



Mainstream Industries Pty Ltd

MINING AND INDUSTRIAL SERVICES

Training:	HPWJ Class A 800 – 5600 Bar Lt/Min o Class B 5600 + Bar Lt/Min Written Theory & Practical Assessment
Assessment Method:	Written/Verbally

Student Name:		Driver's Licence No.:	2
Vehicle Type:		Fleet No.:	

Overall Assessment Result:	<u>competent</u>	Not Yet Competent
Guide:	Operator showed full confidence in operation of equipment and job description procedures and answered all questions correctly.	Operator showed inexperience in some areas of operation of the equipment and needs guidance/instruction before re-assessment can be carried out.
Actions Required:	Keep working safely!	Improvement is required in the following areas—

Assessor Name:		Date:	15.04.21
Signature:		Date:	15/4/21
Student Signature:		Date:	15/4/21

Assessor Comments:

OFFICE USE ONLY Completed by Assessor	Prerequisite training completed Training manual reference documents sighted
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Document name:	HPWJ – 800 - 5600 & 5600 + Bar Lt/Min - Written & Practical Assessment						Total Pages:	Page 1 of 12
D.I.N:	MS2004	Version:	8	Register No.	n/a	Review Period	3 Years	
Implementation Date:	M.Perry						Last Reviewed:	01.02.2010
Authorised by:	M.Perry	Position:	Mining Client Service Manager/ Trainer Assessor				Last Reviewed:	29.03.2021
File Location:	G:\Mainstream-IMS\7-Training, Skills & Competency Management						Review Due Date:	29.03.2024



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Assessors Guidelines

- Assessors must be able to demonstrate the knowledge and skills of this unit through work experiences in the industry relevant to the skills being assessed.
- Where the assessor does not have current experience a "Subject Matter Expert" can be utilised to work alongside the trainer assessor.
- The Training Coordinator is required to verify both the Trainer Assessor and/or the subject matter experts experience and currency

Assessment Guidelines

- This unit must be assessed in the context of this work sectors environment
- This unit must be assessed in compliance with the relevant regulations/legislation and using the policies, procedures process and operational manuals that are directly related to the industry sector for which it is being assessed.
- Assessment must confirm consistent performance can be applied in a range of relevant workplace situations/circumstances

Theory Assessment

- This section should be initially assessed by the workplace Assessor to assist in identifying any training gaps that needs to be addressed
- If the Candidate has any LLN difficulties the assessor may decide to conduct the assessment verbally and note the responses. This adjustment will need to be noted/recorded on the assessment tool.
- The Assessor must confirm all questions have been answered and marked accordingly
- The Assessor conducting the final practical must check all the theory assessment prior to final practical assessment

Assessors Guidelines

- Assessors must ensure that the candidate can safely and competently undertake the tasks being assessed in different situations
- Assessment must be conducted on the work site using real work when it is possible to do so
- The Assessor must ensure that the candidate is able to consistently complete the job in a range of different scenarios
- If the candidate breaches any safety requirements this should be stopped, discussion had, and then marked down on the assessment tool for records

If not yet competent

- If the candidate it deemed not yet competent, he/she will need to return under the supervision of a trainer until he/she is ready for re assessment
- The Trainer and the Assessor will discuss what the level of supervision needed, as they might only need minimal

Evidence Required

- A training logbook will be given the candidate on completion of the course to ensure the requirements of time on the job is reached. This will need to be checked and verified before commencing the final assessment.

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WRITTEN / VERBAL ASSESSMENT QUESTIONS: May be asked verbally and recorded by assessor		S	NYS
1	<p>What Level of training is required to be able to operate HPWJ Equipment? (<i>circle the correct answer</i>)</p> <p>a. None <input checked="" type="radio"/> b. Comprehensive training from and Registered Training Organisation c. Trained by any person on the job</p>		
2	What is the average Decibels that come from HPWJ unit?		
3	Can the water from a HPWJ unit be used to cut through steel or concrete?		
4	What types of assessment must you (the candidate) be required to complete competently to be able to operate a HPWJ system?		
5	List at least 4 PPE requirements stated in the legislation when working on HPWJ job.		
6	<p>After using the hot wash system, list the steps required for shutting the unit down</p> <p>a. , b. d.</p>		
7	<p>List at least 4 things that HPWJ can be used for</p> <p>a. b. c. d.</p>		

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8	What decibel level must your hearing protection reduce to, in order to stay under the required level 85	S	
9	What type of eye protection does the operator on the gun need to have on? a. googles b. visor	S	
10	Do Wellington boots provide adequate protection for your foot? yes	S	
11	What does PSI stand for in the measuring of pressure passing through the unit. bar Pound per square inch	S	
12	What are the 2 measurements that are used to gauge the pressure coming through the HPWJ unit. PSI, BAR	S	
13	List at least 4 parts and fitting and what they do on the HPWJ set ups. a. trigger / allows water flow through lance b. shackles / used hold nose and wat its connecting to c. lance / barrel connects to gun water flows through d. foot pedal / acts dead man switch e. f. g. h.	S	
14	List some of what you will inspect on the HPWJ units as a part of the pre - start. a. hoses b. nozels c. dead man /operational check d. e. oil f. fuel water	S	

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15	When should you inspect the equipment you are using? Before use / start shift	S	
16	Why is required to complete a Pre-Start inspection on the HPWJ unit and the gear prior to starting? To inspect machine for faults if any.	S	
17	Who is responsible for Duty of Care? everyone.	S	
18	What's needs to be set up/done prior to starting your HPWJ job? Barricades, tape set up job area	S	
19	Describe the safety feature and its components used when you are joining either another hose, gun, or a foot pedal Stacking with a shackle cable ties	S	
20	When can you enter a barricaded area? if if and when you have made pos cons	S	
21	At the start up and when moving from one position to another how must the gun and lance be held a. towards ground b. Pointing towards job	S	
22	What are some of the areas that could be considered "sensitive" when HPWJ? a. electrical components b. window, door seals c. rubber seals d. hydraulic hoses e. electric cables f. Plastic fittings g. insulation h. i. engine sensors j. slacky paint other workes	S	

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23	What are the operating parameters for Class A and Class B HPWJ units? Class A: 800 / 5600 Bar litters per minute Class B: 5600 Plus BLPm	S	
24	How is the operating pressure of Bar litters per minute calculated? Maximum Stated out let of Pump in litres per minute multiply by maximum working pressure in Bar	S	
25	If you are operating a Class B HPWJ system and you see a small leak, what must be done? turn off realise store energy if can inspect if not tag out and report	S	
26	What must be completed before commencing any HPWJ works on site a. risk assessment b. pre start c. permit authorisation d. all workers assigned roles and work e. set up area to ms and sight standards f. complete tool box talk	S	
27	What is the affect when the operator on the gun frequently releases the trigger? additonal stress suit Build up and can cause flames	S	
28	How often does any HPWJ operator need to sit a refresher course to remain current to be able to operate? 2 years	S	
29	What is the use of a spotter on a HPWJ job required to do? watch your safety and job as your working hold dead man second set eyes	S	
30	Describe what the manual unloader does? allows you adjust water pressure up or down	S	

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31	Can a pressurised system be left unattended? And explain your response. NO, Because stored energy	S	
32	What should you do if a person is injured by HPWJ? reference medical card	S	
33	What type of communication should be had between the operator on the gun and spotter? Hand signals	S	
34	Why should you never perform HPWJ operations from either a ladder? and list at least 1 better choice of equipment that you could use that is more suitable no ladder unstable, scaffold, ewp better	S	

"End of Assessment"

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Training:	High Pressure Water Jetting Class B 5600 + Bar Lt/Min Written Theory & Practical Assessment
Assessment Method:	Practical

Student Name:		Driver's Licence No.:	
Vehicle Type:		Fleet No.:	

Overall Assessment Result:	Competent	Not Yet Competent
Guide:	Operator showed full confidence in operation of equipment and job description procedures and answered all questions correctly.	Operator showed inexperience in some areas of operation of the equipment and needs guidance/instruction before re-assessment can be carried out.
Actions Required:	Keep working safely!	Improvement is required in the following areas—

Assessor Name:			
Signature:		Date:	15.04.21
Student Signature:		Date:	15/4/21

Assessor Comments:

OFFICE USE ONLY Completed by Assessor	<input checked="" type="checkbox"/> Prerequisite training completed <input checked="" type="checkbox"/> Training manual reference documents sighted
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Competency – Practical Assessment		S	NYS
	Demonstrate or explain how to:		
1	<p>Prior to commencing the task, the candidate is required to be able to:</p> <ul style="list-style-type: none"> - Obtain and understand the job details of the work instruction - Confirm and understand the relevant standards and regulations - Confirm completion of the relevant site access and work control requirements - Identify and control hazards in work area per site requirements - Participate in shift handover/changeover and obtain and or pass on relevant information - Obtain and prepare resources for task - Set up job area to site standards with relevant barricading and signage - Suitable hose connectors and fittings - Ensure the unit has enough fuel for the task - Ensure the correct PPE is worn under the current legislation for the HPWJ task or to site requirements whichever is of a higher standard - Confirm that all team members comply with the site and job competencies 	S	
2	<p>The candidate is able to complete site preparation requirements:</p> <ul style="list-style-type: none"> - Confirm job details, scope, location, and all other requirements with the job owner - Obtain and understand updates on instructions relevant to the job - Confirm all the relevant permits/authorisations - Apply relevant site rules and procedures - Confirm the required quality and quantity of water for the job - Confirm available waste disposal is adequate for all wastes generated - Identify and control all the job specific hazards using the SSOW - Identify, rectify if able to and report any hazards that are found - Coordinate with all other workers in the area of the HPWJ task - Ensure that they type of communication is chosen prior to commencing task - Be able to pass on all other information that has to do with operations, production, and safety - Communication of all requirements back to base 	S	
3	<p>Whilst setting up the task the candidate is able to carry out the following:</p> <ul style="list-style-type: none"> - Prepare the worksite - Establish exclusion zone - Set up required signage - Identify, control hazards as required - Take part in the verification of equipment isolations - Maintain a safe work area for crew members and others 	S	

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4	<p>The Candidate is able to complete Pre, and operational checks on the HPWJ unit and equipment including the following:</p> <ul style="list-style-type: none"> - Ensure that all HPWJ equipment and its components are in good working order - Hose assembles - Connectors and fittings are fit for purpose - Foot pedal where available - Nozzles are not defective - Ensure inspection tags/cards/records are current - Ensure the configuration of the HPWJ equipment's is done correctly - Ensure the layout of hoses are correct <p>Ensure if hoses are suspended from a height are correctly supported (tied off)</p>	S	
5	<p>The Candidate can select the key equipment variable required for the task</p> <ul style="list-style-type: none"> - Pressure - Flow rate - Power or RPM of the pump unit where applicable - Nozzle type and size - Hose assemblies - All other control system variables 	S	
6	<p>The candidate is able to carry out the following task to start the HPWJ system:</p> <ul style="list-style-type: none"> - Turn on the HPWJ system - Flush the system with water - Check the operations of the unit to ensure its running as it should - Trigger is good working order - Foot pedal is responsive where applicable - Check the gun is operational at low pressure before winding it up - Ensure the E-stop is responsive and should be tested before winding the pressure up 	S	
7	<p>The candidate is able to conduct the following operations with HPWJ system:</p> <ul style="list-style-type: none"> - Operate the jetting gun in a safe and smooth manner - Ensure the correct nozzles is selected and used for the job - Be able to activate and stop the flow of water - Always maintain control of the HPWJ equipment (pump and gun) - Activate the E-stop 	S	
8	<p>After the task completion, the candidate is able to:</p> <ul style="list-style-type: none"> - Shut down the equipment as per operating manual - Release the stored energy before commencing the dismantle and pack up - Complete a preoperational check and note any hazards to rectified - Complete housekeeping in your job area, always leave the site in a better condition than before you arrived - Equipment is cleaned and stored properly as per company and site requirements - Spills (where applicable) are cleaned and disposed of as per requirements - Complete shift handover/changeover and brief the crew coming on shift and all other stakeholders 	S	
9	<p>The candidate is able to complete the records and reporting requirements:</p> <ul style="list-style-type: none"> - Assist in the accident/incident reporting process - Report any hazards/faults to ensure to remain in line with company and site requirements - Complete records and documentation 	S	

"End of Assessment"

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MAINSTREAM INDUSTRIES TAKE 5

NAME: <i>maia</i>	
DATE: <i>15/4/21</i>	LOCATION: <i>mainstream yard</i>
TASK: <i>HPWS</i>	
THINK THE JOB THROUGH	
HAS A RISK ASSESSMENT / SWMS BEEN COMPLETED?	✓ YES
DO I NEED A PERMIT? - TYPE:	NO
DO I NEED AN ISOLATION?	✓
ARE YOU TRAINED AND AUTHORISED FOR THE TASK?	✓
HAVE YOU COMPLETED YOUR PRE-START CHECK OF TOOLS / PLANT / EQUIPMENT?	✓
ARE THERE OTHER WORK GROUPS IN MY AREA?	✓
WEATHER CONDITIONS	
HOT	COLD
WINDY	WET
EXPECTED SHIFT DURATION - HOURS	
0-4	4-8
8-12	12-14
✓ THE RELEVANT HAZARDS FOR MY AREA / TASK	
TIME RESTRICTION	EXCAVATION
UNCLEAR SCOPE OF WORKS	OVERHEAD POWERLINES
MOVING PLANT / TRAFFIC	UNDERGROUND SERVICES
OTHERS WORKING ABOVE	CLEARING GROUND / VEGETATION
OBJECTS FALLING FROM ABOVE	UNSTABLE GROUND
WORKING AT HEIGHT	SEDIMENT / EROSION
DROPPING OBJECTS ON OTHERS	FLYING PARTICALS / DEBRIS
CONFINED SPACE	UNEVEN SURFACES
GASES / FUMES	HAZARDOUS SUBSTANCES
IGNITION SOURCES / HOT WORKS	STRONG WIND / HEAVY RAIN
NOISE	DUST
VIBRATION	MANUAL HANDLING
POOR / NO COMMUNICATIONS	RELEASE OF STORED ENERGY
INUNDATION / ENGULFMENT	ASBESTOS
FATIGUE	SPILLS TO GROUND / WATERWAYS
CAUGHT BETWEEN	SUSPENDED LOADS
PINCH POINTS	DARKNESS / NIGHT / POOR LIGHT
OTHER:	OTHER:

✓
 ✓ OR RED INDICATES A CONTROL IS REQUIRED

DETAIL THE CONTROLS FOR THE HAZARDS ON THE BACK OF THE PAGE

ALL TAKE 5'S ARE TO BE HANDED IN



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HAZARD CONTROLS

HAZARD	CONTROL
moving traffic	Barricads/signage / barriers
noise	ear protection
Pinch points	gloves
Flying Particles	Barricades PPE tags cones
manual Handling	team lift manual aid
release Store energy	we pull trigger
SPILLS	SPILL KIT

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High Pressure Unit: Pre-Start Checklist

Operator Name: _____ Inspect on Date: _____

H/P Unit Number: _____ Truck Rego: _____

Category 1: Do Not operate machine Contact Maintenance Personnel if fault identified

Items to be inspected	Good	Problem	If a problem is identified add comments
Oil	/		
Coolant	/		
Hose Fittings (Condition)	/		
High Pressure Hose (Condition)	/		
Hose Ree (Condition)	/		
Trigger / Red Safety Clip (Condition)	/		
Lance / Barrel (Condition)	/		
Overall Unit (Condition)			
Guarding	/		
E Stop	/		

Category 2: Contact Operations Co-ordinator or Maintenance Personnel for further information

Battery Condition (Corrosion)	/	
Battery Isolator	/	

Unit Operation

Areas to be inspected	No	If a problem is identified add comments
Does the unit run smoothly	/	
Are there any water leaks		
Does the Hot box work		

Lances	Good	Problem	If a problem is identified add comments
Pin nozzle	/		
Fan nozzle	/		
Radiator nozzle	/		

Comments: _____



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HIGH PRESSURE WATER JETTING ASSISTANT

LOG BOOK

TRAINING RECORD



HIGH PRESSURE WATER JETTING OPERATOR TRAINING RECORD

To be eligible to complete the High Pressure Water Jetting Operator Course, an Assistant will have to:

Complete a minimum of 120 hours under direct supervision of a competent High Pressure Water Jetting Operator, working with the following equipment.

- Gun work
- Flex lance / pipe cleaning
- Tank head

Note: 120 hours tank work does not satisfy the competency criteria.

The log below is to be filled out each time the trainee uses high pressure water jetting tools (gun, flexi lance etc). Log book times are to be recorded as actual time on the tools.

Once the 120 hours has been completed the assistant is to lead a work group under the supervision of an Operator / Supervisor / Manager, as a final assessment of competency.

High Pressure Water Jetting Assistant Name:

TRAINING RECORD
