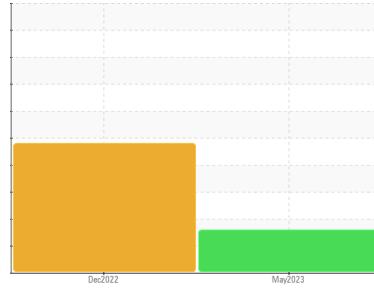




# PROBLEM SUMMARY

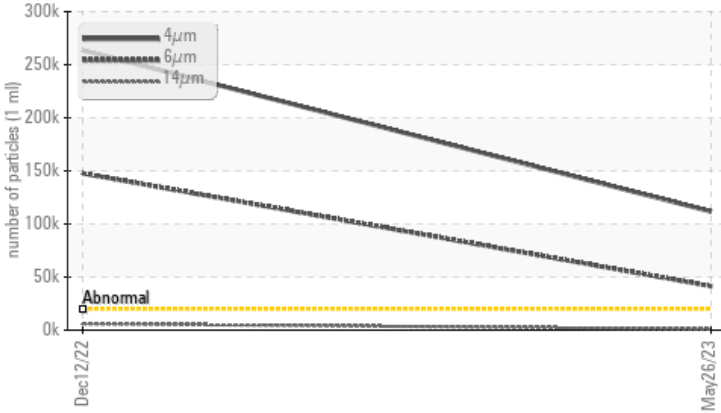
Area  
**BATCH SYSTEM 3**  
 Machine Id  
**BS3 HOMO CRANKCASE**  
 Component  
**Gearbox**  
 Fluid  
**PETRO CANADA HYDREX AW 100 (--- LTR)**

Sample Rating Trend



## COMPONENT CONDITION SUMMARY

▲ Particle Trend



## RECOMMENDATION

We recommend you service the filters on this component. Resample at the next service interval to monitor.

## PROBLEMATIC TEST RESULTS

Sample Status			<b>ABNORMAL</b>	ABNORMAL	---
Particles >4µm	ASTM D7647	>20000	▲ <b>111693</b>	▲ 263612	---
Particles >6µm	ASTM D7647	>5000	▲ <b>41394</b>	▲ 147669	---
Particles >14µm	ASTM D7647	>640	▲ <b>927</b>	▲ 6010	---
Oil Cleanliness	ISO 4406 (c)	>21/19/16	▲ <b>24/23/17</b>	▲ 25/24/20	---

Customer Id: KRAMASIOW  
 Sample No.: USP248907  
 Lab Number: 05861893  
 Test Package: IND 2



To manage this report scan the QR code

To discuss the diagnosis or test data:  
 Doug Bogart +1 (800)237-1369 x4016  
[dougb@wearcheckusa.com](mailto:dougb@wearcheckusa.com)

To change component or sample information:  
 Customer Service +1 1-800-237-1369  
[customerservice@wearcheck.com](mailto:customerservice@wearcheck.com)

## RECOMMENDED ACTIONS

Action	Status	Date	Done By	Description
Change Filter	SKIPPED	Jun 05 2023	?	We recommend you service the filters on this component.
Other Action (see Note)	DONE	Jun 05 2023	?	No recommended actions

## HISTORICAL DIAGNOSIS

### 12 Dec 2022 Diag: Jonathan Hester

#### WATER



We advise that you check for the source of water entry. We advise that you follow the water drain-off procedure for this component, and use off-line filtration to improve the cleanliness of the system fluid. Resample at the next service interval to monitor. Please specify the brand, type, and viscosity of the oil on your next sample. All component wear rates are normal. Appearance is milky. There is a high amount of particulates present in the oil. There is a light concentration of water present in the oil. The AN level is acceptable for this fluid.

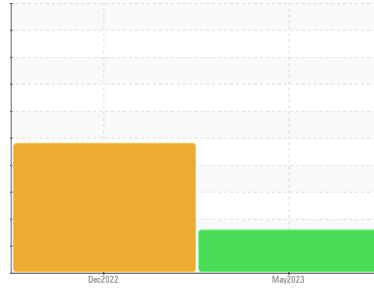
view report





# OIL ANALYSIS REPORT

Sample Rating Trend



ISO



Area  
**BATCH SYSTEM 3**  
 Machine Id  
**BS3 HOMO CRANKCASE**

Component  
**Gearbox**  
 Fluid  
**PETRO CANADA HYDREX AW 100 (--- LTR)**

## DIAGNOSIS

### ▲ Recommendation

We recommend you service the filters on this component. Resample at the next service interval to monitor.

### Wear

All component wear rates are normal.

### ▲ Contamination

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

### Fluid Condition

The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

SAMPLE INFORMATION		method	limit/base	current	history1	history2
Sample Number	Client Info			<b>USP248907</b>	USP234445	---
Sample Date	Client Info			<b>26 May 2023</b>	12 Dec 2022	---
Machine Age	hrs	Client Info		<b>0</b>	0	---
Oil Age	hrs	Client Info		<b>0</b>	0	---
Oil Changed	Client Info			<b>N/A</b>	N/A	---
Sample Status				<b>ABNORMAL</b>	ABNORMAL	---

WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>200	<b>4</b>	123	---
Chromium	ppm	ASTM D5185m	>15	<b>0</b>	<1	---
Nickel	ppm	ASTM D5185m	>15	<b>0</b>	0	---
Titanium	ppm	ASTM D5185m		<b>0</b>	<1	---
Silver	ppm	ASTM D5185m		<b>0</b>	0	---
Aluminum	ppm	ASTM D5185m	>25	<b>0</b>	6	---
Lead	ppm	ASTM D5185m	>100	<b>0</b>	0	---
Copper	ppm	ASTM D5185m	>200	<b>3</b>	<1	---
Tin	ppm	ASTM D5185m	>25	<b>&lt;1</b>	<1	---
Vanadium	ppm	ASTM D5185m		<b>0</b>	0	---
Cadmium	ppm	ASTM D5185m		<b>&lt;1</b>	<1	---

ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	0	<b>0</b>	115	---
Barium	ppm	ASTM D5185m	0	<b>0</b>	0	---
Molybdenum	ppm	ASTM D5185m	0	<b>8</b>	77	---
Manganese	ppm	ASTM D5185m	0	<b>0</b>	2	---
Magnesium	ppm	ASTM D5185m	0	<b>&lt;1</b>	5	---
Calcium	ppm	ASTM D5185m	50	<b>49</b>	14	---
Phosphorus	ppm	ASTM D5185m	330	<b>348</b>	1072	---
Zinc	ppm	ASTM D5185m	430	<b>448</b>	58	---
Sulfur	ppm	ASTM D5185m	760	<b>1188</b>	21461	---

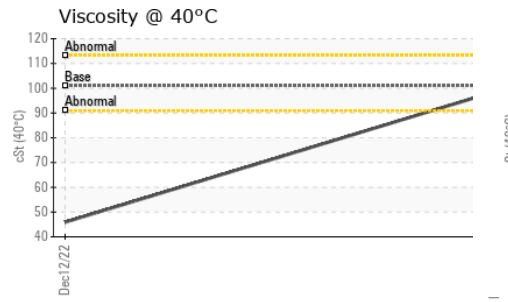
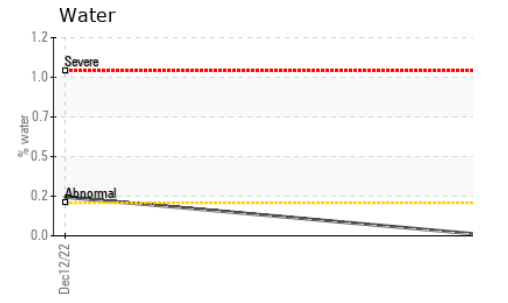
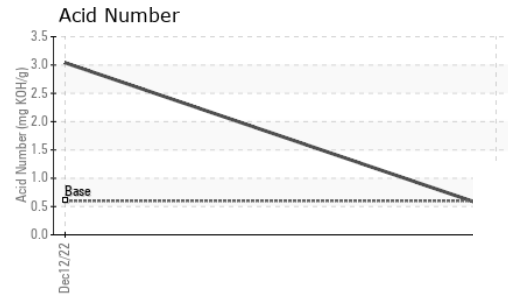
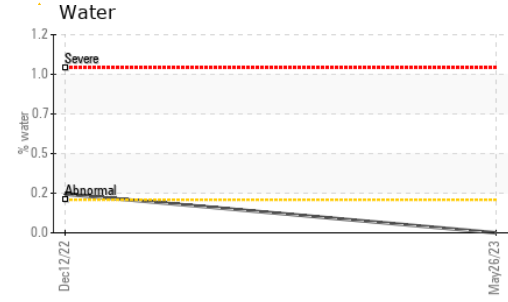
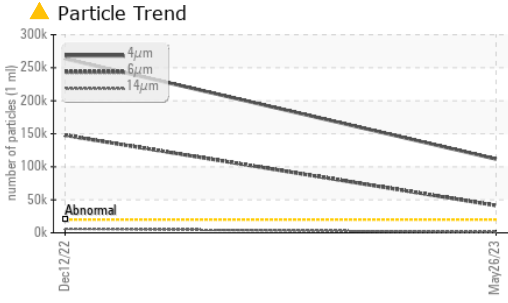
CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>50	<b>13</b>	11	---
Sodium	ppm	ASTM D5185m		<b>0</b>	4	---
Potassium	ppm	ASTM D5185m	>20	<b>1</b>	0	---
Water	%	ASTM D6304	>0.2	<b>0.00</b>	▲ 0.234	---
ppm Water	ppm	ASTM D6304	>2000	<b>0.00</b>	▲ 2340	---

FLUID CLEANLINESS		method	limit/base	current	history1	history2
Particles >4µm		ASTM D7647	>20000	▲ <b>111693</b>	▲ 263612	---
Particles >6µm		ASTM D7647	>5000	▲ <b>41394</b>	▲ 147669	---
Particles >14µm		ASTM D7647	>640	▲ <b>927</b>	▲ 6010	---
Particles >21µm		ASTM D7647	>160	<b>83</b>	▲ 1102	---
Particles >38µm		ASTM D7647	>40	<b>10</b>	▲ 85	---
Particles >71µm		ASTM D7647	>10	<b>9</b>	6	---
Oil Cleanliness		ISO 4406 (c)	>21/19/16	▲ <b>24/23/17</b>	▲ 25/24/20	---

FLUID DEGRADATION		method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D8045	0.60	<b>0.45</b>	3.04	---



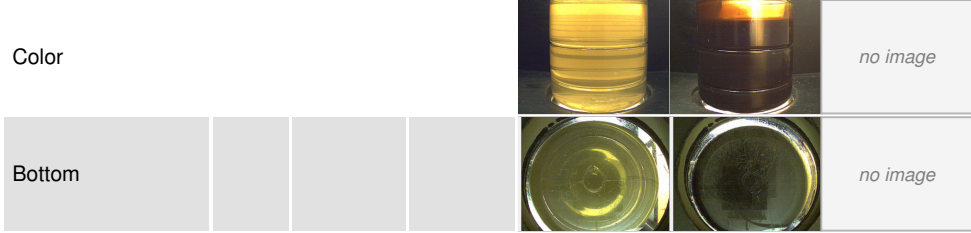
# OIL ANALYSIS REPORT



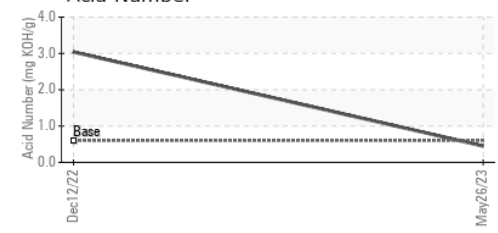
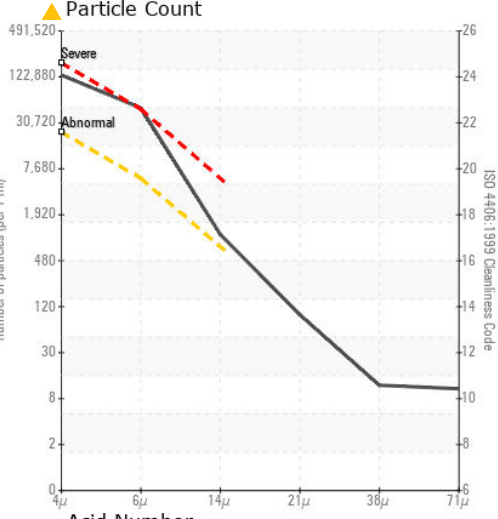
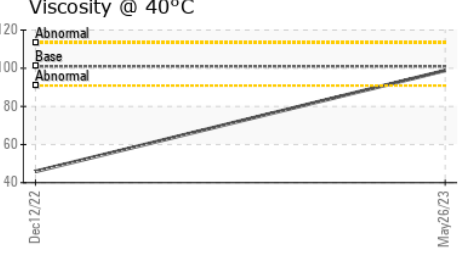
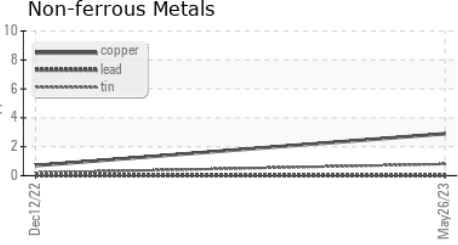
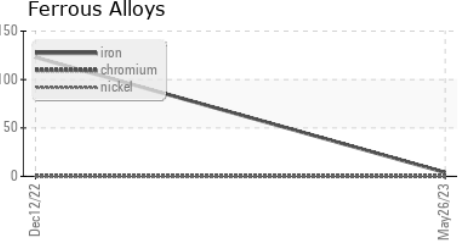
VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	---
Yellow Metal	scalar	*Visual	NONE	NONE	---
Precipitate	scalar	*Visual	NONE	NONE	---
Silt	scalar	*Visual	NONE	NONE	---
Debris	scalar	*Visual	NONE	LIGHT	---
Sand/Dirt	scalar	*Visual	NONE	NONE	---
Appearance	scalar	*Visual	NORML	NORML	▲ MILKY
Odor	scalar	*Visual	NORML	NORML	---
Emulsified Water	scalar	*Visual	>0.2	NEG	0.2%
Free Water	scalar	*Visual		NEG	---

FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445 101	98.8	45.9	---

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



**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : USP248907 **Received** : 01 Jun 2023  
**Lab Number** : 05861893 **Diagnosed** : 02 Jun 2023  
**Unique Number** : 10496358 **Diagnostician** : Doug Bogart  
**Test Package** : IND 2

**KraftHeinz - Mason City - Plant 8360**  
 1022 12TH ST  
 MASON CITY, IA  
 US 50401  
 Contact: Service Manager

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)

T:  
 F: (641)421-2936