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## Windowless Mini-Rig: Generic Risk Assessment

### Risks

1. Possible contact with drop weight – potential for serious injury.
2. Possible entrapment with drive chain – potential for serious injury.
3. Possible entrapment with coring unit – potential for serious injury.
4. Possible entrapment between rig and track unit – potential for serious injury.
5. Possible entrapment under rig on unstable ground or when loading/unloading from vehicle.
6. Possible risk of electric shock from underground or overhead cables – potential for fatal or serious injury.
7. Possible risk of contact with contaminated substances – potential risk of poisoning or gastro-intestinal upset.
8. Possible risk of contact with flammable gas (methane).
9. Possible risk of hearing impairment.
10. Possible risk of strains due to incorrect manual handling.
11. Possible risk of slips, trips and falls due to untidiness or slippery floor surface.
12. Falling or swinging tools.
13. Explosion/combustion.
14. Excavations.
15. Heavy weights.
16. Traffic.
17. Poor access.
18. Struck by plant.
19. Chemicals.
20. Below ground /above ground services.
21. Re-fuelling rig engine.
22. Materials such as cement, diesel or petrol and bentonite.

### Those Affected

1. All operatives.
2. Others in the vicinity.

### Safe System

1. All operatives to be fully trained in the safe use of the rig.
2. Appropriate PPE to be worn at **ALL** times on site even if the drilling rig is not actually set up or in operation.
3. Close consultation with client prior to carrying out the work is essential to ascertain the nature and location of hazards on site. CAT to be used by site engineer/client prior to the commencement of drilling. Follow instructions from the site engineer who should also have service drawings. He/she will set you up on the boreholes.
4. Hand dug trial pits **MUST** be made prior to the commencement of mechanical operations. **Drilling work cannot commence until an inspection pit is dug for each borehole.** Pick axes are **NOT** permitted.  
The only exception to this rule is if a client specifically tells you not to dig an inspection pit based on his/her professional judgement and is prepared to sign our company 'Trial Pit' form thus accepting full responsibility if underground services are hit. If the form is not signed then a trial pit must be dug.

A constant supply of these forms must be kept in each vehicle. They are available from both the yard and the office. It is the responsibility of each drilling crew to ensure you always have plenty of forms.

5. Backfill trial pit immediately on completion of each inspection pit.
6. Ensure standpipe covers are at ground level and thus not causing a trip hazard.
7. Rigs must be kept a minimum of 9 meters from overhead cables on wooden posts and 15 meters from cables on metal posts.
8. Take care with personal hygiene/washing. Wash hands (or use wipes) prior to eating or drinking especially when working on contaminated sites.
9. First aid kit to be maintained on site to treat breaks in the skin or any other minor injuries.
10. Most employees are Appointed First Aiders.
11. Keep equipment orderly and in set places.
12. Machinery to be adequately guarded and guards tested prior to operation.
13. Keep vehicle movement to a minimum and use agreed access route.
14. Awareness of manual handling techniques. Share loads, avoid twisting and use best lifting practice.
15. If the skin does come into contact with materials such as cement, diesel or petrol or bentonite, then wash hands and forearms with soap and water in order to prevent the risk of burns or dermatitis. Ensure cuts are cleaned and covered. However, the wearing of rubber gloves should prevent this happening.
16. Always inspect the rig prior to working.
17. Attend site inductions whenever appropriate to the job.
18. Use of experienced, competent, NVQ trained drillers.
19. Staff to all be familiar with and comply with The health and Safety (Safety Signs and Signals) Regulations 1996 which are generally as follows:
  - a) WARNING SIGNS are yellow signs with black lettering.
  - b) MANDATORY (MUST DO) SIGNS are blue signs with white lettering.
  - c) EMERGENCY/DANGER STATE SIGNS are red signs with white lettering.
  - d) SAFE STATE SIGNS are green signs with white lettering.Each contains a pictogram which indicates purpose, describes the action or indicates direction.
20. Stay away from identified hazardous areas.
21. Provision of barriers to prevent public access by client/engineer when needed.
22. Ensure that others in the work area are aware of your presence.
23. Switch off rig engine and allow cooling prior to re-fuelling. Do not smoke. Use correct fuel containers only.
24. Smoking is **NOT** allowed on site.
25. Lead drillers to report any defective or unsafe tools and equipment immediately. Work must stop until the problem is rectified..
26. All rigs to be inspected on an annual basis in compliance with PUWER 1998.
27. All wire ropes to be inspected every 6 months in compliance with LOLER 1998.
28. If staff are unsure or unhappy about anything at all then they must stop work immediately and contact either Paul or Nicola.

## Training Requirements

Operatives to be trained and supervised for an initial period until they are completely familiar with the operation of the rig and the essential safety procedures. It is our aim that all staff, especially lead drillers, will be NVQ Level 2 trained as soon as is reasonably practical.

Special attention should be paid to the digging of trial pits to at least 1.2 metres, the correct use of machinery guarding and the correct use of P.P.E.

Subsequently, spot checks will be made on site by Paul Blackledge, the Managing Director, to check that all safety procedures are being observed with refresher training if necessary.

**Further Action**

None identified

**Review completed by: Nicola Blackledge and Paul Blackledge**

**Date: 1<sup>st</sup> March, 2007**