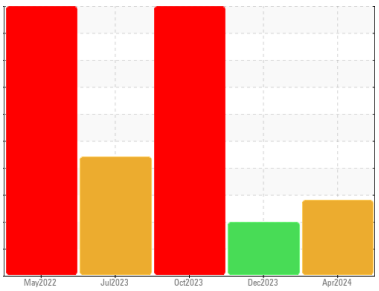
OIL ANALYSIS REPORT

Sample Rating Trend



WEAR

Area
BAGLINE
Machine Id
KETTLE 3 - BAG
Component
Bottom Refrigeration Compressor
Fluid
PETRO CANADA PURITY FG SYNTH EP GEAR 220 (--- GAL)

DIAGNOSIS

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

Wear
The iron level is abnormal.

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

Fluid Condition
The AN level is acceptable for this fluid.

SAMPLE INFORMATION		method	limit/base	current	history1	history2
Sample Number		Client Info		**USP0006681**	USP0004467	USP0001359
Sample Date		Client Info		**25 Apr 2024**	17 Dec 2023	10 Oct 2023
Machine Age	hrs	Client Info		**0**	0	0
Oil Age	hrs	Client Info		**0**	0	0
Oil Changed		Client Info		**N/A**	N/A	N/A
Sample Status				**ABNORMAL**	ABNORMAL	SEVERE

WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>8	▲ **66**	▲ 63	▲ 233
Chromium	ppm	ASTM D5185m	>2	**<1**	<1	2
Nickel	ppm	ASTM D5185m		**0**	0	0
Titanium	ppm	ASTM D5185m		**0**	0	<1
Silver	ppm	ASTM D5185m	>2	**0**	0	0
Aluminum	ppm	ASTM D5185m	>3	**0**	0	<1
Lead	ppm	ASTM D5185m	>2	**0**	0	0
Copper	ppm	ASTM D5185m	>8	**0**	0	<1
Tin	ppm	ASTM D5185m	>4	**0**	0	<1
Vanadium	ppm	ASTM D5185m		**0**	0	0
Cadmium	ppm	ASTM D5185m		**0**	0	0

ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m		**0**	0	0
Barium	ppm	ASTM D5185m		**0**	0	0
Molybdenum	ppm	ASTM D5185m		**0**	0	0
Manganese	ppm	ASTM D5185m		**<1**	<1	1
Magnesium	ppm	ASTM D5185m		**0**	0	3
Calcium	ppm	ASTM D5185m		**0**	0	6
Phosphorus	ppm	ASTM D5185m		**376**	530	443
Zinc	ppm	ASTM D5185m		**0**	0	3
Sulfur	ppm	ASTM D5185m		**313**	365	393

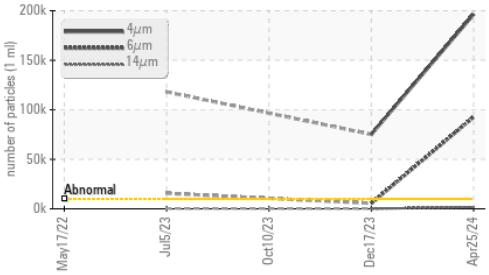
CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>15	**4**	11	11
Sodium	ppm	ASTM D5185m		**<1**	<1	4
Potassium	ppm	ASTM D5185m	>20	**0**	0	0
Water	%	ASTM D6304	>0.01	**0.001**	0.003	▲ 0.600
ppm Water	ppm	ASTM D6304	>100	**7**	30	▲ 6000

FLUID CLEANLINESS		method	limit/base	current	history1	history2
Particles >4µm		ASTM D7647	>10000	▲ **196277**	▲ 75119	---
Particles >6µm		ASTM D7647	>2500	▲ **92594**	▲ 5553	---
Particles >14µm		ASTM D7647	>640	▲ **1655**	66	---
Particles >21µm		ASTM D7647	>160	▲ **349**	7	---
Particles >38µm		ASTM D7647	>40	**5**	1	---
Particles >71µm		ASTM D7647	>10	**0**	0	---
Oil Cleanliness		ISO 4406 (c)	>20/18/16	▲ **25/24/18**	▲ 23/20/13	---

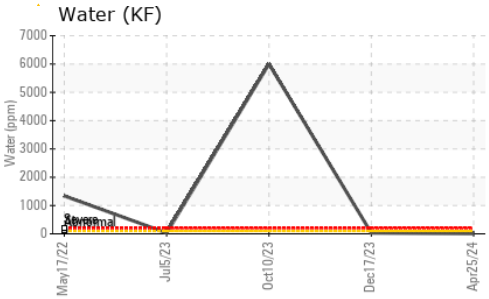
FLUID DEGRADATION		method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D974	0.59	**0.86**	0.50	0.47

OIL ANALYSIS REPORT

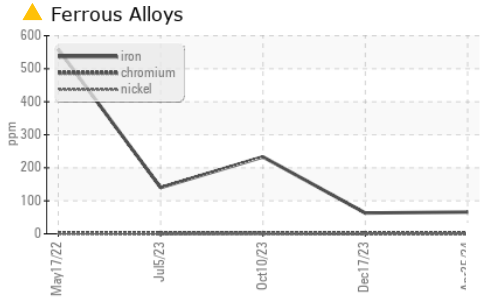
Particle Trend



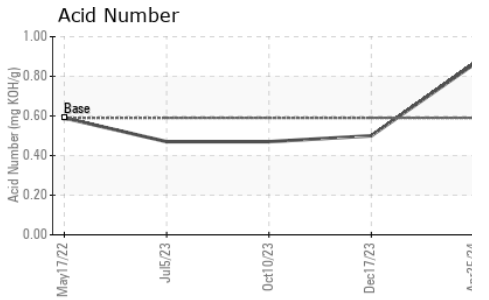
Water (KF)



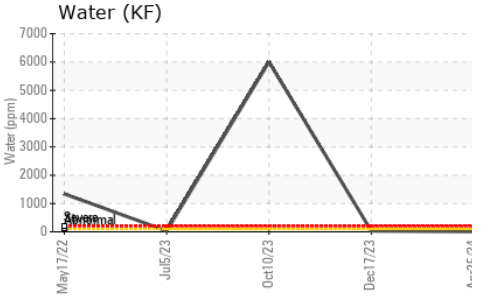
Ferrous Alloys



Acid Number

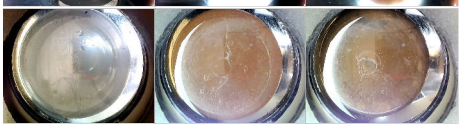


Water (KF)



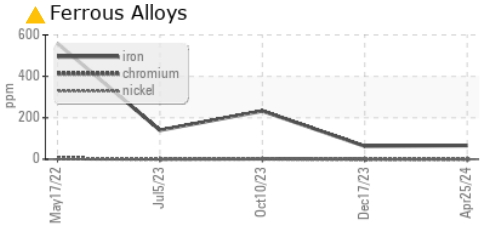
VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	**NONE**	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	**NONE**	NONE	NONE
Precipitate	scalar	*Visual	NONE	**NONE**	NONE	NONE
Silt	scalar	*Visual	NONE	**NONE**	NONE	NONE
Debris	scalar	*Visual	NONE	**NONE**	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	**NONE**	NONE	NONE
Appearance	scalar	*Visual	NORML	**NORML**	NORML	MILKY
Odor	scalar	*Visual	NORML	**NORML**	NORML	NORML
Emulsified Water	scalar	*Visual	>0.01	**NEG**	NEG	0.2%
Free Water	scalar	*Visual		**NEG**	NEG	NEG

FLUID PROPERTIES		method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445	221	**210**	207	196

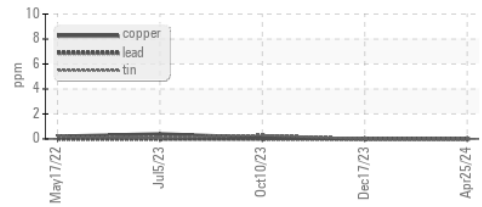
SAMPLE IMAGES	method	limit/base	current	history1	history2
Color					
Bottom					

GRAPHS

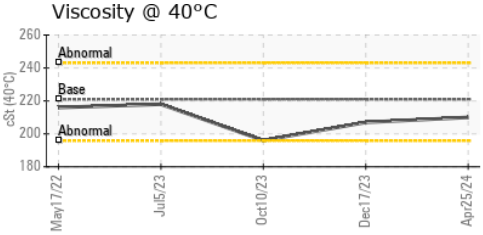
Ferrous Alloys



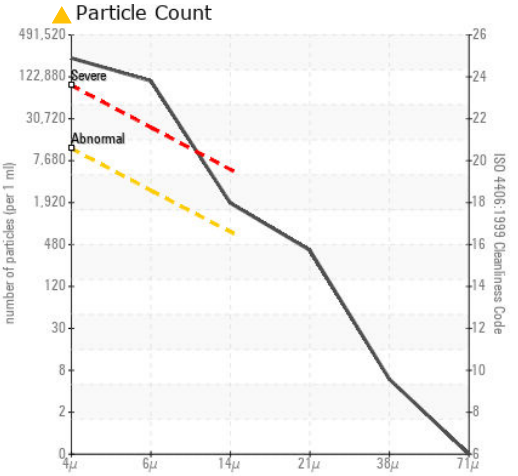
Non-ferrous Metals



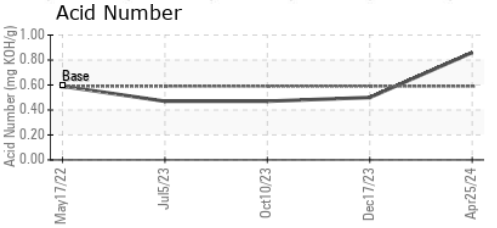
Viscosity @ 40°C



Particle Count



Acid Number



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : USP0006681
Lab Number : 06161479
Unique Number : 10996902
Test Package : IND 2

Received : 26 Apr 2024
Tested : 30 Apr 2024
Diagnosed : 30 Apr 2024 - Jonathan Hester

Certificate L2367

KraftHeinz - Cedar Rapids - Plant 8370
4601 C ST SW
CEDAR RAPIDS, IA
US 52404
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: