



Machine Id  
**731118**  
Component  
**Hydraulic System**  
Fluid  
**PETRO CANADA HYDREX MV 46 (--- GAL)**

**RECOMMENDATION**

No corrective action is recommended at this time. The filter change at the time of sampling has been noted. Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>GFL0117191</b>	GFL0070386	GFL0050586
Sample Date		Client Info		<b>19 Apr 2024</b>	01 May 2023	26 Jul 2022
Machine Age	hrs	Client Info		<b>6619</b>	4652	2874
Oil Age	hrs	Client Info		<b>6619</b>	4652	2874
Filter Age	hrs	Client Info		<b>2400</b>	2400	1350
Oil Changed		Client Info		<b>Not Changed</b>	Not Changed	Not Changed
Filter Changed		Client Info		<b>Changed</b>	Changed	Changed
Sample Status				<b>ABNORMAL</b>	ATTENTION	ATTENTION

**WEAR**

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>20	<b>9</b>	3	2
Chromium	ppm	ASTM D5185m	>10	<b>&lt;1</b>	0	0
Nickel	ppm	ASTM D5185m	>10	<b>&lt;1</b>	0	0
Titanium	ppm	ASTM D5185m		<b>&lt;1</b>	<1	0
Silver	ppm	ASTM D5185m		<b>0</b>	0	0
Aluminum	ppm	ASTM D5185m	>10	<b>2</b>	0	0
Lead	ppm	ASTM D5185m	>10	<b>&lt;1</b>	0	0
Copper	ppm	ASTM D5185m	>75	<b>2</b>	<1	1
Tin	ppm	ASTM D5185m	>10	<b>&lt;1</b>	0	0
Vanadium	ppm	ASTM D5185m		<b>0</b>	0	0
White Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE

**CONTAMINATION**

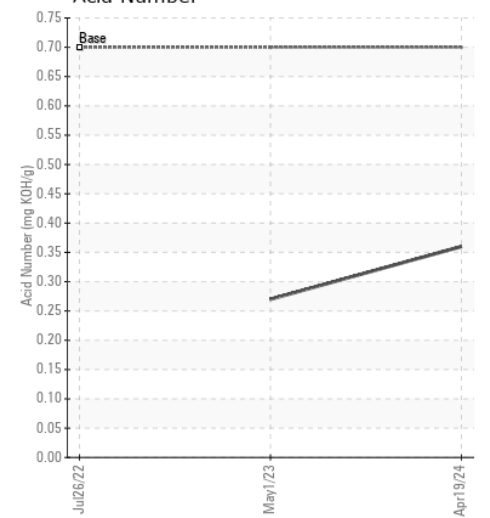
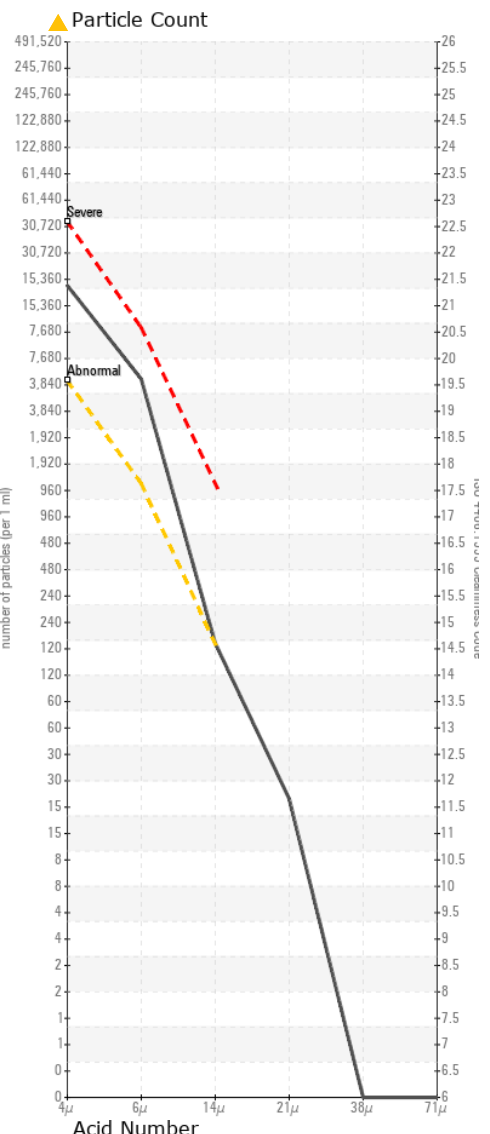
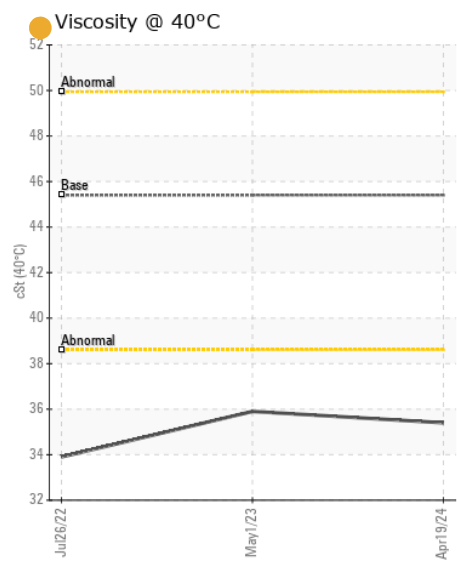
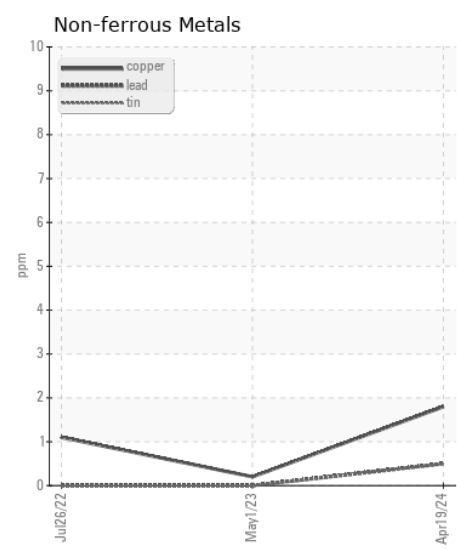
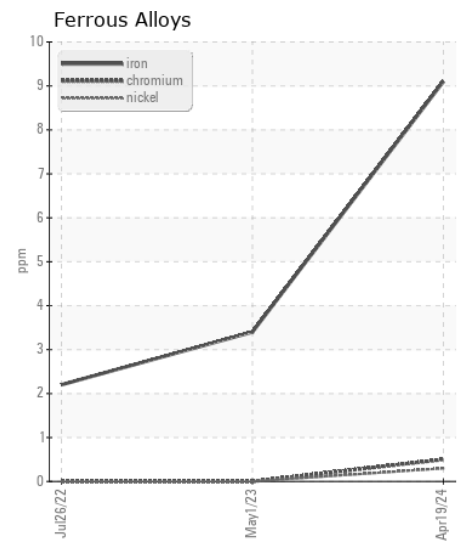
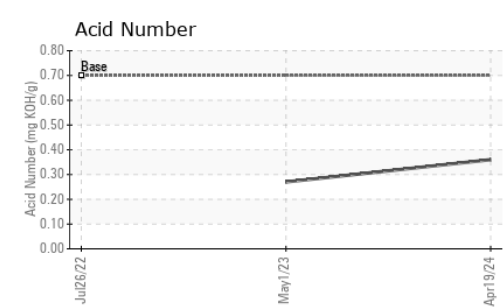
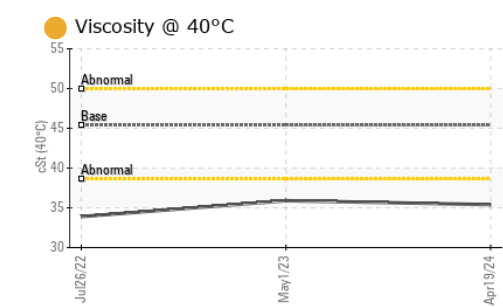
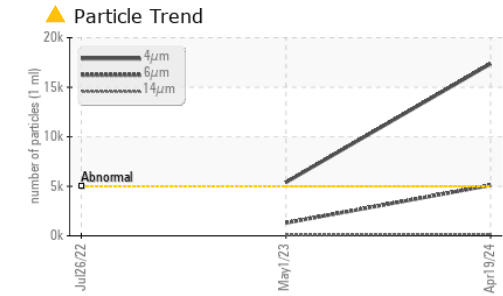
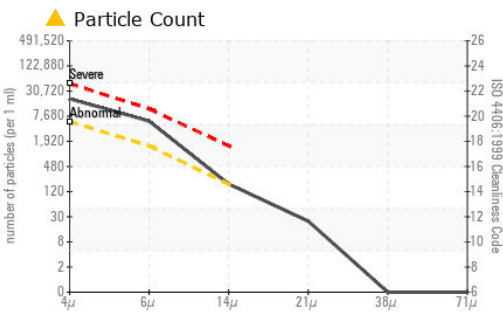
There is a high amount of particulates present in the oil.

Silicon	ppm	ASTM D5185m	>20	<b>4</b>	3	2
Potassium	ppm	ASTM D5185m	>20	<b>&lt;1</b>	1	1
Water		WC Method	>0.1	<b>NEG</b>	NEG	NEG
Particles >4µm		ASTM D7647	>5000	<b>▲ 17367</b>	● 5386	---
Particles >6µm		ASTM D7647	>1300	<b>▲ 5108</b>	● 1303	---
Particles >14µm		ASTM D7647	>160	<b>▲ 161</b>	61	---
Particles >21µm		ASTM D7647	>40	<b>21</b>	8	---
Particles >38µm		ASTM D7647	>10	<b>0</b>	0	---
Particles >71µm		ASTM D7647	>3	<b>0</b>	0	---
Oil Cleanliness		ISO 4406 (c)	>19/17/14	<b>▲ 21/20/15</b>	● 20/18/13	---
Silt	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Debris	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Appearance	scalar	*Visual	NORML	<b>NORML</b>	NORML	NORML
Odor	scalar	*Visual	NORML	<b>NORML</b>	NORML	NORML
Emulsified Water	scalar	*Visual	>0.1	<b>NEG</b>	NEG	NEG

**FLUID CONDITION**

Viscosity of sample indicates oil is within ISO 32 range, advise investigate. Confirm oil type.

Sodium	ppm	ASTM D5185m		<b>2</b>	1	0
Boron	ppm	ASTM D5185m	0	<b>0</b>	0	<1
Barium	ppm	ASTM D5185m	0	<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185m	0	<b>&lt;1</b>	0	<1
Manganese	ppm	ASTM D5185m	1	<b>&lt;1</b>	<1	0
Magnesium	ppm	ASTM D5185m	0	<b>5</b>	8	2
Calcium	ppm	ASTM D5185m	50	<b>54</b>	37	40
Phosphorus	ppm	ASTM D5185m	330	<b>324</b>	255	274
Zinc	ppm	ASTM D5185m	430	<b>364</b>	296	334
Sulfur	ppm	ASTM D5185m	760	<b>871</b>	548	940
Acid Number (AN)	mg KOH/g	ASTM D8045	0.70	<b>0.36</b>	0.27	---
Visc @ 40°C	cSt	ASTM D445	45.4	<b>● 35.4</b>	● 35.9	● 33.9



**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : GFL0117191 **Received** : 23 Apr 2024  
**Lab Number** : 06158438 **Tested** : 24 Apr 2024  
**Unique Number** : 10993861 **Diagnosed** : 25 Apr 2024 - Don Baldrige  
**Test Package** : FLEET ( Additional Tests: PrtCount )

**GFL Environmental - 836 - Kansas City Hauling**  
 7801 East Truman Road  
 Kansas City, MO  
 US 64126  
 Contact: Loyce Stewart  
 loyce.stewart@gflenv.com

To discuss this sample report, contact Customer Service at 1-800-237-1369.  
 \* - Denotes test methods that are outside of the ISO 17025 scope of accreditation.  
 Statements of conformity to specifications are based on the simple acceptance decision rule (JCGM 106:2012)