Table of Contents

1.0 INTRODUCTION ........................................................................................................................................................ 1
  1.1 Operational Information .............................................................................................................................................. 1
  1.2 Description of Operation ............................................................................................................................................. 1
    1.2.1 Orica Australia Pty Ltd ........................................................................................................................................... 1
    1.2.2 Yarwun Production Facility ....................................................................................................................................... 1
  1.3 Orica New Zealand Cyanide Transportation Supply Chain Scope ................................................................................. 1
  1.4 Marine Transportation ................................................................................................................................................. 2
    1.4.1 Port of Tauranga ....................................................................................................................................................... 2
    1.4.2 Pacific International Lines ........................................................................................................................................ 2
    1.4.3 Swire Shipping ...................................................................................................................................................... 2
    1.4.4 Hamburg SUD .................................................................................................................................................... 2
  1.5 Road Transportation .................................................................................................................................................... 3
    1.5.1 Mainfreight and Owens Transport ........................................................................................................................... 3
  1.6 Transit Storage ............................................................................................................................................................... 3
  1.7 Auditors Findings and Attestation .............................................................................................................................. 4
  1.8 Name and Signatures of Other Auditors: ..................................................................................................................... 4
  1.9 Dates of Audit ............................................................................................................................................................... 4

2.0 CONSIGNOR SUMMARY ................................................................................................................................................ 6
  2.1 Principle 1 - Transport .................................................................................................................................................. 6
    2.1.1 Transport Practice 1.1 ............................................................................................................................................ 6
    2.1.2 Transport Practice 1.2 .......................................................................................................................................... 8
    2.1.3 Transport Practice 1.3 ........................................................................................................................................... 9
    2.1.4 Transport Practice 1.4 ........................................................................................................................................... 11
    2.1.5 Transport Practice 1.5 ....................................................................................................................................... 13
    2.1.6 Transport Practice 1.6 ....................................................................................................................................... 14
  2.2 Principle 2 - Interim Storage .......................................................................................................................................... 16
    2.2.1 Transport Practice 2.1 ........................................................................................................................................... 16
  2.3 Principle 3 - Emergency Response ............................................................................................................................. 18
    2.3.1 Transport Practice 3.1 ........................................................................................................................................... 18
    2.3.2 Transport Practice 3.2 ........................................................................................................................................... 20
    2.3.3 Transport Practice 3.3 ........................................................................................................................................... 22
2.3.4 Transport Practice 3.4 ............................................................... 23
2.3.5 Transport Practice 3.5 ............................................................... 24

3.0 DUE DILIGENCE ........................................................................ 26
  3.1 Ports ....................................................................................... 26
  3.1.1 Port of Tauranga ................................................................. 26
  3.1.2 Port of Auckland ................................................................. 28
  3.2 Shipping ............................................................................... 30
  3.2.1 Pacific International Lines ................................................... 31
  3.2.2 Swire Shipping ................................................................. 33
  3.2.3 Hamburg SUD ................................................................. 35
  3.3 Auditor Review of Due Diligences ........................................... 37

4.0 LIMITATIONS ........................................................................... 37

APPENDICES
APPENDIX A
Limitations
1.0 INTRODUCTION

1.1 Operational Information

Name of Transportation Facility: Orica New Zealand Supply Chain
Name of Facility Owner: Not Applicable
Name of Facility Operator: Orica Australia Pty Ltd
Name of Responsible Manager: Dave Ellison, Supply Chain Compliance Coordinator
Address: Orica Australia Pty Ltd
PO Box 375
Gladstone 4680
Queensland
State/Province: Queensland
Country: Australia
Telephone: +61 7 4976 3517
Fax: +61 7 4976 3410
Email: dave.ellison@orica.com

1.2 Description of Operation

1.2.1 Orica Australia Pty Ltd
Orica is an Australian-owned, publicly listed company with global operations. Orica is managed as discrete business units that produce a wide variety of products and services. The Mining Chemicals Systems unit is based in Australia and exports products to Asia, Africa and the Americas, as well as supplying the local Australian industry. This unit’s main product is sodium cyanide (cyanide), which is manufactured at Orica’s Yarwun cyanide production facility (Yarwun Facility) in Queensland, Australia.

1.2.2 Yarwun Production Facility
Orica’s Yarwun Facility, which is located at Yarwun approximately eight kilometres (km) by road from Gladstone, Queensland, commenced operations in 1989 and is engaged in the manufacture of cyanide (both solid and liquid forms), ammonium nitrate, nitric acid, chlorine, sodium hydroxide, sodium hypochlorite, hydrochloric acid and expanded polystyrene balls.

Cyanide manufactured at the Yarwun Facility is used in gold mining operations within Australia, Asia, Africa, Papua New Guinea, New Zealand and South America.

The Yarwun Facility was recertified as a production facility on 29 October 2013.

1.3 Orica New Zealand Cyanide Transportation Supply Chain Scope

The transport of cyanide from the Yarwun Facility to customers is coordinated from the Yarwun Facility. Solid cyanide is packaged in either sparge isotainers, which have a maximum gross weight of 26 tonnes, or IBCs, which are in turn packed into a container. A maximum of 20 IBCs can be packed into a freight container with a maximum gross weight of 28 tonnes. Liquid cyanide is packaged into isotainers with a maximum gross weight of 26 tonnes.
The Orica New Zealand Supply Chain covers the transportation of cyanide from the Port of Brisbane, Australia, by ship to the Port of Tauranga New Zealand (or in exceptional circumstances the Port of Auckland, New Zealand) and then by road to the end user.

1.4 Marine Transportation

1.4.1 Port of Tauranga

The Port of Tauranga, located in Tauranga, New Zealand is the largest port in the country in terms of total cargo volume, and the second largest in terms of container throughput. It is operated by Port Tauranga Ltd and is the only port between Auckland and Wellington offering good shelter in all weather. The port is located in a natural harbour protected by Mount Maunganui and Matakana Islands.

The port has a total of 15 berths, of which 12 are located on the Mount Maunganui side of the harbour (general cargo such as wood, coal handling facilities, bulk liquids), while another three are located at the Tauranga Terminal (containers, including refrigerated freight) at Sulphur Point on the Tauranga side.

The facility also includes two cold stores of 20,000 and 9,000 tonnes, 2.5 hectares (ha) of covered storage, 27 ha of paved container yard, more than 90 ha of reserve land for future facilities and storage and has five Liebherr container cranes.

Orica utilise the Port of Tauranga for their New Zealand Supply Chain.

1.4.2 Pacific International Lines

Pacific International Lines owns and operates a fleet of 133 vessels with a twenty foot equivalent unit (TEU) capacity of about 250,000 TEU and including four new multi-purpose vessels and two bulk carriers delivered in December 2010. Pacific International Lines also owns and operates more than 370,500 marine containers.

Orica utilises Pacific International Lines to transport sodium cyanide from the Port of Brisbane to the Port of Tauranga.

1.4.3 Swire Shipping

Swire Shipping is the brand name for all liner shipping services operated by The China Navigation Company Pte Ltd. It has provided niche, regional, multipurpose shipping services since 1883 when The China Navigation Company established liner services in Australasia. From their traditional core trading area (the Asia - South Pacific region), they have expanded to offer shipping links between over 100 ports in Asia, Pacific Islands, Australia, New Zealand, North America, Europe the Middle East and the Indian Sub-Continent.

The China Navigation Company Pte Ltd is wholly owned by The China Navigation Company Ltd, a London registered company that oversees the marine operations of its parent company, John Swire and Sons.

Orica utilises Swire Shipping to transport sodium cyanide from the Port of Brisbane to the Port of Tauranga (and Port of Auckland in exceptional circumstances).

1.4.4 Hamburg SUD

The Hamburg SUD Group operates 148 ships and maintains a global inventory of some 338,000 containers in a wide array of sizes and configurations.

Hamburg SUD is accredited under ISO 9001 and ISO 14001.

Orica utilises Hamburg SUD to transport sodium cyanide from the Port of Brisbane to the Port of Tauranga (and Port of Auckland in exceptional circumstances).
1.5 Road Transportation

1.5.1 Mainfreight and Owens Transport

Mainfreight was founded in 1978 and is a Global Supply Chain provider, specialising in less than container load (LCL) freight. The company has over 200 branches worldwide, principally in New Zealand, Australia, Asia, Europe and the United States, and provides over 20,000 customers with a full range of logistics requirements.

In 2003 Mainfreight bought a 79.6% stake in Owens Group Limited and consolidated the operations back to the core activity of transport and international freight forwarding. In July 2005, Mainfreight acquired the remaining shares.

Owens Group Limited is a fully integrated service company. The business incorporates a number of different brands with activities ranging from door-to-door domestic, international transportation and managed warehousing, through to specialist dangerous goods and temperature-controlled transport and warehousing.

Mainfreight use Owens Group Limited’s transport business unit, Owens Transport (Owens), in New Zealand to transport Orica’s cyanide.

1.6 Transit Storage

Within the scope of this audit, there are trans-shipping depots and interim storage sites associated with port operations where containers of cyanide are removed from vessels, temporarily stored and then placed on road vehicles for the next part of the journey. These transit storages or trans-shipping depots are managed by the relevant port authorities and due consideration of relevant protocol requirements has been made through the due diligence process.

Storage in transit can occasionally occurs at the Mainfreight Depot Facility located in Tauranga. The facility is used for ad hoc storage of full and returned empty isotainers where they cannot be delivered direct to the mine site or port respectively. In these instances, storage is typically limited to 4 days.
1.7 Auditors Findings and Attestation

☑ in full compliance with Orica New Zealand Supply Chain is:

☐ in substantial compliance with

☐ not in compliance with

The International Cyanide Management Code

Audit Company: Golder Associates Pty Ltd
Audit Team Leader: Mike Woods, Exemplar Global (113792)
Email: mwoods@golder.com.au

Orica’s New Zealand Supply Chain did not experience any significant cyanide incidents or compliance problems during the previous three year audit cycle.

1.8 Name and Signatures of Other Auditors:

<table>
<thead>
<tr>
<th>Name</th>
<th>Position</th>
<th>Signature</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mike Woods</td>
<td>Lead Auditor and Technical Specialist</td>
<td></td>
<td>3 June 2014</td>
</tr>
<tr>
<td>Brenton Laslett</td>
<td>Audit Support</td>
<td></td>
<td>3 June 2014</td>
</tr>
</tbody>
</table>

1.9 Dates of Audit

The Recertification Transport Audit of Orica’s New Zealand Supply Chain was undertaken over two days (four person-days) between 5 and 6 November 2013.

The audit relied upon the following Due Diligence reports:

- Due Diligence – Hamburg SUD. Conducted by Dave Ellison, Supply Chain Compliance Coordinator, Orica Australia on 15 March 2013.
- Due Diligence – Swire Shipping. Conducted by Dave Ellison, Supply Chain Compliance Coordinator, Orica Australia on 18 March 2013.
- Due Diligence – Pacific International Limited. Conducted by Dave Ellison, Supply Chain Compliance Coordinator, Orica Australia on 7 February 2013.
- Due Diligence – Port of Tauranga. Conducted by Dave Ellison, Supply Chain Compliance Coordinator, Orica Australia on 7 February 2013.

- Due Diligence – Port of Auckland. Conducted by Dave Ellison, Supply Chain Compliance Coordinator, Orica Australia on 7 February 2013.

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 and that all members of the audit team meet the applicable criteria established by the International Cyanide Management Institute for Code Verification Auditors.

I attest that this Summary Audit Report accurately describes the findings of the verification audit. I further attest that the verification audit was conducted in a professional manner in accordance with the *International Cyanide Management Code Verification Protocol for Cyanide Transportation Operations* and using standard and accepted practices for health, safety and environmental audits.
2.0 CONSIGNOR SUMMARY

2.1 Principle 1 - Transport

Transport Cyanide in a manner that minimises the potential for accidents and releases.

2.1.1 Transport Practice 1.1

Select cyanide transport routes to minimise the potential for accidents and releases.

☒ in full compliance with
☐ in substantial compliance with
☐ not in compliance with

The Supply Chain

Transport Practice 1.1

Summarise the basis for this Finding/Deficiencies Identified:

Orica New Zealand Supply Chain is in FULL COMPLIANCE with Transport Practice 1.1 requiring cyanide transport routes to be selected to minimise the potential for accidents and releases.

Orica has developed procedures and implemented them, in conjunction with Mainfreight, to guide the selection of transport routes to minimise the potential for accidents and releases, or the potential impacts of accidents and releases. These procedures require Orica and Mainfreight to consider, among other things, population density, infrastructure, road pitch and grade and the presence and prevalence of watercourses and fog during the assessment process.

Mainfreight, through Orica, evaluates the risks of selected cyanide transport routes and take the measures necessary to manage these risks. The evaluation and selection of the route/s is undertaken through a risk assessment process conducted in accordance with Australian Standard AS 31000: 2009 Risk Management. The risk assessments examined showed evidence of a detailed assessment process. Mitigation measures used to reduce risks to acceptable levels were detailed in the risk assessment documentation for the specific routes.

Mainfreight, in conjunction with Orica, has implemented a procedure and process to periodically re-evaluate routes used for cyanide deliveries. An Orica route feedback procedure requires its contractors to obtain feedback from transportation activities and provide it to Orica for the appropriate assessment and follow up on actions, as appropriate. In addition, the Mainfreight procedure for route assessment notes that route assessments will be reviewed when there is a route change, an incident, or biannually. Feedback on route conditions are also to be provided by drivers to Mainfreight through submittal of the Cyanide Drivers Trip Log.

Mainfreight, in conjunction with Orica, has documented the measures taken to address risks identified with the selected routes. This has been achieved through a documented route risk assessment process for each route, which outlines existing controls and additional mitigation measures for identified hazards along the route.

Mainfreight and Orica seek input from stakeholders and applicable governmental agencies as necessary in the selection of routes and development of risk management measures. The community is not directly consulted. Orica’s Selection of Transport Routes procedure notes that the transportation methods to be utilised on a particular route are to consider regulatory requirements and competent authority instructions. Direct engagement of communities by Orica and Mainfreight within New Zealand has not occurred because:

- The sole Orica customer, Newmont Waihi Gold, extensively engages with the local community.
The community was not designated a role as part of the planned response to an emergency involving cyanide negating the need for community consultation on this issue.

The risk management measures implemented for the cyanide transportation are considered a high standard and negate the need for community consultation in the development of such measures.

Where routes present special safety or security concerns, Orica ensures its transporters use convoys, escorts or other additional safety or security measures to address the concern. Through an operational area risk assessment to determine the need to transport cyanide in convoys, Orica determined that the level of risk within Australia and New Zealand did not warrant the use of convoys. Despite this, security measures are implemented by Orica for transportation of cyanide within New Zealand, including the use of locked and sealed containers, and constant monitoring of the location of isolators using a GPS tracking system.

The notification of external responders, medical facilities and communities of their roles and/or mutual aid during an emergency response is undertaken by Orica.

Orica contracts all transport within the scope of this audit to Mainfreight and their wholly owned subsidiary Owens. Orica’s Transport Management Plan states that agents, distributors, transport companies and other parties contracted to Orica shall be responsible for implementing the Code, and contracts between Orica and these parties shall incorporate the obligations of each party in meeting the Code’s requirements. Orica has a Service Level Agreement with Owens, which conforms to this requirement. In addition, the Orica Transport Management Plan notes no subcontractors (such as owner drivers) are to be engaged by Mainfreight without the prior approval of Orica and an appropriate assessment of the proposed subcontractor capabilities having been performed. Such an assessment has been conducted and Orica has granted approval for their use as subcontractor drivers. Mainfreight and Owens have Individual Employment Agreements with these drivers, which require the drivers to follow all policies, systems and procedures put in place by Mainfreight or Owens.

**Due Diligences – Ports**

*Port of Tauranga*

Orica conducted an initial due diligence of the Port of Tauranga on 8 December 2009 and completed a subsequent review on 7 February 2013. The due diligence report compiled by Orica concluded that the Port of Tauranga meet their operational requirements.

*Port of Auckland*

Orica conducted an initial due diligence on the Port of Auckland on 10 June 2010 and completed a subsequent review on 5 February 2013. The due diligence report compiled by Orica concluded that the Port of Auckland meet their operational requirements. At the time of the audit the use of the Port of Auckland had been suspended.

**Due Diligences – Shipping Lines**

*Pacific International Lines*

Orica conducted a due diligence of Pacific International Lines on 7 February 2013. The due diligence report compiled by Orica concluded that Pacific International Line meets Orica’s operational requirements.

*Swire Shipping*

Orica conducted a due diligence of Swire Shipping on 7 July 2012. The due diligence report compiled by Orica concluded that Swire Shipping meets Orica’s operational requirements.

*Hamburg SUD*

Orica conducted a due diligence of Hamburg SUD on 15 Mar 2013. The due diligence report compiled by Orica concluded that Hamburg SUD meets Orica’s operational requirements.
2.1.2 Transport Practice 1.2

Ensure that personnel operating cyanide handling and transport equipment can perform their jobs with minimum risk to communities and the environment.

☑ in full compliance with

☐ in substantial compliance with

☐ not in compliance with

The Supply Chain

Transport Practice 1.2

Summarise the basis for this Finding/Deficiencies Identified:

Orica New Zealand Supply Chain is in FULL COMPLIANCE with Transport Practice 1.2 requiring personnel operating cyanide handling and transport equipment can perform their jobs with minimum risk to communities and the environment.

Mainfreight use only trained, qualified and licensed operators to operate its transport vehicles. All Mainfreight drivers undergo medicals, company inductions and task specific training. Prior to commencement of cyanide transport activities, all drivers will through Orica’s Sodium Cyanide Safety Guidelines presentation, obtain appropriate dangerous goods certification and be given training in the Emergency Response Plan.

Mainfreight and Orica ensure personnel operating cyanide handling and transport equipment have been trained to perform their jobs in a manner that minimises the potential for cyanide releases and exposures. Orica requires that all drivers undergo sodium cyanide awareness and emergency response training before they are allowed to transport cyanide. As mine site personnel undertake the sparge unloading, Mainfreight drivers are not required to undertake sparge unloading training.

Orica contracts all transport within the scope of this audit to Mainfreight and their wholly owned subsidiary Owens. Orica’s Transport Management Plan states that agents, distributors, transport companies and other parties contracted to Orica shall be responsible for implementing the Code, and contracts between Orica and these parties shall incorporate the obligations of each party in meeting the Code’s requirements. Orica has a Service Level Agreement with Owens, which conforms to this requirement. In addition, the Orica Transport Management Plan notes no subcontractors (such as owner drivers) are to be engaged by Mainfreight without the prior approval of Orica and an appropriate assessment of the proposed subcontractor capabilities having been performed. Such an assessment has been conducted and Orica has granted approval for their use as subcontractor drivers. Mainfreight and Owens have Individual Employment Agreements with these drivers, which require the drivers to follow all policies, systems and procedures put in place by Mainfreight or Owens.

Due Diligences – Ports

Port of Tauranga

Orica conducted an initial due diligence of the Port of Tauranga on 8 December 2009 and completed a subsequent review on 7 February 2013. The due diligence report compiled by Orica concluded that the Port of Tauranga meet their operational requirements.

Port of Auckland

Orica conducted an initial due diligence on the Port of Auckland on 10 June 2010 and completed a subsequent review on 5 February 2013. The due diligence report compiled by Orica concluded that the Port of Auckland meet their operational requirements. At the time of the audit the use of the Port of Auckland had been suspended.
Due Diligences – Shipping Lines

*Pacific International Lines*

Orica conducted a due diligence of Pacific International Lines on 7 February 2013. The due diligence report compiled by Orica concluded that Pacific International Line meets Orica’s operational requirements.

*Swire Shipping*

Orica conducted a due diligence of Swire Shipping on 7 July 2012. The due diligence report compiled by Orica concluded that Swire Shipping meets Orica’s operational requirements.

*Hamburg SUD*

Orica conducted a due diligence of Hamburg SUD on 15 Mar 2013. The due diligence report compiled by Orica concluded that Hamburg SUD meets Orica’s operational requirements.

2.1.3 Transport Practice 1.3

Ensure that transport equipment is suitable for the cyanide shipment.

- in full compliance with

<table>
<thead>
<tr>
<th>The Supply Chain</th>
<th>Transport Practice 1.3</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>in substantial compliance with</td>
</tr>
<tr>
<td></td>
<td>not in compliance with</td>
</tr>
</tbody>
</table>

Summarise the basis for this Finding/Deficiencies Identified:

Orica New Zealand Supply Chain is in FULL COMPLIANCE with Transport Practice 1.3 requiring that transport equipment is suitable for the cyanide shipment.

Mainfreight only uses equipment designed and maintained to operate within the loads it will be handling when transporting cyanide.

Mainfreight has procedures in place to verify the adequacy of the equipment for the load it must bear. Checks are completed as part of the scheduled servicing, daily checks and Certificate of Fitness inspections. The scheduled servicing includes checks on equipment to identify signs of stress or overloading. In addition, All vehicles and trailers within New Zealand must undergo six monthly Certificate of Fitness assessments as part of road traffic regulations. These inspections include the following with regards to load:

- **Heavy Vehicles**
  - Vehicle structure
  - Suspension systems
  - Towing connections
- **Trailers**
  - Load restraints
  - Certificate of loading
Mainfreight and Orica, has procedures in place to prevent overloading of the transport vehicle being used for handling cyanide. Mainfreight maintains a spreadsheet, which is provided to Orica, of transport prime movers and trailers dedicated to the transport of Orica freight containers, liquid isotainers and sparge isotainers. The spreadsheet includes the design capacities of the vehicles and trailers. This enables carrying capability to be determined for different configurations that may be utilised.

Orica contracts all transport within the scope of this audit to Mainfreight and their wholly owned subsidiary Owens. Orica’s Transport Management Plan states that agents, distributors, transport companies and other parties contracted to Orica shall be responsible for implementing the Code, and contracts between Orica and these parties shall incorporate the obligations of each party in meeting the Code’s requirements. Orica has a Service Level Agreement with Owens, which conforms to this requirement. In addition, the Orica Transport Management Plan notes no subcontractors (such as owner drivers) are to be engaged by Mainfreight without the prior approval of Orica and an appropriate assessment of the proposed subcontractor capabilities having been performed. Such an assessment has been conducted and Orica has granted approval for their use as subcontractor drivers. Mainfreight and Owens have Individual Employment Agreements with these drivers, which require the drivers to follow all policies, systems and procedures put in place by Mainfreight or Owens.

**Due Diligences – Ports**

*Port of Tauranga*

Orica conducted an initial due diligence of the Port of Tauranga on 8 December 2009 and completed a subsequent review on 7 February 2013. The due diligence report compiled by Orica concluded that the Port of Tauranga meet their operational requirements.

*Port of Auckland*

Orica conducted an initial due diligence on the Port of Auckland on 10 June 2010 and completed a subsequent review on 5 February 2013. The due diligence report compiled by Orica concluded that the Port of Auckland meet their operational requirements. At the time of the audit the use of the Port of Auckland had been suspended.

**Due Diligences – Shipping Lines**

*Pacific International Lines*

Orica conducted a due diligence of Pacific International Lines on 7 February 2013. The due diligence report compiled by Orica concluded that Pacific International Line meets Orica’s operational requirements.

*Swire Shipping*

Orica conducted a due diligence of Swire Shipping on 7 July 2012. The due diligence report compiled by Orica concluded that Swire Shipping meets Orica’s operational requirements.

*Hamburg SUD*

Orica conducted a due diligence of Hamburg SUD on 15 Mar 2013. The due diligence report compiled by Orica concluded that Hamburg SUD meets Orica’s operational requirements.
2.1.4 Transport Practice 1.4

Develop and implement a safety program for transport of cyanide.

- in full compliance with

The Supply Chain
- in substantial compliance with
- not in compliance with

Transport Practice 1.4

Summarise the basis for this Finding/Deficiencies Identified:

Orica New Zealand Supply Chain is in FULL COMPLIANCE with Transport Practice 1.4 requiring the operation develop and implement a safety programme for transport of cyanide.

Mainfreight and Orica have handling and inspection procedures to ensure that cyanide is transported in a manner that maintains the integrity of the producer’s packaging. Mainfreight has checklists in place that require drivers to inspect the integrity of the containers and seals. The inspection is conducted when the driver turns the twist locks to secure the container onto the trailer. The seals are substantial non-reusable locks, which are numbered. The isotainer number and seal numbers are recorded onto the checklists by the Driver. In addition, Orica operates a consignment note or deliver docket system whereby transport drivers are required to cross check the container and seal numbers with what is recorded on the delivery paperwork. The driver is to sign the consignment note, confirming that the numbers are correct and to obtain a customer signature confirming that the numbers have been cross checked upon delivery of the product.

Mainfreight, in conjunction with their owner drivers and Orica, uses placards or other signage to identify the shipment as cyanide, as required by local regulations and international standards. Vehicle placarding consists of Emergency Information Panels on the side and rear of the container, and a Class 6 Dangerous Goods placard on the front and the vehicle.

Mainfreight implements a safety program for cyanide transport that includes:

- A documented daily vehicle checklist that covers the prime mover and trailer with checks of vehicle roadworthiness, dangerous goods requirements, PPE, communication equipment, etc.
- A preventive maintenance programme for prime movers and trailers (i.e. services after 10,000 km, 15,000 km and every 6 months)
- The limitation on driver hours via the tracking of daily run sheets and driver hours logbooks
- Cyanide is stowed into sparge isotainers by Orica. Isotainers are secured using twist locks, which are designed and constructed to international transport standards. This twist locks are checked by the driver prior to departure from the loading area
- Procedures by which transportation can be modified or suspended
- Drug and alcohol policy and testing regime
- The retention of records documenting that the above activities have been conducted
Orica contracts all transport within the scope of this audit to Mainfreight and their wholly owned subsidiary Owens. Orica’s Transport Management Plan states that agents, distributors, transport companies and other parties contracted to Orica shall be responsible for implementing the Code, and contracts between Orica and these parties shall incorporate the obligations of each party in meeting the Code’s requirements. Orica has a Service Level Agreement with Owens, which conforms to this requirement. In addition, the Orica Transport Management Plan notes no owner drivers are to be engaged by Mainfreight without the prior approval of Orica and an appropriate assessment of the proposed owner driver capabilities having been performed. Such an assessment has been conducted and Orica has granted approval for their use as owner driver drivers. Mainfreight and Owens have Individual Employment Agreements with these drivers, which require the drivers to follow all policies, systems and procedures put in place by Mainfreight or Owens.

Due Diligences – Ports

**Port of Tauranga**

Orica conducted an initial due diligence of the Port of Tauranga on 8 December 2009 and completed a subsequent review on 7 February 2013. The due diligence report compiled by Orica concluded that the Port of Tauranga meet their operational requirements.

**Port of Auckland**

Orica conducted an initial due diligence on the Port of Auckland on 10 June 2010 and completed a subsequent review on 5 February 2013. The due diligence report compiled by Orica concluded that the Port of Auckland meet their operational requirements. At the time of the audit the use of the Port of Auckland had been suspended.

Due Diligences – Shipping Lines

**Pacific International Lines**

Orica conducted a due diligence of Pacific International Lines on 7 February 2013. The due diligence report compiled by Orica concluded that Pacific International Line meets Orica’s operational requirements.

**Swire Shipping**

Orica conducted a due diligence of Swire Shipping on 7 July 2012. The due diligence report compiled by Orica concluded that Swire Shipping meets Orica’s operational requirements.

**Hamburg SUD**

Orica conducted a due diligence of Hamburg SUD on 15 Mar 2013. The due diligence report compiled by Orica concluded that Hamburg SUD meets Orica’s operational requirements.
2.1.5 **Transport Practice 1.5**

Follow international standards for transportation of cyanide by sea and air.

- [x] in full compliance with
- [ ] in substantial compliance with
- [ ] not in compliance with

**The Supply Chain**

<table>
<thead>
<tr>
<th>Practice</th>
<th>Compliance</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.5</td>
<td>in full compliance</td>
</tr>
</tbody>
</table>

**Summarise the basis for this Finding/Deficiencies Identified:**

Orica New Zealand Supply Chain is in FULL COMPLIANCE Transport Practice 1.5 requiring the operation develop and implement a safety programme for transport of cyanide.

All containers (i.e. freight containers of solids in IBCs, sparge isolainers of solids for sparging or isolainers of liquor) are placarded by Orica at the Yarwun Facility in accordance with the requirements of the IMDG Code with UN numbers, the Class 6 dangerous goods class label and the marine pollutant label. This level of placarding is consistent with the requirements of the *Australian Dangerous Goods (ADG) Code*.

Containers intended for sea transport have documentation prepared in accordance with the IMDG Code, which is faxed to the shipping agent. The normal road documentation prepared in accordance with the ADG Code accompanies the load on its road/rail voyage to either the Port of Brisbane.

No consignments of cyanide are transported by air within the scope of this audit. All consignments transported by Mainfreight are by road.

**Due Diligences – Ports**

**Port of Tauranga**

Orica conducted an initial due diligence of the Port of Tauranga on 8 December 2009 and completed a subsequent review on 7 February 2013. The due diligence report compiled by Orica concluded that the Port of Tauranga meet their operational requirements.

**Port of Auckland**

Orica conducted an initial due diligence on the Port of Auckland on 10 June 2010 and completed a subsequent review on 5 February 2013. The due diligence report compiled by Orica concluded that the Port of Auckland meet their operational requirements. At the time of the audit the use of the Port of Auckland had been suspended.

**Due Diligences – Shipping Lines**

**Pacific International Lines**

Orica conducted a due diligence of Pacific International Lines on 7 February 2013. The due diligence report compiled by Orica concluded that Pacific International Line meets Orica’s operational requirements.

**Swire Shipping**

Orica conducted a due diligence of Swire Shipping on 7 July 2012. The due diligence report compiled by Orica concluded that Swire Shipping meets Orica’s operational requirements.

**Hamburg SUD**

Orica conducted a due diligence of Hamburg SUD on 15 Mar 2013. The due diligence report compiled by Orica concluded that Hamburg SUD meets Orica’s operational requirements.
2.1.6 Transport Practice 1.6

Track cyanide shipments to prevent losses during transport.

☒ in full compliance with
☐ in substantial compliance with Transport Practice 1.6
☐ not in compliance with

The Supply Chain

Summarise the basis for this Finding/Deficiencies Identified:

Orica New Zealand Supply Chain is in FULL COMPLIANCE with Transport Practice 1.6 requiring the operation track cyanide shipments to prevent losses during transport.

Mainfreight and Orica have means to communicate with the transport company, the cyanide producer or distributor and/or emergency responders. Mainfreight vehicles use mobile phones and radio transmitters to communicate with the company and emergency responders. Communication between Mainfreight and Orica is via email, telephone and fax. All communications with the product customer is through Orica.

Communications equipment is checked by the Mainfreight drivers at the start of a shift (via the pre-start checklist) and through continuous use.

Along the routes used by Mainfreight to transport cyanide, one communications blackout area of approximately 10 km in length exists. Mainfreight has a Remote Area Communications procedure in place whereby drivers must contact the Operations Supervisor prior to entering the area and upon exiting the area. Should communications not be regained, there are a series of escalating steps with the procedure for the Operations Supervisor to follow.

Mainfreight and Orica have procedures to track the progress of cyanide shipments. Mainfreight has a GPS tracking system in its vehicles to be used for cyanide transport. In addition, Orica has a GPS tracking system installed on its sparge units to enable Orica to keep track of journey progress and location on mine sites independently of its transporter.

Mainfreight and Orica have appropriate inventory controls and/or chain of custody documentation to prevent loss of cyanide during shipment. Inventory controls are the primary method of preventing product loss during shipment. These controls include the following:

- All products are weighed by Orica when placed into isotainers, IBCs and freight containers
- Solid sparge cyanide is dyed so that any loss can be readily identified
- Consignments are rigorously identified and documented with each sparge isotainer is identified by a unique number
- All sparge isotainers are locked with seals and the seal numbers recorded and checked by the consignee. Seals are also checked at transfer locations and on route
- The identifying container numbers are transmitted to the consignee (Mainfreight) and are checked off by the Orica representative (Mainfreight) on arrival

Shipping documentation indicating the amount of cyanide in transit and Safety Data Sheets (SDS) are available during transport.
Under New Zealand law, transport companies are required to carry the following in the vehicle cabin:

- Load plan schedule of weights and quantities
- Emergency procedures guide
- Dangerous goods guide.

In addition, Orica requires that its transporters carry an SDS for its product on all vehicles during transit.

Orica contracts all transport within the scope of this audit to Mainfreight and their wholly owned subsidiary Owens. Orica’s Transport Management Plan states that agents, distributors, transport companies and other parties contracted to Orica shall be responsible for implementing the Code, and contracts between Orica and these parties shall incorporate the obligations of each party in meeting the Code’s requirements. Orica has a Service Level Agreement with Owens, which conforms to this requirement. In addition, the Orica Transport Management Plan notes no owner drivers (such as owner drivers) are to be engaged by Mainfreight without the prior approval of Orica and an appropriate assessment of the proposed owner driver capabilities having been performed. Such an assessment has been conducted and Orica has granted approval for their use as owner driver drivers. Mainfreight and Owens have Individual Employment Agreements with these drivers, which require the drivers to follow all policies, systems and procedures put in place by Mainfreight or Owens.

**Due Diligences – Ports**

**Port of Tauranga**

Orica conducted an initial due diligence of the Port of Tauranga on 8 December 2009 and completed a subsequent review on 7 February 2013. The due diligence report compiled by Orica concluded that the Port of Tauranga meet their operational requirements.

**Port of Auckland**

Orica conducted an initial due diligence on the Port of Auckland on 10 June 2010 and completed a subsequent review on 5 February 2013. The due diligence report compiled by Orica concluded that the Port of Auckland meet their operational requirements. At the time of the audit the use of the Port of Auckland had been suspended.

**Due Diligences – Shipping Lines**

**Pacific International Lines**

Orica conducted a due diligence of Pacific International Lines on 7 February 2013. The due diligence report compiled by Orica concluded that Pacific International Line meets Orica’s operational requirements.

**Swire Shipping**

Orica conducted a due diligence of Swire Shipping on 7 July 2012. The due diligence report compiled by Orica concluded that Swire Shipping meets Orica’s operational requirements.

**Hamburg SUD**

Orica conducted a due diligence of Hamburg SUD on 15 Mar 2013. The due diligence report compiled by Orica concluded that Hamburg SUD meets Orica’s operational requirements.
2.2 Principle 2 - Interim Storage

Design, construct and operate cyanide trans-shipping depots and interim storage sites to prevent release and exposures.

2.2.1 Transport Practice 2.1

Store cyanide in a manner that minimises the potential for accidental releases.

☑ in full compliance with

The Supply Chain ☐ in substantial compliance with ☐ not in compliance with Transport Practice 2.1

Summarise the basis for this Finding/Deficiencies Identified:

Orica New Zealand Supply Chain is in FULL COMPLIANCE with Transport Practice 2.1 requiring the storage of cyanide in a manner that minimises the potential for accidental releases.

Storage in transit can occasionally occur at the Mainfreight Depot Facility located in Tauranga. The facility is used for ad hoc storage of full and returned empty isotainers where they cannot be delivered direct to the mine site or port respectively. In these instances storage is typically limited to 4 days.

At this facility warning signs are posted at the entry to the site altering works that

- that cyanide is present
- that smoking, open flames, eating and drinking are not allowed
- what personal protective equipment must be worn

There is one designated location with two painted bays for the interim storage of cyanide at the facility. The isotainers are stored on a bitumen surface in an open laydown area with perimeter fencing. Signage is displayed on the fencing near entry points to the facility.

There is signage on the sides of the isotainer alerting workers to content and the site emergency plan diagram details the location for cyanide.

Also, within the scope of this audit, there are transit storages or trans-shipping depots associated with port operations where containers of cyanide are removed from vessels, temporarily stored and then placed on road vehicles for the next part of the journey. These transit storages or trans-shipping depots are managed by the relevant port authorities and due consideration of relevant protocol requirements has been made through the due diligence process.

There are security measures in place to prevent unauthorised access to cyanide, such as lockouts on valves and fenced storage of solids. The operation has capacity to store a maximum of two isotainers at their depot facility. The depot is a 24 hour operation and CCTV cameras are installed covering the facility.

There is a perimeter fence surround in the premises with lockable gates. The isotainers have locks and metal cable seals installed to prevent access via the valves of the isotainer. At no time are the seals or locks removed prior to the point of discharge at the customers mine site.

Cyanide is separated from incompatible materials such as acids, strong oxidisers and explosives with berms, bunds, walls or other appropriate barriers to prevent mixing.
Cyanide is stored in a manner designed to minimise the potential for contact of solid cyanide with water. Cyanide is only stored at the site within the specially designed isotainers with locks and seals which minimise potential for contact of solid cyanide with water. The designated cyanide bays are adjacent to designated hydrosulphide product storage bays. No acids or strong oxidisers are stored in proximity of the cyanide. Due to the amount of other dangerous goods stored at the site the premises is subject to regulatory oversight including separation distances for dangerous goods storage.

Mainfreight has an emergency response plan that considers the procedure in the event of a cyanide spill at the Mainfreight terminal. The procedure outlines specific responsibilities and steps for Mainfreight and applicable Emergency Services. The procedure includes covering drains with drain cover mats and isolating the area to minimise inadvertent spread of spilt product.

Due Diligences – Ports

Port of Tauranga

Orica conducted an initial due diligence of the Port of Tauranga on 8 December 2009 and completed a subsequent review on 7 February 2013. The due diligence report compiled by Orica concluded that the Port of Tauranga meet their operational requirements.

Port of Auckland

Orica conducted an initial due diligence on the Port of Auckland on 10 June 2010 and completed a subsequent review on 5 February 2013. The due diligence report compiled by Orica concluded that the Port of Auckland meet their operational requirements. At the time of the audit the use of the Port of Auckland had been suspended.
2.3  Principle 3 - Emergency Response

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

2.3.1  Transport Practice 3.1

Prepare detailed Emergency Response Plans for potential cyanide releases.

☑ in full compliance with
☐ in substantial compliance with  Transport Practice 3.1
☐ not in compliance with

Summarise the basis for this Finding/Deficiencies Identified:

Orica New Zealand Supply Chain is in FULL COMPLIANCE with Transport Practice 3.1 requiring the operation prepare detailed Emergency Response Plans for potential cyanide releases.

Mainfreight has a Transport Emergency Response Plan (TERP). The purpose of the TERP is to provide a planned response to support the emergency services in managing a transport emergency.

The management of cyanide related emergencies is an integrated approach between Mainfreight and Orica, which is reflected through the referencing of Orica’s Emergency Response Guide (ERG) within the TERP for additional guidance on cyanide related emergencies.

The emergency response plans are appropriate for the selected transportation route to all delivery locations. The incidents covered include:

- Vehicle Breakdown
- Minor Vehicle Incidents
- Major Vehicle Incident, Product Loss of Containment, Fire or Injury.

The TERP does not consider the physical or chemical form of cyanide however the document directs the reader to contact Orica and refers to the ERG and the SDS.

The ERG details specific responses for transport scenarios and the physical and chemical form of cyanide. The guide provides an approach to transport emergency scenarios considered credible by Orica over their transport routes. These scenarios cover issues related to the form of the cyanide involved in the accident and its chemistry including what chemicals are suitable to use in remediation.

The plans do consider the method of transport. TERP is based developed around road transportation. Appendix 2 (Product Transportation and Storage) of the ERG details additional information on the method of transport. The specific emergency response guides detailed in Section 3 of the ERG consider the transportation of cyanide by road.

The plans consider all aspects of the transport infrastructure.

Orica and Mainfreight have undertaken route risk assessments from the Port of Tauranga to each mine delivery site and Orica has compiled route assessments that detail relevant transport infrastructure. The assessments were evaluated for:
Load security
Potential for vehicular accidents
Residential areas
Waterways
Possible impact of road blockages/diversions, etc.
Quality and general conditions of the roads.

The plans consider the design of the transport vehicle. The TERP is based developed around road transportation. Appendix 2 (Product Transportation and Storage) of the ERG details additional information on the design of the transport vehicle. The specific emergency response guides detailed in Section 3 of the ERG consider the design of the transport vehicle.

The plans include descriptions of response actions, as appropriate for the anticipated emergency situation for transportation. Section 5 of the TERP details the responsibilities for the following positions:

- Drivers
- Sub-contractors (owner drivers)
- Operations Supervisors
- Incident Responders
- Incident Coordinator
- Owens Transport Managers
- Owens Transport Projects Manager
- Owens Transport Safety Manager.

Responsibilities are detailed for first response as well as establishing control. The roles are responsibilities are also specific to the scenarios identified. Responsibilities specific to the drivers are also summarised within the Owens Global Logistics Tankers Driver’s Manual which is carried within the truck.

The critical component of the emergency response process is the dedicated Orica ERS based in Melbourne. The ERG requires Orica ERS to be contacted in the event of emergency involving cyanide.

The primary outside responders in the TERP is the emergency services who are involved through the use of ‘111’ in an emergency. The only other outside responder is Orica and the Orica ERS service.

The ERG is the primary reference for the roles of outside responders to an incident. Appendix 6 (Orica Response to a Report of a Cyanide Incident) of the ERG details the initial actions to be undertaken including the interactions with emergency service providers such as police and fire brigade, determining if the leak is cyanide, and preventing the spread of contamination.

Due Diligences – Ports

Port of Tauranga

Orica conducted an initial due diligence of the Port of Tauranga on 8 December 2009 and completed a subsequent review on 7 February 2013. The due diligence report compiled by Orica concluded that the Port of Tauranga meet their operational requirements.
Port of Auckland
Orica conducted an initial due diligence on the Port of Auckland on 10 June 2010 and completed a subsequent review on 5 February 2013. The due diligence report compiled by Orica concluded that the Port of Auckland meet their operational requirements. At the time of the audit the use of the Port of Auckland had been suspended.

Due Diligences – Shipping Lines

Pacific International Lines
Orica conducted a due diligence of Pacific International Lines on 7 February 2013. The due diligence report compiled by Orica concluded that Pacific International Line meets Orica’s operational requirements.

Swire Shipping
Orica conducted a due diligence of Swire Shipping on 7 July 2012. The due diligence report compiled by Orica concluded that Swire Shipping meets Orica’s operational requirements.

Hamburg SUD
Orica conducted a due diligence of Hamburg SUD on 15 Mar 2013. The due diligence report compiled by Orica concluded that Hamburg SUD meets Orica’s operational requirements.

2.3.2 Transport Practice 3.2
Designate appropriate response personnel and commit necessary resources for emergency response.

☒ in full compliance with
☐ in substantial compliance with
☐ not in compliance with

Transport Practice 3.2

Summarise the basis for this Finding/Deficiencies Identified:

Orica New Zealand Supply Chain is in FULL COMPLIANCE with Transport Practice 3.2 requiring they designate appropriate response personnel and commit necessary resources for emergency response.

Mainfreight provides emergency response training for appropriate personnel. A training matrix outlines the training requirements of all personnel associated with cyanide transportation. Training in the TERP is deemed mandatory. In addition, those undergoing TERP training also site an Orica Sodium Cyanide Safety presentation.

The plans include descriptions of the specific emergency response duties and responsibilities of personnel. The TERP provides a description of the responsibilities for Drivers, Owner drivers, Operations Supervisors, Incident Responder, Incident Coordinator, Transport Manager, Projects Manager, Safety Manager and External Responders.

Mainfreight has a list of all emergency equipment that should be available during transport or along the transport route.

The transporter has available the necessary emergency response and health and safety equipment, including personal protective equipment during transport. Mainfreight maintains three sets of equipment. One set is located with the transport vehicle and two sets are maintained at the depot.
The transport vehicle operators receive initial and periodic refresher training in emergency response procedures including implementation of the TERP. The Projects Manager stated that training on the TERP is provided as part of the induction. Refresher training is provided whenever a new revision of the TERP is developed. In addition, transport personnel (including drivers) are included in periodic mock drills, which include assessing the implementation of the TERP and identifying lessons learnt. Lessons learnt are communicated to drivers via their supervisors.

Mainfreight has formal procedures in place to inspect emergency response equipment and assure its availability when required. This includes weekly inspections by a management representative.

Orica contracts all transport within the scope of this audit to Mainfreight and their wholly owned subsidiary Owens.

**Due Diligences – Ports**

*Port of Tauranga*

Orica conducted an initial due diligence of the Port of Tauranga on 8 December 2009 and completed a subsequent review on 7 February 2013. The due diligence report compiled by Orica concluded that the Port of Tauranga meet their operational requirements.

*Port of Auckland*

Orica conducted an initial due diligence on the Port of Auckland on 10 June 2010 and completed a subsequent review on 5 February 2013. The due diligence report compiled by Orica concluded that the Port of Auckland meet their operational requirements. At the time of the audit the use of the Port of Auckland had been suspended.

**Due Diligences – Shipping Lines**

*Pacific International Lines*

Orica conducted a due diligence of Pacific International Lines on 7 February 2013. The due diligence report compiled by Orica concluded that Pacific International Line meets Orica’s operational requirements.

*Swire Shipping*

Orica conducted a due diligence of Swire Shipping on 7 July 2012. The due diligence report compiled by Orica concluded that Swire Shipping meets Orica’s operational requirements.

*Hamburg SUD*

Orica conducted a due diligence of Hamburg SUD on 15 Mar 2013. The due diligence report compiled by Orica concluded that Hamburg SUD meets Orica’s operational requirements.
2.3.3 Transport Practice 3.3

Develop procedures for internal and external emergency notification and reporting.

☑ in full compliance with

☐ in substantial compliance with Transport Practice 3.3

☐ not in compliance with

Summarise the basis for this Finding/Deficiencies Identified:

Orica New Zealand Supply Chain is in FULL COMPLIANCE with Transport Practice 3.3 requiring that they develop procedures for internal and external emergency notification and reporting.

The TERP requires notification of Emergency Services, Owens Operations Supervisor, the Orica ERS service and the receiver (Waihi Gold mine) in the event of a cyanide emergency during transport. Contact numbers for these are included in the TERP, which is carried by each driver.

There are systems in place to ensure that internal and external emergency notification and reporting procedures are kept current.

Section 8 of the TERP tasks the Owens Safety Manager with checking the currency of contact details on a six monthly basis. In addition, the TERP is at least annually, or after significant changes to the operation or identified deficiencies following exercises or incidents.

The key contact phone numbers are also detailed on the Route Assessment Form. The Route Assessments are reviewed and revised yearly, or if a route changes, and this will include a check of the phone numbers.

Due Diligences – Ports

**Port of Tauranga**

Orica conducted an initial due diligence of the Port of Tauranga on 8 December 2009 and completed a subsequent review on 7 February 2013. The due diligence report compiled by Orica concluded that the Port of Tauranga meet their operational requirements.

**Port of Auckland**

Orica conducted an initial due diligence on the Port of Auckland on 10 June 2010 and completed a subsequent review on 5 February 2013. The due diligence report compiled by Orica concluded that the Port of Auckland meet their operational requirements. At the time of the audit the use of the Port of Auckland had been suspended.

Due Diligences – Shipping Lines

**Pacific International Lines**

Orica conducted a due diligence of Pacific International Lines on 7 February 2013. The due diligence report compiled by Orica concluded that Pacific International Line meets Orica’s operational requirements.

**Swire Shipping**

Orica conducted a due diligence of Swire Shipping on 7 July 2012. The due diligence report compiled by Orica concluded that Swire Shipping meets Orica’s operational requirements.

**Hamburg SUD**

Orica conducted a due diligence of Hamburg SUD on 15 Mar 2013. The due diligence report compiled by Orica concluded that Hamburg SUD meets Orica’s operational requirements.
2.3.4 Transport Practice 3.4

Develop procedures for remediation of releases that recognise the additional hazards of cyanide treatment.

☑ in full compliance with

☐ in substantial compliance with Transport Practice 3.4

☐ not in compliance with

Summarise the basis for this Finding/Deficiencies Identified:

Orica New Zealand Supply Chain is in FULL COMPLIANCE with Transport Practice 3.4 requiring that they develop procedures for remediation of releases that recognise the additional hazards of cyanide treatment.

Mainfreight do not undertake the remediation or recovery of cyanide. In the event of an emergency drivers are to contact emergency services and the Operations Supervisor. Mainfreight’s management will then contact Orica’s ERS. The Section 11 (Product Recovery/Site Remediation) of the TERP notes that Orica procedures are to be used for remediation.

The ERG includes procedures for remediation, such as recovery or neutralisation of solutions or solids, decontamination of soils or other contaminated media and management of spill cleanup debris.

The procedure does prohibit the use of chemicals such as sodium hypochlorite, ferrous sulphate and hydrogen peroxide to treat cyanide that has been released into surface water.

Section 3.6 (Sodium Cyanide Spill in a Waterway) of the ERG notes at the start of the procedure states that:

Orica Mining Chemicals subscribes to the recommendations of the International Cyanide Management Code in that no chemicals are to be added to a flowing waterway in the event of a cyanide spill as these may only exacerbate the situation with their own toxicity characteristics.

Due Diligences – Ports

Port of Tauranga

Orica conducted an initial due diligence of the Port of Tauranga on 8 December 2009 and completed a subsequent review on 7 February 2013. The due diligence report compiled by Orica concluded that the Port of Tauranga meet their operational requirements.

Port of Auckland

Orica conducted an initial due diligence on the Port of Auckland on 10 June 2010 and completed a subsequent review on 5 February 2013. The due diligence report compiled by Orica concluded that the Port of Auckland meet their operational requirements. At the time of the audit the use of the Port of Auckland had been suspended.

Due Diligences – Shipping Lines

Pacific International Lines

Orica conducted a due diligence of Pacific International Lines on 7 February 2013. The due diligence report compiled by Orica concluded that Pacific International Line meets Orica’s operational requirements.
Swire Shipping
Orica conducted a due diligence of Swire Shipping on 7 July 2012. The due diligence report compiled by Orica concluded that Swire Shipping meets Orica’s operational requirements.

Hamburg SUD
Orica conducted a due diligence of Hamburg SUD on 15 Mar 2013. The due diligence report compiled by Orica concluded that Hamburg SUD meets Orica’s operational requirements.

2.3.5 Transport Practice 3.5
Periodically evaluate response procedures and capabilities and revise them as needed.

☒ in full compliance with
☐ in substantial compliance with
☐ not in compliance with

Transport Practice 3.5

Summarise the basis for this Finding/Deficiencies Identified:

Orica New Zealand Supply Chain is in FULL COMPLIANCE with Transport Practice 3.5 requiring the operation periodically evaluate response procedures and capabilities and revise them as needed.

There are provisions for periodically reviewing and evaluating the Plan's adequacy and they are being implemented.

Section 13.1 notes that the TERP shall be updated:
- At least annually
- After any deficiencies are identified during exercises or incidents
- Whenever a significant change is made to the operations (e.g. change to key personnel, suppliers, equipment, products, routes etc.)

The ERG was undergoing a revision (Revision 2) at the time of the audit.

There are provisions for periodically conducting mock emergency drills and they are being implemented in some cases.

Section 12.3 (Exercises) of the TERP notes that regular exercises shall be conducted to ensure its effectiveness. Specifically the TERP states:

“Every six months a small scale exercise shall be conducted...where possible this should be conducted as a practical exercise.

A desk-top exercise of a major incident will be conducted annually ...should involve external services...”

A physical exercise was undertaken at the Mainfreight depot on 18 July 2013. The exercise was based on the scenario that a spill of sodium cyanide occurred at the facility following a collision with the isolatiner whilst it was stored on the ground. The exercise involved representatives from Mainfreight, New Zealand Fire Service and Orica.

A desktop exercise was conducted at the Mainfreight depot on 3 December 2013 to test changes made to the Emergency Plan, specifically the use of HCN monitors. The exercise included members from Mainfreight’s Operations, Logistics, Health and Safety, and Fire Wardens teams.
Due Diligences – Ports

Port of Tauranga
Orica conducted an initial due diligence of the Port of Tauranga on 8 December 2009 and completed a subsequent review on 7 February 2013. The due diligence report compiled by Orica concluded that the Port of Tauranga meet their operational requirements.

Port of Auckland
Orica conducted an initial due diligence on the Port of Auckland on 10 June 2010 and completed a subsequent review on 5 February 2013. The due diligence report compiled by Orica concluded that the Port of Auckland meet their operational requirements. At the time of the audit the use of the Port of Auckland had been suspended.

Due Diligences – Shipping Lines

Pacific International Lines
Orica conducted a due diligence of Pacific International Lines on 7 February 2013. The due diligence report compiled by Orica concluded that Pacific International Line meets Orica’s operational requirements.

Swire Shipping
Orica conducted a due diligence of Swire Shipping on 7 July 2012. The due diligence report compiled by Orica concluded that Swire Shipping meets Orica’s operational requirements.

Hamburg SUD
Orica conducted a due diligence of Hamburg SUD on 15 Mar 2013. The due diligence report compiled by Orica concluded that Hamburg SUD meets Orica’s operational requirements.
3.0 DUE DILIGENCE

3.1 Ports

3.1.1 Port of Tauranga

Orica conducted a due diligence of the Port of Tauranga on 7 February 2013. The due diligence was conducted by David Ellison, ICMC Compliance Coordinator, Orica Mining Chemicals. The due diligence review was compiled through physical visits, interviews and discussions with appropriate personnel and review of applicable documentation.

The following items were addressed within the due diligence:

- Background
- Transport Practice 1.1
- Transport Practice 1.5
- Transport Practice 1.6
- Transport Practice 2.1
- Finding.

Background

The Tauranga Container Terminal has dedicated road and rail access streamlining cargo movement in and out of the Port. The Terminal operates a fleet of 36 straddle carriers linked with a tracking system to allow efficient movement of containers and customer tracking. The Port of Tauranga is the main New Zealand port utilised as part of Orica’s New Zealand Supply Chain.

Health and safety at the Port is strictly enforced and all personnel must complete the appropriate inductions requirements prior to commencing work. Additionally, regular safety alerts are issued in order to make personnel aware of the latest safety requirements.

The Port has in place an Emergency Procedures Manual, which includes specific requirements for hazardous substances and dangerous goods, an Emergency Contingency Plan with steps for responding to spillage events and evacuation procedures. Training is given to Port personnel in the requirements of the Emergency Response Manual.

The Port also has an environmental policy that all personnel and those accessing the Port must comply with. As cyanide has a Dangerous Goods class of 6, it must be removed from the Port within 72 hours of its arrival.

Transport Practice 1.1

The Port is an element of the Orica Australia New Zealand Supply Chain.
Transport Practice 1.5

Orica’s product is packaged to the International Maritime Organisation’s Dangerous Goods (IMO DG) Code requirements. It is packed into composite IBCs consisting of a 1300 kg bulk bag contained within a hermetically sealed plastic liner, placed in a wooden outer with an integral pallet base. As per the IMO DG Code this packaging is referenced as UN/11HD2/X/****/AUS/Orica-30596/7020/1300 under the approval of the Competent Authority (where **** indicates the date the IBC was filled). Orica’s product is also packaged into purpose built and designed bulk sparge isotainers. These isotainers are subject to regular 2.5 and 5 year external inspection and testing regimens. Additionally, Orica inspects them internally after each utilisation.

Orica’s packaging is labelled as per the IMO DG Code. Bulk sparge isotainers and shipping containers containing composite IBCs are placarded with an emergency information panel (EIP) detailing the proper shipping name, dangerous goods class number, UN number, HAZCHEM Code and emergency contact information. Containers are placarded with the environmentally hazardous substance label. Product labels are provided on the side of the IBC that allows forklift access via the pallet base. IBCs are placed into shipping containers so that the label is facing outwards.

Orica prepares a dangerous goods transport document known as the Multimodal Dangerous Goods Form. This form meets the requirements of the International Convention for the Safety of Life at Sea (SOLAS) 1974, Chapter VII, Regulation 5 and the International Convention for the Prevention of Pollution from Ships (MARPOL) 1973/78, Annex III, Regulation 4. This form also has a container packaging certificate included that meets the requirements of Section 5.4.2 of the IMO DG Code, as well as emergency response information.

Upon arrival at the Port, the ship’s master provides the Port with a copy of the Multimodal Dangerous Goods Form.

Transport Practice 1.6

Port stevedores receive the vessel manifest on arrival, which includes the containers to be unloaded and handled by them. This information is then captured in the stevedore’s management systems, which assists with tracking of containers and locating appropriate storage locations upon unloading. Transport from the unloading berth to the interim storage facility is controlled by documentary checks detailing the container details and its contents.

Transport Practice 2.1

Containers are placarded in accordance with the labelling requirements of the IMO DG Code and thus display the relevant warning and safety information. This includes the Dangerous Goods class, UN Number and the HAZCHEM Code.

The Port has in place internal security procedures that are accredited under the International Ship and Port Security (ISPS) Code. Access to the Port is via security controlled gates and specific identification requirements are in effect. As a condition of entry into the Port, vehicles and bags may be subjected to random searches by security staff. Failure to comply with these searches may result in the denial of entry of the bags, vehicle or the individual in possession of them. In addition, there are random patrols of the Port’s environs and checks of personnel’s port access allowances.

Containers on arrival at the Port are segregated from incompatible substances and stored in the open to allow ventilation. All cyanide remains within the sealed containers at all times. Hazardous cargo procedures are in place to manage this process, as well as for spill management.
Finding

The due diligence concludes that the:

“Port of Tauranga… meets Orica Mining Chemicals [sic] operational requirements.”

3.1.2 Port of Auckland

Orica conducted a due diligence of the Port of Auckland on 5 February 2013. The due diligence was conducted by David Ellison, ICMC Compliance Coordinator, Orica Mining Chemicals. The due diligence review was compiled through physical visits, interviews and discussions with appropriate personnel and review of applicable documentation.

The following items were addressed within the due diligence:

- Background
- Transport Practice 1.1
- Transport Practice 1.5
- Transport Practice 1.6
- Transport Practice 2.1
- Finding.

Background

The Port of Auckland is New Zealand’s largest container port by volume and value. The Port has the best crane intensity and straddle carrier fleet of any port in New Zealand. Within the Port, the Fergusson Container Terminal is the largest and most advanced container terminal in New Zealand. It currently provides 32 ha of container storage and has five post-panamax ship-to-shore cranes on 610 m of berth. Each crane is twin-lift capable.

Emergency services (i.e. fire and rescue, police, ambulance and a major hospital) are located close by and are well versed in the port operations and required responses in the event of an emergency.

Orica utilise these facilities as a back-up for the supply of cyanide should the Port of Tauranga not be available.

Transport Practice 1.1

The Port is an element of the Orica Australia New Zealand Supply Chain.

Transport Practice 1.5

Orica’s product is packaged to the IMO DG Code requirements. It is packed into composite IBCs consisting of a 1300 kg bulk bag contained within a hermetically sealed plastic liner, placed in a wooden outer with an integral pallet base. As per the IMO DG Code this packaging is referenced as UN/11HD2/X****/AUS/Orica-30596/7020/1300 under the approval of the Competent Authority (where **** indicates the date the IBC was filled). Orica’s product is also packaged into purpose built and designed bulk sparge isotainers. These isotainers are subject to regular 2.5 and 5 year external inspection and testing regimens. Additionally, Orica inspects them internally after each utilisation.
Orica’s packaging is labelled as per the IMO DG Code. Bulk sparge isolators and shipping containers containing composite IBCs are placarded with an emergency information panel (EIP) detailing the proper shipping name, dangerous goods class number, UN number, HAZCHEM Code and emergency contact information. Containers are placarded with the environmentally hazardous substance label. Product labels are provided on the side of the IBC that allows forklift access via the pallet base. IBCs are placed into shipping containers so that the label is facing outwards.

Orica prepares a dangerous goods transport document known as the Multimodal Dangerous Goods Form. This form meets the requirements of the SOLAS 74, Chapter VII, Regulation 5 and the MARPOL 73/78, Annex III, Regulation 4. This form also has a container packaging certificate included that meets the requirements of Section 5.4.2 of the IMO DG Code, as well as emergency response information.

Upon arrival at the Port, the ship’s master provides the Port with a copy of the Multimodal Dangerous Goods Form.

**Transport Practice 1.6**

Port stevedores receive the vessel manifest on arrival, which includes the containers to be unloaded and handled by them. This information is then captured in the stevedore’s management systems, which assists with tracking of containers and locating appropriate storage locations upon unloading. Transport from the unloading berth to the interim storage facility is controlled by documentary checks detailing the container details and its contents.

**Transport Practice 2.1**

Containers are placarded in accordance with the labelling requirements of the IMO DG Code and thus display the relevant warning and safety information. This includes the Dangerous Goods class, UN Number and the HAZCHEM Code.

The Port has in place internal security procedures that are accredited under the International Ship and Port Security (ISPS) Code. Access to the Port is via security controlled gates and specific identification requirements are in effect. As a condition of entry into the Port, vehicles and bags may be subjected to random searches by security staff. Failure to comply with these searches may result in the denial of entry of the bags, vehicle or the individual in possession of them. In addition, there are random patrols of the Port’s environs and checks of personnel’s port access allowances.

Containers on arrival at the Port are segregated from incompatible substances and stored in the open to allow ventilation. All cyanide remains within the sealed containers at all times. Hazardous cargo procedures are in place to manage this process, as well as for spill management.

**Finding**

The due diligence concludes that the:

"Port of Auckland… meets Orica Mining Chemicals [sic] operational requirements."
3.2  Shipping

Orica has undertaken due diligences of the shipping lines used as part of the Orica New Zealand Supply Chain. These were conducted by David Ellison, ICMC Compliance Coordinator, Orica Mining Chemicals. Each due diligence notes that:

“Orica is not able to conduct inspections and checks on shipping vessels readily due to port safety and security issues. The Australian Government through the Australian Maritime Safety Authority (AMSA) and State Government through the Port State Control do however inspect and monitor cargo vessels that frequent Australian ports. These inspections ensure vessels are seaworthy, do not pose a pollution risk, provide healthy and safe work environments and comply with relevant international regulations. These inspections are not only carried out at Australian ports but internationally and set the operating standards for the international shipping companies.”

Each shipping line utilised in the Orica New Zealand Supply Chain is subject to the following:

**Australian Maritime Safety Authority**

The Australian Government’s AMSA represents Australia at the International Maritime Organisation (IMO) and other international forums in the development, implementation and enforcement of international standards governing ship safety, navigation, marine environment protection, ship operations, maritime security, crew competency, training and fatigue management.

Australia’s maritime regulatory framework is based on policies and guidelines relating to ship construction standards, ship survey and safety, crewing, seafarer’s qualifications and welfare, carriage and handling of cargoes, passengers and marine pollution prevention.

AMSA is responsible for implementing IMO regulations for all safety related aspects of marine carriage of all types including bulk liquid and solid cargoes, dangerous goods, general cargoes, containers, as well as standards and operations concerning cargo lifting gear.

Under provisions of the SOLAS 1974 Chapter 1 and Chapter VII, ships are subject to port state control inspections during which compliance with cargo requirements including stowage, segregation, packaging and documentation is verified.

AMSA represents Australia at the following related IMO sub-committees:

- Sub-Committee on Dangerous Goods, Solid Cargoes and Containers
- Sub-Committee on Bulk Liquids and Gases.

**Port State Control in Australia**

Port State Control (PSC) is one of the governmental strategies in place to ensure the above AMSA objectives are achieved. However, responsibility for the safety and operation of the vessel lies with the ship owners and flag states. PSC inspection are conducted to ensure that foreign ships visiting Australia ports are seaworthy, do not pose a pollution risk, provide healthy and safe work environments and comply with relevant international regulations.

**Powers of Inspection and Detention of a Ship**

AMSA marine surveyors may board a ship at any time to inspect and detain unseaworthy or substandard ships. For information purposes, these inspections include ensuring all dangerous goods cargoes are correctly documented on the manifest list, correctly stowed, segregated and especially for container vessels, all containers are correctly lashed onto the vessel and all fixtures and lashings are in suitable and working condition.
Cargo ships become eligible for a PSC inspection every six months. Selection of a ship for inspection depends on a number of factors, including risk to the environment, specific complaints and an AMSA targeting scheme. Surveyors are guided by a set of guidelines (i.e. Instructions to Surveyors and Ship Inspection Manual), which is based on resolutions of the IMO.

**Australian Department of Defence**

The Australian Department of Defence manages on behalf of the Government Australia’s commitments to the United Nations Chemicals Weapons Convention. All of Orica’s export customers are required to complete a Permit Application and have its application approved before Orica is permitted to export a product. Orica assists with the collection of the Permit from its customers and then together with its own documentation applies for the permit. Each customer’s Permit reference number is required on the export documentation. Orica cannot export without this approval.

### 3.2.1 Pacific International Lines

Orica conducted a due diligence of Pacific International Lines in 17 March 2013. The due diligence was conducted by David Ellison, ICMC Compliance Coordinator, Orica Mining Chemicals. The due diligence review was compiled through physical visits, interviews and discussions with appropriate personnel and review of applicable documentation.

The following items were addressed within the due diligence:

- Transport Practice 1.1
- Transport Practice 1.5
- Transport Practice 1.6
- Finding.

**Transport Practice 1.1**

Pacific International Lines is carrier service providing international shipping of containers on a fleet of their container vessels. Containers containing solid sodium cyanide are placed and secured on their vessels at the loading port (Port of Brisbane) by the stevedoring company and removed at the port of destination by the stevedoring company at that port.

Basically, an export or international route will include the following:

- Orica production, packaging and despatch
- Road and rail transportation to port
- International shipping to destination port
- Road transportation to customer (mining operation).

The international sales and export of solid sodium cyanide takes into consideration the shipping services available to service the intended target area. Orica only operates in export markets that are serviced by major international shipping companies with the ability to offer scheduled container services from the Port of Brisbane to the destination country or continent. Orica mainly uses Pacific International Lines for its international shipping to New Zealand due to its selection of services available and its weekly shipping schedule from Brisbane.
The route from the Port of Brisbane to New Zealand not definitive as ships can take varying routes to arrive at the same destination as they take into account tides, currents, wind and storms.

**Transport Practice 1.5**

Orica’s product is packaged into purpose designed and built and product dedicated bulk sparge isotainers or into composite IBCs contained within 20 foot general purpose shipping containers. Bulk sparge isotainers are rated for sea transportation and inspected by Bureau Veritas under the 2.5 and 5 year inspection regime in accordance with IMO DG Code requirements.

Composite intermediate bulk containers (IBC) consists of a 1300 kg bulk bag contained within a hermetically sealed plastic liner, placed in a wooden outer with an integral pallet base. As per the IMO DG Code this packaging is referenced as UN/11HD2/X/***/AUS/Orica-30596/7020/1300 under the approval of the Competent Authority (where ***/* indicates the date the IBC was filled).

Orica’s packaging is labelled as per the IMO DG Code. Bulk sparge isotainers and shipping containers containing composite IBCs are placarded with emergency information panel (EIP) detailing the proper shipping name, dangerous goods class number, UN number, HAZCHEM Code and emergency contact information. Containers are placarded with the environmentally hazardous substance markings. Product labels are provided on the side of the IBC that allows forklift access via the pallet base. IBCs are placed into shipping containers so that the label is facing outwards.

Orica prepares a dangerous goods transport document known as the *Multimodal Dangerous Goods Form*. This form meets the requirements of the SOLAS 74, Chapter VII, Regulation 5 and the MARPOL 73/78, Annex III, Regulation 4. This form also has a container packaging certificate included that meets the requirements of Section 5.4.2 of the IMO DG Code, as well as emergency response information.

Upon arrival at the Port, the ship’s master provides the Port with a copy of the *Multimodal Dangerous Goods Form*.

Pacific International Lines comply with the stowage and separation requirements of Chapter 7 of the IMO DG Code through the following:

- The *Multimodal Dangerous Goods Form* used by Orica and Pacific International Lines is the documented referenced in the ICMI guidance notes for compliance with the stowage and separation requirements.

- A copy of the Form is provided to Pacific International Lines for assigning the container reference numbers and sending the HAZCHEM bookings for finalisation. From the Form, data is entered into the Pacific International Lines tracking and monitoring system that allows for the determination of placement and segregation of the containers on the vessel and handling through shipment ports.

- All containers (stipulated by their reference number) must be finalised by the vessel loading cut-off time. This requires the Form to be provided between 48 and 24 hours prior to cut-off.

- Sodium cyanide is designated a “red line” cargo and is only loaded to the vessel when called in.

- Pacific International Lines is required to provide the Port of Brisbane a detailed list of all containers with dangerous goods that are loading onto a particular vessel.

- Upon approval, the loading plan is passed onto the stevedore for loading of the vessel.
Transport Practice 1.6

Pacific International Lines vessels have continuous means of tracking and communication during their voyages. In addition, the shipping line has its own in-house tracking systems for tracking freight, which is linked by the container number and Bill of Lading (BOL) number.

Finding

Orica’s due diligence concludes:

“Orica through its dealings with PIL [Pacific International Lines] has found them to be a professional organisation. The ongoing review as a service provider and this due diligence review has found no issues of concern I regards to PIL management and shipping of the solid sodium product [sic]. The review is not a final acceptance of PIL for future work and as with all service providers to Orica, Orica will continue to review and monitor their performance.

Any changes in state, national or international regulations, standards or laws can result in a total review of the international shipping requirements.”

3.2.2 Swire Shipping

Orica conducted a due diligence of Swire Shipping on 18 March 2013. The due diligence was conducted by David Ellison, ICMC Compliance Coordinator, Orica Mining Chemicals. The due diligence review was compiled through physical visits, interviews and discussions with appropriate personnel and review of applicable documentation.

The following items were addressed within the due diligence:

- Transport Practice 1.1
- Transport Practice 1.5
- Transport Practice 1.6
- Finding.

Transport Practice 1.1

Swire Shipping is a carrier service providing international shipping of containers on a fleet of their container vessels. Containers containing solid sodium cyanide are placed and secured on their vessels at the loading port (Port of Brisbane) by the stevedoring company and removed at the port of destination by the stevedoring company at that port.

Basically, an export or international route will include the following:

- Orica production, packaging and despatch
- Road and rail transportation to port
- International shipping to destination port
- Road transportation to customer (mining operation).
The international sales and export of solid sodium cyanide takes into consideration the shipping services available to service the intended target area. Orica only operates in export markets that are serviced by major international shipping companies with the ability to offer scheduled container services from the Port of Brisbane to the destination country or continent. Orica mainly uses Swire Shipping for its international shipping to Papua New Guinea and New Zealand due to its selection of services available and its weekly shipping schedule from Brisbane.

The routes from the Port of Brisbane to Papua New Guinea and New Zealand are not definitive as ships can take varying routes to arrive at the same destination as they take into account tides, currents, wind and storms.

**Transport Practice 1.5**

Orica’s product is packaged into purpose designed and built and product dedicated bulk sparge isotainers or into composite IBCs contained within 20 foot general purpose shipping containers. Bulk sparge isotainers are rated for sea transportation and inspected by Bureau Veritas under the 2.5 and 5 year inspection regime in accordance with IMO DG Code requirements.

Composite intermediate bulk containers (IBC) consists of a 1300 kg bulk bag contained within a hermetically sealed plastic liner, placed in a wooden outer with an integral pallet base. As per the IMO DG Code this packaging is referenced as UN/11HD2/X/****/AUS/Orica-30596/7020/1300 under the approval of the Competent Authority (where **** indicates the date the IBC was filled).

Orica’s packaging is labelled as per the IMO DG Code. Bulk sparge isotainers and shipping containers containing composite IBCs are placarded with an emergency information panel (EIP) detailing the proper shipping name, dangerous goods class number, UN number, HAZCHEM Code and emergency contact information. Containers are placarded with the environmentally hazardous substance markings. Product labels are provided on the side of the IBC that allows forklift access via the pallet base. IBCs are placed into shipping containers so that the label is facing outwards.

Orica prepares a dangerous goods transport document known as the *Multimodal Dangerous Goods Form*. This form meets the requirements of the SOLAS 74, Chapter VII, Regulation 5 and the MARPOL 73/78, Annex III, Regulation 4. This form also has a container packaging certificate included that meets the requirements of Section 5.4.2 of the IMO DG Code, as well as emergency response information.

Upon arrival at the Port, the ship’s master provides the Port with a copy of the *Multimodal Dangerous Goods Form*.

Pacific International Lines comply with the stowage and separation requirements of Chapter 7 of the IMO DG Code through the following:

- The *Multimodal Dangerous Goods Form* used by Orica and Pacific International Lines is the documented referenced in the ICMI guidance notes for compliance with the stowage and separation requirements.
- A copy of the Form is provided to Swire Shipping for assigning the container reference numbers and sending the HAZCHEM bookings for finalisation. From the Form, data is entered into the Pacific International Lines tracking and monitoring system that allows for the determination of placement and segregation of the containers on the vessel and handling through shipment ports.
- All containers (stipulated by their reference number) must be finalised by the vessel loading cut-off time. This requires the Form to be provided between 48 and 24 hours prior to cut-off.
Sodium cyanide is designated a “red line” cargo and is only loaded to the vessel when called in.

Pacific International Lines is required to provide the Port of Brisbane a detailed list of all containers with dangerous goods that are loading onto a particular vessel.

Upon approval, the loading plan is passed onto the stevedore for loading of the vessel.

**Transport Practice 1.6**

Swire Shipping vessels have continuous means of tracking and communication during their voyages. In addition, the shipping line has its own in-house tracking systems for tracking freight, which is linked by the container number and Bill of Lading (BOL) number.

**Finding**

Orica’s due diligence concludes:

"Orica through its dealings with Swire Shipping has found them to be a professional organisation. The ongoing review as a service provider and this due diligence review has found no issues of concern I regards to Swire Shipping management and shipping of the solid sodium product [sic]. The review is not a final acceptance of Swire Shipping for future work and as with all service providers to Orica, Orica will continue to review and monitor their performance.

Any changes in state, national or international regulations, standards or laws can result in a total review of the international shipping requirements."

### 3.2.3 Hamburg SUD

Orica conducted a due diligence of Hamburg SUD on 15 March 2013. The due diligence was conducted by David Ellison, ICMC Compliance Coordinator, Orica Mining Chemicals. The due diligence review was compiled through physical visits, interviews and discussions with appropriate personnel and review of applicable documentation.

The following items were addressed within the due diligence:

- **Transport Practice 1.1**
- **Transport Practice 1.5**
- **Transport Practice 1.6**
- **Finding**

**Transport Practice 1.1**

Hamburg SUD is a carrier service providing international shipping of containers on a fleet of their container vessels. Containers containing solid sodium cyanide are placed and secured on their vessels at the loading port (Port of Brisbane) by the stevedoring company and removed at the port of destination by the stevedoring company at that port.
Basically, an export or international route will include the following:

- Orica production, packaging and despatch
- Road and rail transportation to port
- International shipping to destination port
- Road transportation to customer (mining operation).

The international sales and export of solid sodium cyanide takes into consideration the shipping services available to service the intended target area. Orica only operates in export markets that are serviced by major international shipping companies with the ability to offer scheduled container services from the Port of Brisbane to the destination country or continent. Orica mainly uses Hamburg SUD for its international shipping to South American and New Zealand ports due to its selection of services available and its regular shipping schedule from Brisbane.

The route from the Port of Brisbane to ports in New Zealand is not definitive as ships can take varying routes to arrive at the same destination as they take into account tides, currents, wind and storms.

Transport Practice 1.5

Orica’s product is packaged into purpose designed and built and product dedicated bulk sparge isotainers or into composite IBCs contained within 20 foot general purpose shipping containers. Bulk sparge isotainers are rated for sea transportation and inspected by Bureau Veritas under the 2.5 and 5 year inspection regime in accordance with IMO DG Code requirements.

Composite intermediate bulk containers (IBC) consists of a 1300 kg bulk bag contained within a hermetically sealed plastic liner, placed in a wooden outer with an integral pallet base. As per the IMO DG Code this packaging is referenced as UN/11HD2/X/***/AUS/Orica-30596/7020/1300 under the approval of the Competent Authority (where **** indicates the date the IBC was filled).

Orica’s packaging is labelled as per the IMO DG Code. Bulk sparge isotainers and shipping containers containing composite IBCs are placarded with and emergency information panel (EIP) detailing the proper shipping name, dangerous goods class number, UN number, HAZCHEM Code and emergency contact information. Containers are placarded with the environmentally hazardous substance markings. Product labels are provided on the side of the IBC that allows forklift access via the pallet base. IBCs are placed into shipping containers so that the label is facing outwards.

Orica prepares a dangerous goods transport document known as the Multimodal Dangerous Goods Form. This form meets the requirements of the SOLAS 74, Chapter VII, Regulation 5 and the MARPOL 73/78, Annex III, Regulation 4. This form also has a container packaging certificate included that meets the requirements of Section 5.4.2 of the IMO DG Code, as well as emergency response information.

Upon arrival at the Port, the ship’s master provides the Port with a copy of the Multimodal Dangerous Goods Form.
Pacific International Lines comply with the stowage and separation requirements of Chapter 7 of the IMO DG Code through the following:

- The *Multimodal Dangerous Goods Form* used by Orica and Pacific International Lines is the documented referenced in the ICMI guidance notes for compliance with the stowage and separation requirements.

- A copy of the Form is provided to Pacific International Lines for assigning the container reference numbers and sending the HAZCHEM bookings for finalisation. From the Form, data is entered into the Pacific International Lines tracking and monitoring system that allows for the determination of placement and segregation of the containers on the vessel and handling through shipment ports.

- All containers (stipulated by their reference number) must be finalised by the vessel loading cut-off time. This requires the Form to be provided between 48 and 24 hours prior to cut-off.

- Sodium cyanide is designated a “red line” cargo and is only loaded to the vessel when called in.

- Hamburg SUD is required to provide the Port of Brisbane a detailed list of all containers with dangerous goods that are loading onto a particular vessel.

- Upon approval, the loading plan is passed onto the stevedore for loading of the vessel.

**Transport Practice 1.6**

Hamburg SUD vessels have continuous means of tracking and communication during their voyages. In addition, the shipping line has its own in-house tracking systems for tracking freight, which is linked by the container number and Bill of Lading (BOL) number.

**Finding**

Orica’s due diligence concludes:

“Orica through its dealings with Hamburg SUD has found them to be a professional organisation.

The ongoing review as a service provider and this due diligence review has found no issues of concern I regards to Hamburg SUD management and shipping of the solid sodium product [sic]. The review is not a final acceptance of Hamburg SUD for future work and as with all service providers to Orica, Orica will continue to review and monitor their performance.

Any changes in state, national or international regulations, standards or laws can result in a total review of the international shipping requirements.”

**3.3 Auditor Review of Due Diligences**

The due diligences presented were found by the Golder ICMC Technical Specialis t to sufficiently evaluate the port and shipping operations, and additional management measures by the consigner were not considered necessary.

**4.0 LIMITATIONS**

Your attention is drawn to the document - “Limitations”, which is included as Appendix A to this report. The statements presented in this document are intended to advise you of what your realistic expectations of this report should be. The document is not intended to reduce the level of responsibility accepted by Golder, but rather to ensure that all parties who may rely on this report are aware of the responsibilities each assumes in so doing.
APPENDIX A

Limitations
LIMITATIONS

This Document has been provided by Golder Associates Pty Ltd ("Golder") subject to the following limitations:

This Document has been prepared for the particular purpose outlined in Golder’s proposal and no responsibility is accepted for the use of this Document, in whole or in part, in other contexts or for any other purpose.

The scope and the period of Golder’s Services are as described in Golder’s proposal, and are subject to restrictions and limitations. Golder did not perform a complete assessment of all possible conditions or circumstances that may exist at the site referenced in the Document. If a service is not expressly indicated, do not assume it has been provided. If a matter is not addressed, do not assume that any determination has been made by Golder in regards to it.

Conditions may exist which were undetectable given the limited nature of the enquiry Golder was retained to undertake with respect to the site. Variations in conditions may occur between investigatory locations, and there may be special conditions pertaining to the site which have not been revealed by the investigation and which have not therefore been taken into account in the Document. Accordingly, additional studies and actions may be required.

In addition, it is recognised that the passage of time affects the information and assessment provided in this Document. Golder’s opinions are based upon information that existed at the time of the production of the Document. It is understood that the Services provided allowed Golder to form no more than an opinion of the actual conditions of the site at the time the site was visited and cannot be used to assess the effect of any subsequent changes in the quality of the site, or its surroundings, or any laws or regulations.

Any assessments made in this Document are based on the conditions indicated from published sources and the investigation described. No warranty is included, either express or implied, that the actual conditions will conform exactly to the assessments contained in this Document.

Where data supplied by the client or other external sources, including previous site investigation data, have been used, it has been assumed that the information is correct unless otherwise stated. No responsibility is accepted by Golder for incomplete or inaccurate data supplied by others.

Golder may have retained subconsultants affiliated with Golder to provide Services for the benefit of Golder. To the maximum extent allowed by law, the Client acknowledges and agrees it will not have any direct legal recourse to, and waives any claim, demand, or cause of action against, Golder’s affiliated companies, and their employees, officers and directors.

This Document is provided for sole use by the Client and is confidential to it and its professional advisers. No responsibility whatsoever for the contents of this Document will be accepted to any person other than the Client. Any use which a third party makes of this Document, or any reliance on or decisions to be made based on it, is the responsibility of such third parties. Golder accepts no responsibility for damages, if any, suffered by any third party as a result of decisions made or actions based on this Document.
At Golder Associates we strive to be the most respected global company providing consulting, design, and construction services in earth, environment, and related areas of energy. Employee owned since our formation in 1960, our focus, unique culture and operating environment offer opportunities and the freedom to excel, which attracts the leading specialists in our fields. Golder professionals take the time to build an understanding of client needs and of the specific environments in which they operate. We continue to expand our technical capabilities and have experienced steady growth with employees who operate from offices located throughout Africa, Asia, Australasia, Europe, North America, and South America.