**WEAR** CONTAMINATION **FLUID CONDITION** 

Test

Visc @ 40°C

UOM

Method

Limit/Abn Current

**NORMAL ABNORMAL NORMAL** 

History1

History2

Machine Id 920001

Component Hydraulic System

PETRO CANADA HYDREX MV 32 (--- GAL)

RECOMMENDATION
We advise that you check for the source of water entry. We recommend that you drain the oil from the component if this has not
already been done. We recommend an early resample to monitor this condition. Please contact your representative for information regarding
the proper sampling kits for your service. NOTE: We recommend using MOB 2 test kits, this testkit includes Particle Count to determine

## the ISO cleanliness of the fluid.

## **WEAR**

All component wear rates are normal.

## CONTAMINATION

There is a moderate concentration of water present in the oil.

## UID CONDITION

The oil is no longer serviceable due to the presence of contaminants.

rest	UOW	Method	LIMIT/ADN	Current	HIStory	HIStory2
Sample Number		Client Info		GFL0098018		
Sample Date		Client Info		05 Feb 2024		
Machine Age	hrs	Client Info		22136		
Oil Age	hrs	Client Info		0		
Filter Age	hrs	Client Info		0		
Oil Changed		Client Info		Not Changd		
Filter Changed		Client Info		Not Changd		
Sample Status				ABNORMAL		
Iron		ACTM DE10E/m)	. 00	4		
Chromium	ppm	ASTM D5185(m) ASTM D5185(m)	>20	1 0		
	ppm					
Nickel	ppm	ASTM D5185(m)	>10	<1 0		
Titanium	ppm	ASTM D5185(m)				
Silver	ppm	ASTM D5185(m)	10	0		
Aluminum	ppm	ASTM D5185(m)	>10	<1		
Lead	ppm	ASTM D5185(m)	>10	0		
Copper	ppm	ASTM D5185(m)	>75	<1		
Tin	ppm	ASTM D5185(m)	>10	0		
Vanadium	ppm	ASTM D5185(m)		0		
White Metal	scalar	Visual*	NONE	NONE		
Yellow Metal	scalar	Visual*	NONE	NONE		
Silicon	ppm	ASTM D5185(m)	>20	<1		
Silicon Potassium	ppm	ASTM D5185(m) ASTM D5185(m)	>20	<1 <1		
	ppm ppm %					
Potassium Water	ppm	ASTM D5185(m)	>20	<1		
Potassium	ppm %	ASTM D5185(m) ASTM D6304*	>20 >0.1	<1 <u> </u>		
Potassium Water ppm Water	ppm %	ASTM D5185(m) ASTM D6304* ASTM D6304*	>20 >0.1 >1000	<1 ^ 0.112 ^ 1128		
Potassium Water ppm Water Silt	ppm % ppm scalar	ASTM D5185(m) ASTM D6304* ASTM D6304* Visual*	>20 >0.1 >1000 NONE	<1 ^ 0.112 ^ 1128 NONE		
Potassium Water ppm Water Silt Debris	ppm % ppm scalar scalar	ASTM D5185(m) ASTM D6304* ASTM D6304* Visual* Visual*	>20 >0.1 >1000 NONE NONE	<1 ^ 0.112 ^ 1128 NONE	  	
Potassium Water ppm Water Silt Debris Sand/Dirt	ppm % ppm scalar scalar scalar	ASTM D5185(m) ASTM D6304* ASTM D6304* Visual* Visual* Visual*	>20 >0.1 >1000 NONE NONE NONE	<1  0.112  1128  NONE  NONE  NONE	  	
Potassium Water ppm Water Silt Debris Sand/Dirt Appearance	ppm % ppm scalar scalar scalar scalar	ASTM D5185(m) ASTM D6304* ASTM D6304* Visual* Visual* Visual* Visual*	>20 >0.1 >1000 NONE NONE NONE NONE NORML	<1 0.112 1128 NONE NONE NONE WGOIL	   	
Potassium Water ppm Water Silt Debris Sand/Dirt Appearance Odor Emulsified Water	ppm % ppm scalar scalar scalar scalar scalar	ASTM D5185(m) ASTM D6304* ASTM D6304* Visual* Visual* Visual* Visual* Visual* Visual* Visual*	>20 >0.1 >1000 NONE NONE NONE NORML	<1  0.112  1128  NONE  NONE  NONE  NONE  NONE  NORML  .5%	   	
Potassium Water ppm Water Silt Debris Sand/Dirt Appearance Odor Emulsified Water Sodium	ppm % ppm scalar scalar scalar scalar scalar	ASTM D5185(m) ASTM D6304* ASTM D6304* Visual* Visual* Visual* Visual* Visual* Visual* ASTM D5185(m)	>20 >0.1 >1000 NONE NONE NONE NORML	<1  0.112  1128  NONE  NONE  NONE  NONE  NORML  1.5%	   	
Potassium Water ppm Water Silt Debris Sand/Dirt Appearance Odor Emulsified Water Sodium Boron	ppm % ppm scalar scalar scalar scalar scalar	ASTM D5185(m) ASTM D6304* ASTM D6304* Visual* Visual* Visual* Visual* Visual* Visual* ASTM D5185(m) ASTM D5185(m)	>20 >0.1 >1000 NONE NONE NORML NORML >0.1	<1	   	
Potassium Water ppm Water Silt Debris Sand/Dirt Appearance Odor Emulsified Water Sodium Boron Barium	ppm % ppm scalar scalar scalar scalar scalar scalar	ASTM D5185(m) ASTM D6304* ASTM D6304* Visual* Visual* Visual* Visual* Visual* Visual* ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)	>20 >0.1 >1000 NONE NONE NONE NORML NORML >0.1	<1	     	
Potassium Water ppm Water Silt Debris Sand/Dirt Appearance Odor Emulsified Water Sodium Boron Barium Molybdenum	ppm % ppm scalar scalar scalar scalar scalar scalar ppm	ASTM D5185(m) ASTM D6304* ASTM D6304* Visual* Visual* Visual* Visual* Visual* ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)	>20 >0.1 >1000 NONE NONE NORML NORML >0.1	<1	    	
Potassium Water ppm Water Silt Debris Sand/Dirt Appearance Odor Emulsified Water Sodium Boron Barium Molybdenum Manganese	ppm % ppm scalar scalar scalar scalar scalar ppm ppm ppm	ASTM D5185(m) ASTM D6304* ASTM D6304* Visual* Visual* Visual* Visual* Visual* Visual* ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)	>20 >0.1 >1000 NONE NONE NONE NORML NORML >0.1	<1	    	
Potassium Water ppm Water Silt Debris Sand/Dirt Appearance Odor Emulsified Water Sodium Boron Barium Molybdenum Manganese Magnesium	ppm % ppm scalar scalar scalar scalar scalar scalar ppm ppm ppm ppm	ASTM D5185(m) ASTM D6304* ASTM D6304* Visual* Visual* Visual* Visual* Visual* ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)	>20 >0.1 >1000 NONE NONE NONE NORML NORML >0.1	<1		
Potassium Water ppm Water Silt Debris Sand/Dirt Appearance Odor Emulsified Water Sodium Boron Barium Molybdenum Manganese Magnesium Calcium	ppm % ppm scalar scalar scalar scalar scalar scalar ppm ppm ppm ppm ppm	ASTM D5185(m) ASTM D6304* ASTM D6304* Visual* Visual* Visual* Visual* Visual* Visual* ASTM D5185(m)	>20 >0.1 >1000 NONE NONE NONE NORML NORML >0.1	<1		
Potassium Water ppm Water Silt Debris Sand/Dirt Appearance Odor Emulsified Water Sodium Boron Barium Molybdenum Manganese Magnesium	ppm % ppm scalar scalar scalar scalar scalar ppm ppm ppm ppm ppm ppm ppm	ASTM D5185(m) ASTM D6304* ASTM D6304* Visual* Visual* Visual* Visual* Visual* ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)	>20 >0.1 >1000 NONE NONE NONE NORML NORML >0.1	<1		
Potassium Water ppm Water Silt Debris Sand/Dirt Appearance Odor Emulsified Water Sodium Boron Barium Molybdenum Manganese Magnesium Calcium	ppm % ppm scalar scalar scalar scalar scalar scalar ppm ppm ppm ppm ppm ppm ppm	ASTM D5185(m) ASTM D6304* ASTM D6304* Visual* Visual* Visual* Visual* Visual* Visual* ASTM D5185(m)	>20 >0.1 >1000 NONE NONE NONE NORML NORML >0.1	<1		

ASTM D7279(m) 31.9

30.7





CALA ISO 17025:2017 Accredited

Laboratory Sample No.

Lab Number : 02615981

Unique Number : 5733091

: WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9 Received : GFL0098018 **Tested** 

: 15 Feb 2024

: 20 Feb 2024

: 20 Feb 2024 - Kevin Marson

Diagnosed Test Package: MOB 1 (Additional Tests: KF)

To discuss this sample report, contact Customer Service at 1-800-268-2131. Test denoted (\*) outside scope of accreditation, (m) method modified, (e) tested at external lab. Validity of results and interpretation are based on the sample and information as supplied.

GFL Environmental - 593 4421 Boban Drive Nanaimo, BC **CA V9T 6A6** Contact: Patrick Rutti prutti@gflenv.com T: (250)739-3345