

Risk Assessments and Method Statements for piling works at C/O Speedeck, Former Colt International, New Lane, Havant, PO9 2LZ

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METHOD STATEMENT

1. DESCRIPTION OF WORKS AND CONTRACT TEAM

1.1 The site is situated in New Lane. Our contracts team, including management, have experience of similar construction schemes. The SFA piling system adopted for this scheme has no percussive elements and has very little vibration and as such is the least intrusive of any piling system. The piles when drilled down to depth are pumped with concrete from the bottom up under pressure through the middle of the auger. The bored pile is never left empty, so no collapsing of bore holes is possible.

2. SCOPE OF METHOD STATEMENT/WORKS

2.1 This method statement confirms the proposals for the installation of 385 No. 300 mm diameter x max depth of 12.5m, hollow stem SFA contiguous wall piles.

3. DRAWING REFERENCES

3.1 Please refer to drawings listed below.

Piling layout: Speedeck

Reference material:

Pile design: Speedeck

4. ACCESS

4.1 Site establishment will be confirmed at the pre-start meeting. Access for all plant and equipment will be via the main site entrance in New Lane. Deliveries will be a low loader for the rig and pre-slung rigid HIAB craned lorries for the rest of the equipment.

4.2 Banksman are to be made available by the main contractor where necessary, for manoeuvring vehicles and to offer safety to all parties and to avoid damage to property and vehicles.

5. PLANT, EQUIPMENT AND TOOLS

5.1 Anticipated Plant Requirements

Klemm 709 with a 10m mast Piling Rig, delivered by a low loader.
Putzmeister concrete pump, lifted in place by a Hiab Craned rigid lorry
Hymix Agitator, lifted in place by a Hiab Craned rigid lorry
Kaeser 2 tool air compressor, lifted in place by a Hiab Craned rigid lorry
13-tonne 360° tracked excavator (supplied and operated by the main contractor)

5.2 Anticipated Small Tools

Shovels and wheelbarrows to remove spoil from around pile head.

5.3 Other equipment

Lifting strops.

Safety harness.

Fall arrester.

Metal washout tray.

6. LABOUR AND SUPERVISION

All our operatives hold relevant CPCSCS qualifications/cards.

All our Foremen hold SSSTS certificates and are responsible for ensuring compliance with the agreed scope of work. To the best of our knowledge are fit to perform the duties required of them.

Operations Manager: Keith Taylor (07741 314 767)

Contracts Manager: Andy Wollington (01273 493 863)

Piling Operator: TBA

Piling Operative: TBA

Piling Labourer: TBA

Steel Fixer: TBA

7. HEALTH, SAFETY AND WELFARE

7.1 First Aid

No first aid certificates are held so we will be working under the main contractor's site first aider.

7.2 Risk Assessments

The safest method of works will be assessed and implemented, so far as is reasonably practicable. To do so will be reflected in our Risk Assessment prepared for the contract which also identifies the significant risks and their mitigating control measures.

7.3 Welfare Facilities

Site welfare and first aid arrangements will be provided by the main contractor.

7.4 P.P.E.

All site operatives will wear the following P.P.E. at all times while on site.

Safety Boots, Hi-Vis Vests or Jackets, Hard Hats, Gloves conforming to EN388, Eye Protection conforming to EN166 mandatory unless in heavy rain, then at Site Manager's discretion; EN166B for blowing out operations and abrasive wheel usage.

Gloves conforming to EN374-2 to be worn when handling concrete.

7.5 COSHH

Sample data sheets for the following materials are attached. Concrete, Gas Oil, Engine Oil and Hydraulic Oil.

7.6 Waste

No waste licences are held so we will be working under the main contractor's provision.

8. TESTING AND RECORDS

8.1 Plant is covered by Annual Examination; Certification is retained by the Rig Operator or available from our head office, telephone 01273 493 863.

8.2 No material tests are required. Integrity testing of the piles will be carried out when the piles are cut down to their finished level. A separate method statement, if required, will be forwarded at a later date.

9. PROPOSED METHOD STATEMENT

9.1 All Southern Piling operatives will have attended the site safety induction with Main Contractor and will have been briefed as to the nature of the works. The contracts team will monitor the progress of the works and will review the risk assessment and method statement to ensure best practice is maintained. Amendments will be reviewed by Andy Wollington and recorded by way of a suffix taking the form of “_Rev(letter)”.

9.2 All deliveries will access and egress the site as detailed in item 4. Vehicles will manoeuvre in a safe manner, observing any site speed limits, under the supervision of S.P. personnel.

9.3 Before allowing the piling rig to enter site, ensure that there are no overhead cables or obstructions which could be damaged by rig movements.

9.4 Before Piling commences Southern Piling Foreman must:

9.4.1 Review the site-specific risk assessment, noting any special requirements and ensure that all piling operatives have received the necessary training to carry out their work.

9.4.2 Following site induction, the foreman shall brief the piling operatives and steel fixer on the site health and safety requirements and check that they have all of the necessary PPE; the excavator driver shall adhere to briefings and instruction issued by the main contractor.

9.5 Ensure that the site has been suitably prepared and the pile mat is level and compact, any services have been clearly identified, protected and diverted as necessary and a permit to work has been signed by the main contractor. If other trades are working near the piling area the Main Contractor is to provide fencing to segregate the piling area from other operations - the Southern Piling Foreman can stop piling works if it is deemed that follow on trades are working too close and affecting the safety of himself and others.

9.6 Ensure that Southern Piling employers and public liability insurances have been made available to the client.

9.7 Ensure that no personnel, other than Southern Piling, are in close proximity of the piling works.

9.8 Ensure that the piling drawing is the latest issue, including any revisions, and that the site is set out with the pile positions clearly marked.

9.9 Take delivery of concrete and decant into holding drum using the changeover valve and pump.

9.10 Position the piling rig over the first pile position, as decided by the rig foreman unless otherwise directed. Any pile positions close to adjacent buildings will be positioned straight on, with the machine tracks at 90 degrees to the face of the building for maximum stability.

9.11 Check that the mast of the rig is vertical and adjust as necessary and insert auger bung.

9.12 Commence boring, ensuring stability of rig throughout.

9.13 Mix the primer pump up in the concrete pump hopper and send down the concrete hose line to lubricate ready for the concrete.

9.14 Bore to designed length as indicated on the Southern Piling job sheet, adding 2m long sections of augers as necessary using the auxiliary winch and dolly, having first ensured that only Southern Piling personnel are within the work area. Record final depth on Pile Record Sheet.

9.15 Start concrete pump and begin to discharge concrete into hopper, having first ensured that only Southern Piling personnel are within the work area.

9.16 Send concrete down the auger to knock out auger bung.

9.17 Commence pumping concrete whilst raising the auger, maintaining a steady pressure, stopping the pump to remove augers as necessary, using the choke chain and shackle on the excavator with the bucket removed, having first ensured that only Southern Piling personnel are within the work area.

9.18 Repeat this process until the concrete has reached the top of the pile.

9.19 Move rig away from the finished pile ensuring stability of the rig whilst tracking and using a banksman as appropriate.

9.20 The excavator clears the pile spoil away carefully down to pile mat level to a pre-designated area away from the piling area as instructed by the main contractor; any spoil remaining that may still be in the top of the concrete to be removed with a shovel. The reinforcement cage is then either manually lifted into position or lowered by the excavator or the rig service line into the wet concrete and pushed down by stepping on the helical binder. Should the reinforcement cage not enter the concrete by this means the excavator will be used to press it into the wet concrete. Banksman will ensure correct projection and cover spacers are in place.

9.21 Set up over the next pile position and repeat from 9.10. Sequencing will be determined by the foreman unless otherwise directed.

9.22 When piling is complete, notify site manager, break down and remove all plant and equipment from site, taking into account the points as listed in 4, and ensuring that all items are washed prior to departure.

10. BLOWING OUT

10.1 When blowing out the foreman/banksman is to be located at the piling rig. The pump operator is to be located at the compressor, next to the blow out cannon. All other operatives to be clear of blow out area prior to commencement of task.

10.2 A clear line of sight is required and must be maintained for communication between the pump operator and the site operative attending the rig.

10.3 The compressor is to be started and the air is gradually released to the blow out cannon.

10.4 The blow out cannon valve is then released to move the concrete along the concrete hose - the air pressure is to be controlled by the pump operator to allow the sponge ball to exit the auger tip in a controlled way.

10.5 The concrete hose is to be monitored by the banksman / foreman and when the concrete has passed through the last host in the line, the foreman / banksman will signal the pump operator to turn off the air supply to the blow out cannon.

10.6 When the piling rig drop hose lifts and moves the foreman is to signal the pump operator at the compressor and blow out cannon to release the remaining air in the concrete hose through the blow out cannon release valve, maintaining enough pressure to allow the sponge ball to pass through the auger and exit the tip. Any splashing / debris will be contained by the positioning the auger in a spoil bund.

10.7 The concrete hoses and augers will now be empty of concrete. The foreman / banksman will communicate to the pump operator that the blowing out procedure is complete.

10.8 After completion of blowing out the blow out cannon is to be disconnected from the concrete hose. Two or three buckets of water are to be poured into the open end of the concrete hose followed by a wet sponge ball.

10.9 Blow through the soft ball once more using the same procedure as before.

10.10 Disconnect the blow out cannon from the concrete hose and retrieve the sponge blow out balls.

10.11 Wash down all equipment in to Southern Piling's metal washout tray.

11. REINFORCEMENT

11.1 Fixing Area

Assembly of reinforcement cages in a stoned area, fenced off from other site traffic, provided by the Main Contractor.

11.2 Cage Fixing

11.2.1 Steel is to be delivered direct from the supplier. Unloading shall be undertaken by the driver under the supervision of main contractor's site agent.

11.2.2 The leading steel fixer is to be given details of the cages required

11.2.3 The bars and helical will be assembled into cages using purpose made stands onto which bars are loaded to give stability. As each cage is completed it is removed from the assembly stands by excavator.

11.2.4 After fabrication, the cages are to be stored on timbers or clean hardcore to avoid contamination by soil.

11.2.5 Heavyweight cages need to have strengthened lifting points to enable them to be moved and lifted safely. This will normally consist of three turns of helical securely wired or welded to each main bar. Note: Heavyweight cages will generally be prefabricated and delivered to site.

11.2.6 Attendant excavator to be utilised to move cages to the piling rig.

12. PROPOSED METHOD STATEMENT FOR INSTANCES OF CONCRETE HOSE BLOCKAGE/BURST

12.1 The pump operator should immediately shut down the concrete pump and reverse pump to prevent the possibility of the hose bursting, and de-pressurise the lines.

12.2 All non-essential operatives, other contractors and members of the public will be moved as far away from the blocked hose as feasibly possible.

12.3 The hoses will then be unclipped, and each section raised in the air with the excavator, using one of Southern Piling's suitable, certificated lifting strops. The hoses will then be shaken to remove the blockage.

12.4 Hoses will also be pressure washed from each end to remove any concrete, into the washout stray and ultimately disposed of into the spoil heap. Repeat until the hoses are clear.

12.5 To clear the rigid pipes and the swan neck on the rig, the augers will be drilled into the ground, to enable the mast to be laid flat. The pipes will then be disconnected and washed out using the pressure washer into the washout stray and ultimately disposed of into the spoil heap, until clear of concrete.

12.6 When all hoses are free from concrete, they should be visually inspected for any damage. Any which look sub-standard should be taken out of service and replaced.

12.7 The hoses will then be clipped together and reconnected to the piling rig.

12.8 The foam ball should then be run through the hoses, as per the piling method statement. This ball should be fired through and washed out and contained in a hole made in an earth bund.

12.9 When the pump operator is satisfied that the blockage is totally clear. The pipes will be re-primed with the Prime-a-Pump, and piling will continue.

Risk Assessment: Piling operations

References

Severity of injury (S)

Death or major injury = 3

Over 3-day injury = 2

Minor injury = 1

Likelihood (L)

Extremely likely = 3

Likely = 2

Unlikely = 1

Risk calculation formula: $S \times L = RF$

Risks Identified

<i>Hazard</i>	<i>Persons at risk</i>			<i>Risk</i>
Contact with underground services	Employees	Contractors	Others	$3 \times 2 = 6$
Overturning or toppling of piling rig or associated equipment	Employees	Contractors	Others	$3 \times 2 = 6$
Materials or equipment falling from piling rig	Employees	Contractors	Others	$2 \times 2 = 4$
Contact with auger during piling operation	Employees	Contractors	Others	$3 \times 2 = 6$
Falls from piling rig	Employees	Contractors	Others	$2 \times 2 = 4$
Being struck by moving piling rig	Employees	Contractors	Others	$3 \times 2 = 6$
Changing augers	Employees	Contractors	Others	$3 \times 1 = 3$

Hazards

<i>Hazard: Contact with underground services</i>	<i>Residual risk</i>
Ensure that a survey and scan of the piling area has been carried out by the main contractor or his representative and any services in the vicinity have been identified and or diverted. Ensure that a permit to dig has been obtained from the main contractor. If need be, local electricity supplies should be disconnected for the duration of the piling. Ensure that appropriate PPE is worn. The foreman shall consider all hazards on a daily basis and specify additional PPE if so required. Operatives must read the accompanying method statement for the works that detail the safest method of work. If in doubt, stop work and seek clarification from senior management.	3 x 1 = 3
<i>Hazard: Overturning or toppling of piling rig or associated equipment</i>	<i>Residual risk</i>
A piling mat, constructed from a minimum of 300mm of 6F2 crushed concrete or similar should be installed by a competent person under the direction of the main contractor. The mat shall be inspected daily to check for deterioration. Operatives must read the accompanying method statement for the works that detail the safest method of work. If in doubt, stop work and seek clarification from senior management.	3 x 1 = 3

<i>Hazard: Materials or equipment falling from piling rig</i>	<i>Residual risk</i>
Ensure that all ancillary equipment is secured to the piling rig prior to operation. Ensure that augers are kept clean above head height. Ensure that the operations area is clear of all other personnel. Ensure that all lifting chains and shackles are in good condition and that the relevant test certificates have been sent to the main contractor, and copies are held on site. Ensure that appropriate PPE is worn. The foreman shall consider all hazards on a daily basis and specify additional PPE if so required. Operatives must read the accompanying method statement for the works that detail the safest method of work. If in doubt, stop work and seek clarification from senior management.	2 x 1 = 2
<i>Hazard: Contact with auger during piling operation</i>	<i>Residual risk</i>
Ensure that only Southern Piling personnel are in the immediate vicinity of the piling rig during piling operation. Ensure that warning signs are placed around the piling rig, indicating that piling work is in progress. Ensure that clothing is correct and not loose enough to get caught in the auger. Ensure that the operations area is clear of all other personnel. Ensure that the safety guard is attached to the machine, and is closed and secure during auger rotation. If it is necessary to partially remove the safety guard due to restricted space, all personnel should be a safe distance away from the turning auger, and should not approach until the auger has stopped rotating, and the piling machine controls have been isolated. Ensure that appropriate PPE is worn. The foreman shall consider all hazards on a daily basis and specify additional PPE if so required. Operatives must read the accompanying method statement for the works that detail the safest method of work. If in doubt, stop work and seek clarification from senior management.	3 x 1 = 3

<i>Hazard: Falls from piling rig</i>	<i>Residual risk</i>
If it is necessary to stand on the top of the auger guide for any reason, a safety harness and fall arrester securely attached to the piling rig should be employed. Ensure that the operations area is clear of all other personnel. Ensure that appropriate PPE is worn. The foreman shall consider all hazards on a daily basis and specify additional PPE if so required. Operatives must read the accompanying method statement for the works that detail the safest method of work. If in doubt, stop work and seek clarification from senior management.	2 x 1 = 2
<i>Hazard: Being struck by moving piling rig</i>	<i>Residual risk</i>
Banksman should be used at all times when the piling rig is manoeuvring around site. Ensure that the audible warning signal on the piling rig is in full working order. Operatives must read the accompanying method statement for the works that detail the safest method of work. If in doubt, stop work and seek clarification from senior management.	3 x 1 = 3
<i>Hazard: Changing augers</i>	<i>Residual risk</i>
Ensure that appropriate PPE is worn. Ensure that auger string is isolated when the safety cage is opened. Never stand inside the safety cage. Always operate from the outside. Use the dolly and winch when adding augers, and the choke chain, shackle and 360-degree excavator when removing.	3 x 1 = 3

Control measures

<i>Standard task-specific Personal Protection Equipment</i>	
Protective footwear (BS EN 345-1/2)	Yes
High-visibility vest/jacket (BS EN 471)	yes
High-visibility trousers (BS EN 471)	
Head protection (BS EN 397)	Yes
Task-specific cut resistant gloves (BS EN 420)	yes
Waterproof protective gloves (BS EN 374-2)	
Impact resistant eye protection (BS EN 166)	
Ear protection (BS EN 352-1/2)	
FFFP3-rated particulate dust mask (BS EN 149)	

PPE will be worn by all the Company Operatives in line with the Client site rules and also as directed by any additional/relevant risk assessment.

Risk Assessment: Concrete pumping

References

Severity of injury (S)

Death or major injury = 3

Over 3-day injury = 2

Minor injury = 1

Likelihood (L)

Extremely likely = 3

Likely = 2

Unlikely = 1

Risk calculation formula: $S \times L = RF$

Risks Identified

<i>Hazard</i>	<i>Persons at risk</i>			<i>Risk</i>
Personnel being struck by concrete mixing lorry	Employees	Contractors	Others	3 x 2 = 6
Entrapment in concrete pumping mechanism	Employees	Contractors	Others	3 x 2 = 6
Hit by concrete hose whilst pumping	Employees	Contractors	Others	3 x 2 = 6
Burst concrete hose	Employees	Contractors	Others	3 x 2 = 6
Concrete burns	Employees	Contractors	Others	3 x 2 = 6
Slips, trips and falls	Employees	Contractors	Others	2 x 2 = 4
Washing out pump	Employees	Contractors	Others	3 x 2 = 6

Hazards

<i>Hazard: Personnel being struck by concrete mixing lorry</i>	<i>Residual risk</i>
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Ensure that all vehicle movements are controlled by banksmen, and all non-essential personnel are clear of the area.	3 x 1 = 3
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Ensure that the audible warning system on the concrete lorry, if fitted, is in working order.

Ensure that appropriate PPE is worn.

The foreman shall consider all hazards on a daily basis and specify additional PPE if so required.

Operatives must read the accompanying method statement for the works that detail the safest method of work. If in doubt, stop work and seek clarification from senior management.

<i>Hazard: Entrapment in concrete pumping mechanism</i>	<i>Residual risk</i>
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Make sure that any safety guards fitted to the pump are not damaged, and are fully operational.	3 x 1 = 3
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Ensure that clothing is suitable for the pumping operation and is not loose, where it can snag on the pump or pumping mechanism.

The foreman shall consider all hazards on a daily basis and specify additional PPE if so required.

Ensure that only fully qualified personnel, holding a valid Concrete Pump CPCS ticket, operate the concrete pump, and that all non-essential personnel are kept clear of the area.

Operatives must read the accompanying method statement for the works that detail the safest method of work. If in doubt, stop work and seek clarification from senior management.

<i>Hazard: Hit by concrete hose whilst pumping</i>	<i>Residual risk</i>
Ensure that all non-essential personnel are clear of the area.	3 x 1 = 3
Ensure that whip checks are fitted and in good working order, free of any damage.	
Ensure that appropriate PPE is worn.	
The foreman shall consider all hazards on a daily basis and specify additional PPE if so required.	
Operatives must read the accompanying method statement for the works that detail the safest method of work. If in doubt, stop work and seek clarification from senior management.	

<i>Hazard: Concrete burns</i>	<i>Residual risk</i>
Ensure that appropriate PPE is worn.	3 x 1 = 3
The foreman shall consider all hazards on a daily basis and specify additional PPE if so required.	
Ensure that all non-essential personnel are clear of the immediate area.	
If wet concrete does come into contact with exposed skin, wash off immediately with copious amounts of clean water and consult the relevant COSHH sheet. If any redness or cracking of the skin is noticed seek immediate medical advice. If necessary, notify the main contractors site manager, and consult site first aider.	
Any concrete-impregnated clothing should be removed as soon as possible to cut down the possibility of seepage through to the skin.	
Operatives must read the accompanying method statement for the works that detail the safest method of work. If in doubt, stop work and seek clarification from senior management.	

<i>Hazard: Slips, trips and falls</i>	<i>Residual risk</i>
Ensure that a good housekeeping policy is adopted and the area is tidy and free from any debris or rubbish. Ensure that appropriate PPE is worn. The foreman shall consider all hazards on a daily basis and specify additional PPE if so required. Operatives must read the accompanying method statement for the works that detail the safest method of work. If in doubt, stop work and seek clarification from senior management.	2 x 1 = 2
<i>Hazard: Washing out pump</i>	<i>Residual risk</i>
Ensure that only qualified personnel carry out the cleaning process. Ensure that the operations area is clear of all other personnel. Excess concrete is to be deposited in a pre-agreed area, either in a designated wash out bin, or on the spoil heap. Care should be taken to ensure that none of this concrete, or cement impregnated water, enters any drains or water courses. Ensure that appropriate PPE is worn. The foreman shall consider all hazards on a daily basis and specify additional PPE if so required. Operatives must read the accompanying method statement for the works that detail the safest method of work. If in doubt, stop work and seek clarification from senior management.	3 x 1 = 3

Control measures

<i>Standard task-specific Personal Protection Equipment</i>	
Protective footwear (BS EN 345-1/2)	Yes
High-visibility vest/jacket (BS EN 471)	Yes
High-visibility trousers (BS EN 471)	
Head protection (BS EN 397)	Yes
Task-specific cut resistant gloves (BS EN 420)	yes
Waterproof protective gloves (BS EN 374-2)	
Impact resistant eye protection (BS EN 166)	
Ear protection (BS EN 352-1/2)	
FFFP3-rated particulate dust mask (BS EN 149)	

PPE will be worn by all the Company Operatives in line with the Client site rules and also as directed by any additional/relevant risk assessment.

Risk Assessment: Concrete hose blockages

References

Severity of injury (S)

Death or major injury = 3

Lost Time Incident = 2

Minor injury = 1

Likelihood (L)

Extremely likely = 3

Likely = 2

Unlikely = 1

Risk calculation formula: $S \times L = RF$

Risks Identified

<i>Hazard</i>	<i>Persons at risk</i>		<i>Risk</i>
Blockage of concrete hoses	Employees	Contractors	Others 3 x 2 = 6
Bursting of concrete hoses due to blockage	Employees	Contractors	Others 3 x 2 = 6

Hazards

<i>Hazard: Blockage of concrete hose</i>	<i>Residual risk</i>
Ensure that the correct concrete mix is used, with the correct size aggregate (10mm).	3 x 1 = 3
Ensure that the concrete pump and hoses are lined with Prime-a-Pump.	
Ensure that the minimum length of concrete hose is used.	
Make sure that the concrete grade is a pump mix design with the correct percentage of fines.	
The pump operator shall ensure that the concrete is circulated or moved around the pump and agitator. Deliveries of fresh concrete should be time managed and planned correctly.	
Any concrete hoses which cross roadways or are likely to be affected by traffic should be buried or protected accordingly. Where possible, hoses should be laid straight, and any changes of direction should be on a wide radius arc.	
Operatives must read the accompanying method statement for the works that detail the safest method of work. If in doubt, stop work and seek clarification from senior management.	
Ensure that appropriate PPE is worn.	
The foreman shall consider all hazards on a daily basis and specify additional PPE if so required.	

<i>Hazard: Bursting of concrete hose due to blockage</i>	<i>Residual risk</i>
Ensure that the operations area is clear of all other personnel.	3 x 1 = 3
Ensure that whip checks are fitted and in good working order, free of any damage.	
Ensure that the concrete, when delivered, is of a good quality and the correct consistency and mix. Any concrete that appears dry or 'boney' should be rejected at site and returned to the batching plant.	
Ensure that an unobstructed line of site between operator and operatives is maintained.	
If a blockage occurs, the pump operator will stop the pump immediately, ensure that all non-essential personnel are advised and moved a safe distance from the concrete lines. The piling crew will then carry out the steps as indicated in the attached method statement.	
Occasionally, the blockage may be temporary, and clear itself. If this occurs, the pump operator must satisfy himself that the concrete is free flowing again through the pump and lines before piling continues.	
If sub-standard concrete is to be disposed of on site, it needs to be deposited in the correct place, as advised by the clients site representative, and being mindful of any potential environmental breaches.	
Operatives must read the accompanying method statement for the works that detail the safest method of work. If in doubt, stop work and seek clarification from senior management.	
Ensure that appropriate PPE is worn.	
The foreman shall consider all hazards on a daily basis and specify additional PPE if so required.	

Control measures

<i>Standard task-specific Personal Protection Equipment</i>	
Protective footwear (BS EN 345-1/2)	Yes
High-visibility vest/jacket (BS EN 471)	Yes
High-visibility trousers (BS EN 471)	
Head protection (BS EN 397)	Yes
Task-specific cut resistant gloves (BS EN 420)	yes
Waterproof protective gloves (BS EN 374-2)	
Impact resistant eye protection (BS EN 166)	
Ear protection (BS EN 352-1/2)	
FFFP3-rated particulate dust mask (BS EN 149)	

PPE will be worn by all the Company Operatives in line with the Client site rules and also as directed by any additional/relevant risk assessment.

Risk Assessment: Manual handling

References

Severity of injury (S)

Death or major injury = 3

Lost Time Incident = 2

Minor injury = 1

Likelihood (L)

Extremely likely = 3

Likely = 2

Unlikely = 1

Risk calculation formula: $S \times L = RF$

Risks Identified

<i>Hazard</i>	<i>Persons at risk</i>			<i>Risk</i>
Musculoskeletal injuries	Employees	Contractors	Others	$2 \times 2 = 4$
Slips, Trips and Falls	Employees	Contractors	Others	$2 \times 2 = 4$

Hazards

<i>Hazard: Musculoskeletal injuries</i>	<i>Residual risk</i>
Ensure all personnel are trained in task-appropriate manual handling techniques	1 x 1 = 1
Ensure all cement bags are within the maximum of 25kg. If over 25kg get assistance.	
Avoid twisting, stooping, repetitive lifting, carrying over distance, carrying over rough terrain, lifting above your capability and pushing items using bodily force rather than pulling.	
Plan the site to ensure the delivery of cement and aggregates are as close to the grout pump as possible, reducing distance to carry.	
Manual handling should be avoided where possible. Mechanical aid (the excavator or other authorised lifting device) should be utilised for the lifting and lowering of the steel reinforcement/pile cages.	
If manual handling cannot be avoided, work as a team, and always use the correct method for lifting/lowering/moving. One person must act as lead to provide verbal instruction on the task in hand, to establish a route from initial position to final location (using rest points if needs be), and to clear the route of any obstructions or hazards.	
Ensure that you have warmed up before commencing manual handling operations.	
Rotate workforce loading grout pump to reduce repetitive lifting and manual handling of aggregates.	
Do not manually move concrete pump hoses which are charged with concrete, use the digger provided.	
Due to the weight of augers these are only to be manoeuvred around site using mechanical means (i.e. digger and straps).	
Augers must be lifted into place using the winch provided on the piling rig and in line with the manufacturer's instructions.	
Ensure that appropriate PPE is worn.	
The foreman shall consider all hazards on a daily basis and specify additional PPE if so required.	
Operatives must read the accompanying method statement for the works that detail the safest method of work. If in doubt, stop work and seek clarification from senior management.	

<i>Hazard: Slips, Trips and Falls</i>	<i>Residual risk</i>
Ensure that ground is firm and stable.	1 x 1 = 1
Employ good housekeeping to make sure the work area is clean and tidy, and free from debris.	
Avoid carrying over distance, carrying over rough terrain, lifting above your capability and pushing items using bodily force rather than pulling.	
Manual handling should be avoided where possible. Mechanical aid (the excavator or other authorised lifting device) should be utilised for the lifting and lowering of the steel reinforcement/pile cages.	
If manual handling cannot be avoided, work as a team, and always use the correct method for lifting/lowering/moving. One person must act as lead to provide verbal instruction on the task in hand, to establish a route from initial position to final location (using rest points if needs be), and to clear the route of any obstructions or hazards.	
Ensure that appropriate PPE is worn.	
The foreman shall consider all hazards on a daily basis and specify additional PPE if so required.	
Operatives must read the accompanying method statement for the works that detail the safest method of work. If in doubt, stop work and seek clarification from senior management.	

Control measures

<i>Standard task-specific Personal Protection Equipment</i>	
Protective footwear (BS EN 345-1/2)	Yes
High-visibility vest/jacket (BS EN 471)	Yes
High-visibility trousers (BS EN 471)	
Head protection (BS EN 397)	Yes
Task-specific cut resistant gloves (BS EN 420)	yes
Waterproof protective gloves (BS EN 374-2)	
Impact resistant eye protection (BS EN 166)	
Ear protection (BS EN 352-1/2)	
FFFP3-rated particulate dust mask (BS EN 149)	

PPE will be worn by all the Company Operatives in line with the Client site rules and also as directed by any additional/relevant risk assessment.

Risk Assessment: Steel fixing

References

Severity of injury (S)

Death or major injury = 3

Over 3-day injury = 2

Minor injury = 1

Likelihood (L)

Extremely likely = 3

Likely = 2

Unlikely = 1

Risk calculation formula: $S \times L = RF$

Risks Identified

<i>Hazard</i>	<i>Persons at risk</i>			<i>Risk</i>
Lacerations from sharp edges	Employees	Contractors	Others	$1 \times 2 = 2$
Muscular-Skeletal injuries	Employees	Contractors	Others	$2 \times 2 = 4$
Slips, Trips and Falls	Employees	Contractors	Others	$2 \times 2 = 4$

Hazards

<i>Hazard: Lacerations from sharp edges</i>	<i>Residual risk</i>
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Adopt maximum care when lifting steel reinforcing onto trestles or bandstands. Try not to hold at the cut ends.	1 x 1 = 1
---	-----------

Ensure that appropriate PPE is worn.

The foreman shall consider all hazards on a daily basis and specify additional PPE if so required.

Operatives must read the accompanying method statement for the works that detail the safest method of work. If in doubt, stop work and seek clarification from senior management.

<i>Hazard: Musculoskeletal injuries</i>	<i>Residual risk</i>
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Ensure all personnel are trained in task-appropriate manual handling techniques	2 x 1 = 2
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Ensure that the ground is level and stable, and that the trestles or band stands cannot topple over. Make sure that the surrounding working area is kept clear at all times and never allow unauthorised persons to be within this area in case a fall of materials should occur.

Care should be taken to ensure that the steel reinforcing or finished pile cages cannot fall off the trestles or band stands.

Manual handling should be avoided where possible. Mechanical aid (the excavator or other authorised lifting device) should be utilised for the lifting and lowering of the steel reinforcement/pile cages.

If manual handling cannot be avoided, work as a team, and always use the correct method for lifting/lowering/moving. One person must act as lead to provide verbal instruction on the task in hand, to establish a route from initial position to final location (using rest points if needs be), and to clear the route of any obstructions or hazards.

Ensure that appropriate PPE is worn.

The foreman shall consider all hazards on a daily basis and specify additional PPE if so required.

Operatives must read the accompanying method statement for the works that detail the safest method of work. If in doubt, stop work and seek clarification from senior management.

<i>Hazard: Slips, Trips and Falls</i>	<i>Residual risk</i>
Ensure that ground is firm and stable.	2 x 1 = 2
Employ good housekeeping to make sure the work area is clean and tidy, and free from debris.	
Ensure that appropriate PPE is worn.	
The foreman shall consider all hazards on a daily basis and specify additional PPE if so required.	
Operatives must read the accompanying method statement for the works that detail the safest method of work. If in doubt, stop work and seek clarification from senior management.	

Control measures

<i>Standard task-specific Personal Protection Equipment</i>	
Protective footwear (BS EN 345-1/2)	Yes
High-visibility vest/jacket (BS EN 471)	Yes
High-visibility trousers (BS EN 471)	
Head protection (BS EN 397)	Yes
Task-specific cut resistant gloves (BS EN 420)	Yes
Waterproof protective gloves (BS EN 374-2)	
Impact resistant eye protection (BS EN 166)	
Ear protection (BS EN 352-1/2)	
FFFP3-rated particulate dust mask (BS EN 149)	

PPE will be worn by all the Company Operatives in line with the Client site rules and also as directed by any additional/relevant risk assessment.

These risks should be reviewed and re-assessed, taking into account local weather conditions.

Prepared by Keith Taylor



Operatives Acknowledgement		
This risk assessment has been established following consultation with Management, Supervisory and Operational staff. Acknowledgement as to staff understanding of the content, the control measures to be applied and their responsibilities.		
Name	Signed	Date

LIFTING PLAN (NON-CRANE)

Work Supervisor	Site Foreman				
Brief description of the work	Loading and unloading Plant and Equipment delivered to and loaded away from the site. Lifts by lorry Hiab (specified below) and excavator. Lifting of equipment and materials during piling operations by excavator. Lifting equipment and materials using the Piling Rig auxiliary Winch. See notes regarding restrictions on this equipment.				
Schedule of 'routine' lifts					
Description	Approx. weight	Load characteristic	Method of lifting	Centre of gravity	Lifting points/method of slinging
Reinforcing cages	172 – 271kg	Cylindrical	Horizontal: two chain lift	Central	2 leg chains/nylon slings
Reinforcing cages	172 – 271kg	Cylindrical	Vertical: secure points to be provided	Central	Secure at tied intersection of helical and main bar
Reinforcement (straight bars)		Bundled steel bars	Horizontal: two chain lift	Central	2 leg chains
Reinforcement (helical)		Bundled helical	Horizontal: two chain lift	Central	Chain to pass through, bundling wires not to be used.
Drilling auger	Up to 1,000kg	Up to 6.0m long	Horizontal: two chain choke lift	Central	2 leg chains
Concrete pump	4,200kg	Engine-hopper	Lifting point on top	Central	Chain
Agitator (HIAB lift)	6,000-9,000kg	Cylinder on frame	4 No. lifting points	Central	4 leg chain
Diesel bowser	1,500kg	Cube	4 No. lifting points	Central to tank	4 leg chain
Generator/compressor/power pack	2,000kg	Steel box	Lifting points on top	Central	Nylon slings or chain

Equipment to be used for the lift	
<i>Excavator</i>	
Make, Model, Attachments, Test Certificates, etc	Excavator supplied by main contractor. It is their responsibility for checking all documentation before releasing it to work to Southern Piling.
<i>HIAB (Lorry Loader – Max boom length 12.5m)</i>	
Make, Model, Attachments, Test Certificates, etc	HIABs supplied by Southern Piling who is responsible for checking all equipment and documentation before releasing it to work.
<i>Piling Rig Auxiliary Hoist</i>	
The ancillary winch on the Piling Rig is designed to assist in “normal piling operations”, including assembling and de -rigging the auger string and lifting rebar cages into the bore; the capacity of the winch is noted as 2.0 tonnes, however Southern Piling limits this to 1.0 tonnes.	
Date of last inspection	See LOLER Book.
Date of last examination	Covered by Rig Annual Examination; Certification is retained by the Rig Operator or available from the Office and Foreman’s Folder on site.
<i>Hazards Identified / Known on Site</i>	
Refer to general Risk Assessments	
<i>Unloading of Lorries / where crash mats are required for unloading lorry’s Double-Click to supply.</i>	
Attach chains to load from ground where possible. Access to lorry bed by footed or fixed ladder. All Southern Piling equipment to be delivered on lorries fitted with handrails and rebar to be pre-slung in 1tonne (max.) bundles.	
<i>Expected competencies</i>	
Excavator driver	The competence of the driver supplied by main contractor or their subcontractor will be checked by the main contractor prior to releasing the operative to attend Southern Piling.
HIAB operator	Main contractor is responsible to ensure the driver supplied is competent to operate the HIAB on his machine.
Rig driver	The Rig Driver will be a holder of a CPCS or CSCS (Piling Operations) card. The card will be available from the driver.
Slinger Signaller	All the site crew involved in slinging and signalling operation will be holders of a CSCS Slinger/Signaller card, which will be presented on request.

COSHH SAFETY DATA SHEET: READY-MIXED CONCRETE

Section 1: Identification of the substance/mixture and of the company/undertaking

1.1 Product Identifier	
Product name:	Ready-mixed concrete
Commercial name:	Premix concrete
REACH registration number:	N/A (No significant effect)
1.2 Relevant identified uses of the mixture:	Construction
1.3 Details of the supplier:	CEMEX UK Operations Ltd CEMEX House Evreux Way Rugby Warwickshire CV21 2DT

Section 2: Hazard identification

2.1 Classification of the substance or mixture	
Product definition:	Mixture of natural aggregates, cement and water. Other ingredients may include admixtures, Fly Ash and Ground Granulated Blast-furnace Slag (GGBS). Such additions are made to alter/improve the working characteristics of the material or to affect/enhance its properties once hardened.
Classification according to Directive 1272/2008/EC:	The product is not classified as dangerous according to the above directive, and any of its amendments.
Risk phrases classification:	R36, R43
Safety phrases classification:	S24, S25, S26
2.2 Label elements	
Hazard symbols:	Irritant (reference image below)
	
2.3 Hazards identification:	R36: Causes serious eye irritation R43: May cause an allergic skin reaction

Section 3: First aid measures

3.1 Description of first aid measures

Eye contact:	Irrigate immediately with copious amounts of clean water. Seek immediate medical attention.
Skin contact:	Immediately wash with copious amounts of clean water. Clothing contaminated by wet cement, concrete or mortar should be removed and washed thoroughly before use.
Ingestion:	Wash out mouth and drink plenty of water. Do not induce vomiting. Seek medical advice if large amount is swallowed.
Inhalation:	Not applicable.

Section 4: Firefighting measures

Product not classed as flammable – No measures required.

Section 5: Spillage and accidental release measures

5.1 Environmental Precaution:	Prevent from entering drains, sewers or water courses.
5.2 Method of containment and clean-up:	Recover bulk spillage without delay and, for wet mixes, while material is still in non-hardened (plastic) state, using suction system or mechanical shovel. The product can be slurried by the addition of water but will subsequently set as a hard material. Keep children away from clean-up operation.

Section 6: Exposure controls

6.1 PPE	Wear appropriate PPE, including Gloves, Eye Protection and Clothing.
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IN THE EVENT OF HOSPITALISATION, THIS COSHH SHEET SHOULD BE GIVEN TO THE PARAMEDICS OR ACCOMPANY THE INJURED PARTY TO HOSPITAL.

Compiled by Andy Wollington
23rd October 2019

COSHH SAFETY DATA SHEET: GAS OIL

Section 1: Identification of the substance/mixture and of the company/undertaking

1.1 Product Identifier	
Product name:	Gas oil
Commercial name:	Petroleum Hydrocarbon
REACH registration number:	01-2119484664-27-XXXX
1.2 Relevant identified uses of the mixture:	Fuel
1.3 Details of the supplier:	Certas Energy UK Limited 302 Bridgewater Place Birchwood Park Warrington Cheshire WA3 6XG

Section 2: Hazard identification

2.1 Classification of the substance or mixture	
Product definition:	Mixture
Classification according to Regulation (EC) No. 1272/2008 (CLP):	Flam. Liq. 3; H226 Asp Tox 1; H304 Skin Irrit. 2; H315 Acute Tox. 4; H332 Carc. 2; H351 STOT RE 2; H373 (Thymus, liver, bone marrow) Aquatic Chronic 2; H411
Physical/Chemical hazards:	Flammable
Precautionary statements:	P210: Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. P260: Do not breathe vapours P273: Avoid release to the environment P280: Wear protective gloves/protective clothing/eye protection/face protection. P301 + P310: IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician. P331: Do NOT induce vomiting. P501: Dispose of contents/container to approved disposal facility.

Section 2: Hazard identification (continued)

2.2 Label elements

Hazard symbols:

Flammable; Irritant; Serious health hazard;
Hazardous to the environment (reference images
below)



2.3 Hazard statements:

H226: Flammable liquid and vapour.
H304: May be fatal if swallowed and enters
airways.
H315: Causes skin irritation.
H332: Harmful if inhaled.
H351: Suspected of causing cancer
H373: May cause damage to organs (Thymus,
liver, bone marrow) through prolonged or
repeated exposure.
H411: Toxic to aquatic life with long lasting
effects.

Section 3: First aid measures

3.1 Description of first aid measures

Eye contact:	Remove contact lenses if present and easy to do. Wash eyes immediately with plenty of water, making sure to rinse under eyelids. If symptoms persist, obtain medical attention.
Skin contact:	Remove contaminated clothing immediately. Wash with plenty of soap and water. If skin irritation occurs obtain medical advice/attention. Wash contaminated clothing before reuse.
Ingestion:	Obtain medical attention immediately. Do not induce vomiting. Do not give mouth-to-mouth resuscitation. Do not give anything by mouth because of risk of material entering the lungs and causing lung damage. If person is drowsy or unconscious and vomiting, place on left side with head down. If possible, do not leave unattended and observe closely for adequacy of breathing.
Inhalation:	Remove person from area of exposure to fresh air and keep comfortable for breathing. Keep warm and at rest. If symptoms persist, obtain medical attention.

Section 4: Firefighting measures

4.1 Extinguishing Media

Suitable extinguishing media:

Foam, CO₂ or dry powder.

Unsuitable extinguishing media:

Do not use water jet.

4.2 Special hazards arising from the substance or mixture:

Flammable liquid and vapour: Vapour may form explosive mixture with air. Vapours are heavier than air and may spread along floors. Flash back possible over considerable distance. The pressure in sealed containers can increase under the influence of heat. Cool containers / tanks with water spray. Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations.

Combustion may liberate toxic fumes: Carbon monoxide, carbon dioxide, various hydrocarbons, nitrogen oxides, sulphur oxides.

Section 5: Spillage and accidental release measures

5.1 Environmental Precaution:	Absorb or contain any spilled liquid with an absorbent (e.g. diatomite, vermiculite, sand) and dispose of according to regulations. Do not allow to enter drains, sewers or watercourses. Spillages or uncontrolled discharges into watercourses must be alerted to the Environment Agency or other appropriate regulatory body. If spill occurs on water notify the appropriate authorities and advise shipping of any hazard (as appropriate).
5.2 Method of containment and clean-up	
For containment:	Stop the leak if it is safe to do so. Contain the spillage with sand, earth or any suitable absorbent material.
Large spillage:	Use sand, earth or any suitable non-combustible absorbent material on spillages. Using non-sparking tools transfer the contaminated absorbent material into a container for disposal. For spillages on water, remove use appropriate methods such as skimming, booms or adsorbents. For spillages onto soil, remove contaminated soil for remediation or disposal in accordance with local regulations.
	Waste containers used should be plastic-lined sealable drums. Containers should be sealed before being disposed of via an authorised waste disposal contractor.

Section 6: Exposure controls

6.1 PPE	Wear appropriate PPE, including Gloves, Eye Protection and Clothing.
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IN THE EVENT OF HOSPITALISATION, THIS COSHH SHEET SHOULD BE GIVEN TO THE PARAMEDICS OR ACCOMPANY THE INJURED PARTY TO HOSPITAL.

Compiled by Andy Wollington
23rd October 2019

COSHH SAFETY DATA SHEET: DIESEL FUEL

Section 1: Identification of the substance/mixture and of the company/undertaking

1.1 Product Identifier

Product name:	Diesel Fuel
Commercial name:	Petroleum Hydrocarbon
REACH registration number:	01-2119484664-27-XXXX
1.2 Relevant identified uses of the mixture:	Fuel
1.3 Details of the supplier:	Certas Energy UK Limited 302 Bridgewater Place Birchwood Park Warrington Cheshire WA3 6XG

Section 2: Hazard identification

2.1 Classification of the substance or mixture

Product definition:	Mixture
Classification according to Regulation (EC) No. 1272/2008 (CLP):	Flam. Liq. 3; H226 Asp Tox 1; H304 Skin Irrit. 2; H315 Acute Tox. 4; H332 Carc. 1B; H350 STOT RE 2; H373 (Thymus, liver, bone marrow) Aquatic Chronic 2; H411
Physical/Chemical hazards:	Flammable
Precautionary statements:	P102: Keep out of reach of children. P201: Obtain special instructions before use. P210: Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. P301 + P310: IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician. P331: Do NOT induce vomiting. P405: Store locked up. P501: Dispose of contents/container to approved disposal facility.

Section 2: Hazard identification (continued)

2.2 Label elements

Hazard symbols:

Flammable; Irritant; Serious health hazard;
Hazardous to the environment (reference images
below)



2.3 Hazard statements:

H226: Flammable liquid and vapour.
H304: May be fatal if swallowed and enters
airways.
H315: Causes skin irritation.
H332: Harmful if inhaled.
H350: May cause cancer.
H373: May cause damage to organs (Thymus,
liver, bone marrow) through prolonged or
repeated exposure.
H411: Toxic to aquatic life with long lasting
effects.

Section 3: First aid measures

3.1 Description of first aid measures

Eye contact:	Remove contact lenses if present and easy to do. Wash eyes immediately with plenty of water, making sure to rinse under eyelids. If symptoms persist, obtain medical attention.
Skin contact:	Remove contaminated clothing immediately. Wash with plenty of soap and water. If skin irritation occurs: Get medical advice/attention. Take off contaminated clothing and wash it before reuse.
Ingestion:	Obtain medical attention immediately. Do not induce vomiting. Do not give anything by mouth because of risk of material entering the lungs and causing lung damage. If person is drowsy or unconscious and vomiting, place on left side with head down. If possible, do not leave unattended and observe closely for adequacy of breathing.
Inhalation:	Remove person to fresh air and keep comfortable for breathing. Keep warm and at rest. If symptoms persist, obtain medical attention.

Section 4: Firefighting measures

4.1 Extinguishing Media

Suitable extinguishing media:

Foam, CO₂ or dry powder.

Unsuitable extinguishing media:

Do not use water jet.

4.2 Special hazards arising from the substance or mixture:

Flammable liquid and vapour: Vapour may form explosive mixture with air. Vapour is heavier than air and may accumulate in confined spaces. Vapours may travel considerable distances to ignition sources where they can ignite, flash back or explode. The product will float on surface water and can reignite. Containers exposed to heat may burst due to increase in pressure.

Combustion may liberate toxic fumes: Carbon monoxide, carbon dioxide, various hydrocarbons, nitrogen oxides, sulphur oxides.

Section 5: Spillage and accidental release measures

5.1 Environmental Precaution:	Collect spillage. Do not allow to enter drains, sewers or watercourses. Spillages or uncontrolled discharges into watercourses must be alerted to the Environment Agency or other appropriate regulatory body. If spill occurs on water notify the appropriate authorities and advise shipping of any hazard.
5.2 Method of containment and clean-up	
For containment:	Stop the leak if it is safe to do so. Contain the spillage with sand, earth or any suitable adsorbent material.
Large spillage:	Use sand, earth or any suitable non-combustible adsorbent material to adsorb spillages. Using non-sparking tools transfer the contaminated adsorbent material into a container for disposal. For spillages on water, remove use appropriate methods such as skimming, booms or adsorbents. For spillages onto soil, remove contaminated soil for remediation or disposal in accordance with local regulations.
	Waste containers used should be plastic-lined sealable drums. Containers should be sealed before being disposed of via an authorised waste disposal contractor.

Section 6: Exposure controls

6.1 PPE	Wear appropriate PPE, including Gloves, Eye Protection and Clothing.
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IN THE EVENT OF HOSPITALISATION, THIS COSHH SHEET SHOULD BE GIVEN TO THE PARAMEDICS OR ACCOMPANY THE INJURED PARTY TO HOSPITAL.

Compiled by Andy Wollington
23rd October 2019

COSHH SAFETY DATA SHEET: ENGINE OIL

Section 1: Identification of the substance/mixture and of the company/undertaking

1.1 Product Identifier

Product name:	15W/40 Engine Oil
Commercial name:	SHPD E7
REACH registration number:	N/A (No significant effect)
1.2 Relevant identified uses of the mixture:	Automotive engine crankcase lubricant.
1.3 Details of the supplier:	Lifestyle Europe Old Guildford Road Horsham West Sussex RH12 3NS

Section 2: Hazard identification

2.1 Classification of the substance or mixture

Product definition:	A blend of highly refined mineral oils with multifunctional additives.
Risk phrases classification:	Not Classified
Safety phrases classification:	S02, S46

2.2 Label elements

Hazard symbols:	Irritant (reference image below)
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2.3 Safety phrases:

S36, S37 Wear suitable protective clothing and gloves.

Section 3: First aid measures

3.1 Description of first aid measures

Eye contact:	Wash eye thoroughly with copious quantities of water, ensuring eyelids are held open. Obtain medical advice if any pain or redness develops or persists.
Skin contact:	Wash skin thoroughly with soap and water as soon as reasonably practicable. Remove heavily contaminated clothing and wash underlying skin.
Ingestion:	If contamination of the mouth occurs, wash out thoroughly with water. Except as a deliberate act, the ingestion of large amounts of product is unlikely. If it should occur, do not induce vomiting; obtain medical advice.
Inhalation:	If inhalation of mists, fumes or vapour causes irritation to the nose or throat, or coughing, remove to fresh air. If symptoms persist obtain medical advice.

Section 4: Firefighting measures

4.1 Extinguishing Media

Suitable extinguishing media:	Foam, dry powder or water fog. Water can be used to cool and protect exposed material.
4.2 Special hazards arising from the substance or mixture:	Toxic fumes may be evolved on burning or exposure to heat.

Section 5: Spillage and accidental release measures

- | | |
|---|--|
| 5.1 Environmental Precaution: | Protect drains from potential spills to minimise contamination. Do not wash product into drainage system. In the case of large spills contact the appropriate authorities. In the case of spillage on water, prevent the spread of product by the use of suitable barrier equipment. Recover product from the surface. Protect environmentally sensitive areas and water supplies. |
| 5.2 Method of containment and clean-up: | Absorb into dry earth or sand. Protect drains using drain covers. Dispose of as hazardous waste. |

Section 6: Exposure controls

- | | |
|---------|--|
| 6.1 PPE | Wear appropriate PPE, including Gloves, Eye Protection and Clothing. |
|---------|--|

IN THE EVENT OF HOSPITALISATION, THIS COSHH SHEET SHOULD BE GIVEN TO THE PARAMEDICS OR ACCOMPANY THE INJURED PARTY TO HOSPITAL.

Compiled by Andy Wollington
23rd October 2019

COSHH SAFETY DATA SHEET: HYDRAULIC OIL

Section 1: Identification of the substance/mixture and of the company/undertaking

1.1 Product Identifier	
Product name:	Hydraulic oil
Commercial name:	Hydrelf HV 46
REACH registration number:	N/A (No significant effect)
1.2 Relevant identified uses of the mixture:	Hydraulic fluid
1.3 Details of the supplier:	Lifestyle Europe Old Guildford Road Horsham West Sussex RH12 3NS

Section 2: Hazard identification

2.1 Classification of the substance or mixture	
Product definition:	A blend of highly refined mineral oils with multifunctional additives.
Classification according to Directive 1272/2008/EC:	The product is not classified as dangerous according to this directive, or any of its amendments.
Risk phrases classification:	R50, R51, R53, R65
Safety phrases classification:	S36, S37
2.2 Label elements	
Hazard symbols:	Irritant (reference image below)
	
2.3 Safety phrases:	S36, S37 Wear suitable protective clothing and gloves.

Section 3: First aid measures

3.1 Description of first aid measures

Eye contact:	Check for and remove any contact lenses. Rinse opened eye for several minutes under running water. Then consult a doctor.
Skin contact:	Immediately wash with water and soap and rinse thoroughly. If skin irritation continues, consult a doctor.
Ingestion:	Wash mouth out with water. Do not induce vomiting; call for medical help immediately. If vomiting occurs spontaneously, keep head below hips to prevent aspiration.
Inhalation:	Supply fresh air. If required, provide artificial respiration. Keep patient warm. Consult doctor if symptoms persist. In case of unconsciousness place patient stably in side position for transportation.
Injection:	High pressure injection injuries of mineral and synthetic oils through the skin require prompt surgical intervention and possibly steroid therapy, to minimise tissue damage and loss of function. Because entry wounds are small and do not reflect the seriousness of the underlying damage, surgical exploration to determine the extent of involvement may be necessary. Local anaesthetics or hot soaks should be avoided because they can contribute to swelling, vasospasm and ischaemia. Prompt surgical decompression, debridement and evacuation of foreign material should be performed under general anaesthetics, and wide exploration is essential.

Section 4: Firefighting measures

Product not classed as flammable, but is inherently combustible

4.1 Extinguishing Media

Suitable extinguishing media:	CO ₂ , powder or water spray. Fight larger fires with water spray or alcohol resistant foam.
Unsuitable extinguishing media:	Water with full jet.

Section 5: Spillage and accidental release measures

5.1 Environmental Precaution:	Do not allow product to reach sewage system or any water course. Do not allow to penetrate the ground/soil.
5.2 Method of containment and clean-up Small spillage:	Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust). Send for recovery or disposal in suitable containers.

Section 6: Exposure controls

6.1 PPE	Wear appropriate PPE, including Gloves, Eye Protection and Clothing.
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IN THE EVENT OF HOSPITALISATION, THIS COSHH SHEET SHOULD BE GIVEN TO THE PARAMEDICS OR ACCOMPANY THE INJURED PARTY TO HOSPITAL.

Compiled by Andy Wollington
23rd October 2019

COSHH SAFETY DATA SHEET: CONCRETE PUMP PRIMER

Section 1: Identification of the substance/mixture and of the company/undertaking

1.1 Product Identifier	
Product name:	Prime-a-Pump
Commercial name:	See above
REACH registration number:	N/A (No significant effect)
1.2 Relevant identified uses of the mixture:	Priming of concrete pumps and lines prior to use
1.3 Details of the supplier:	Prime-a-Pump Limited PO Box 4759 Maidenhead SL60 1HT

Section 2: Hazard identification

2.1 Classification of the substance or mixture	
Product definition:	Mixture
Classification according to Directives 67/548/EEC and 99/45/EC:	This product is not classified as dangerous according to these directives, or any of its amendments.
Precautionary statements:	P264: Wash skin thoroughly after handling. P280: Wear eye protection/ face protection. P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. P337 + P313: If eye irritation persists: Get medical advice/attention.
2.2 Label elements	
Hazard symbols:	Irritant (reference image below)
	
2.3 Hazard statements:	H319: Causes serious eye irritation.

Section 3: First aid measures

3.1 Description of first aid measures

Eye contact:	Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.
Skin contact:	Wash off with soap and plenty of water. Consult a physician.
Ingestion:	Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.
Inhalation:	If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.
Injection:	ALWAYS OBTAIN MEDICAL ATTENTION, EVEN THOUGH THE INJURY MAY APPEAR MINOR.

Section 4: Firefighting measures

Product not classed as flammable, but is inherently combustible

4.1 Extinguishing Media

Suitable extinguishing media:	Use water spray or powder. No other specialist measures are required.
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Section 5: Spillage and accidental release measures

5.1 Environmental Precaution:	Do not let product enter drains.
5.2 Method of containment and clean-up	Pick up and arrange disposal without creating dust. Damp down sweep up and shovel. Keep in suitable, closed containers for disposal.

Section 6: Exposure controls

6.1 PPE	Wear appropriate PPE, including Gloves, Eye Protection and Clothing.
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IN THE EVENT OF HOSPITALISATION, THIS COSHH SHEET SHOULD BE GIVEN TO THE PARAMEDICS OR ACCOMPANY THE INJURED PARTY TO HOSPITAL.

Compiled by Andy Wollington
23rd October 2019

Acknowledgement sheet

Company Name	Southern Piling	Contract Number	L---RF			
Contract Name	Former Colt International, New Lane, Havant, PO9 2LZ					
Briefing type	Risk Assessment	Method Statement	Toolbox Talk			
Other (please state)						
Briefing title(s)						
References						
Briefing delivered by						
Name	Date	Start time	Piling crew	Sub Contract	Other (specify)	Signature

INSPECTION & TEST PLAN

Inspection categories

A	Approve/Authorise Work to be approved or authorised
I	Inspection Contractor and/or Southern Piling should carry out the necessary inspection(s) and/or test(s) to ensure conformance to the drawings, specifications, contract requirements and related codes and standards
R	Review Review of all results of inspections, examinations and tests, designs and installation logs.
S	Surveillance Monitor the status of the work and carry out periodical analysis of records.
W	Witness If agreed between the Contractor and Southern Piling, any mandatory items of testing, examinations or inspection will be carried out by the relevant inspection authority. If this authority is not available at the required time, the work may continue, to enable adherence to the construction programme.

Sections

- 1: Pre-activity checks
- 2: Boring of piles
- 3: Site construction
- 4: Concrete sampling and testing
- 5: Post-construction

1: Pre-activity checks

1.1 Check pile drawing				
<i>Inspection/Test</i>	<i>Acceptance criteria</i>	<i>Frequency</i>	<i>Person responsible</i>	<i>Verifying document</i>
Check latest construction drawing	Supplied by engineer	Prior to commencement	Southern Piling Contracts Manager/Supervisor	Latest revision
<i>Southern Piling</i>		<i>Main Contractor</i>		<i>Engineer</i>
R		R		
<i>Remarks</i>				
Ensure latest revision				
1.2 Verify RAMS approval				
<i>Inspection/Test</i>	<i>Acceptance criteria</i>	<i>Frequency</i>	<i>Person responsible</i>	<i>Verifying document</i>
Check	Approved and accepted by client	Prior to commencement	Main Contractor	RAMS
<i>Southern Piling</i>		<i>Main Contractor</i>		<i>Engineer</i>
R		R		
<i>Remarks</i>				
RAMS to be approved prior to commencement of piling				
1.3 Verify mix design approval				
<i>Inspection/Test</i>	<i>Acceptance criteria</i>	<i>Frequency</i>	<i>Person responsible</i>	<i>Verifying document</i>
Check	Approved and accepted by engineer	Prior to commencement	Main Contractor/Engineer	Mix design
<i>Southern Piling</i>		<i>Main Contractor</i>		<i>Engineer</i>
R		R		R
<i>Remarks</i>				
Mix design to be approved prior to commencement of piling				
1.4 Verify pile design approval				
<i>Inspection/Test</i>	<i>Acceptance criteria</i>	<i>Frequency</i>	<i>Person responsible</i>	<i>Verifying document</i>
Check	Approved and accepted by engineer	Prior to commencement	Engineer	Pile design
<i>Southern Piling</i>		<i>Main Contractor</i>		<i>Engineer</i>
R		R		R
<i>Remarks</i>				
Pile design to be approved prior to commencement of piling				

1.5 Steel reinforcement				
Inspection/Test	Acceptance criteria	Frequency	Person responsible	Verifying document
Check	Approved and accepted by engineer	Prior to commencement	Engineer	Pile design
Southern Piling		Main Contractor		Engineer
R				R
Remarks				
Steel to be supplied by CARES approved supplier				
1.6 Check PPL against COL				
Inspection/Test	Acceptance criteria	Frequency	Person responsible	Verifying document
Check	Supplied by engineer	Prior to commencement	Main contractor	Pile schedule
Southern Piling		Main Contractor		Engineer
R		R		
Remarks				
Check latest edition of all drawings				
1.7 Steel fixing sub-contractor start up				
Inspection/Test	Acceptance criteria	Frequency	Person responsible	Verifying document
Check competency	CPCS/CSCS	Prior to commencement	Southern Piling Contracts Manager	CPCS/CSCS card
Southern Piling		Main Contractor		Engineer
R/I				
Remarks				
Ensure that the correct cards are held, and are valid				
1.8 Approval of testing				
Inspection/Test	Acceptance criteria	Frequency	Person responsible	Verifying document
UKAS accredited	On accredited list	Prior to commencement	Main contractor	Certificates
Southern Piling		Main Contractor		Engineer
		R		
Remarks				
Testing house to be UKAS registered				

2: Boring of piles

2.1 Notification of piling				
Inspection/Test	Acceptance criteria	Frequency	Person responsible	Verifying document
n/a	Minimum one day prior to commencement	Prior to commencement	Southern Piling Contracts Manager	n/a
Southern Piling		Main Contractor		Engineer
A/R				
Remarks				
Main contractor to be kept informed regarding the commencement of piling				
2.2 Permit to Dig approved				
Inspection/Test	Acceptance criteria	Frequency	Person responsible	Verifying document
Check service drawings & scan piling area	Completed and approved by main contractor	Prior to commencement	Main contractor	Permit to Dig
Southern Piling		Main Contractor		Engineer
		I/R		
Remarks				
Main contractor to complete and sign Permit to Dig				
2.3 Construction drawing				
Inspection/Test	Acceptance criteria	Frequency	Person responsible	Verifying document
As 1.1, check latest edition	Supplied by engineer, via main contractor	Prior to commencement	Main contractor/Engineer	Construction drawing
Southern Piling		Main Contractor		Engineer
R		R		R
Remarks				
Ensure latest edition and revision				

2.4 Piling platform				
Inspection/Test	Acceptance criteria	Frequency	Person responsible	Verifying document
Check piling platform has been constructed correctly (BRE 470)	Firm and level, and able to accept bearing pressures	Daily informal inspection as to condition	Southern Piling Supervisor	Pile mat design
Southern Piling		Main Contractor		Engineer
I/R				
Remarks				
Piling platform must be designed and installed correctly				
2.5 Setting out				
Inspection/Test	Acceptance criteria	Frequency	Person responsible	Verifying document
Engineering check	Within specified tolerance: Check design	Each pile	Engineer/Surveyor	As-built survey
Southern Piling		Main Contractor		Engineer
		A		
Remarks				
Normally by main contractor				
2.6 Monitoring of boring progress				
Inspection/Test	Acceptance criteria	Frequency	Person responsible	Verifying document
Southern Piling Method Statement	As programme	Daily	Southern Piling Contracts Manager/Supervisor	n/a
Southern Piling		Main Contractor		Engineer
Remarks				
Ensure the programme is adhered to and report any obstructions or hold ups				

3: Site construction

3.1 Sequence of work				
Inspection/Test	Acceptance criteria	Frequency	Person responsible	Verifying document
Ensure not drilling near recently cast piles	No damage to adjacent piles	Each pile	Southern Piling Supervisor	n/a
Southern Piling	Main Contractor		Engineer	
I				
Remarks				
Adjacent piles to be monitored during pile installation				
3.2 Rig positioning				
Inspection/Test	Acceptance criteria	Frequency	Person responsible	Verifying document
Check verticality and position of rig mast	ICE table B1.4	Each pile	Front/Banksman	n/a
Southern Piling	Main Contractor		Engineer	
I				
Remarks				
Position and verticality to be corrected until within tolerance				
3.3 Pile positioning				
Inspection/Test	Acceptance criteria	Frequency	Person responsible	Verifying document
Check auger position	Within 25mm	Each pile	Front/Banksman	n/a
Southern Piling	Main Contractor		Engineer	
R				
Remarks				
Position to be corrected until within tolerance				
3.4 Pile toe achieved as per pile design				
Inspection/Test	Acceptance criteria	Frequency	Person responsible	Verifying document
Pile depth to be checked pile design	To level to be at or beyond designed length	Each pile	Rig operator	Pile record sheet
Southern Piling	Main Contractor		Engineer	
I				
Remarks				
Check against pile schedule				

3.5 Concrete delivery				
<i>Inspection/Test</i>	<i>Acceptance criteria</i>	<i>Frequency</i>	<i>Person responsible</i>	<i>Verifying document</i>
Check delivery ticket, prior to acceptance, to ensure correct grade and spec.	Correct concrete mix	Each delivery	Pump operator	Delivery ticket
<i>Southern Piling</i>		<i>Main Contractor</i>		<i>Engineer</i>
R				
<i>Remarks</i>				
Reject any non-conforming or out of specification concrete				
3.6 Workability				
<i>Inspection/Test</i>	<i>Acceptance criteria</i>	<i>Frequency</i>	<i>Person responsible</i>	<i>Verifying document</i>
Visual inspection of concrete	n/a	Each delivery	Pump operator	n/a
<i>Southern Piling</i>		<i>Main Contractor</i>		<i>Engineer</i>
<i>Remarks</i>				
Reject any non-conforming or out of specification concrete				
3.7 Pile cages				
<i>Inspection/Test</i>	<i>Acceptance criteria</i>	<i>Frequency</i>	<i>Person responsible</i>	<i>Verifying document</i>
Specification and condition	Compliance with design	Each cage	Frontman/Supervisor	n/a
<i>Southern Piling</i>		<i>Main Contractor</i>		<i>Engineer</i>
I/R				
<i>Remarks</i>				
Number, size and spacing of bars, diameter of cage, pile spacers and debonding length				
3.8 Cage installation				
<i>Inspection/Test</i>	<i>Acceptance criteria</i>	<i>Frequency</i>	<i>Person responsible</i>	<i>Verifying document</i>
Check cage has been installed at the correct level and is central to the pile	As specification and design	Each pile	Southern Piling Supervisor	n/a
<i>Southern Piling</i>		<i>Main Contractor</i>		<i>Engineer</i>
I				
<i>Remarks</i>				
Ensure the heave bar (if specified) is central to the pile				

4: Concrete sampling and testing

4.1 Concrete strength				
Inspection/Test	Acceptance criteria	Frequency	Person responsible	Verifying document
Concrete to be sampled and cubes to be taken, number as specified in client order	BS EN 12390 (part 2)	As per client specification, minimum one set per day	Southern Piling Quality Assurance department	Cube test results
Southern Piling		Main Contractor		Engineer
W				
Remarks				
Cubes will be stripped and labelled, then stored in a heated cube tank (20°C +/- 2°C)				

5: Post-construction

5.1 All piles completed				
Inspection/Test	Acceptance criteria	Frequency	Person responsible	Verifying document
Check all piles have been installed	Pile drawings and schedule	End of piling	Southern Piling Supervisor	Pile installation log
Southern Piling		Main Contractor		Engineer
Remarks				
Copy to be sent to main contractor				
5.2 Pile integrity				
Inspection/Test	Acceptance criteria	Frequency	Person responsible	Verifying document
Integrity testing	Zero defects	Each pile	Arranged through Southern Piling Quality Assurance department	Integrity test report
Southern Piling		Main Contractor		Engineer
W				
Remarks				
Copy to be sent to main contractor				

PERMIT TO WORK

Contract No.	L---RF			
Rig No.				
Foreman				
Site address	Former Colt International, New Lane, Havant, PO9 2LZ			
Main/Principal Contractor	Speedeck			
The Main/Principal Contractor confirms that				
Piling area scanned with CAT and Genny by competent person			Yes	No
Are there known services within the Piling Area			Yes	No
If yes, is it	Gas	Water	Waste	Electricity
Is it exposed			Yes	No
Service location drawing available			Yes	No
Copy attached			Yes	No
Visual inspection of site and piling platform				
Is the piling platform constructed with suitable material			Yes	No
Level (within steel tolerance of +150/-50mm)			Yes	No
Piling platform level confirmed as (mOD)				
Setting out				
Southern Piling		Client		
If Southern Piling has this been checked			Yes	No
By signing below you confirm that it is safe for Southern Piling to commence work				
<i>On behalf of Main/Principal Contractor</i>				
Signed		Printed		
Date				
<i>On behalf of Southern Piling</i>				
Signed		Printed		
Date				



CLIENT COMMENTS & SIGN-OFF

Signed	Printed
Date	