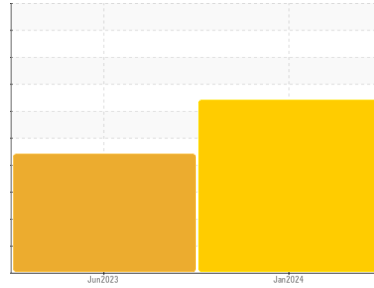




PROBLEM SUMMARY

Sample Rating Trend



ISO

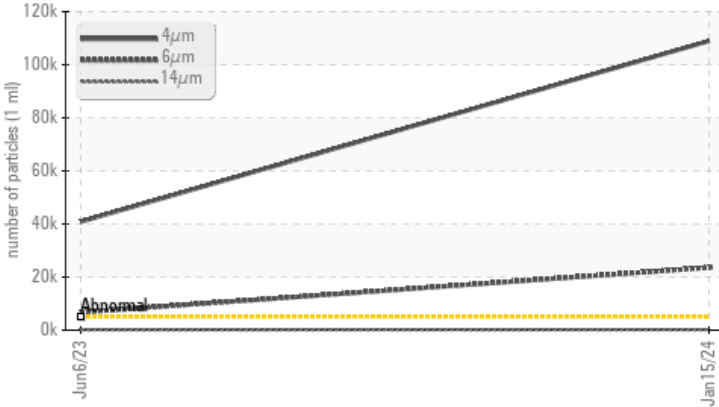


Area
[133370]
 Machine Id
COMBO #10

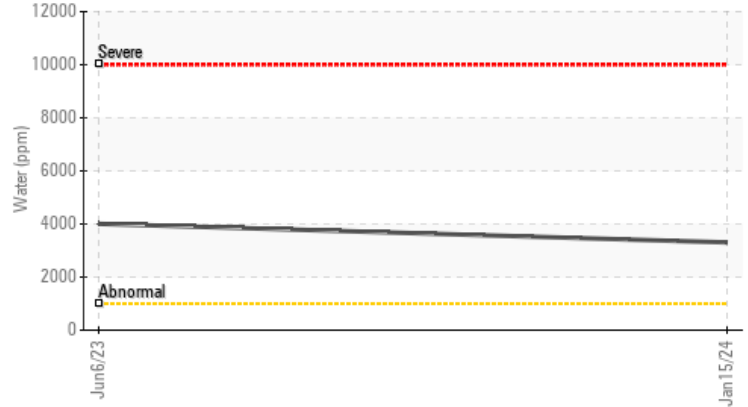
Component
Hydraulic System
 Fluid
PETRO CANADA PURITY FG AW HYDRAULIC 32 (3 GAL)

COMPONENT CONDITION SUMMARY

Particle Trend



Water (KF)



RECOMMENDATION

We advise that you check for the source of water entry. Check seals and/or filters for points of contaminant entry. 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. We recommend you service the filters on this component. Resample in 30-45 days to monitor this situation. Please specify the component make and model with your next sample.

PROBLEMATIC TEST RESULTS

Sample Status				SEVERE	SEVERE	---
Water	%	ASTM D6304*	>0.1	▲ 0.330	▲ 0.400	---
ppm Water	ppm	ASTM D6304*	>1000	▲ 3304	▲ 4006.0	---
Particles >4µm		ASTM D7647	>5000	● 108974	● 40838	---
Particles >6µm		ASTM D7647	>1300	● 23578	▲ 6724	---
Oil Cleanliness		ISO 4406 (c)	>19/17/14	● 24/22/15	● 23/20/14	---
Appearance	scalar	Visual*	NORML	▲ HAZY	▲ WGOIL	---
Emulsified Water	scalar	Visual*	>0.1	▲ .5%	▲ .2%	---

Customer Id: GRA685CAM
 Sample No.: WC0898890
 Lab Number: 02609350
 Test Package: IND 2



To manage this report scan the QR code

To discuss the diagnosis or test data:
 Kevin Marson +1 (289)291-4644 x4644
Kevin.Marson@wearcheck.com

To change component or sample information:
 Gloria Gonzalez +1 (289)291-4643 x4643
gloria.gonzalez@wearcheck.com

RECOMMENDED ACTIONS

Action	Status	Date	Done By	Description
Change Filter	---	---	?	We recommend you service the filters on this component.
Resample	---	---	?	Resample in 30-45 days to monitor this situation.
Information Required	---	---	?	Please specify the component make and model with your next sample.
Check Breathers	---	---	?	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.
Check Water Access	---	---	?	We advise that you check for the source of water entry.
Check Seals	---	---	?	Check seals and/or filters for points of contaminant entry.

HISTORICAL DIAGNOSIS

WATER



06 Jun 2023 Diag: Kevin Marson

We advise that you check for the source of water entry. Check seals and/or filters for points of contaminant entry. 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. We recommend you service the filters on this component. Resample in 30-45 days to monitor this situation. Please specify the component make and model with your next sample. All component wear rates are normal. There is a high amount of silt (particulates < 14 microns in size) present in the oil. There is a moderate concentration of water present in the oil. The AN level is acceptable for this fluid. The oil is still serviceable provided that the contaminant(s) can be reduced to acceptable levels.

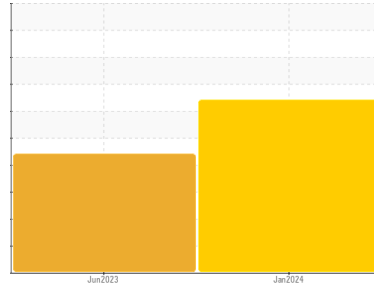
view report





OIL ANALYSIS REPORT

Sample Rating Trend



ISO



Area
[133370]
 Machine Id
COMBO #10
 Component
Hydraulic System
 Fluid
PETRO CANADA PURITY FG AW HYDRAULIC 32 (3 GAL)

DIAGNOSIS

Recommendation

We advise that you check for the source of water entry. Check seals and/or filters for points of contaminant entry. 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. We recommend you service the filters on this component. Resample in 30-45 days to monitor this situation. Please specify the component make and model with your next sample.

Wear

All component wear rates are normal.

Contamination

There is a high amount of silt (particulates < 14 microns in size) present in the oil. There is a moderate concentration of water present in the oil.

Fluid Condition

The AN level is acceptable for this fluid. The oil is still serviceable provided that the contaminant(s) can be reduced to acceptable levels.

SAMPLE INFORMATION

	method	limit/base	current	history1	history2
Sample Number	Client Info		WC0898890	WC0808193	---
Sample Date	Client Info		15 Jan 2024	06 Jun 2023	---
Machine Age	hrs	Client Info	0	0	---
Oil Age	hrs	Client Info	0	0	---
Oil Changed	Client Info		N/A	N/A	---
Sample Status			SEVERE	SEVERE	---

WEAR METALS

	method	limit/base	current	history1	history2	
Iron	ppm	ASTM D5185(m)	>20	3	2	---
Chromium	ppm	ASTM D5185(m)	>10	0	0	---
Nickel	ppm	ASTM D5185(m)	>10	0	0	---
Titanium	ppm	ASTM D5185(m)		0	0	---
Silver	ppm	ASTM D5185(m)		0	0	---
Aluminum	ppm	ASTM D5185(m)	>10	<1	<1	---
Lead	ppm	ASTM D5185(m)	>10	0	0	---
Copper	ppm	ASTM D5185(m)	>75	0	0	---
Tin	ppm	ASTM D5185(m)	>10	0	0	---
Antimony	ppm	ASTM D5185(m)		0	0	---
Vanadium	ppm	ASTM D5185(m)		0	0	---
Beryllium	ppm	ASTM D5185(m)		0	0	---
Cadmium	ppm	ASTM D5185(m)		0	0	---

ADDITIVES

	method	limit/base	current	history1	history2	
Boron	ppm	ASTM D5185(m)		0	0	---
Barium	ppm	ASTM D5185(m)		0	0	---
Molybdenum	ppm	ASTM D5185(m)		0	0	---
Manganese	ppm	ASTM D5185(m)		0	0	---
Magnesium	ppm	ASTM D5185(m)		<1	0	---
Calcium	ppm	ASTM D5185(m)		1	0	---
Phosphorus	ppm	ASTM D5185(m)		438	492	---
Zinc	ppm	ASTM D5185(m)		2	1	---
Sulfur	ppm	ASTM D5185(m)		459	569	---
Lithium	ppm	ASTM D5185(m)		<1	<1	---

CONTAMINANTS

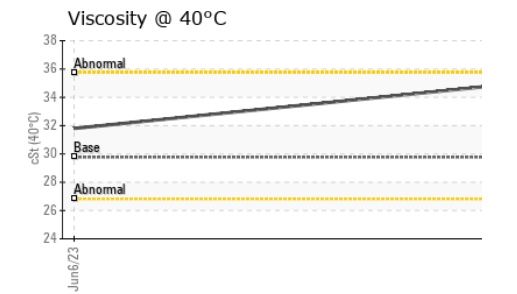
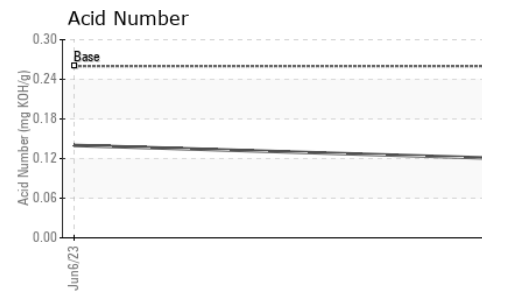
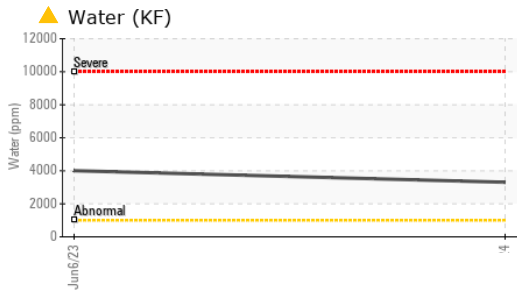
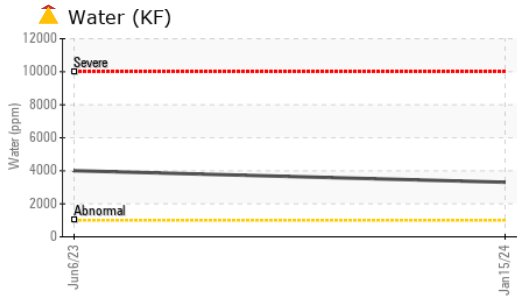
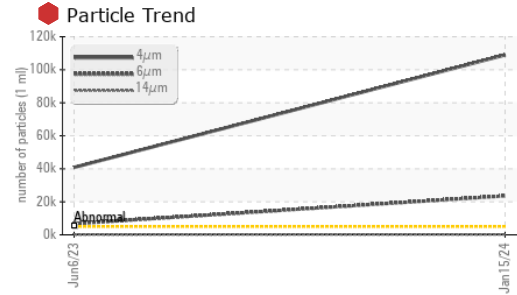
	method	limit/base	current	history1	history2	
Silicon	ppm	ASTM D5185(m)	>20	3	10	---
Sodium	ppm	ASTM D5185(m)		5	<1	---
Potassium	ppm	ASTM D5185(m)	>20	7	0	---
Water	%	ASTM D6304*	>0.1	▲ 0.330	▲ 0.400	---
ppm Water	ppm	ASTM D6304*	>1000	▲ 3304	▲ 4006.0	---

FLUID CLEANLINESS

	method	limit/base	current	history1	history2
Particles >4µm	ASTM D7647	>5000	● 108974	● 40838	---
Particles >6µm	ASTM D7647	>1300	● 23578	▲ 6724	---
Particles >14µm	ASTM D7647	>160	▲ 165	130	---
Particles >21µm	ASTM D7647	>40	26	13	---
Particles >38µm	ASTM D7647	>10	0	1	---
Particles >71µm	ASTM D7647	>3	0	0	---
Oil Cleanliness	ISO 4406 (c)	>19/17/14	● 24/22/15	● 23/20/14	---



OIL ANALYSIS REPORT

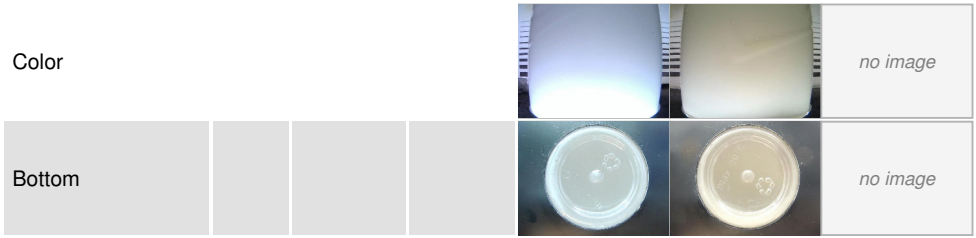


FLUID DEGRADATION	method	limit/base	current	history1	history2	
Acid Number (AN)	mg KOH/g	ASTM D974*	0.26	0.12	0.14	---

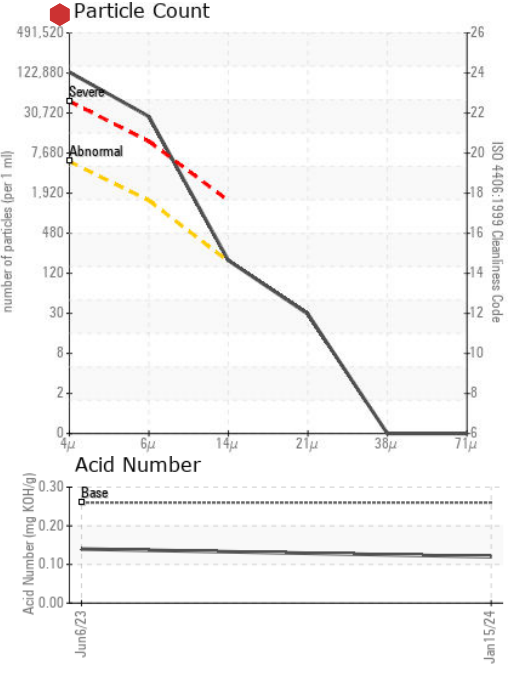
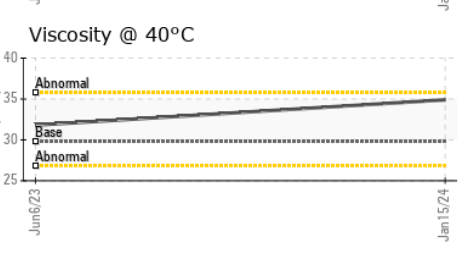
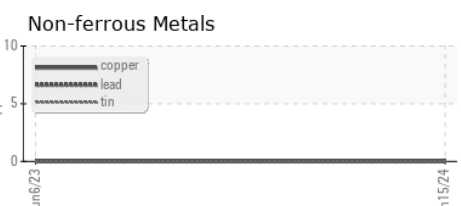
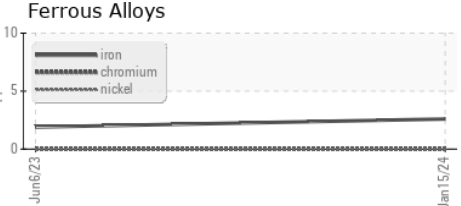
VISUAL	method	limit/base	current	history1	history2	
White Metal	scalar	Visual*	NONE	NONE	NONE	---
Yellow Metal	scalar	Visual*	NONE	NONE	NONE	---
Precipitate	scalar	Visual*	NONE	NONE	NONE	---
Silt	scalar	Visual*	NONE	NONE	NONE	---
Debris	scalar	Visual*	NONE	NONE	NONE	---
Sand/Dirt	scalar	Visual*	NONE	NONE	NONE	---
Appearance	scalar	Visual*	NORML	HAZY	WGOIL	---
Odor	scalar	Visual*	NORML	NORML	NORML	---
Emulsified Water	scalar	Visual*	>0.1	.5%	.2%	---
Free Water	scalar	Visual*		NEG	NEG	---

FLUID PROPERTIES	method	limit/base	current	history1	history2	
Visc @ 40°C	cSt	ASTM D7279(m)	29.77	34.9	31.8	---

SAMPLE IMAGES	method	limit/base	current	history1	history2
---------------	--------	------------	---------	----------	----------



GRAPHS



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : WC0898890 **Received** : 17 Jan 2024
Lab Number : **02609350** **Diagnosed** : 18 Jan 2024
Unique Number : 5710436 **Diagnostician** : Kevin Marson
Test Package : IND 2 (Additional Tests: KF)

GRAND RIVER FOODS
 190 VONDRAU DRIVE
 CAMBRIDGE, ON
 CA N3E 1B8
 Contact: Ryan Shea
 rshea@grandriverfoods.com
 T: (519)653-3577
 F:

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.