

ENDEAVOUR INVESTMENTS (NT) Pty Ltd

**Golden Crown Project
Northern Territory**

**SITE
INDUCTION MANUAL**

June 2017

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INDUCTION MANUAL FOR FIELD OPERATIONS

1. INTRODUCTION

This manual has been prepared to assist and guide all members of staff in fulfilling their legal and moral responsibility for the health and safety of those employees subordinate to themselves.

The achievement of optimum results in the area of Occupational Safety and Health relies on adherence to the procedures developed and implemented. Departure from these procedures is not acceptable.

All employees must be constantly reminded that their obligation to themselves and other personnel, to their families, society and employer is that safety is paramount.

2. RESPONSIBILITIES

The ultimate responsibility for workplace health and safety within CR & E lies with the **manager**. This person is ultimately responsible for the delivery and maintenance of a safe work place for all employees and members of CR & E at their exploration site.

The **manager** is responsible to ensure that the workplace is safe, and that the OH & S policies and procedures are relevant, adequate and adhered to.

All employees are responsible for their own safety and that of others and specifically must:

- Report any incidents or hazards at work to the chief geological officer or exploration geologist;
- Carry out their roles and responsibilities as detailed in the relevant health and safety policies and procedures;
- Ensure they do not undertake tasks for which they do not have adequate training/experience or supervision to do so safely
- Undertake training as provided by the company from time to time as identified.
- Obey any reasonable instruction aimed at protecting their health and safety while at work;
- Use any equipment provided to protect their health and safety while at work;
- Assist in the identification of hazards, the assessment of risks and implementation of risk control measures;
- Consider and provide feedback on any matters which may affect their health and safety;
- Ensure they are not affected by alcohol or another drug which may endanger their own or any other employee's health and safety.

3. BASIC SAFETY REQUIREMENTS

The basic safety requirements for exploration field work are:

- First aid certificate required for all employees within 3 months of commencing work.
- Steel capped safety footwear to be worn at all times.
- Sunhat, sunscreen and a collared, sleeved shirt (sleeves not to be removed) to be worn at all times during daylight hours.
- Safety hard hats to be worn at all times when working on or within 50 metres of all drilling rigs or when visiting rigs.
- Hearing and eye protection should be used when working close to drilling rigs.
- Hard hats and eye protection is to be worn when sampling costeans and eye protection when engaged on rock chipping programs.
- Hearing and eye protection is to be worn at all times when cutting core, operating chain saws and using angle or bench grinders, weed eaters, impact tools and corrosive chemicals.
- Everyone who is in a camp at the time that a safety meeting is being held must attend the meeting.

4. RISKS

A large number of risks are associated with exploration field work.

These vary from being risks that are common with life threatening consequences to those that are less likely with relatively minor consequences. However usually simple precautions can be taken and some prior planning done to minimise the chances of any of them occurring.

Principal risks have been identified which are routinely encountered during the course of exploration field work. These listed below in the following section and corresponding safe working practices have been developed and presented in the subsequent section.

From time to time new risks are identified and these must be addressed through the Job Hazard Assessment process to ensure the safe working environment is maintained.

5. PRINCIPAL RISKS

Nature	Potential to Occur	Health Consequences
1. Lost and Immobilised	low - moderate	minor - fatal
2. Drilling rig dangers	low - moderate	minor - fatal
3. Driving Vehicles	low	minor - fatal
4. Working on vehicles	moderate	minor - life threatening
5. Machinery operation	low – moderate	minor – fatal
6. Handling chemicals	low	Minor - moderate
7. Setting up camps	low	Minor - serious
8. Manual Handling	moderate	minor - moderate
9. Fire - In camp In the bush	low low	minor - serious minor - serious
10. Storms & Lightning Strikes	low (Dry season)	serious - fatal
11. Body Dehydration	moderate (all year)	minor - fatal
12. Sunburn	moderate (all year)	minor - serious
13. 'Gastro'	low	minor - serious
14. Ross River Virus	low	minor - moderate
15. Snake bite	low	moderate – fatal
16. Drug Intoxication	low	minor - serious

6. STANDARD OPERATING PROCEDURES

These have been devised and agreed upon after consultation with a large number of suitably experienced and qualified people and as the result of carrying on remote exploration operations. Generally they are not onerous and they minimise the risks inherent in working in this remote area. Employees who repeatedly refuse to obey these procedures can be dismissed from employment.

6.1. ACCIDENTS, SAFETY INCIDENTS AND DANGEROUS SITUATIONS

An **accident** is an incident that has resulted in death, injury or property damage.

A **safety incident** is an event like a near miss where risk was underestimated and no injury or damage resulted but only due to luck, experience or quick thinking. Safety incidents are as important as accidents when it comes to reporting because if corrective measures can be taken they can prevent an accident causing injury.

Dangerous situations are simply circumstances that have the potential to cause an accident eg a large pothole in a track or machinery which is being used dangerously.

They can be of either *future or immediate risk*. An example of a *future risk situation* is a minor mechanical defect which if left unattended may develop into a major problem ie Toyota 4WD clutch not engaging properly or the brakes not working as they should. An *immediate risk situation* is one that must be attended to immediately to avoid an accident or incident. Such a situation may be your driver (regardless of his seniority) driving too fast for the road or track conditions or a field assistant putting his hand up a sample collection cyclone during a drilling program. Anyone who identifies an immediate risk situation must immediately bring it to the attention of those with whom they are working before an injury occurs or make the situation safe. They must then either immediately report it to someone more senior for attention or attend to the matter themselves. If any warning is not heeded the endangering party can be disciplined and this can involve instant dismissal – regardless of their seniority.

6.1.1. Reporting

It is vitally important that all near misses, accidents, injuries and dangerous situations be reported as soon as possible after they occur. There are both Statutory and Corporate requirements to do this as well as our own need so that we can prevent repeat accidents. The task of reporting should be looked at as necessary to keep the workplace safe rather than an onerous duty.

Not all dangerous situations and incidents require the completion of a report and an investigation. However, they should all be discussed with the **manager** who will recommend a course of action for the person to follow. Regardless of the type of incident, accident or dangerous situation, the same form is used. Such incidents will require a report to be prepared by the injured person or those involved in the accident or near miss and any witnesses. The **responsibility** for preparing the report, ensuring its completeness and forwarding on, is the **manager** for the project or the person in charge of the injured person at the time.

7. MANAGEMENT OF IDENTIFIED PRINCIPAL RISKS

7.1. LOST AND/OR IMMOBILISED

This is by far the most commonly faced risk each day fieldwork is carried out. An extensive standard operating procedure (SOP) has been developed – ‘*Emergency Procedures*’. **This SOP must be followed every day work is conducted away from the main camps.** It is located at the end of this document and must be read, understood and used.

7.2. EXCAVATORS

At no time are CR & E employees permitted to assist the contractors in the operation of their machines. **There are no exceptions to this rule.**

If you see a dangerous situation, immediately notify the operator to rectify it.

Attract the operators attention without having to stand close to the excavator.

7.3. DRIVING

If an accident occurs resulting in injury, rescue and medical attention is much longer in coming due to the remoteness of the location. Therefore, be careful. The following points to remember are:

- Don't speed. Drive at a speed appropriate to the ground conditions. On some roads or tracks, even driving at 20 km/hour driving may be unsafe or damage your vehicle.
- Watch out for other road users. Just because you have not seen another vehicle for a day, does not mean that you should not be alert for one.
- Take care on entering main roads from a bush track.
- If you lose control of your vehicle whilst driving take your foot off the accelerator and steer the vehicle as best as possible. Apply gentle brake pressure but don't jump on the brakes.
- Allow plenty of time to reach your destination and don't rush just because you are running a bit late.
- **Do not exceed the maximum cab capacity**
- No one is permitted to travel on the tray

- The driver and passengers of a vehicle must wear seat belts at all times that it is in use.
- Monitor fuel, water temperature and battery charging gauges frequently whilst driving and learn where they sit under normal operating conditions. If the coolant temperature gauge is showing hot, **STOP**, and rectify the problem.
- Engage 4WD when in loose sand and partially deflate tyres to increase traction if you need to (but make sure that you re-inflate them when you return to hard ground).

7.3.1. Wheel Changing Procedure

- Select hard, level ground where possible
- Turn off the engine, engage reverse or first gear, apply the handbrake and chock the wheels.
- Release the spare wheel from its mounting and place it on the ground near the wheel that is to be removed. It is very important to do this before the vehicle is jacked up because the movement can cause the jack to dislodge.
- Start to jack up the corner of the vehicle either by putting the small jack under the axle and leaf spring or by using the kangaroo jack to lift the corner of the vehicle.
- Before the wheel is lifted clear of the ground, loosen all the wheel nuts. If you wait until the wheel is free of the ground the wheel nuts are so tight that the wheel turns or the vehicle rolls off the jack.
- Jack the tyre clear of the ground and remove the wheel from the hub.

At no time should you put any part of your body under the vehicle without a wheel being attached to the hub. Many people have been pinned, crushed and perished by a vehicle rolling off a jack.

- Fit and attach the spare wheel by holding it on the sides (not top and bottom) and loosely tighten the wheel nuts.
- Lower the jack and firmly tighten the nuts with the wheel brace.
- After driving away stop after 5 minutes and check the wheel nut tension. The nuts can work loose if the wheel is not properly seated on the hub. This has happened before and can destroy the wheel, its studs and the hub if the wheel comes off. More importantly it can cause a major accident and immobilise your vehicle.

7.4. MANUAL HANDLING

Manual handling is everyday type activities such as carrying, stacking, pushing, pulling, rolling, sliding, lifting or lowering loads. Injuries that are a result of a manual-handling incident include twisted ankles, sprains and strains, torn ligaments or broken bones.

Many risks arising from manual handling can often be controlled by simple solutions. Workers should ensure they are fit for the task, that their work place is well arranged, kept tidy and free from trip and slip hazards. They must avoid twisting and bending while lifting and carrying. Lifting loads exceeding 15kg must be risk assessed and where ever possible use a two person lift.

7.5. FIRE

7.5.1. In Camp

Control the fire only if it is safe to do so – otherwise remain clear and maintain personal safety and that of others.

7.5.2. In the Bush

Each year lightning strikes start wild fires throughout the Territory. These fires can be very dangerous and burn for several months across thousands of square kilometres, depending on the amount of accompanying rain and plant fuel available.

If a wild fire is burning in your area keep eye on it, plan an escape route and leave the area when it is clear that it is approaching you or those with whom you are working.

Do not light bush fires. When camping out in fly camps ensure that the campsite is either free of spinifex (by clearing or occupying a Mulga thicket) or the growth is low and sparse. Keep campfires constrained so that they cannot spread.

In established field camps that will be in regular or constant use, a firebreak of about 10 metres width needs to be cut to fully encircle the camp.

7.6. STORMS AND LIGHTNING STRIKES

Storms can occur during the wet season between October and March. They are often accompanied by fierce lightning, strong winds (up to 100 km/hour) and a lot of rain very quickly. **They are to be avoided at all costs.** If a storm is approaching when you are in the field, leave the area well ahead of it.

Drilling rigs with their masts up attract lightning particularly when they are drilling beneath the water table. If a storm is observed drilling must cease and everyone must move away from the rig until it is deemed safe to return.

If a storm is approaching your camp, prepare by

- securing any objects that are likely to blow away,
- closing all windows in all rooms, vehicles and caravans
- turn off the generator if your camp is running on one,
- disconnecting H.F. radios from their antennas, turning off the radios and switching off all computer equipment and removing the power plugs from their sockets.
- sitting out the storm in either a vehicle or a tied down transportable unit.

7.7. BODY DEHYDRATION

During all of the year in the Territory, your body heats up due to the high ambient temperature, radiant heat from the sun and direct exposure of your skin to the sun.

Therefore, it is essential to always wear a hat and sleeved shirt and to drink as much water as possible to replace what is lost principally through perspiration. It is strongly advised that you limit yourself to water when out in the field during the day. You may need more than ten litres on a hot day depending on your activity. Avoid carbonated drinks at all costs until late in the day, or when you return to camp.

Carbonated drinks contain gas and sugar that you don't need and salt to make you thirsty. You can drink some of the electrolytes that are commercially available but preferably late in the day and not frequently - the Australian diet is not short on salt. At the end of the day, drink as much as possible of anything that you prefer.

After a few weeks of working in hot weather, your body acclimatises and you will have learned how much fluid that you need. Initially, be very aware and look for the telltale signs in both yourself and the others with whom you are working - lack of sweating, dizziness, headache and shivering. A rule for you is to monitor your urination frequency. You are drinking enough if you urinate every few hours.

7.8. SUNBURN

During the hot months of October to March, the risk of sunburn to the skin is extreme and at all other times it is high. In addition, the continued exposure of unprotected skin to the sun greatly increases the risk of acquiring skin cancer later in life.

All employees are required to wear a sun hat (or hard hat with a sun rim); collared shirt and sunscreen on skin exposed to the sun **at all times**. All these items are supplied at no cost to employees.

7.9. 'GASTRO'

By this term we refer to various, and usually not directly serious, gastro-intestinal disorders of a bacterial nature. The normal symptoms include nausea, stomach pain, vomiting and diarrhoea. The condition is extremely uncomfortable and can be very serious if it causes dehydration. It should always be considered serious and treatment should be sought. The cause of this infection can usually be traced to either contaminated food or inadequate personal hygiene.

Prior to preparing food, the work surfaces must be cleaned down and the hands involved in the preparation washed in hot soapy water.

All food containers, cutlery and crockery covered with food must be washed with hot water and detergent as soon as possible after use. Do not leave these items unwashed for more than a few hours.

Frozen food should be thawed out in a covered situation where flies cannot get to it. Uncooked thawed food must never be re-frozen - cook it or throw it out.

All other food should be kept hot if it is hot food or kept cold if it is cold food in covered situations during meal times. Eat food as soon as possible after preparation and put prepared food in the refrigerator as soon as possible after it is no longer required.

Be sure that you wash your hands prior to eating any food.

7.10. SNAKE BITE

Two broad categories exist: non-venomous pythons and highly venomous brown snakes. **You should consider all snakes as venomous and keep well clear of them. Never try to catch a snake.**

If you see a snake or hear a rustling noise that could be caused by one, immediately move away. When camping out check your bedding at night before use.

8. CONTRIBUTING FACTORS

Contributing factors are not in themselves safety hazards but rather their influence or otherwise contribute to the likelihood and severity of accidents due to hazards such as those described in the previous section.

Contributing factors work largely due to impaired brain function reducing the individuals awareness of their surroundings and decision making ability. The only direct hazard contributing factors pose is to the long term wellbeing of the individual and as such should be reduced through workplace management.

While Kingston Resources will strive to structure the work place environment such that contributing factors are eliminated or managed, the ultimate responsibility lies with the employee to ensure to the best of their ability that they are fit for work.

The following subsections are the identified contributing factors and Kingston Resources strategy to manage them.

8.1. DRUG INTOXICATION

For reasons of safety alone, employees are not permitted to work whilst under the influence of intoxicating drugs. These include alcohol, non-prescribed and some prescribed drugs.

The use of non-prescribed drugs is prohibited, the penalty for which can be instant dismissal as it is a breach of the conditions of employment.

Prescribed drug use is permitted where it does not impair a persons ability to work safely. If this is in doubt, a medical practitioners advice will be required.

Where a person is suspected of being alcohol intoxicated, they will cease work immediately and their employment will be terminated.

8.2. FATIGUE

While fatigue is not in itself a safety hazard it is a major contributing factor to the incidence and severity of accidents. Kingston Resources will ensure work days do not exceed 10 hours per day over a three week period. Work undertaken in excess of that time will be on the basis of risk assessment.

8.3. MORALE

Work place morale is an identified contributing factor which all employees including supervisors and managers need to be aware of. A negative work place morale is unnecessary and can distract employees from safety awareness. Increased staff turnover as a result of poor work place morale results in a loss of experience reducing workplace safety.

Monitoring of the workplace and open discussion is necessary to resolve issues that may adversely affect morale.

9. JOB HAZARD ASSESSMENT

When a task is required to be undertaken that is either new or materially different from when it was previously performed, then a Job Hazard Assessment must be undertaken to identify any new risks and develop a procedure to manage those risks via the hierarchy of control to ensure the safe work environment is maintained.

The process which is detailed in the Job Hazard Assessment Procedure comprises the following sequence:

- Identify the potential hazards
- Assess the risks and likely consequences via the risk matrix
- Develop strategies to either eliminate, reduce or manage the risk via the hierarchy of controls
- Monitor and assess the controls to ensure level of risk remains at an acceptable level.

When you have read and understand Kingston Resources Induction Manual please sign this page. This Induction Manual is yours for the duration of your employment by Kingston Resources Ltd.

Project: Great Northern Project

Date:.....

Name

Company

Position

Signature

APPENDICES

APPENDIX 1

EMERGENCY PROCEDURES

APPENDIX 2

WEED MANAGEMENT HANDBOOK

APPENDIX 3

THREATENED SPECIES HANDBOOK