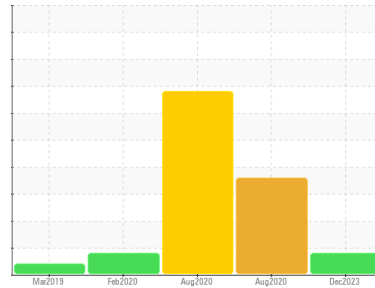




# OIL ANALYSIS REPORT

Sample Rating Trend



ISO



Machine Id  
**T001301 (S/N 20-M-01-2156)**

Component  
**Rear Hydraulic System**

Fluid  
**PETRO CANADA HYDREX XV ALL SEASON HYDRAULIC OIL (--- GAL)**

## DIAGNOSIS

### Recommendation

We recommend you service the filters on this component. 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.

### Contamination

There is a light amount of silt (particulates < 14 microns in size) present 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.

## SAMPLE INFORMATION

method	limit/base	current	history1	history2
Sample Number	Client Info	<b>WC0832178</b>	WC0486644	WC0428376
Sample Date	Client Info	<b>06 Dec 2023</b>	28 Aug 2020	28 Aug 2020
Machine Age	hrs	<b>4581</b>	527	500
Oil Age	hrs	<b>0</b>	527	100
Oil Changed	Client Info	<b>N/A</b>	Not Changd	Not Changd
Sample Status		<b>ATTENTION</b>	SEVERE	SEVERE

## CONTAMINATION

method	limit/base	current	history1	history2
Water	WC Method >0.05	<b>NEG</b>	NEG	NEG

## WEAR METALS

method	limit/base	current	history1	history2
Iron	ppm ASTM D5185(m) >20	<b>13</b>	3	1
Chromium	ppm ASTM D5185(m) >20	<b>&lt;1</b>	0	0
Nickel	ppm ASTM D5185(m) >20	<b>&lt;1</b>	0	<1
Titanium	ppm ASTM D5185(m)	<b>0</b>	<1	<1
Silver	ppm ASTM D5185(m)	<b>&lt;1</b>	0	<1
Aluminum	ppm ASTM D5185(m) >20	<b>&lt;1</b>	<1	0
Lead	ppm ASTM D5185(m) >20	<b>1</b>	<1	<1
Copper	ppm ASTM D5185(m) >20	<b>9</b>	3	2
Tin	ppm ASTM D5185(m) >20	<b>0</b>	0	0
Antimony	ppm ASTM D5185(m)	<b>0</b>	<1	<1
Vanadium	ppm ASTM D5185(m)	<b>0</b>	0	0
Beryllium	ppm ASTM D5185(m)	<b>0</b>	0	0
Cadmium	ppm ASTM D5185(m)	<b>0</b>	0	0

## ADDITIVES

method	limit/base	current	history1	history2
Boron	ppm ASTM D5185(m) 0	<b>5</b>	<1	<1
Barium	ppm ASTM D5185(m) 0	<b>&lt;1</b>	<1	<1
Molybdenum	ppm ASTM D5185(m) 0	<b>0</b>	<1	0
Manganese	ppm ASTM D5185(m) 1	<b>0</b>	<1	<1
Magnesium	ppm ASTM D5185(m) 0	<b>2</b>	3	<1
Calcium	ppm ASTM D5185(m) 100	<b>88</b>	174	106
Phosphorus	ppm ASTM D5185(m) 670	<b>444</b>	646	676
Zinc	ppm ASTM D5185(m) 850	<b>527</b>	820	870
Sulfur	ppm ASTM D5185(m) 1600	<b>4228</b>	2223	1640
Lithium	ppm ASTM D5185(m)	<b>&lt;1</b>	<1	<1

## CONTAMINANTS

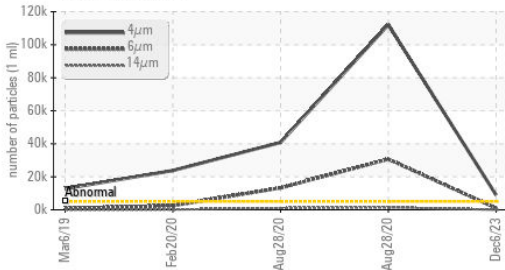
method	limit/base	current	history1	history2
Silicon	ppm ASTM D5185(m) >15	<b>1</b>	<1	<1
Sodium	ppm ASTM D5185(m)	<b>4</b>	0	0
Potassium	ppm ASTM D5185(m) >20	<b>0</b>	<1	<1

## FLUID CLEANLINESS

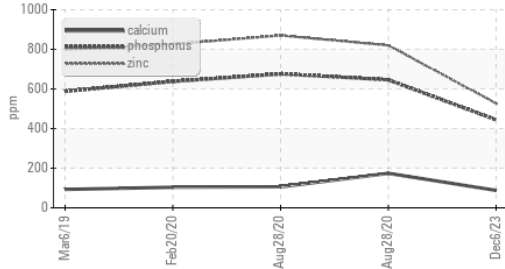
method	limit/base	current	history1	history2
Particles >4µm	ASTM D7647 >5000	<b>▲ 8985</b>	● 40818	● 112141
Particles >6µm	ASTM D7647 >1300	<b>1038</b>	● 13314	● 30711
Particles >14µm	ASTM D7647 >160	<b>63</b>	▲ 1036	● 1416
Particles >21µm	ASTM D7647 >40	<b>17</b>	▲ 299	● 374
Particles >38µm	ASTM D7647 >10	<b>3</b>	4	6
Particles >71µm	ASTM D7647 >3	<b>0</b>	2	0
Oil Cleanliness	ISO 4406 (c) >19/17/14	<b>▲ 20/17/13</b>	● 23/21/17	● 24/22/18

# OIL ANALYSIS REPORT

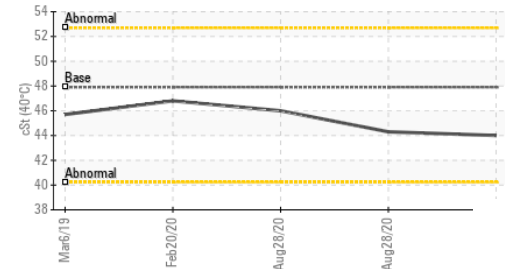
### ▲ Particle Trend



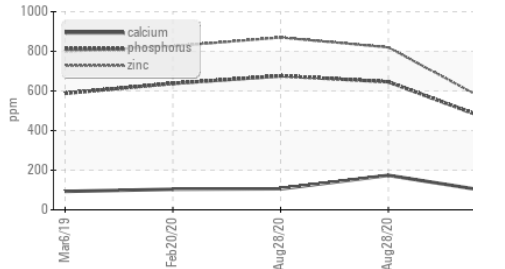
### Additives



### Viscosity @ 40°C



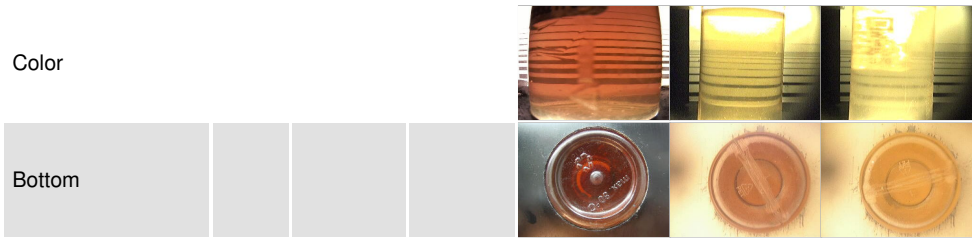
### Additives



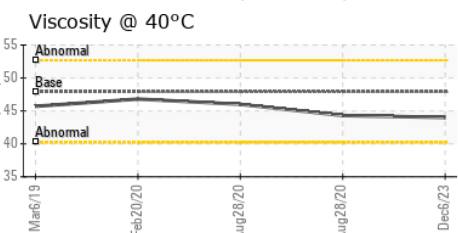
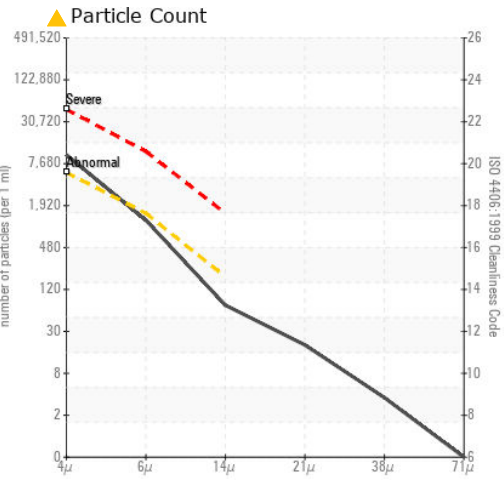
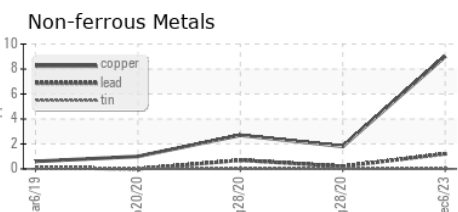
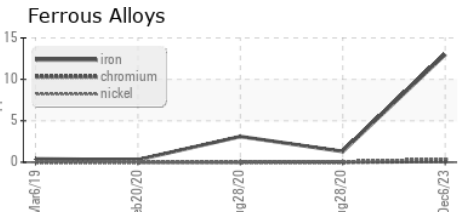
VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	Visual*	NONE	NONE	NONE
Yellow Metal	scalar	Visual*	NONE	NONE	NONE
Precipitate	scalar	Visual*	NONE	NONE	NONE
Silt	scalar	Visual*	NONE	NONE	NONE
Debris	scalar	Visual*	NONE	LIGHT	LIGHT
Sand/Dirt	scalar	Visual*	NONE	NONE	NONE
Appearance	scalar	Visual*	NORML	NORML	NORML
Odor	scalar	Visual*	NORML	NORML	NORML
Emulsified Water	scalar	Visual*	>0.05	NEG	NEG
Free Water	scalar	Visual*		NEG	NEG

FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D7279(m)	47.9	44.3	46.0

SAMPLE IMAGES	method	limit/base	current	history1	history2
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### GRAPHS



**Laboratory** : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9  
**Sample No.** : WC0832178 **Received** : 08 Dec 2023  
**Lab Number** : 02601895 **Diagnosed** : 11 Dec 2023  
**Unique Number** : 5694980 **Diagnostician** : Kevin Marson  
**Test Package** : MOB 2

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 T:  
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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.