



## HSE-02 DCN Drilling JHA EP10 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: 205	1.	Dave Penney	4.		<b>Likelihood</b>	<b>Consequence</b>				
Revision No: V2	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
<b>Specific Permits &amp; SOPs Required</b>					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)	<b>Low</b>		<b>Medium</b>		<b>Extreme</b>
Equipment Isolation	<input type="checkbox"/>	Unstable Ground	<input checked="" type="checkbox"/>		Reviewed at Pre-Shift Meeting (where required):      Date:					
Overhead power lines	<input checked="" type="checkbox"/>	Other	<input type="checkbox"/>							
Client Permit to Work required:    Yes <input type="checkbox"/> No <input type="checkbox"/> Other permits required (tick page 2)										
<b>Prepared by:</b> Dave Penney					<b>Print Name</b>		<b>Signature</b>		<b>Date</b>	
<b>Work Order / Job No:</b>			<b>Plant No:</b>			<b>Plant Name: 6P10</b>				



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### 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"> <li>Unsecured ramps causing rig to become unstable during loading and unloading.</li> <li>Manual handling of ramps into position causing musculoskeletal injury.</li> </ul>	High	<ul style="list-style-type: none"> <li>Ramps purpose built to lock into position on transport truck.</li> <li>Ramps manually secured in place testing stability of ramps prior to unloading or loading.</li> <li>Checks to ensure ground is stable at point of unloading / loading.</li> <li>Awareness of body position and movement while handling ramp into position.</li> <li>Maintain safe distance if operating remote.</li> </ul>	Medium 9
2.	Site set up	<ul style="list-style-type: none"> <li>Pedestrian, traffic and site access acute injuries and equipment damage through vehicle impact</li> </ul>	High	<ul style="list-style-type: none"> <li>Formal procedure for Rigging Up and Drilling in place as per SOP-100 Rigging Up and Drilling Operations Procedure.</li> <li>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.</li> <li>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.</li> </ul>	Medium 9
3.	Rig and ancillary equipment set up and stability	<ul style="list-style-type: none"> <li>Uncontrolled movement of equipment causing equipment damage and acute injuries such as crushing, bruising or fracture</li> </ul>	Extreme	<ul style="list-style-type: none"> <li>Level rig with stabilizing jacks and ensure the ground is level.</li> <li>Use timber blocks if requirement to make the rig stable.</li> </ul>	High 14
4.	Location of Services	<ul style="list-style-type: none"> <li>Striking overhead or underground obstruction i.e. powerlines, gas pipes, water, services</li> </ul>	Extreme	<ul style="list-style-type: none"> <li>Services must be located by services plans and scanner. Services must be clearly marked with high visibility paint.</li> <li>The works “Site Specific Plan” details responsible persons for underground service identification and clearance.</li> <li>Underground service plan made available on site.</li> <li>Drill rigs must be a minimum of 4 metres away from any overhead lines unless there is a written consent and close approach permit.</li> <li>SOP-101 Underground Services Identification Procedure</li> </ul>	High 14



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5.	Start up and set up	<ul style="list-style-type: none"> <li>Uncontrolled movement or instability of rig causing injury or equipment damage</li> </ul>	High	<ul style="list-style-type: none"> <li>Pre-Start Equipment Checks – ensures all operational parameters of rig are functioning and in safe order</li> <li>Checks on hoses, fittings, safety devices, guards, pressure levels are completed and documented prior to operations.</li> </ul>	Medium 9
6.	General Operations -	<ul style="list-style-type: none"> <li>Environmental spills drill cuttings</li> <li>Hydrocarbon spills</li> </ul>	High	<ul style="list-style-type: none"> <li>Pre-start equipment checks include checks of hoses and fittings.</li> <li>Spill kits are supplied on all rigs and are checked monthly to ensure they are fully stocked with adsorbents.</li> <li>Re-fuel at yard where possible.</li> <li>Registered vacuum carriers for hydrocarbon.</li> <li>vacuum unit available for containment.</li> </ul>	High 13
7.	General Operations – Entanglement in rotating equipment	<ul style="list-style-type: none"> <li>Entanglement of part of body or clothing in rotating equipment causing serious injury</li> </ul>	High	<ul style="list-style-type: none"> <li>Procedures in place to ensure operator maintains ½ metre clearance from rotators.</li> <li>Standard PPE issue – no loose clothing.</li> <li>Long hair to be restrained.</li> <li>Clear drill site to prevent trips or slips.</li> <li>Limit access to drill site.</li> <li>Drill set up to reduces access to rotating rods.</li> </ul>	Medium 9
8.	General Operations – Walking around drill site.	<ul style="list-style-type: none"> <li>Slips trips and falls</li> </ul>	High	<ul style="list-style-type: none"> <li>Daily site inspection and documented log of hazards.</li> <li>Work areas to be kept clean and tidy all tools or equipment no longer being used to be put away.</li> <li>PPE Requirements – use of steel capped boots with good grip and ankle support.</li> <li>Job commencement JHA to consider drill site ground conditions and eliminate risks</li> </ul>	High 13
9.	General Operations – Drill Site	<ul style="list-style-type: none"> <li>Fire risk</li> </ul>	Medium	<ul style="list-style-type: none"> <li>Equipment preventative maintenance, servicing and licencing systems in place</li> <li>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</li> <li>Pre-start JHA to include site clearance of debris or long grass that could be ignited by equipment operations,</li> </ul>	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"><li>Exposure to airborne contaminants</li></ul>	Low	<ul style="list-style-type: none"><li>Pre-start JHAs to consider any potential contaminants that could be present in material that have potential to become airborne.</li><li>Appropriate PPE to be applied where respiratory contaminants are identified.</li></ul>	Low 5
11.	Vehicle Collision	<ul style="list-style-type: none"><li>Public vehicles or other site vehicle collision</li></ul>	Extreme	<ul style="list-style-type: none"><li>Traffic control Plans in place for public roads, 1,2,3.</li><li>Site specific inductions when operating on constructions site.</li><li>Site specific plans to address radio controls, traffic movement.</li></ul>	High 14
12.	Excessive Noise	<ul style="list-style-type: none"><li>Work Induced Hearing Loss</li></ul>	Extreme	<ul style="list-style-type: none"><li>Supplied hearing protection including ear plugs and ear muffs.</li><li>Induction requirements to wear hearing protection.</li><li>Noise testing of rigs</li><li>Consider surveillance testing of exposed workers.</li></ul>	High 13
<b>Additional Site Specific Hazard Assessment and Risk Controls to be listed here at Job Start up by the on-site Drill Crew</b>					
13.		<ul style="list-style-type: none"><li></li></ul>		<ul style="list-style-type: none"><li></li></ul>	
14.		<ul style="list-style-type: none"><li></li></ul>		<ul style="list-style-type: none"><li></li></ul>	



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16.		•		•	
17.		•		•	
18.		•		•	



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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
<b>Approved By:</b>	<b>Supervisor</b>	<b>Signature</b>
		<b>Date</b>

<b>Review comments:</b>  <b>This JHA is an active document, that is reviewed by the Drill Crew at the start of each job where the EP10 is in operation.</b>	<b>Is a detailed procedure required for this task?</b>		<b>Revision Details</b>			
	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	<b>Rev</b>	<b>Date</b>	<b>By</b>	<b>Initial</b>
	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.