



HSE-02 DCN Drilling JHA Morooka Operations

Version: 1.0

Date: 13-Feb-18

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AS/NZ4801 – 4.3.1, 4.4.6.1 & ISO14001 4.3.1

JHA	JHA Contributors (minimum team of two)									
JHA No: 203	1.	Dave Penney	4.		Likelihood	Consequence				
Revision No: V3	2.	Corey Penney	5.			Insignificant 1	Minor 2	Moderate 3	Major 4	Catastrophic 5
Date: Feb 2018	3.		6.			11	16	20	23	25
Review Date: On Site Review Required Reviewed By:					A (Almost Certain)	7	12	17	21	24
Specific Permits & SOPs Required					B (Likely)	4	8	13	18	22
Hot Work	<input type="checkbox"/>	Containment of Slurry	<input type="checkbox"/>		C (Possible)	2	5	9	14	19
Working at Height	<input type="checkbox"/>	Geothermal Wells	<input type="checkbox"/>		D (Unlikely)	1	3	6	10	15
Excavation / Trenching	<input checked="" type="checkbox"/>	Confined Drill Space	<input checked="" type="checkbox"/>		E (Rare)	Low		Medium		High
Equipment Isolation	<input type="checkbox"/>	Unstable Ground	<input checked="" type="checkbox"/>		Extreme					
Overhead power lines	<input checked="" type="checkbox"/>	Other	<input type="checkbox"/>		Reviewed at Pre-Shift Meeting (where required): Date:					
Client Permit to Work required: Yes <input type="checkbox"/> No <input type="checkbox"/> Other permits required (tick page 2)										
Prepared by: Dave Penney					Print Name		Signature		Date	
Work Order / Job No:			Plant No:			Plant Name: Morooka				

**HAZARD CHECK SHEET**

Substance <input checked="" type="checkbox"/>	Situation <input checked="" type="checkbox"/>	Energy <input checked="" type="checkbox"/>	Other Specific to Task
Chemicals & Solvents <input type="checkbox"/>	Confined Space <input checked="" type="checkbox"/>	Biological <input type="checkbox"/>	
Gasses, Fumes & Vapours <input type="checkbox"/>	Manual Handling <input checked="" type="checkbox"/>	Electrical <input type="checkbox"/>	
Asbestos/Fibreglass <input type="checkbox"/>	Materials Storage <input checked="" type="checkbox"/>	Kinetic <input type="checkbox"/>	
Flammable Materials <input type="checkbox"/>	Working over Water <input type="checkbox"/>	Mobile Equipment <input checked="" type="checkbox"/>	
Process Materials <input type="checkbox"/>	Working at Heights <input type="checkbox"/>	Noise / Vibration <input checked="" type="checkbox"/>	
Oils & Grease <input checked="" type="checkbox"/>	Working Below/Above Level <input type="checkbox"/>	Radiation <input type="checkbox"/>	
Hydraulics <input checked="" type="checkbox"/>	Moving / Mobile Equipment <input checked="" type="checkbox"/>	Chemical <input type="checkbox"/>	
Dust <input checked="" type="checkbox"/>	Guarding <input checked="" type="checkbox"/>	Gravitational <input type="checkbox"/>	
Inhalation of gasses/fumes <input type="checkbox"/>	Falling Objects <input type="checkbox"/>	Mechanical <input checked="" type="checkbox"/>	
Fuel Oil <input checked="" type="checkbox"/>	Lighting <input type="checkbox"/>	Muscular <input checked="" type="checkbox"/>	
Diesel/Petrol <input checked="" type="checkbox"/>	Adjacent Workers <input checked="" type="checkbox"/>	Pressure Stored Energy <input checked="" type="checkbox"/>	
Glue/Adhesive <input type="checkbox"/>	Projectiles / Incorrect tools <input checked="" type="checkbox"/>	Thermal <input type="checkbox"/>	
<input type="checkbox"/>	Slipping / Tripping <input checked="" type="checkbox"/>	Blasting/ Mining <input type="checkbox"/>	
<input type="checkbox"/>	Struck By / Against <input checked="" type="checkbox"/>	Heat / Furnace <input type="checkbox"/>	
<input type="checkbox"/>	Caught By / Between <input checked="" type="checkbox"/>	Water / Ocean <input type="checkbox"/>	



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Act No	Job Steps	Hazards Identified	Initial Risk Ranking	Systems, Checks and Controls Required	Inherent Risk Ranking
1.	Loading and unloading	<ul style="list-style-type: none"> Unsecured ramps causing rig to become unstable during loading and unloading. Manual handling of ramps into position causing musculoskeletal injury. 	High	<ul style="list-style-type: none"> Ramps purpose built to lock into position on transport truck. Ramps manually secured in place testing stability of ramps prior to unloading or loading. Checks to ensure ground is stable at point of unloading / loading. Awareness of body position and movement while handling ramp into position. Maintain safe distance if operating remote. 	Medium 9
2.	Site set up	<ul style="list-style-type: none"> Pedestrian, traffic and site access acute injuries and equipment damage through vehicle impact 	High	<ul style="list-style-type: none"> Formal procedure for Rigging Up and Drilling in place as per SOP-100 Rigging Up and Drilling Operations Procedure. Job Commencement JHA – Ensures site specific hazards are identified and controlled, including drill site set up to ensure all drill and ancillary equipment are positioned in stable and safe manner. Set out cones, signs and barriers around working area and vehicles, high visibility clothing to be worn and awareness of surroundings and any associated site specific hazards to be addressed. 	Medium 9
3.	Rig and ancillary equipment set up and stability	<ul style="list-style-type: none"> Uncontrolled movement of equipment causing equipment damage and acute injuries such as crushing, bruising or fracture 	Extreme	<ul style="list-style-type: none"> Level rig with stabilizing jacks and ensure the ground is level. Use timber blocks if requirement to make the rig stable. 	High 14
4.	Location of Services	<ul style="list-style-type: none"> Striking overhead or underground obstruction i.e. powerlines, gas pipes, water, services 	Extreme	<ul style="list-style-type: none"> Services must be located by services plans and scanner. Services must be clearly marked with high visibility paint. The works “Site Specific Plan” details responsible persons for underground service identification and clearance. Underground service plan made available on site. Drill rigs must be a minimum of 4 metres away from any overhead lines unless there is a written consent and close approach permit. SOP-101 Underground Services Identification Procedure 	High 14



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5.	Start up and set up	<ul style="list-style-type: none"> Uncontrolled movement or instability of rig causing injury or equipment damage 	High	<ul style="list-style-type: none"> Pre-Start Equipment Checks – ensures all operational parameters of rig are functioning and in safe order Checks on hoses, fittings, safety devices, guards, pressure levels are completed and documented prior to operations. . 	Medium 9
6.	General Operations -	<ul style="list-style-type: none"> Environmental spills drill cuttings Hydrocarbon spills 	High	<ul style="list-style-type: none"> Pre-start equipment checks include checks of hoses and fittings. Spill kits are supplied on all rigs and are checked monthly to ensure they are fully stocked with adsorbents. Re-fuel at yard where possible. Registered vacuum carriers for hydrocarbon. vacuum unit available for containment. 	High 13
7.	General Operations – Entanglement in rotating equipment	<ul style="list-style-type: none"> Entanglement of part of body or clothing in rotating equipment causing serious injury 	High	<ul style="list-style-type: none"> Procedures in place to ensure operator maintains ½ metre clearance from rotators. Standard PPE issue – no loose clothing. Long hair to be restrained. Clear drill site to prevent trips or slips. Limit access to drill site. Drill set up to reduces access to rotating rods. 	Medium 9
8.	General Operations – Walking around drill site.	<ul style="list-style-type: none"> Slips trips and falls 	High	<ul style="list-style-type: none"> Daily site inspection and documented log of hazards. Work areas to be kept clean and tidy all tools or equipment no longer being used to be put away. PPE Requirements – use of steel capped boots with good grip and ankle support. Job commencement JHA to consider drill site ground conditions and eliminate risks 	High 13
9.	General Operations – Drill Site	<ul style="list-style-type: none"> Fire risk 	Medium	<ul style="list-style-type: none"> Equipment preventative maintenance, servicing and licencing systems in place Pre-start equipment checks ensure fire extinguishers are in place and charged, in addition to checking for any ignition sources remaining on equipment or at drill site Pre-start JHA to include site clearance of debris or long grass that could be ignited by equipment operations, 	Low 5



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				exhaustions or other ignition sources generated from operations.	
10.	General Operations – Drill Site	<ul style="list-style-type: none">Exposure to airborne contaminants	Low	<ul style="list-style-type: none">Pre-start JHAs to consider any potential contaminants that could be present in material that have potential to become airborne.Appropriate PPE to be applied where respiratory contaminants are identified.	Low 5
11.	Vehicle Collision	<ul style="list-style-type: none">Public vehicles or other site vehicle collision	Extreme	<ul style="list-style-type: none">Traffic control Plans in place for public roads, 1,2,3.Site specific inductions when operating on constructions site.Site specific plans to address radio controls, traffic movement.	High 14
12.	Excessive Noise	<ul style="list-style-type: none">Work Induced Hearing Loss	Extreme	<ul style="list-style-type: none">Supplied hearing protection including ear plugs and ear muffs.Induction requirements to wear hearing protection.Noise testing of rigsConsider surveillance testing of exposed workers.	High 13
Additional Site Specific Hazard Assessment and Risk Controls to be listed here at Job Start up by the on-site Drill Crew					
13.		<ul style="list-style-type: none">		<ul style="list-style-type: none">	
14.		<ul style="list-style-type: none">		<ul style="list-style-type: none">	



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Signature to this JHA verifies that you have reviewed the work area for task job steps, have read and understand the risk/hazards and system, checks and control actions associated with the task, accept and will follow through with the system as outlined in all risk/hazard job steps and will follow up with further reviews through the JHA as job progresses with new job steps that have not been risk assessed.

Name	Signature	Date
Approved By:	Supervisor	Signature
		Date

Review comments: This JHA is an active document, that is reviewed by the Drill Crew at the start of each job where the Morooka is in operation.	Is a detailed procedure required for this task?				Revision Details			
	Yes	<input type="checkbox"/>	No	<input checked="" type="checkbox"/>	Rev	Date	By	Initial
	By Whom?	_____						
	By When?	_____						

The completed JHA remains on the rig for the duration of the works and is then submitted to records management system for filing and future audit.