



Machine Id  
**101013**

Component  
**Hydraulic System**

Fluid  
**PETRO CANADA HYDREX MV 32 (--- GAL)**

**RECOMMENDATION**

We advise that you check all areas where contaminants can enter the system. We advise that you perform a filter service, and use off-line filtration to improve the cleanliness of the system fluid. The air breather requires service. If unrated, we recommend that you replace with a suitable micron rated and/or desiccant air breather. If rated, we recommend that you service/replace the breather. Resample in 30-45 days to monitor this situation. We suspect that the abnormal contaminant(s) is the result of incorrect sampling technique. **DISCLAIMER:** Interpretation of results is based on the sample as received from the customer. The condition of the sample and the method of sampling cannot be verified.

**WEAR**

Iron ppm levels are abnormal. The low ferrous density (PQ) index indicates the wear metal levels are due to corrosion.

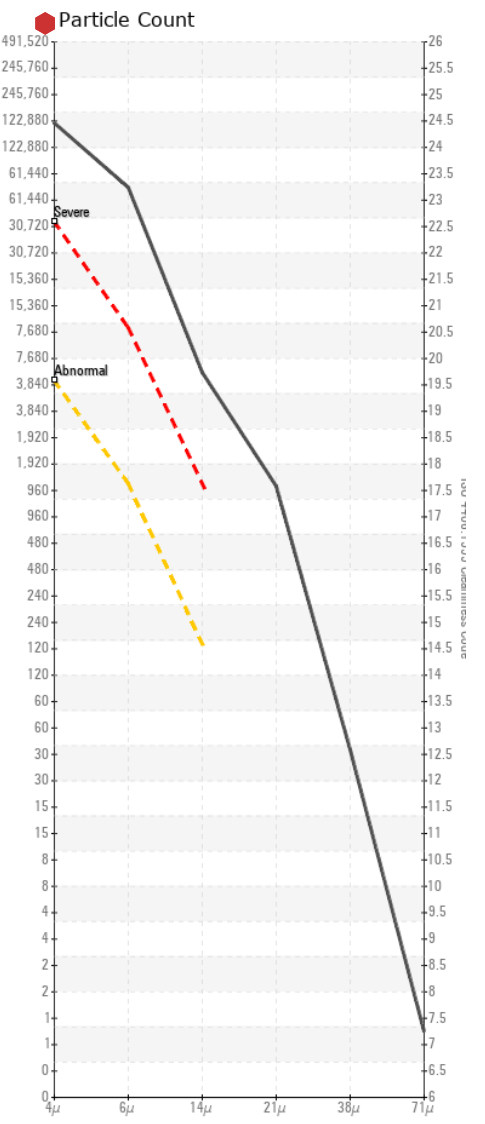
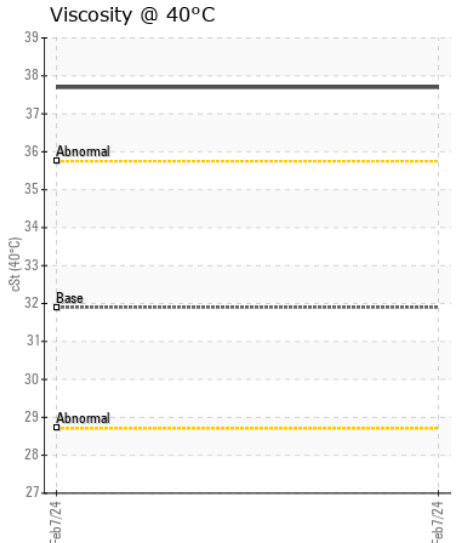
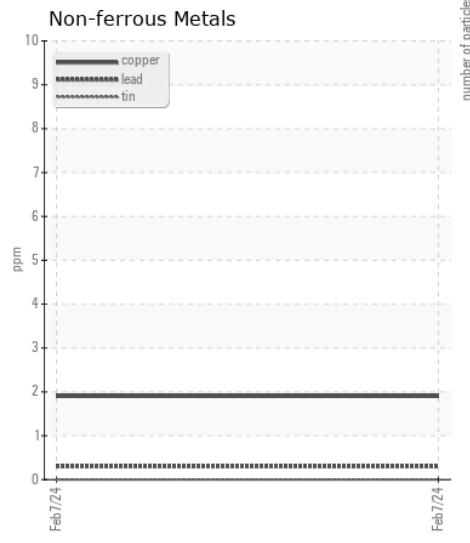
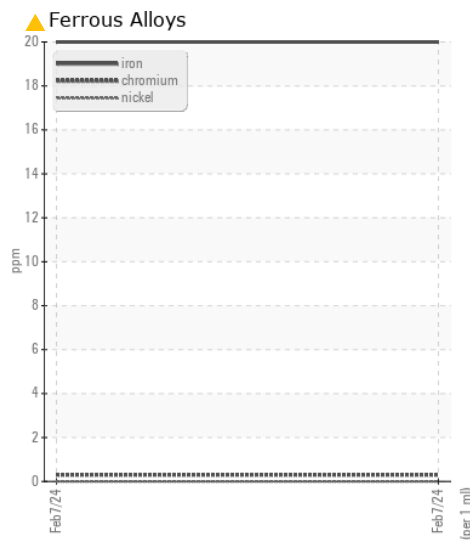
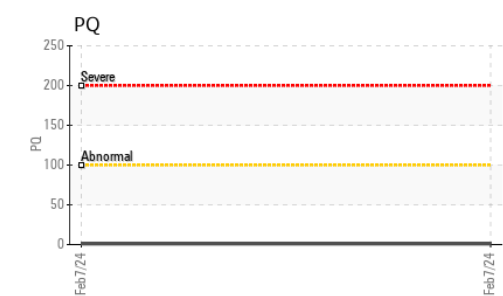
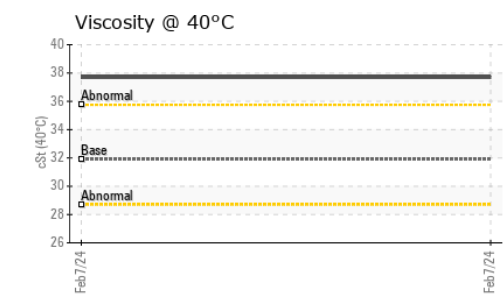
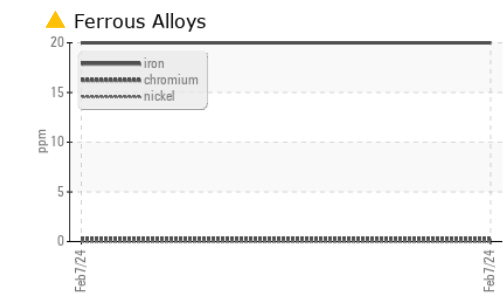
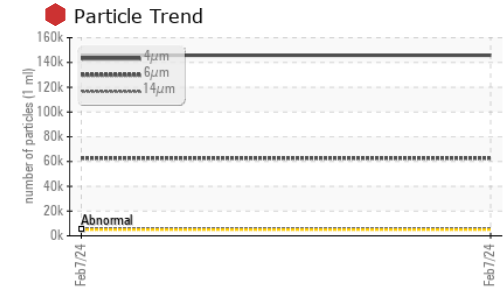
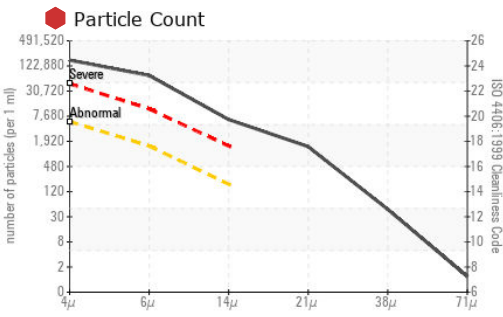
**CONTAMINATION**

There is a high amount of particulates (2 to 100 microns in size) present in the oil. Light concentration of visible dirt/debris present in the oil.

**FLUID CONDITION**

The oil viscosity is higher than typical. The oil is no longer serviceable as a result of the abnormal and/or severe wear.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>GFL0108236</b>	---	---
Sample Date		Client Info		<b>07 Feb 2024</b>	---	---
Machine Age	hrs	Client Info		<b>0</b>	---	---
Oil Age	hrs	Client Info		<b>0</b>	---	---
Filter Age	hrs	Client Info		<b>0</b>	---	---
Oil Changed		Client Info		<b>Not Changd</b>	---	---
Filter Changed		Client Info		<b>Not Changd</b>	---	---
Sample Status				<b>SEVERE</b>	---	---
PQ		ASTM D8184*		<b>1</b>	---	---
Iron	ppm	ASTM D5185(m)	>20	<b>▲ 20</b>	---	---
Chromium	ppm	ASTM D5185(m)	>10	<b>&lt;1</b>	---	---
Nickel	ppm	ASTM D5185(m)	>10	<b>0</b>	---	---
Titanium	ppm	ASTM D5185(m)		<b>0</b>	---	---
Silver	ppm	ASTM D5185(m)		<b>0</b>	---	---
Aluminum	ppm	ASTM D5185(m)	>10	<b>4</b>	---	---
Lead	ppm	ASTM D5185(m)	>10	<b>&lt;1</b>	---	---
Copper	ppm	ASTM D5185(m)	>75	<b>2</b>	---	---
Tin	ppm	ASTM D5185(m)	>10	<b>0</b>	---	---
Vanadium	ppm	ASTM D5185(m)		<b>0</b>	---	---
White Metal	scalar	Visual*	NONE	<b>NONE</b>	---	---
Yellow Metal	scalar	Visual*	NONE	<b>NONE</b>	---	---
Silicon	ppm	ASTM D5185(m)	>20	<b>6</b>	---	---
Potassium	ppm	ASTM D5185(m)	>20	<b>3</b>	---	---
Water		WC Method	>0.1	<b>NEG</b>	---	---
Particles >4µm		ASTM D7647	>5000	<b>● 145770</b>	---	---
Particles >6µm		ASTM D7647	>1300	<b>● 62730</b>	---	---
Particles >14µm		ASTM D7647	>160	<b>● 5571</b>	---	---
Particles >21µm		ASTM D7647	>40	<b>● 1258</b>	---	---
Particles >38µm		ASTM D7647	>10	<b>▲ 40</b>	---	---
Particles >71µm		ASTM D7647	>3	<b>1</b>	---	---
Oil Cleanliness		ISO 4406 (c)	>19/17/14	<b>● 24/23/20</b>	---	---
Silt	scalar	Visual*	NONE	<b>NONE</b>	---	---
Debris	scalar	Visual*	NONE	<b>▲ LIGHT</b>	---	---
Sand/Dirt	scalar	Visual*	NONE	<b>NONE</b>	---	---
Appearance	scalar	Visual*	NORML	<b>NORML</b>	---	---
Odor	scalar	Visual*	NORML	<b>NORML</b>	---	---
Emulsified Water	scalar	Visual*	>0.1	<b>NEG</b>	---	---
Sodium	ppm	ASTM D5185(m)		<b>1</b>	---	---
Boron	ppm	ASTM D5185(m)	0	<b>&lt;1</b>	---	---
Barium	ppm	ASTM D5185(m)	0	<b>0</b>	---	---
Molybdenum	ppm	ASTM D5185(m)	0	<b>0</b>	---	---
Manganese	ppm	ASTM D5185(m)	1	<b>0</b>	---	---
Magnesium	ppm	ASTM D5185(m)	0	<b>4</b>	---	---
Calcium	ppm	ASTM D5185(m)	50	<b>95</b>	---	---
Phosphorus	ppm	ASTM D5185(m)	330	<b>352</b>	---	---
Zinc	ppm	ASTM D5185(m)	430	<b>442</b>	---	---
Sulfur	ppm	ASTM D5185(m)	760	<b>987</b>	---	---
Visc @ 40°C	cSt	ASTM D7279(m)	31.9	<b>37.7</b>	---	---



**Laboratory** : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9  
**Sample No.** : GFL0108236  
**Lab Number** : 02616274  
**Unique Number** : 5733384  
**Test Package** : MOB 1 ( Additional Tests: PQ, PrtCount )

**GFL Environmental - 355 - Saskatoon**  
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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.