

WEAR NORMAL CONTAMINATION NORMAL FLUID CONDITION NORMAL

Machine Id **414007** Component **2 Differential** Fluid **PETRO CANADA HYDREX MV 32 (--- GAL)**

Confirm the source of the lubricant being utilized for top-up/fill. Resample at the next service interval to monitor.

WEAR

All component wear rates are normal.

RECOMMENDATION

CONTAMINATION

There is no indication of any contamination in the oil.

FLUID CONDITION

Additive levels indicate the addition of a different brand, or type of oil. The condition of the oil is acceptable for the time in service.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		GFL0113139		
Sample Date		Client Info		03 Jun 2024		
Machine Age	kms	Client Info		37957		
Oil Age	kms	Client Info		0		
Filter Age	kms	Client Info		0		
Oil Changed		Client Info		Changed		
Filter Changed		Client Info		N/A		
Sample Status				NORMAL		
Iron	ppm	ASTM D5185(m)	>1200	81		
Chromium	ppm	ASTM D5185(m)	>8	<1		
Nickel	ppm	ASTM D5185(m)	>20	<1		
Titanium	ppm	ASTM D5185(m)	>4	0		
Silver	ppm	ASTM D5185(m)		0		
Aluminum	ppm	ASTM D5185(m)	>30	<1		
Lead	ppm	ASTM D5185(m)	>25	0		
Copper	ppm	ASTM D5185(m)	>50	<1		
Tin	ppm	ASTM D5185(m)	>5	0		
Vanadium	ppm	ASTM D5185(m)		0		
White Metal	scalar	Visual*	NONE	NONE		
Yellow Metal	scalar	Visual*	NONE	NONE		
Silicon	ppm	ASTM D5185(m)	>230	19		
	pp		/ 200			
Potassium	mag	ASTM D5185(m)	>20	1		
Potassium Water	ppm	ASTM D5185(m) WC Method	>20 >.2	-		
Water		WC Method	>.2	NEG		
Water Silt	scalar	WC Method Visual*	>.2 NONE	NEG NONE		
Water Silt Debris	scalar scalar	WC Method Visual* Visual*	>.2 NONE NONE	NEG NONE NONE		
Water Silt Debris Sand/Dirt	scalar scalar scalar	WC Method Visual* Visual* Visual*	>.2 NONE NONE NONE	NEG NONE NONE NONE		
Water Silt Debris Sand/Dirt Appearance	scalar scalar scalar scalar	WC Method Visual* Visual* Visual* Visual*	>.2 NONE NONE NONE NORML	NEG NONE NONE NONE NORML		
Water Silt Debris Sand/Dirt Appearance Odor	scalar scalar scalar scalar scalar	WC Method Visual* Visual* Visual* Visual* Visual*	>.2 NONE NONE NORML NORML	NEG NONE NONE NORE NORML	 	
Water Silt Debris Sand/Dirt Appearance	scalar scalar scalar scalar	WC Method Visual* Visual* Visual* Visual*	>.2 NONE NONE NONE NORML	NEG NONE NONE NONE NORML	 	
Water Silt Debris Sand/Dirt Appearance Odor	scalar scalar scalar scalar scalar	WC Method Visual* Visual* Visual* Visual* Visual*	>.2 NONE NONE NORML NORML	NEG NONE NONE NORE NORML	 	
Water Silt Debris Sand/Dirt Appearance Odor Emulsified Water	scalar scalar scalar scalar scalar scalar	WC Method Visual* Visual* Visual* Visual* Visual* Visual*	>.2 NONE NONE NORML NORML	NEG NONE NONE NORML NORML NEG		
Water Silt Debris Sand/Dirt Appearance Odor Emulsified Water Sodium	scalar scalar scalar scalar scalar scalar scalar	WC Method Visual* Visual* Visual* Visual* Visual* Visual*	>.2 NONE NONE NORML NORML >.2	NEG NONE NONE NORML NORML NEG 8		
Water Silt Debris Sand/Dirt Appearance Odor Emulsified Water Sodium Boron	scalar scalar scalar scalar scalar scalar ppm	WC Method Visual* Visual* Visual* Visual* Visual* Visual* ASTM D5185(m)	>.2 NONE NONE NORML NORML >.2	NEG NONE NONE NORML NORML NEG 8 143		
Water Silt Debris Sand/Dirt Appearance Odor Emulsified Water Sodium Boron Barium	scalar scalar scalar scalar scalar scalar ppm ppm	WC Method Visual* Visual* Visual* Visual* Visual* Visual* ASTM D5185(m) ASTM D5185(m)	>.2 NONE NONE NORML NORML >.2	NEG NONE NONE NORML NORML NEG 8 143 1		
Water Silt Debris Sand/Dirt Appearance Odor Emulsified Water Sodium Boron Barium Molybdenum	scalar scalar scalar scalar scalar scalar ppm ppm ppm	WC Method Visual* Visual* Visual* Visual* Visual* Visual* ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)	>.2 NONE NONE NORML NORML >.2 0 0	NEG NONE NONE NORML NORML NEG 8 143 1 0		
Water Silt Debris Sand/Dirt Appearance Odor Emulsified Water Sodium Boron Barium Malybdenum Manganese	scalar scalar scalar scalar scalar scalar ppm ppm ppm ppm	WC Method Visual* Visual* Visual* Visual* Visual* Visual* ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)	>.2 NONE NONE NORML NORML >.2 0 0 0 1	NEG NONE NONE NORML NORML NEG 8 143 1 0 3		
Water Silt Debris Sand/Dirt Appearance Odor Emulsified Water Sodium Boron Barium Molybdenum Manganese Magnesium	scalar scalar scalar scalar scalar ppm ppm ppm ppm ppm	WC Method Visual* Visual* Visual* Visual* Visual* Visual* ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)	>.2 NONE NONE NORML NORML >.2 0 0 0 1 0	NEG NONE NONE NORML NORML NEG 8 143 1 0 3 4		
Water Silt Debris Sand/Dirt Appearance Odor Emulsified Water Sodium Boron Barium Malybdenum Manganese Magnesium Calcium	scalar scalar scalar scalar scalar ppm ppm ppm ppm ppm ppm	WC Method Visual* Visual* Visual* Visual* Visual* Visual* ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)	>.2 NONE NONE NORML NORML >.2 0 0 0 0 1 0 50	NEG NONE NONE NORML NORML NEG 8 143 1 0 3 4 30		
Water Silt Debris Sand/Dirt Appearance Odor Emulsified Water Sodium Boron Barium Molybdenum Manganese Magnesium Calcium	scalar scalar scalar scalar scalar ppm ppm ppm ppm ppm ppm ppm	WC Method Visual* Visual* Visual* Visual* Visual* Visual* ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)	>.2 NONE NONE NORML NORML >.2 0 0 0 0 1 0 1 0 50 330	NEG NONE NONE NORML NORML NEG 8 143 1 0 3 4 30 1034		
Water Silt Debris Sand/Dirt Appearance Odor Emulsified Water Sodium Boron Barium Malybdenum Manganese Magnesium Calcium Phosphorus Zinc	scalar scalar scalar scalar scalar ppm ppm ppm ppm ppm ppm ppm	WC Method Visual* Visual* Visual* Visual* Visual* Visual* Visual* ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)	 >.2 NONE NORML NORML >.2 0 0 1 0 50 330 430 	NEG NONE NONE NORML NORML NEG 8 143 1 0 3 4 30 4 30 1034 19		

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