



Issued by: Global Operations Manager	Variations, which may have regional or locational significance, are contained in SOP Documents as specific appendices.		
HSEC	Pages 1 of 11	Issue No. 002 Date May 2003	Global SOP BHPB Exploration



Standard Operating Procedure for Exploration Camps

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<p>1. DEFINITION AND INTRODUCTION</p> <p>Exploration camps are defined as any site constructed or maintained for meals and accommodation, storage, communication or logistics for any length of time.</p> <p>Exploration camps may include fly camps, tent camps, caravans, portable units, purpose-built structures, houses, property dwellings, remote storage facilities, etc. used on a casual, temporary, seasonal, or semi-permanent basis.</p> <p>Established safety procedures, careful planning and a concern for the environment are essential for good camp management. Field camps should contain the necessary equipment for employees to work safely and efficiently in the field. At the same time, camps should make as little impact as possible on the environment.</p> <p>All BHP Billiton Mineral Exploration and contractors' employees in field camps must understand and affirm the following principles in all aspects of their work:</p>	<p>Project: <input style="width: 100%;" type="text"/></p> <p>Location: <input style="width: 100%;" type="text"/></p> <p>Date: <input style="width: 100%;" type="text"/></p> <p>Reviewer: <input style="width: 100%;" type="text"/></p>
	Comments
<ul style="list-style-type: none"> ▪ All injuries can be prevented. 	<input type="checkbox"/>
<ul style="list-style-type: none"> ▪ All operating exposures can be safeguarded. 	<input type="checkbox"/>
<ul style="list-style-type: none"> ▪ We are all responsible for safety. 	<input type="checkbox"/>
<ul style="list-style-type: none"> ▪ Management is accountable for safety performance. 	<input type="checkbox"/>
<ul style="list-style-type: none"> ▪ Working safely is a condition of employment. 	<input type="checkbox"/>
<ul style="list-style-type: none"> ▪ Training employees to work safely is essential. 	<input type="checkbox"/>
<ul style="list-style-type: none"> ▪ Everyone has the right to challenge, or refuse to work in unsafe conditions. 	<input type="checkbox"/>



Standard Operating Procedure for Exploration Camps

2. PERMISSIONS Prior to establishing a camp, obtain permission and/or permits from local landowners and regulatory agencies.	Comments
<ul style="list-style-type: none">▪ Obtain all required permits. These include permits needed for the site, fire, sanitation, etc. Permits may be needed from various governmental regulatory levels or from aboriginal groups.	<input type="checkbox"/>
<ul style="list-style-type: none">▪ Permission to use or access private land is always required even though permits may not be necessary. All field employees must extend full courtesy to landowners and follow their directions regarding the use and closure of gates, access through stock grazing lands, use of water sources and private roads. Always keep landowners informed of your presence and the methods of transportation that you use. Inform them whenever you plan to use helicopters.	<input type="checkbox"/>
3. EMERGENCY RESPONSE PLANS An emergency Response plan must be produced for the camp and incorporate project and regional Emergency plans.	Comments
<ul style="list-style-type: none">▪ Each camp will have an ERP in place.	<input type="checkbox"/>
<ul style="list-style-type: none">▪ All occupants and visitors to the camp must receive an ERP induction and be fully conversant in their personal responsibilities, i.e. knowledge of evacuation plan, communications equipment, fire drills, designated site safety officer.	<input type="checkbox"/>
<ul style="list-style-type: none">▪ A site survey has been undertaken to establish risks and an evacuation plan has been formulated and tested.	<input type="checkbox"/>



Standard Operating Procedure for Exploration Camps

4. FIRST AID First aid training and equipment is important part of any camp and each camp must ensure that:	Comments
<ul style="list-style-type: none">▪ First Aid kit(s) and supplies appropriate for the location and number of occupants and visitors will be located in all camps.	<input type="checkbox"/>
<ul style="list-style-type: none">▪ Contents of first aid kits must be checked regularly and the contents kept fully stocked with in date supplies (it is recommended that you keep a daily record of all drugs and supplies used).	<input type="checkbox"/>
<ul style="list-style-type: none">▪ Certified medical personnel are available in larger camps according to local statutory regulations and identified needs.	<input type="checkbox"/>
<ul style="list-style-type: none">▪ Adequate numbers of on-site personnel are trained in First Aid.	<input type="checkbox"/>
5. CAMP LOCATION Use common sense when choosing a location for either a permanent or temporary camp. Comply with local regulations and always locate campsites away from potential hazards. Follow these guidelines:	Comments
<ul style="list-style-type: none">▪ Obtain all required permits. These include permits needed for the site, fire, sanitation, etc. Permits may be needed from various governmental regulatory levels or from aboriginal groups.	<input type="checkbox"/>
<ul style="list-style-type: none">▪ Permission to use or access private land is always required even though permits may not be necessary. All field employees must extend full courtesy to landowners and follow their directions regarding the use and closure of gates, access through stock grazing lands, use of water sources and private roads. Always keep landowners informed of your presence and the methods of transportation that you use. Inform them whenever you plan to use helicopters.	<input type="checkbox"/>



Standard Operating Procedure for Exploration Camps

<ul style="list-style-type: none"> ▪ If possible, check with people who have previously used a specific campsite to identify potential problems and confirm its suitability. 	<input type="checkbox"/>
<ul style="list-style-type: none"> ▪ Establish a camp as near to the fieldwork site as possible. This diminishes travel time and exposure to dangers associated with transportation to and from the work site. 	<input type="checkbox"/>
<ul style="list-style-type: none"> ▪ Wherever possible, choose an open area with an adequate supply of safe drinking water. 	<input type="checkbox"/>
<ul style="list-style-type: none"> ▪ Ensure the available camp space is large enough to operate comfortably and safely for the expected duration of the camp. Take into account the need for expansion should the prospect progress. 	<input type="checkbox"/>
<ul style="list-style-type: none"> ▪ Wherever possible, avoid the following campsite hazards: dangerous trees and overhanging branches, areas prone to flooding, rock-falls, landslides, mudslides, avalanches, unstable ground, steep terrain, stumps, possibility of brush fire, etc. 	<input type="checkbox"/>
<ul style="list-style-type: none"> ▪ Locate campsites away from the base of cliffs. Avoid windswept areas such as ridges or gullies to minimise wind damage. Avoid dry streambeds and shorelines of lakes or streams. 	<input type="checkbox"/>
<ul style="list-style-type: none"> ▪ Address site problems such as: confined working space, the need for special platforms for steep terrain, guard barriers to prevent falls into old open mine works, adequate access and parking space for service vehicles and equipment, aircraft, etc. 	<input type="checkbox"/>
<ul style="list-style-type: none"> ▪ Check for power lines, cables, gas and water pipelines. If present, contact appropriate authorities before any digging or drilling commence. 	<input type="checkbox"/>
<ul style="list-style-type: none"> ▪ Assess the fire hazard of a campsite, whether for forest fire, bush fire or tent fire. Plan the campsite with attention to the requirements of emergency evacuation plans. 	<input type="checkbox"/>
<ul style="list-style-type: none"> ▪ Pay special attention to wind direction and the possibility of 1) blowing dust from roads and vehicles, 2) the spread of fire from fuel storage areas, 3) drifting snow when you locate winter campsites and 4) the possible cooling effect of wind in warm climates. Locate vehicles and fuels, etc., downwind from camps. 	<input type="checkbox"/>
<ul style="list-style-type: none"> ▪ Avoid locating a camp on soils that may become dusty when dry or muddy when wet. 	<input type="checkbox"/>



Standard Operating Procedure for Exploration Camps

<ul style="list-style-type: none"> Animal hazards. Locate campsites far away from water where crocodiles may reside, even at the expense of a convenient, safe drinking water supply. Locate campsites away from game trails or feeding areas and avoid bee, wasp, ant or other insect nests. 	<input type="checkbox"/>
<ul style="list-style-type: none"> Whenever possible, try to establish campsites at least one kilometre away from swampy areas, stagnant waters or areas with drainage problems. This will reduce the numbers of insects and the risk of mosquito-borne diseases such as malaria. 	<input type="checkbox"/>
<ul style="list-style-type: none"> Do not camp near rocky areas if sandfly-borne diseases are a problem. 	<input type="checkbox"/>
<ul style="list-style-type: none"> Determine any specialised equipment requirements for the field camp. For example, equip high altitude camps with oxygen tanks and Gamow bags, and some foreign countries restrict the importing of communication equipment. 	<input type="checkbox"/>

<p>6. SETTING UP CAMP</p> <p>Follow these guidelines for setting up an established camp.</p>	Comments
<ul style="list-style-type: none"> Design the camp layout to meet BHP Billiton fire, health and safety regulations, some of which may be government-regulated. 	<input type="checkbox"/>
<ul style="list-style-type: none"> Arrange the camp to reduce the spread of fire. Try to space the tents at least 8 metres (25 feet) apart. Arrange tents in a line or a crescent, rather than in a full circle. 	<input type="checkbox"/>
<ul style="list-style-type: none"> Locate the kitchen area at least 20 metres (65 feet) downwind from sleeping tents. Locate tents, kitchen area, fuel storage area and the aircraft landing area with fire prevention in mind. 	<input type="checkbox"/>
<ul style="list-style-type: none"> Locate a camp a minimum of 200 metres from any airstrip. 	<input type="checkbox"/>
<ul style="list-style-type: none"> Arrange the camp to minimise the risk of encroachment by animals. Arrange the camp so that there are no "dead ends" where wild animals may feel trapped if they enter the camp. 	<input type="checkbox"/>
<ul style="list-style-type: none"> Follow BHP Billiton Occupational Health and Safety Standards for food, water and sanitation facilities. Ensure the camp has proper facilities for storage of medications, if required. 	<input type="checkbox"/>



Standard Operating Procedure for Exploration Camps

<ul style="list-style-type: none"> ▪ Check to be sure that the water supply is clean or treated as appropriate for the location. Send water samples to a reputable laboratory to test the water supply if there is any question of its purity. 	<input type="checkbox"/>
<ul style="list-style-type: none"> ▪ Select camp food handlers carefully. Ensure the food handlers have up-to-date immunisations. Prior to employment, food handlers should be examined by a doctor to detect communicable diseases, and in some places they should be tested for worms (ova and parasites). Refer to the regional HSEC Advisor for guidance. 	<input type="checkbox"/>
<ul style="list-style-type: none"> ▪ Adhere to the BHP Billiton Occupational Health and Safety Policy with respect to food handling procedures. If necessary, train food handlers in required hand washing procedures. No smoking is allowed while preparing food. Skin cuts or infections must be covered with waterproof dressings. 	<input type="checkbox"/>
<ul style="list-style-type: none"> ▪ Food handlers should inspect food shipments for quality as soon as the food arrives at camp. Store it promptly after inspection for maximum safety. Proper storage includes both preservation of food quality by refrigeration, if necessary, and prevention of invasion by nuisance animals and insects. Never store food in sleeping tents. 	<input type="checkbox"/>
<ul style="list-style-type: none"> ▪ In areas where malaria is a problem, do not allow any standing water to accumulate. Remove old tires, containers and equipment where water can collect and provide breeding places. These precautions will reduce the incidence of all mosquito-borne diseases. 	<input type="checkbox"/>
<ul style="list-style-type: none"> ▪ Whenever you return to use an established camp with standing structures, check structures before you enter for wildlife that may have taken up residence (e.g., snakes). 	<input type="checkbox"/>

<p>7. COMMUNICATIONS</p> <p>Communication is a priority for all camps and you must:</p>	<p>Comments</p>
<ul style="list-style-type: none"> ▪ Provide a reliable and suitable communication system for emergency purposes. 	<input type="checkbox"/>
<ul style="list-style-type: none"> ▪ Establish reliable communication procedures in line with project/regional requirements, e.g. daily contact with Communications Coordinator and base office for field crews when working away from camp. 	<input type="checkbox"/>



Standard Operating Procedure for Exploration Camps

<ul style="list-style-type: none"> ▪ When on reconnaissance trips, changes to travel or work plans must be communicated to the camp manager or designate and recorded. 	<input type="checkbox"/>
<ul style="list-style-type: none"> ▪ Communication procedure including radio frequency(s) and or telephone numbers are be displayed in a prominent place. 	<input type="checkbox"/>
<ul style="list-style-type: none"> ▪ All camp residents must be instructed in the use of communications equipment. 	<input type="checkbox"/>

8. FIRE PREVENTION	Comments
<ul style="list-style-type: none"> ▪ Arrange camps to reduce the spread of fire. Place a fire fighting equipment cache in a central location. Ideally, locate a fuel cache 100 metres (300 feet) from camp structures. This distance is a minimum recommendation. 	<input type="checkbox"/>
<ul style="list-style-type: none"> ▪ Each camp must have an emergency evacuation plan. Have alternate plans if the location of your camp requires them. The plans must be posted and each person, including visitors, must be familiar with the evacuation plans. Hold fire drills. 	<input type="checkbox"/>
<ul style="list-style-type: none"> ▪ Park vehicles in a position so there are two exit routes in case of fire. 	<input type="checkbox"/>
<ul style="list-style-type: none"> ▪ Make provisions for proper storage of hazardous and/or flammable materials. All hazardous materials must be stored in a safe location and in accordance with local legislation and the BHP Billiton Environmental Management System. All hazardous materials must be labelled and accompanied by a copy of their respective materials safety data sheets (MSDS). Original MSDS sheets should be organised and kept in a central location for easy access should an accident/spill. 	<input type="checkbox"/>
<ul style="list-style-type: none"> ▪ In forested areas, each employee must carry out all activities and procedures in a manner that minimises the risk of forest fire. 	<input type="checkbox"/>
<ul style="list-style-type: none"> ▪ Construct firebreaks around camps where applicable (e.g., grasslands, dry season in Africa or Australia). The firebreak should be at least 5 to 10 metres wide. 	<input type="checkbox"/>



Standard Operating Procedure for Exploration Camps

<ul style="list-style-type: none"> ▪ Smoking is permitted only in areas declared safe for smoking. Smoking is discouraged in sleeping tents and trailers or caravans. Smoking is never permitted in or near the following areas: 1) fuel storage areas, 2) chemical storage areas, 3) flammable substance storage areas, 4) aircraft/helicopter landing areas, 5) while refuelling any machinery, vehicles, etc., 6) while working on batteries or servicing engines or motors, etc., 7) any designated "No Smoking" area. 	<input type="checkbox"/>
<ul style="list-style-type: none"> ▪ Make sure that suitable and properly functioning fire extinguishers are available in each camp structure. 	<input type="checkbox"/>
<ul style="list-style-type: none"> ▪ Install a smoke detector in each permanent structure. 	<input type="checkbox"/>
<ul style="list-style-type: none"> ▪ When open fires are permitted, keep them small and locate them in a safe place. Never leave them unattended. Fires in wooded areas should be built only on mineral soils. Scrape away all organic materials before building a fire. Make absolutely certain that organic materials are never left smouldering under any fire. Extinguish all fires thoroughly with water when they are no longer required. 	<input type="checkbox"/>
<ul style="list-style-type: none"> ▪ Never leave any open fire unattended. Make sure the fire is fully extinguished before you leave camp. When you are sure a fire is extinguished, add several more buckets of water just to be safe. 	<input type="checkbox"/>
<ul style="list-style-type: none"> ▪ Heaters are turned down or off whenever you leave camp. Perform regular maintenance on stoves, stovepipes and draft regulators, etc. 	<input type="checkbox"/>
<ul style="list-style-type: none"> ▪ Store all flammable materials (e.g., propane and fuels) safely in accurately labelled cylinders or containers. 	<input type="checkbox"/>
<ul style="list-style-type: none"> ▪ Keep fuel caches as far away from the camp as possible. Store fuel in a cleared, bunded (dyked) area surrounded by a firebreak. Do not locate fuel too near the helipad in case of a helicopter accident. 	<input type="checkbox"/>
<ul style="list-style-type: none"> ▪ Do not stack core boxes or other combustible materials against accommodation structures. 	<input type="checkbox"/>
<ul style="list-style-type: none"> ▪ Turn off all non-essential propane tanks when you temporarily leave camp. 	<input type="checkbox"/>
<ul style="list-style-type: none"> ▪ Clear brush and grasses from around portable generators, water pumps, compressors, etc. 	<input type="checkbox"/>



Standard Operating Procedure for Exploration Camps

<ul style="list-style-type: none"> ▪ Use caution and correct procedures when you refuel all camp equipment and vehicles. Check with someone who knows how to do the job if you are unfamiliar with the routine. 	<input type="checkbox"/>
<ul style="list-style-type: none"> ▪ Light lanterns outside the tent and bring them inside only when they are burning properly. 	<input type="checkbox"/>
<ul style="list-style-type: none"> ▪ When you park a vehicle, make certain that the exhaust system does not come in contact with dry flammable materials such as grass. Catalytic converters may become very hot. Check for build-up of flammable material such as grass, seedpods, twigs or other organic debris under the vehicle chassis, sump guard, etc. Be sure to clean out these areas regularly. 	<input type="checkbox"/>
<ul style="list-style-type: none"> ▪ Make sure proper safeguards remain in place around I.P. transmitters, as this equipment is a significant fire hazard. 	<input type="checkbox"/>

<p>9. ENVIRONMENT</p> <p>All camps must be designed and situated to minimise environmental effects.</p>	Comments
<ul style="list-style-type: none"> ▪ Locate a camp to eliminate or minimise the impact on the environment, including the impact on water sources. 	<input type="checkbox"/>
<ul style="list-style-type: none"> ▪ Latrines must conform to public health standards or to any conditions stipulated in work permits. Locate a latrine at least 100 metres (300 feet) from any stream or shoreline, topographically lower and downwind from camp, and at least 30 to 40 metres away from the kitchen area. Locate hand-washing facilities between the latrine and camp to promote hygiene. A good place is at the beginning of the access path to the latrine. 	<input type="checkbox"/>
<ul style="list-style-type: none"> ▪ Garbage disposal facilities must conform to the site permit or BHP Billiton requirements and standards. Remove garbage to an approved location. Field employees should return all litter and lunch garbage to camp each evening for proper disposal. 	<input type="checkbox"/>
<ul style="list-style-type: none"> ▪ Camps should be designed and operated in a manner consistent with the BHPB Environmental Policy and Guidelines. 	<input type="checkbox"/>



Standard Operating Procedure for Exploration Camps

10. COMMUNITY RELATIONS	Comments
All camps must be erected with community in mind. Ensure camp activities do not interfere with local community activities or landowner wishes.	<input type="checkbox"/>
Local groups and communities must be consulted prior to establishing a camp.	<input type="checkbox"/>
11. ELECTRICAL	Comments
All camps must be designed with safe electrical practises in mind you must ensure:	
▪ Ensure all electrical systems are earthed.	<input type="checkbox"/>
▪ Residual current devices/ground fault circuits are to be used.	<input type="checkbox"/>
▪ Minimise hazards caused by electrical cabling (e.g. Bury, elevate or barricade).	<input type="checkbox"/>
▪ All electrical maintenance and repair work to be carried out by authorised personnel only (maintenance and repairs to be documented and kept on site).	<input type="checkbox"/>
12. MAINTAINACE AND INSPECTION	Comments
Each Camp Manager working with all occupants much ensure that they:	
▪ Develop a maintenance schedule for the camp.	<input type="checkbox"/>
▪ Assign personnel to undertake regular camp inspections.	<input type="checkbox"/>
▪ Document any maintenance and inspections.	<input type="checkbox"/>

