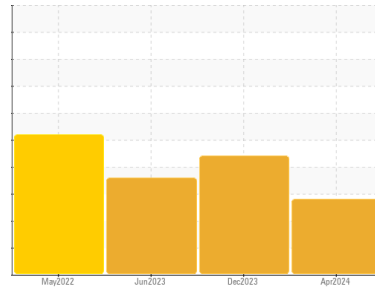




OIL ANALYSIS REPORT

Sample Rating Trend



WEAR



Area

BAGLINE

Machine Id

KETTLE 4 - BAG

Component

Top 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. All other 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		USP0006687	USP0004476	USP244797
Sample Date	Client Info		25 Apr 2024	17 Dec 2023	29 Jun 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	▲ 31	11	8
Chromium	ppm	ASTM D5185m >2	0	0	0
Nickel	ppm	ASTM D5185m	0	2	2
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	0
Tin	ppm	ASTM D5185m >4	0	0	0
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	14
Molybdenum	ppm	ASTM D5185m	0	0	0
Manganese	ppm	ASTM D5185m	<1	0	0
Magnesium	ppm	ASTM D5185m	0	0	12
Calcium	ppm	ASTM D5185m	0	0	3
Phosphorus	ppm	ASTM D5185m	522	388	467
Zinc	ppm	ASTM D5185m	0	0	27
Sulfur	ppm	ASTM D5185m	422	391	599

CONTAMINANTS

	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m >15	8	▲ 495	▲ 914
Sodium	ppm	ASTM D5185m	2	5	5
Potassium	ppm	ASTM D5185m >20	0	0	<1
Water	%	ASTM D6304 >0.01	0.002	▲ 0.177	▲ 0.169
ppm Water	ppm	ASTM D6304 >100	23	▲ 1770	▲ 1690

FLUID CLEANLINESS

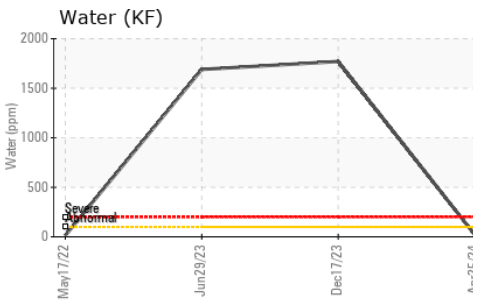
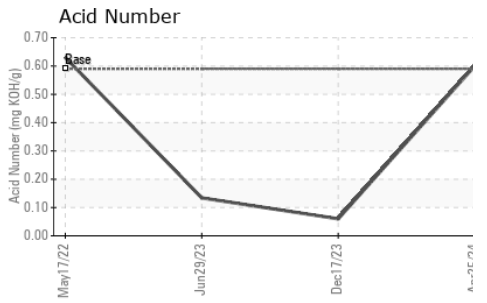
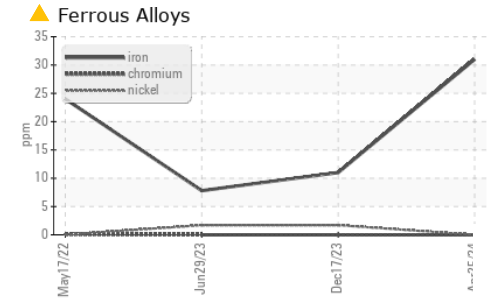
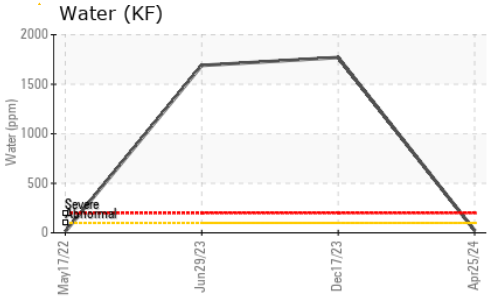
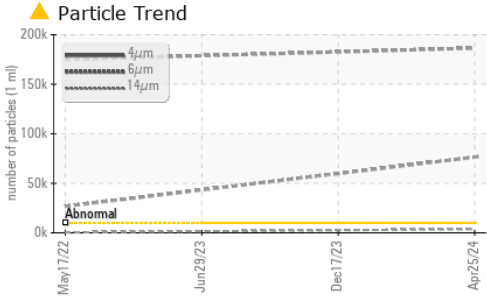
	method	limit/base	current	history1	history2
Particles >4µm	ASTM D7647	>10000	▲ 186462	---	---
Particles >6µm	ASTM D7647	>2500	▲ 76394	---	---
Particles >14µm	ASTM D7647	>640	▲ 3653	---	---
Particles >21µm	ASTM D7647	>160	▲ 823	---	---
Particles >38µm	ASTM D7647	>40	16	---	---
Particles >71µm	ASTM D7647	>10	0	---	---
Oil Cleanliness	ISO 4406 (c)	>20/18/16	▲ 25/23/19	---	---

FLUID DEGRADATION

	method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D974 0.59	0.60	0.06	0.134



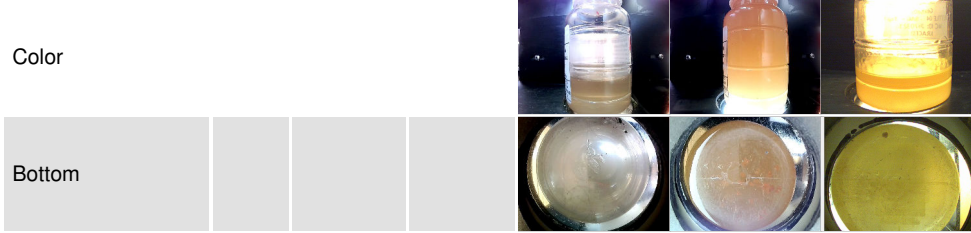
OIL ANALYSIS REPORT



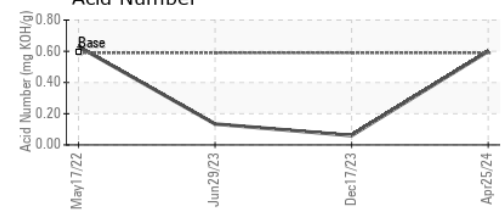
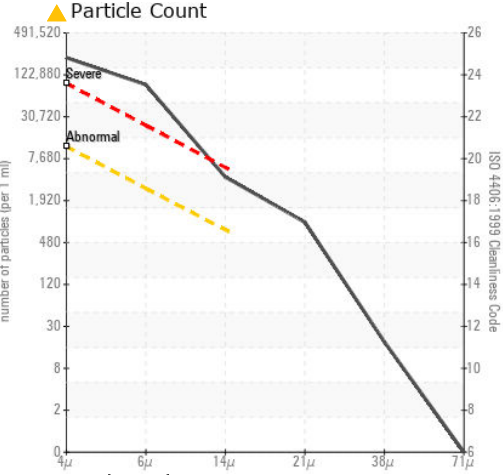
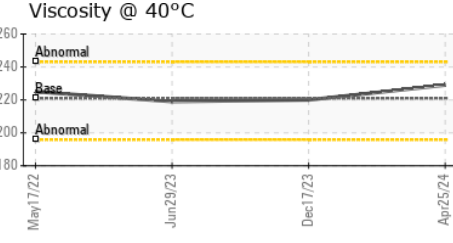
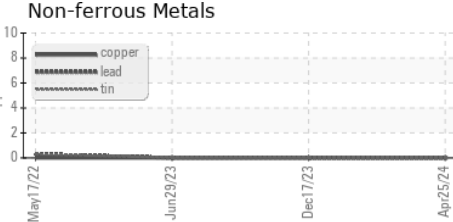
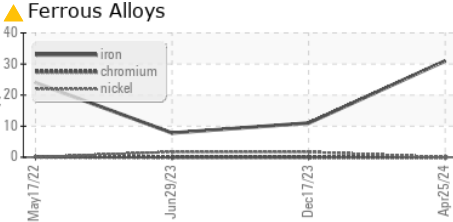
VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	LIGHT	▲ HEAVY ▲ MODER
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE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

FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445 221	229	220	219

SAMPLE IMAGES



GRAPHS



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : USP006687 **Received** : 26 Apr 2024
Lab Number : 06161485 **Tested** : 30 Apr 2024
Unique Number : 10996908 **Diagnosed** : 30 Apr 2024 - Jonathan Hester
Test Package : IND 2

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)