HDPE liner and does not have an LCRS.

The numerical standard for cyanide in groundwater, applicable to the Marigold operation, is 0.20 mg/L WAD (Drinking Water Standard). Marigold monitors groundwater quality at numerous wells both upgradient and downgradient of the process facilities. During this audit, the auditor reviewed groundwater quality data over the three-year period between ICMC recertification audits. The data demonstrate that WAD cyanide levels were below the analytical detection limit (<0.01 mg/L) for all quarters, at all locations except one, which is located at the downstream toe of the reclaimed TSF dam. Reported values of 0.04 and 0.042 mg/L (well below the protective standard) occurred at this location during the third and fourth quarters of 2012, respectively.
The Marigold operation has not experienced seepage over the three-year period between ICMC recertification audits that has caused cyanide concentrations in groundwater to rise above the protective standard.

**Standard of Practice 4.7**

*Provide spill prevention or containment measures for process tanks and pipelines.*

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**Discussion of the basis for this Finding and any Identified Deficiencies:**

All cyanide process tanks at the Marigold operation are provided with competent secondary containment, which provides adequate capacity for the largest tanks located within the containments. The cyanide storage tank and the carbon columns at Area 1 are located within a curbed concrete containment with direct overflow to Barren Pond 1. The storage tank foundation is solid mass concrete (i.e., the concrete containment slab) and the carbon columns are supported above the floor slab. The concrete containment at Area 2 is over-lined with HDPE for additional protection, and contains an overflow connection to the adjacent (inactive) additional cyanide storage containment. The cyanide tank at Area 2 rests on steel I-beams supported by the concrete containment slab. The cyanide storage tank at Area 3 is a skid-mounted horizontal tank, which sets on support beams on top of the gravel layer within the lined leach pad area. The containments provided for all three cyanide storage tanks provide protection against seepage to the subsurface.

The process tanks at the Process Building, which comprise the Carbon Strip Circuit, are provided with concrete secondary containment. The concrete floor and stem walls of the Process Building provide secondary containment for the tanks and vessels located inside. The tanks and vessels either set directly on top of the concrete floor slab or are supported above the floor. A curbed, concrete containment area located outside the building provides secondary containment for two large process tanks (former carbon-in-leach tanks) used in the Carbon Strip Circuit. This containment encompasses six tank foundations (two with tanks and four vacant). The exterior and interior containment areas are interlinked via a drain through the exterior wall of the Process Building. The two tanks rest on octagon-shaped, concrete ring-beam foundations with soil fill material in the center area of each ring. Design drawings indicate that the tanks were constructed with two floors; a concrete slab inside the tank supported by fill material (providing primary containment) and the steel tank bottom itself (providing secondary containment).

Cyanide solution or cyanide contaminated water collected in the secondary containment at Area 1 and Area 2 would report to the process pond system via gravity flow. At Area 1, Marigold would hose any residual spillage in the concrete containment into Barren Pond 2. Marigold implements written SOPs to manage solution collected in the isolated containment at Area 2 and other secondary containments. Cyanide solution or cyanide contaminated
water collected in the secondary containment at the Carbon Strip Circuit flows into a concrete floor sump inside the building. Collected water is pumped and directly conveyed to Barren Pond 2 via a buried pipe-in-pipe system.

Marigold places large diameter process solution pipelines within HDPE-lined containment channels and concrete structures. Pipe-in-pipe systems are used for buried pipes and pipes located outside of lined or concrete containment. Buried pipes include those at road crossings and the pipeline connecting the Carbon Strip Circuit floor sump to Barren Pond 2. Additionally, the barren solution pipelines are instrumented with radio alarms that alert operators of pressure losses. No pipelines requiring special protection needs were identified at the Marigold operation.

All cyanide process tanks at the Marigold operation are constructed of carbon steel. Process solution pipelines are either steel or HDPE. These materials are compatible with cyanide and high pH conditions.

**Standard of Practice 4.8**

*Implement quality control/quality assurance procedures to confirm that cyanide facilities are constructed according to accepted engineering standards and specifications.*

- The operation is in **Full Compliance** with Standard of Practice 4.8.
- [ ] Substantial Compliance
- [ ] Non-Compliance

**Discussion of the basis for this Finding and any Identified Deficiencies:**

Please refer to Section 0.3 above for a list of the active cyanide facilities at the Marigold operation and to the previous ICMC Detailed Audit Findings Reports (December 2006 and October 2009) for the construction quality assurance and quality control (“QA/QC”) documentation provided for the cyanide facilities in operation at that time.

New cyanide facilities and modifications to existing cyanide facilities constructed subsequent to the 2009 ICMC recertification audit, include:

- Cell 16 expansion, which includes the leach pad expansion (pad and construction of Pregnant Pond 4), a new carbon column train, pump upgrades, redirected barren solution lines, and a substation upgrade; and
- Cell 17 expansion, which includes a leach pad expansion.

A construction project to reline the eastern channel at the heap leach pad (Cells 1 and 2) was ongoing during the 2009 recertification audit and was completed during the same month (July). Therefore, the associated documentation for the QA/QC program was reviewed during this 2012 audit.
Marigold implemented QA/QC programs, conducted by qualified persons, during the construction of the heap leach pad expansions and channel reline project. All reports provide a statement that the construction was performed and completed in accordance with design specifications and current industry standards.

Marigold retains all construction documentation associated with its cyanide facilities. The auditor verified onsite retention of heap leach facility construction reports for Cells 1/2, 3, and 9 through 17). Reports were missing for Cells 4 through 9; however, Marigold indicated that it maintains some of the older reports in offsite storage. The retention of QA/QC construction documentation for the carbon columns and the cyanide offload/storage facilities was also verified.

Marigold commissioned a qualified person (professional engineer) to perform an inspection of the newly constructed carbon columns to verify the suitability of the construction. The inspection covered the footings, structure, tanks, and upper walkway of the new carbon column train. Marigold also commissioned a qualified person (professional engineer) to perform an inspection of the Carbon Strip Circuit facilities since original QA/QC documentation is not available. The inspection covered the process tanks and vessels; concrete walls, footers, slabs and floor sumps; piping; valves; pumps; and related structural support systems, and found the facilities to be in satisfactory condition.

**Standard of Practice 4.9**

*Implement monitoring programs to evaluate the effects of cyanide use on wildlife, surface and ground water quality.*

- [ ] Full Compliance
- [ ] Substantial Compliance
- [ ] Non-Compliance

**Discussion of the basis for this Finding and any Identified Deficiencies:**

In accordance with its WPCP, Marigold implements the procedure “Field Sampling Protocols” as a field guide to standard environmental water sampling techniques. The WPCP and the WPCP Renewal Application also provide groundwater and surface water monitoring procedures.

A qualified person, the former Environmental Manager at Marigold (currently Manager Environment with Goldcorp USA), originally developed Field Sampling Protocols. As documented in the 2009 ICMC audit report, the plan has been reviewed and approved by a professional engineer registered in the State of Nevada and a Hydrologist. Marigold environmental personnel periodically update the procedure, including this year to reflect the current WPCP. The Marigold Environmental Manager reviews all document updates for approval.

The water sampling procedure specifies how and where samples are collected, identifies monitoring points, monitoring parameters and monitoring frequency required by the WPCP, as well as the required analytical profiles.
reported to NDEP for the samples collected from the specified monitoring points. The protocol includes chain of custody and transportation procedures and provides a map with the locations of the monitoring points.

Marigold records field conditions for sampling events on the Field Monitoring Sheets. These logs record the sampling point, date, time, initials of sampler, static water level, and comments such as surface water flow.

As discussed in Sections 4.5 and 4.6 above, Marigold conducts monthly and quarterly monitoring of surface water and groundwater both upgradient and downgradient of the process facilities, with water samples collected quarterly and analyzed in accordance with the WPCP. Leak detection systems are monitored weekly. As discussed in Section 4.4 above, Marigold monitors for wildlife activity and mortalities daily as a component of the pre-shift area inspections and submits quarterly Wildlife Mortality Reports to NDOW in accordance with its Industrial Artificial Pond Permit. Marigold’s monitoring program is designed to adequately characterize environmental media and to identify changes in a timely fashion.
5.0 DECOMMISSIONING

Protect communities and the environment from cyanide through development and implementation of decommissioning plans for cyanide facilities.

Standard of Practice 5.1

Plan and implement procedures for effective decommissioning of cyanide facilities to protect human health, wildlife and livestock.

The operation is in [☐] Full Compliance [ ] Substantial Compliance [ □] Non-Compliance with Standard of Practice 5.1.

Discussion of the basis for this Finding and any Identified Deficiencies:

Section 3 of the Marigold Plan of Operations provides the Reclamation Plan, which includes, but is not limited to, stabilization, detoxification and disposal measures necessary to reclaim process ponds, heaps, and equipment. The heaps will be leached until economic recovery has been achieved and then allowed to drain, with ongoing monitoring of draindown quantity and quality to determine the concentration of key constituents in the draindown solutions. The draindown solutions will be sprayed onto the side slopes of the heap using a fogger system to enhance solar evaporation and reduce the volume of solution to a level that can be accommodated by proposed evapotranspiration basins created in one or more reclaimed solution ponds, which will passively treat the draindown solutions.

Process ponds not incorporated into the evapotranspiration treatment facilities will be drained of liquid and/or the liquid will be allowed to evaporate. The synthetic liners will be removed or folded and buried in place. Residual sludge will be tested and buried in place or disposed of in accordance with state and federal regulations, as warranted by the test results. Buildings, tanks and equipment associated with the leaching facilities will be detoxified and removed. Detoxification measures include freshwater rinsing or active treatment of facilities that contained cyanide solutions. Process solutions will be evapotranspired or placed in a treatment facility. Other chemicals not salvaged will be removed and properly disposed off site.

In accordance with regulatory requirements, Marigold must submit a Permanent Closure Plan to the NDEP at least two years before the anticipated date of permanent closure. The Permanent Closure Plan will incorporate procedures, methods and schedules for stabilizing spent process materials based on information and experience gathered throughout the active life of the facility.

The current Reclamation Plan states that the mine life will include approximately six years of active mining with concurrent reclamation conducted on inactive mine areas during this period. Up to an additional three years will be required for ongoing ore processing, site closure and final reclamation. Chemical stabilization of the spent heap...
material is conservatively estimated to take five years. In accordance with regulatory requirements, Marigold will prepare a detailed closure plan for each process facility component, with a more detailed schedule, at least two years prior to the anticipated closure date.

As stipulated by regulatory permits, Marigold is required by the NDEP and the U.S. Department of Interior, Bureau of Land Management (“BLM”) regulations to review and update the Reclamation Plan and associated costs at least every three years. Marigold also updates its Reclamation Plan as any mine components change and during major permit revisions, as necessary. The most recent update is dated February 2012 and the prior version is dated January 2010. Financial accounting procedures require that mine closure liabilities be reevaluated every year and Goldcorp internal policy, i.e. its Asset Retirement Obligations (“ARO”) Policy, requires the Reclamation Plan to be reviewed annually. Furthermore, as stated in its ARO Policy, Goldcorp’s Corporate Governance Program requires that external environmental audits of reclamation/closure plans and associated cost estimates be conducted every two years.

**Standard of Practice 5.2**  
*Establish an assurance mechanism capable of fully funding cyanide related decommissioning activities.*

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**Discussion of the basis for this Finding and any Identified Deficiencies:**

Marigold uses the most current version of the Standardized Reclamation Cost Estimator, a cost-estimating program developed and approved by BLM and NDEP, to prepare annual bond updates. The estimate provides costs for “Detoxification / Water Treatment / Disposal of Wastes” which includes the cyanide-related decommissioning measures outlined in its Reclamation Plan. Handling of hazardous materials includes the cost of decontaminating, neutralizing, disposing, treating and/or isolating all hazardous materials used, produced, or stored on the site. The bond estimates are based on third-party implementation of the closure and reclamation activities, and include indirect costs such as Engineering and Design, Contingency, Insurance, Performance Bond, Contractor Profit, Contract Administration, and a BLM Indirect Cost.

Marigold updates its reclamation bond annually and during any Minor or Major Modification to the WPCP or Plan of Operations (known as phase bonding). Additionally, financial accounting procedures require that mine closure liabilities be reevaluated every year and Goldcorp internal policy (i.e., its ARO Policy) requires the closure plan to be reviewed annually. Marigold provided written correspondence with BLM documenting annual reclamation cost estimates.

The BLM Nevada State Office currently holds two reclamation bonds, which guarantee surface reclamation for operations conducted by Marigold under its Plan of Operations. Marigold is the obligor to one bond and Barrick
(HMC) Mining Company (“Barrick”) is the obligor to the other. As discussed above, the calculated bond amounts include the cyanide-related decommissioning measures outlined in Marigold’s Reclamation Plan. As evidence of the financial mechanism established, Marigold provided a copy of the Irrevocable Standby Letter of Credit issued in favor of the BLM providing financial assurance for Goldcorp’s obligation to the Reclamation Bond, and the Irrevocable Standby Letter of Credit providing financial assurance for Barrick’s obligation.
6.0 WORKER SAFETY

Protect workers’ health and safety from exposure to cyanide.

Standard of Practice 6.1

Identify potential cyanide exposure scenarios and take measures as necessary to eliminate, reduce and control them.

The operation is in [ ] Full Compliance [ ] Substantial Compliance [ ] Non-Compliance with Standard of Practice 6.1.

Discussion of the basis for this Finding and any Identified Deficiencies:

As discussed in Section 4.1 above, Marigold has developed procedures describing how cyanide-related tasks are to be conducted, including the requirement to monitor all enclosed areas or confined spaces for HCN content before entering. SOPs also describe how to conduct equipment decontamination prior to maintenance and require workers to complete a “Confined Space Entry” Permit if a confined space must be entered to perform work. The Marigold cyanide-related SOPs require use of proper PPE and pre-work inspections. In addition to the specific task-related SOPs, Marigold performs Area Inspections prior to every shift, whereby workers inspect for any conditions that may adversely affect safety or health.

Marigold operates under an “open door policy” and implements several programs and venues, whereby workers have the opportunity to provide input regarding health and safety matters, including routine safety meetings, an environmental, health and safety committee represented by all departments, suggestion forms collected in Safety Suggestion Boxes located on site, and a program whereby workers review and evaluate work areas and tasks. As discussed in Section 4.1 above, the Marigold “Management of Change” procedure addresses worker health and safety risks.

Standard of Practice 6.2

Operate and monitor cyanide facilities to protect worker health and safety and periodically evaluate the effectiveness of health and safety measures.

The operation is in [ ] Full Compliance [ ] Substantial Compliance [ ] Non-Compliance with Standard of Practice 6.2.

Discussion of the basis for this Finding and any Identified Deficiencies:
The pH adjustment system consists of a dry lime silo located on the haulage access to the leach pad as well as liquid caustic tanks at the carbon columns and at the Process Building. A written SOP defines the target pH level for controlling evolution of HCN gas at 10 to 10.5. Marigold takes routine samples and adjusts levels at Barren Pond 2 accordingly by adding caustic solution. To further regulate pH levels, Marigold adds lime to the run-of-mine ore prior to pad loading. The auditor reviewed random daily pH records over the three-year period between ICMC recertification audits and found values within the target range in the Barren Ponds with drops below 10 occurring in the pregnant solution.

Marigold conducts periodic HCN Surveys of all cyanide process areas. Although there is not an established frequency, four surveys were conducted over the three-year period between the 2009 ICMC recertification audit and this audit. Results of the surveys demonstrate that all recorded HCN levels were well below 4.7 parts per million. With the exception of the Carbon Strip Circuit, all Marigold cyanide facilities are located outside in open-air environments. The Carbon Strip Circuit is located inside the Process Building, which is well ventilated. Written SOPs require workers to monitor all enclosed areas or confined spaces for HCN content (using a handheld gas detector) before entering.

Marigold does not utilize any fixed, continuous HCN monitors and uses portable (handheld) HCN monitoring devices only. The portable monitors in use during this recertification audit were GasAlert Extreme single gas detectors and Marigold indicated that three units were in service over the past 12 months. Marigold currently calibrates the monitors on the frequency recommended by the manufacturer and according to a written SOP. In the past, trained Marigold personnel had been calibrating the devices. Recently, Marigold began outsourcing the calibrations and following this onsite audit, purchased an additional monitor to facilitate the calibration cycle and repairs. Marigold also maintains a Multi-Gas Monitor in its Mine Rescue Trailer for use during emergency response events. Marigold provided current calibration records.

Marigold has installed signs at appropriate locations advising workers that cyanide is present and of the associated dangers. These areas include the leach pad road, process solution tanks and pipelines, process ponds, cyanide offload/storage areas, and all process areas. Marigold labels cyanide storage and process tanks and piping alerting workers of the contents and flow directions. Copious signage was located throughout the heap leach and process areas. Material Safety Data Sheets ("MSDS"), safety procedures, first aid and cyanide antidote kits are provided at the three cyanide offload/storage facilities. All written information is in English, the language of the workforce.

Emergency showers, low-pressure eyewash stations, and appropriate fire extinguishers are located throughout the process areas. Marigold tests the shower/eyewash stations before each shift, and in addition, tests the stations at the cyanide/offload storage facilities before each offload. Marigold performs monthly inspections of the fire extinguishers and hires a contractor to perform annual inspections of the fire equipment.

Marigold implements an "Incident Investigation Program" providing guidance and the basic requirements for conducting incident investigations at the Marigold Mine. Additionally, Marigold must complete Mine Safety and Health Administration ("MSHA") reports that include any cyanide-related worker exposures, which require treatment or result in death, and must notify NDEP of human and animal mortality or injury. The Marigold Safety
Manager indicated that no such incidents have occurred at the Marigold Mine over the three-year period between the 2009 ICMC recertification audit and this recertification audit.

**Standard of Practice 6.3**

*Develop and implement emergency response plans and procedures to respond to worker exposure to cyanide.*

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**Discussion of the basis for this Finding and any Identified Deficiencies:**

The Marigold Emergency Response Plan ("ERP") provides a listing of medical, first aid and communication equipment. The medical and first aid equipment includes oxygen, automatic external defibrillators, cyanide antidote kits and medical trauma kits. Oxygen and the medical trauma kits are located at the Area 1, Area 2 and Area 3 cyanide offload/storage facilities as well as other locations throughout the mine site. Cyanide antidote kits are located in the Assay Lab, Metallurgical Lab, Refinery, Emergency Vehicle, and Area 1 and Area 3 cyanide offload/storage facilities. Marigold inspects its medical and first aid equipment regularly. The primary means of communication while on site is the radio system and cellular and landline telephones are accessible on site as well.

The antidote kit at Area 2 (located in the Metallurgical Lab) is kept in a refrigerator at room temperature. The kits at Area 1 and Area 3 are contained within small, electric temperature-controlled coolers regulated between 66 and 77 degrees Fahrenheit. During this recertification audit, the auditor verified that the antidotes located at the three cyanide offload/storage areas were stored properly and had not expired. At the time of this recertification audit, Marigold had 37 First Responders trained to respond to cyanide exposures, 11 of which were trained in Hazardous Materials Operations. Each crew has at least one First Responder on every shift. Marigold has a dedicated Emergency Response Vehicle located on site, fully equipped to treat workers exposed to cyanide (e.g., oxygen, automatic external defibrillator and a cyanide antidote kit).

The ERP is a detailed planning tool intended to provide in-depth information on various types of emergencies that could typically occur at the mine (please refer to Section 7.1 below). Marigold has made the Humboldt General Hospital and the Battle Mountain General Hospital aware of the potential need to treat patients for cyanide exposure.

Marigold periodically conducts mock drills in accordance with its Emergency Program Management Policy and provided documentation of three cyanide-related mock emergency drills conducted subsequent to the 2009 ICMC recertification audit. Each drill evaluation documents the participants, objectives, observers, timeline, potential hazards and safety concerns, notes, and includes a debrief (strengths and suggested improvements) and corrective actions. Marigold also conducts walkthrough training drills to train Emergency Response Team members.
7.0 EMERGENCY RESPONSE

Protect communities and the environment through the development of emergency response strategies and capabilities.

Standard of Practice 7.1

Prepare detailed emergency response plans for potential cyanide releases.

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Discussion of the basis for this Finding and any Identified Deficiencies:

The Marigold Mine Emergency Response Program is organized into three individual components designed to streamline the planning and execution of the program. These components include: the Emergency Program Management Policy, which provides the basic framework on how the entire program is managed and reviewed; the ERP, which is a detailed planning tool intended to provide in-depth information on various types of emergencies that could typically occur at the mine; and Emergency Response Checklists, which provide systematic procedures that supervisors would typically implement during an emergency along with the applicable phone numbers and necessary resources typically needed for the emergency specified. The Emergency Response Checklists include emergency procedures for cyanide medical emergencies, hazardous materials spills, confined space rescue, process pond overflow and heap leach failure or washout. In addition to the ERP, Marigold has developed written SOPs regarding response to accidental cyanide releases and exposures. The Marigold Emergency Response Program considers the potential cyanide failure scenarios as appropriate for the operation’s circumstances.

The WPCP Renewal Application presents Marigold’s methods for prevention, containment and handling of spills and/or releases of materials outside containment (i.e., the fluid management system) and outlines responsibilities for notification of the various state and federal agencies in the event of a release. Additionally, the WPCP provides emergency and spill contingency plans for spills and releases of solutions from various portions of the fluid management system. Scenarios covered include spills of cyanide, solution pond leaks and overtopping of process solution ponds. The WPCP Renewal Application provides measures to address power outages and pump failures. Additionally, Marigold has implemented Emergency Response Checklists addressing earthquakes and flooding.

The cyanide producer and its transporter are responsible for cyanide spills up to the point of offloading at the Marigold site. Nonetheless, the Marigold ERP states that, in the event of a cyanide transportation emergency, Marigold will provide emergency response in the interim until the DuPont Response Team arrives. However, Marigold clarified that it would not provide offsite assistance unless specifically requested by DuPont, in writing.
As best management practice, Marigold will respond to transportation emergencies occurring on the mine property.

**Standard of Practice 7.2**

*Involve site personnel and stakeholders in the planning process.*

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**Discussion of the basis for this Finding and any Identified Deficiencies:**

Marigold is actively involved with the Local Emergency Planning Committee (“LEPC”), of which current members include area hospitals, County Commissioner’s Office, Emergency Planning and Community Right-to-Know Act Facility, volunteer fire departments, the school district, County Sherriff, County Search and Rescue, and Community Health. During this recertification audit, the auditor reviewed LEPC minutes from meetings held since the 2009 ICMC recertification audit and verified that cyanide-related topics were presented and discussed. In accordance with the Marigold Emergency Program Management Policy, local emergency agencies are encouraged to participate in emergency drills. Marigold provided a copy of the updated ERP to the air ambulance service and to the LEPC for review and use in case their involvement is required.

Marigold provides the opportunity to communicate issues of concern with the public through LEPC meetings. Additionally, the regulatory process for new permits and permit revisions provides opportunity for public review and comment associated with potential releases. In 2009, Marigold extended an invitation to the Battle Mountain General Hospital and Humboldt General Hospital to participate in cyanide training organized by Marigold and DuPont. In 2012, Marigold conducted an ICMC Emergency Response Training and Community Outreach. Participants included the Battle Mountain and Humboldt hospitals, the Battle Mountain Volunteer Fire Department, the Humboldt County Sherriff and Winnemucca Police Department. Training was provided on cyanide, PPE and emergency response and environmental considerations, which included a tour of the Marigold cyanide facilities and observation of a cyanide offload event.

**Standard of Practice 7.3**

*Designate appropriate personnel and commit necessary equipment and resources for emergency response.*

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Discussion of the basis for this Finding and any Identified Deficiencies:

According to the ERP, the onsite Shift Supervisor responsible for the area where an emergency occurs, or his/her designee, will assume responsibility as the Incident Commander until relieved by a senior supervisor or manager. Duties of the Incident Commander include commanding, controlling and communicating the response. The Safety Manager and the Environmental Department will assist the Incident Commander at the incident scene if the incident is located at the mine site. Other departments (listed in the ERP) will provide needed assistance to the Incident Commander as required. The current version of the Marigold ERP describes the roles of outside responders, medical facilities and communities in the emergency response procedures.

The ERP contains a list identifying the current (2012) and trained Marigold Emergency Responders. The Emergency Response Checklists provide emergency contact numbers for the DuPont Cyanide Response Team and relevant local external emergency agencies, and list Mine Emergency Responders as a resource under Applicable Resources. Depending on the type of emergency, the Mine Emergency Responders may include Medical and HAZMAT Response Teams. One member of the HAZMAT Response Team must be a First Responder qualified to administer the cyanide antidote.

The ERP provides systematic Mayday call-out procedures. Marigold contacts Battle Mountain Hospital Ambulance to rendezvous at Interstate 80 for transfer of victims. If the offsite ambulance is not available, Marigold transports the victim to the hospital in its dedicated onsite emergency vehicle. Air ambulance service is also available for air evacuations, if necessary. Marigold has made formalized arrangements with the local hospitals regarding its use of cyanide within the hospitals’ potential response areas and verified that the hospital staff is able to respond to potential cyanide exposures.

Standard of Practice 7.4
Develop procedures for internal and external emergency notification and reporting.

The operation is in Full Compliance with Standard of Practice 7.4.

Discussion of the basis for this Finding and any Identified Deficiencies:

The ERP and Emergency Response Checklists include procedures and contact information for notifying management, outside response providers and medical facilities. The action lists with each Emergency Response Checklist provide notification procedures. The ERP provides the protocol for internal communications.

The WPCP provides reporting requirements for spills and releases and the WPCP Renewal Application describes notification requirements. In accordance with the WPCP Renewal Application, depending upon the magnitude and type of spill, notification of one or all of the following agencies is required: 1) NDEP; 2) Nevada Division of
Emergency Management; and 3) National Response Center. Additionally, as stated in the WPCP application, under Section 304 of the Community Right to Know Act, Marigold must report to the State and LEPC, releases involving over 10 pounds of cyanide, or of reportable quantities of other hazardous substances, beyond the facility boundary that may potentially result in exposure to individuals outside of the facility boundary. Notification procedures for such a release are provided.

The Marigold ERP provides procedures for communication with the media. The General Manager or his/her designated representative is the only person that corresponds with the media, non-mine personnel or government agencies (except to make required regulatory reports). If the General Manager is absent, all media inquiries are referred to the Goldcorp corporate office. Marigold has developed a written procedure providing guidance on communications with the media. As described above, Emergency Response Checklists include procedures and contact information for members of the LEPC (affected community). Reporting Requirements under the WPCP provide additional reporting procedures for spills and releases.

**Standard of Practice 7.5**

Incorporate into response plans and remediation measures monitoring elements that account for the additional hazards of using cyanide treatment chemicals.

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**Discussion of the basis for this Finding and any Identified Deficiencies:**

SOP “Sodium Cyanide Spills” provides the procedures for responding to cyanide spills outside of containment and contains a warning not to use sodium hypochlorite near oil or petroleum products or any surface water sources. The plan addresses recovery or neutralization of solutions or solids, decontamination of soils or other contaminated media, and management and/or disposal of spill clean-up debris. A release from the operation could not adversely impact a drinking water supply, as there are no drinking water supplies nearby the Marigold site (Marigold provides bottled water for its drinking water supply).

The WPCP Renewal Application also provides procedures for remediation of cyanide spills. The application states that spilled cyanide solutions would be neutralized as necessary with hypochlorite, hydrogen peroxide or other acceptable methods and spills of solid cyanide would be mixed with absorbent materials as necessary to minimize cyanide dust generation during cleanup (Marigold uses solid cyanide in its laboratories only). Cyanide spills would be disposed of on the heaps or in the solution ponds, depending upon the nature of the spill. NDEP evaluates remediation requirements for spills on a case-by-case basis. In some cases, confirmatory testing is not required if impacted soils can be feasibly excavated to a specified depth below underlying dry soils.
Marigold will conduct necessary monitoring activities in the event of a release in accordance with its WPCP and in coordination with NDEP. In accordance with the WPCP, in the event of spills or releases, Marigold must take all available and reasonable actions, including more frequent monitoring, to: determine the effect and extent of the incident; minimize any potential impact to the waters of the State, domestic animals and wildlife; and to minimize the endangerment of the public health and safety.

**Standard of Practice 7.6**

*Periodically evaluate response procedures and capabilities and revise them as needed.*

The operation is in **Full Compliance** with Standard of Practice 7.6.

- [ ] Full Compliance
- [ ] Substantial Compliance
- [ ] Non-Compliance

**Discussion of the basis for this Finding and any Identified Deficiencies:**

The Emergency Program Management Policy requires that the Marigold Safety Manager review the ERP annually and revise it periodically. During this ICMC recertification audit, Marigold provided a copy of its 2009 ERP and the most current version, dated September 2012. The primary change implemented, included reformatting the document to be more streamlined and user friendly.

Marigold provided documentation of three cyanide-related mock emergency drills conducted subsequent to the 2009 ICMC recertification audit. The drills conducted include cyanide exposures and releases. Accordingly, the drill evaluation reports identify corrective actions for implementation. Marigold also conducts walkthrough training drills to train Emergency Response Team members. The auditor reviewed a walkthrough drill conducted in 2012, involving a process maintenance employee exposed to reagent-grade cyanide solution during a pipe rupture. Additionally, Marigold conducts Emergency Response Evaluations following actual incidents, which identify strengths and areas of concern regarding the response, and provide corrective actions.
8.0 TRAINING

Train workers and emergency response personnel to manage cyanide in a safe and environmentally protective manner.

Standard of Practice 8.1

Train workers to understand the hazards associated with cyanide use.

| The operation is in | ☑ Full Compliance | ☐ Substantial Compliance | ☐ Non-Compliance | with Standard of Practice 8.1. |

Discussion of the basis for this Finding and any Identified Deficiencies:

The Marigold Safety Department provides training to all Marigold employees and visitors regarding recognition of the cyanide materials present at the operation, the health effects of cyanide, symptoms of cyanide exposure, and procedures to follow in the event of exposure. Employees are trained on the physical properties of sodium cyanide; proper PPE; general precautions and safety rules; health hazards and exposures to HCN; symptoms of cyanide poisoning; emergency response, first aid and medical treatment; administering the antidote, and decontamination of equipment prior to performing work. The “Cyanide Safety Training” slide presentation covers uses of cyanide at the Marigold operation, cyanide toxicity, HCN characteristics and threshold limits, exposure effects, PPE, exposure symptoms, emergency response procedures, first aid treatment and antidote kits (locations, contents and use). Marigold uses this presentation material to train all employees.

Marigold provides annual refresher training regarding cyanide safety in conjunction with required MSHA annual refresher training. Marigold uses MSHA Form 5000-23 as documentation of this training. The “Annual Refresher Training” slide presentation covers the same topics as the “Cyanide Safety Training” slide presentation. Specifically, topics include industrial uses, physical and chemical characteristics, safe handling chemical incompatibilities, poisoning symptoms, first aid for cyanide overexposure and emergency response.

The auditor reviewed personnel files to verify that employees receive required training. In addition to the MSHA forms, personnel files include a listing of all training completed over the duration of employment. The Safety Department manages and maintains training records for all employees.
Standard of Practice 8.2

Train appropriate personnel to operate the facility according to systems and procedures that protect human health, the community and the environment.

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Discussion of the basis for this Finding and any Identified Deficiencies:

Completion of “Training Acknowledgment” cards, which document training dates and signatures of instructors and trainees, are required for all cyanide-related (and non cyanide-related) work tasks. The “Training Acknowledgment” cards themselves do not authorize trainees to perform the associated work tasks unsupervised; however, the trainee must complete the training requirements and receive an MSHA Form 5000-23 before performing the tasks unsupervised. Process Supervisors and lead operators provide the required training, which includes review of the related SOP and hands-on demonstration. The Marigold Process Supervisor, a qualified and MSHA certified trainer, conducts the majority of task training at Marigold. This task-specific training supplements the cyanide safety training provided to all employees.

In addition to the SOPs, Marigold implements a “Part 48 Training Plan” required by MSHA under the Code of Federal Regulations (Title 30, Part 48). This plan identifies approved instructors and tasks covered under different the training programs (i.e., annual refresher, new miner, experienced miner, and task and hazard training). Additionally, Marigold provides task-related refresher training if a worker has not performed the task over a one-year period. As previously discussed in Section 8.1 above, cyanide safety training is provided annually.

Certain cyanide-related SOPs include written exams that employees must pass before performing the tasks. Marigold also implements its “Looking Good for Safety” program, whereby Marigold employees observe peers performing work tasks and document findings on a standardized evaluation form. The Area Supervisor reviews and signs the forms, which are further evaluated by the Marigold environmental, health and safety committee. During this field audit, Marigold was implementing an additional evaluation program, whereby supervisors and lead personnel evaluate work tasks. Finally, Field Level Risk Assessments are conducted at the beginning of special projects and infrequent tasks (and randomly) to evaluate and adequately control hazards.

The Safety Department manages and maintains training records for all employees. Each employee file contains a history of training completed over the duration of employment. The training records include the name of the trainer, date of training and topics covered. The record of training history includes a column documenting the “Proficiency” of the trainee.
Standard of Practice 8.3

Train appropriate workers and personnel to respond to worker exposures and environmental releases of cyanide.

The operation is in [☑] Full Compliance [ ☐ ] Substantial Compliance [ ☐ ] Non-Compliance with Standard of Practice 8.3.

Discussion of the basis for this Finding and any Identified Deficiencies:

All Marigold employees receive training on cyanide safety, which among other topics, includes emergency response, first aid and medical treatment and administering the antidote. Additionally, all employees receive a foldable pocket card summarizing symptoms and first aid/antidote procedures to keep on person while on site. The Marigold Environmental Department also provides New Hire Training, which includes a basic overview of air, land, vegetation, water, wildlife (controls), and spills (awareness, tracking, prevention). Each department receives department-specific environmental training, regarding MSDS, spills and material management, which is more detailed than the new hire training.

Personnel involved with the cyanide offloads are trained on the task-specific SOP, which addresses cyanide spills. Additionally, process personnel receive training on procedures specific to responding to cyanide spills. The Marigold protocol for responding to cyanide releases and exposures is for workers witnessing the event to notify Emergency First Responders via the Mayday Procedure. At the time of this recertification audit, Marigold had 37 First Responders trained to respond to cyanide exposures. Each crew has at least one First Responder on every shift.

First Responders must pass a written exam to become qualified and the Marigold Emergency Program Management Policy requires all responders to be certified in accordance with state and federal requirements. Marigold First Responders receive training to ensure that all First Responders are properly trained to provide basic first aid for personnel exposed to cyanide; properly trained to administer amyl nitrite; properly trained on the location of the cyanide antidote kits; aware of the hazards associated with sodium cyanide and HCN gas; and properly trained on victim and rescuer decontamination procedures. First Responders receive refresher training and participate in emergency response drills whereby the use of emergency equipment is tested.

The Marigold Emergency Program Management Policy requires the emergency response team to complete monthly training to maintain skills and/or resolve identified training deficiencies. In 2012, Marigold conducted an ICMC Emergency Response Training and Community Outreach and provided training on cyanide, PPE and emergency response and environmental considerations. Participants included the Battle Mountain and Humboldt hospitals, the Battle Mountain Volunteer Fire Department, the Humboldt County Sheriff and Winnemucca Police Department. Marigold evaluates its emergency drills from a training perspective to determine if personnel have the knowledge and skills required for effective response.

Marigold Mine

NAME OF MINE

SIGNATURE OF LEAD AUDITOR

DATE

March 15, 2013
The auditor interviewed field personnel responsible for performing cyanide-related tasks as verification regarding cyanide training received and understanding of responsibilities associated with spill response. Marigold provided documentation demonstrating that it retains records of the emergency response training provided. The training records for each employee include the name of the trainer, date of training and topics covered. The record of training history includes a column documenting the “Proficiency” of the trainee.
9.0 DIALOGUE

Engage in public consultation and disclosure.

Standard of Practice 9.1

Provide stakeholders the opportunity to communicate issues of concern.

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Discussion of the basis for this Finding and any Identified Deficiencies:

Marigold provides several means for stakeholders to communicate issues of concern regarding cyanide use and management at the mine. These include LEPC Meetings, site tours, corporate websites and public comment.

Standard of Practice 9.2

Initiate dialogue describing cyanide management procedures and responsively address identified concerns.

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Discussion of the basis for this Finding and any Identified Deficiencies:

Please see Section 9.1 above. Additionally, Goldcorp implements its Global Reporting Initiative ("GRI") Framework as the basis for sustainability reporting. The GRI Framework sets out the principles and indicators used to measure and report economic, environmental and social performance, and Marigold reports on cyanide-related activities through this medium. This process is enhanced by publishing other company reports, including Corporate Sustainability Reports ("CSRs"), CSR Highlights – Factsheets, and the “Above Ground Magazine” (all publicly available via the Goldcorp website at [http://goldcorp.com/default.aspx?SectionId=45c6ec70-0cf7-4c7c-b509-ac70506ea68c&LanguageId=1](http://goldcorp.com/default.aspx?SectionId=45c6ec70-0cf7-4c7c-b509-ac70506ea68c&LanguageId=1)).

In 2009, Marigold extended an invitation to the Battle Mountain General Hospital and Humboldt General Hospital to participate in cyanide training (e.g. cyanide characteristics, handling, first aid procedures and medical treatment) organized by Marigold and DuPont. In 2012, Marigold conducted an ICMC Emergency Response Training and Community Outreach. Participants included the Battle Mountain and Humboldt hospitals, the Battle Mountain Volunteer Fire Department, the Humboldt County Sherriff and Winnemucca Police Department.
Training was provided on cyanide, PPE, emergency response and environmental considerations and included a tour of the Marigold cyanide facilities and observation of a cyanide offload event.

Standard of Practice 9.3

*Make appropriate operational and environmental information regarding cyanide available to stakeholders.*

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**Discussion of the basis for this Finding and any Identified Deficiencies:**

The WPCP Renewal Application and the WPCP Permit Fact Sheet provide descriptions of the “process fluid management” facilities, which include the cyanide facilities. The WPCP is renewed regularly and each renewal provides a formal opportunity for public comment. The current permit, effective as of March 23, 2012, is valid until August 24, 2014. No public comments were received during the public comment period held for the most recent permit renewal. Additionally, as a signatory company to the ICMC, Marigold was initially certified under the Code on January 2, 2007 and subsequently recertified on January 12, 2010. The summary reports for these audits are made available to the public via the ICMC website. The Goldcorp corporate website advertises that Goldcorp is signatory to the Code.

As discussed in Section 9.2 above, Goldcorp implements its GRI Framework as the basis for sustainability reporting, which is made available to the public via the Goldcorp website. The GRI Framework sets out the principles and indicators used to measure and report economic, environmental and social performance, and Marigold reports on cyanide-related activities through this medium. The report provides data for incidents of, and fines or non-monetary sanctions for, non-compliance with applicable environmental regulations; and total number and volume of significant spills.

Marigold must complete MSHA reports that include any cyanide-related worker exposures, which require treatment or result in death and the WPCP requires oral reporting to the NDEP of human and animal mortality or injury, followed by a written incident report (see Section 6.2 above). Marigold indicated that no such incidents have occurred at the Marigold Mine over the three-year period between the 2009 ICMC recertification audit and this recertification audit. The WPCP provides reporting requirements for spills and releases and the WPCP Renewal Application describes notification requirements (see Section 7.4 above). These reports become public record.

Additionally, Marigold conducts quarterly and annual reporting as set forth in the WPCP, which include a summary of cyanide spills and releases. Spills occurring within the spill release boundary and below the reportable quantities are contained, characterized, mitigated, and recorded. Quarterly reports include results of monitoring and inspections as well as a summary of minor reportable spills that occurred within the quarter. Spills exceeding
the reportable quantity are reported within specified regulatory timeframes to the appropriate agencies. The reports include period and location of release, agencies notified by phone (when applicable), material release and concentration, quantity release, incident description, and remedial action and cleanup activities. The NDEP reports are available to the public.

Marigold has not experienced any cyanide releases on or off the mine site resulting in significant adverse effects to health or the environment during the three-year period between the 2009 ICMC verification audit and this recertification audit. On February 8, 2012, a release of barren process solution from the heap leach pad occurred when an eight-inch HDPE header line feeding barren leach solution onto Cell 14 broke at a weld near the top of the heap. Barren solution washed down the side of the heap and a small amount of ore sloughed off the lined pad area along with the process solution. The spill released 5,000 gallons of solution containing 6.9 pounds of cyanide. Marigold formally reported the spill to NDEP under the requirements of its WPCP and completed cleanup of the spill on February 21, 2012 after confirmatory sample results demonstrated that all contaminated soil had been removed.

Contact information for the agencies and other sources referenced above, where the public can access information regarding cyanide releases or exposure incidents that may occur at Marigold, is provided below for easy reference:

**NDEP**
901 S. Stewart Street, Suite 4001
Carson City, Nevada 89701-5249
Phone: 775.687.4670
Website: [www.ndep.nv.gov](http://www.ndep.nv.gov)

**Goldcorp Global Reporting Initiative**
Website: [http://goldcorp.com/default.aspx?SectionId=45c6ec70-0cf7-4c7c-b509-ac70506ea68c&LanguageId=1](http://goldcorp.com/default.aspx?SectionId=45c6ec70-0cf7-4c7c-b509-ac70506ea68c&LanguageId=1)

**Nevada Division of Emergency Management**
2478 Fairview Drive
Carson City, Nevada 89701
Phone: 775.687.0300 (non-emergency calls)
Website: [wwwodem.nv.gov](http://wwwodem.nv.gov)

**National Response Center**
2100 2nd Street, SW
Washington, DC 20593-0001
Phone: 202.267.2675 or toll free 800.424.8802
Website: [www.nrc.uscg.mil](http://www.nrc.uscg.mil)

**LEPC**
315 S. Humboldt Street / P.O. Box 187
Battle Mountain, Nevada 89820
10.0 REFERENCES


WEBSITE REFERENCES