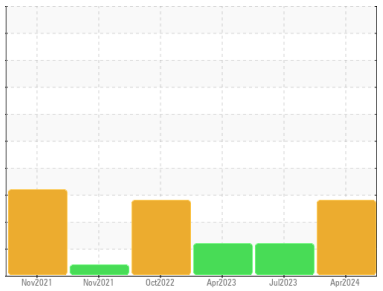
OIL ANALYSIS REPORT

Sample Rating Trend



WEAR

Area
BAGLINE
Machine Id
KETTLE 1 - 11531817
Component
Refrigeration Compressor
Fluid
PETRO CANADA PURITY FG EP GEAR OIL 220 (1 GAL)

DIAGNOSIS

Recommendation
We recommend an early resample to monitor this condition.

Wear
Bearing and/or bushing wear is indicated.

Contamination
There is a high amount of silt (particulates < 14 microns in size) 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		**USP0006693**	USP250213	USP248064
Sample Date		Client Info		**25 Apr 2024**	05 Jul 2023	26 Apr 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	ABNORMAL

WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>8	**<1**	2	2
Chromium	ppm	ASTM D5185m	>2	**0**	0	0
Nickel	ppm	ASTM D5185m		**0**	0	<1
Titanium	ppm	ASTM D5185m		**0**	0	0
Silver	ppm	ASTM D5185m	>2	**0**	0	0
Aluminum	ppm	ASTM D5185m	>3	**0**	<1	0
Lead	ppm	ASTM D5185m	>2	**0**	0	<1
Copper	ppm	ASTM D5185m	>8	▲ **39**	23	33
Tin	ppm	ASTM D5185m	>4	▲ **6**	3	4
Vanadium	ppm	ASTM D5185m		**0**	<1	0
Cadmium	ppm	ASTM D5185m		**0**	0	0

ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m		**6**	2	4
Barium	ppm	ASTM D5185m		**0**	<1	0
Molybdenum	ppm	ASTM D5185m		**0**	0	<1
Manganese	ppm	ASTM D5185m		**0**	0	0
Magnesium	ppm	ASTM D5185m		**0**	2	<1
Calcium	ppm	ASTM D5185m		**<1**	10	13
Phosphorus	ppm	ASTM D5185m		**522**	595	583
Zinc	ppm	ASTM D5185m		**0**	1	7
Sulfur	ppm	ASTM D5185m		**511**	706	616

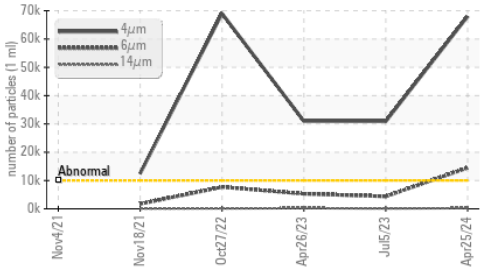
CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>15	**8**	6	10
Sodium	ppm	ASTM D5185m		**<1**	<1	0
Potassium	ppm	ASTM D5185m	>20	**0**	2	<1
Water	%	ASTM D6304	>0.01	**0.003**	0.004	0.007
ppm Water	ppm	ASTM D6304	>100	**32**	40.1	70.2

FLUID CLEANLINESS		method	limit/base	current	history1	history2
Particles >4µm		ASTM D7647	>10000	▲ **67976**	▲ 30896	▲ 30963
Particles >6µm		ASTM D7647	>2500	▲ **14507**	● 4389	▲ 5315
Particles >14µm		ASTM D7647	>640	**228**	129	236
Particles >21µm		ASTM D7647	>160	**54**	32	62
Particles >38µm		ASTM D7647	>40	**3**	4	3
Particles >71µm		ASTM D7647	>10	**1**	1	0
Oil Cleanliness		ISO 4406 (c)	>20/18/16	▲ **23/21/15**	▲ 22/19/14	▲ 22/20/15

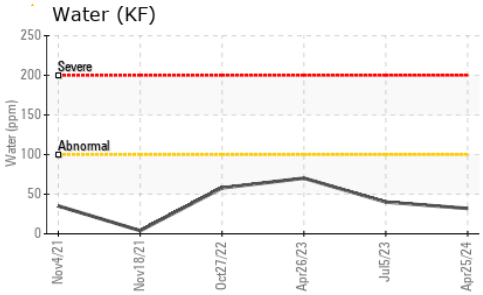
FLUID DEGRADATION		method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D974	0.51	**0.61**	0.58	0.57

OIL ANALYSIS REPORT

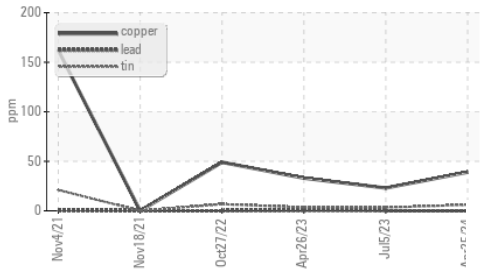
Particle Trend



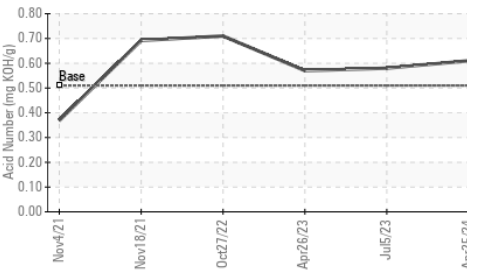
Water (KF)



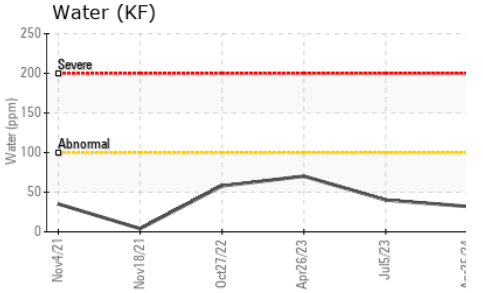
Non-ferrous Metals



Acid Number



Water (KF)



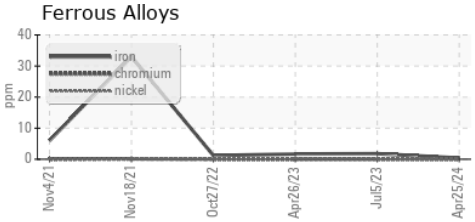
VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	**NONE**	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	**NONE**	NONE	NONE
Precipitate	scalar	*Visual	NONE	**NONE**	NONE	NONE
Silt	scalar	*Visual	NONE	**NONE**	NONE	NONE
Debris	scalar	*Visual	NONE	**NONE**	LIGHT	LIGHT
Sand/Dirt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

FLUID PROPERTIES		method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445	205.8	**210**	217	215

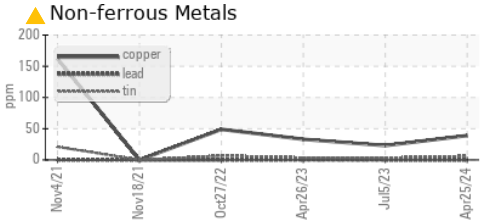
SAMPLE IMAGES	method	limit/base	current	history1	history2
Color					
Bottom					

GRAPHS

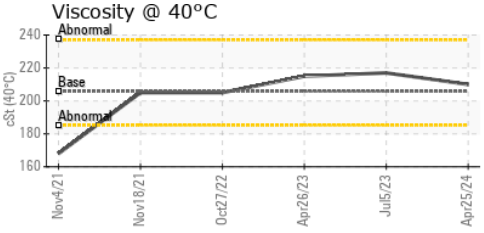
Ferrous Alloys



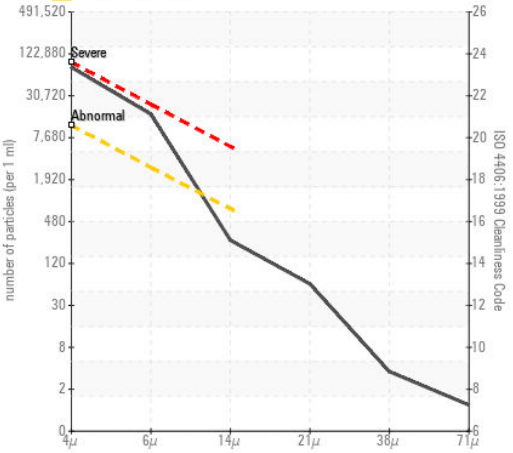
Non-ferrous Metals



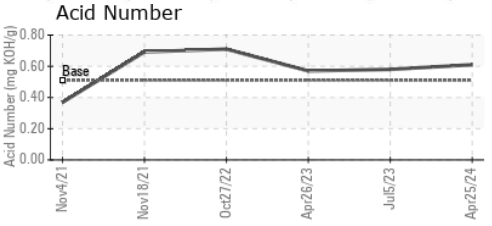
Viscosity @ 40°C



Particle Count



Acid Number



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : USP0006693
Lab Number : 06161491
Unique Number : 10996914
Test Package : IND 2

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

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: