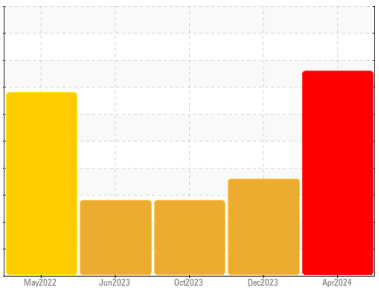
PROBLEM SUMMARY

Sample Rating Trend

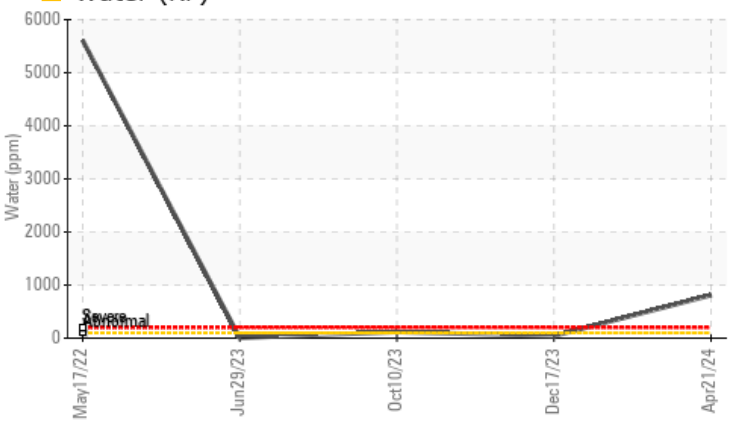


WATER

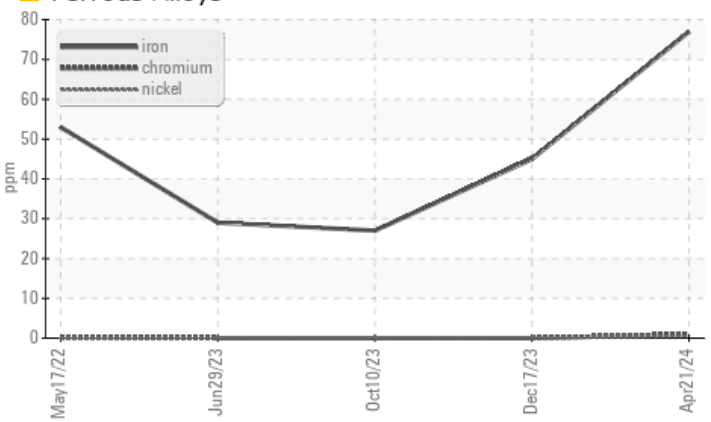
Area
BAGLINE
Machine Id
KETTLE 6 - BAG
Component
Bottom Refrigeration Compressor
Fluid
PETRO CANADA PURITY FG SYNTH EP GEAR 220 (--- GAL)

COMPONENT CONDITION SUMMARY

▲ Water (KF)



▲ Ferrous Alloys



RECOMMENDATION

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. We recommend an early resample to monitor this condition. We were unable to perform a particle count due to a high concentration of particles present in this sample.

PROBLEMATIC TEST RESULTS

Sample Status				SEVERE	ABNORMAL	ABNORMAL
Iron	ppm	ASTM D5185m	>8	▲ **77**	▲ 45	27
Water	%	ASTM D6304	>0.01	▲ **0.081**	0.004	0.011
ppm Water	ppm	ASTM D6304	>100	▲ **810**	41	116.0
Debris	scalar	*Visual	NONE	▲ **MODER**	NONE	NONE
Emulsified Water	scalar	*Visual	>0.01	▲ **0.2%**	NEG	NEG
Free Water	scalar	*Visual		▲ **>10%**	NEG	NEG

Customer Id: KRACED
Sample No.: USP0006492
Lab Number: 06156017
Test Package: IND 2

To manage this report scan the QR code

To discuss the diagnosis or test data:
Jonathan Hester +1 919-379-4092 x4092
jhester@wearcheckusa.com

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

RECOMMENDED ACTIONS

Action	Status	Date	Done By	Description
Water Drain-off	---	---	?	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	---	---	?	We recommend an early resample to monitor this condition.
Alert	---	---	?	We were unable to perform a particle count due to a high concentration of particles present in this sample.

HISTORICAL DIAGNOSIS

DIRT

17 Dec 2023 Diag: Doug Bogart
Resample at the next service interval to monitor.The iron level is abnormal. There is a high amount of silt (particulates < 14 microns in size) present in the oil. Elemental level of silicon (Si) above normal. The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

view report

DIRT

10 Oct 2023 Diag: Doug Bogart
Resample at the next service interval to monitor.All component wear rates are normal. There is a high amount of silt (particulates < 14 microns in size) present in the oil. Elemental level of silicon (Si) above normal. The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

view report

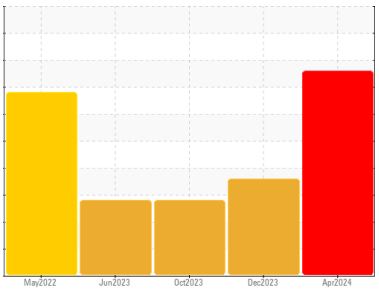
DIRT

29 Jun 2023 Diag: Doug Bogart
Resample at the next service interval to monitor.All component wear rates are normal. There is a high amount of silt (particulates < 14 microns in size) present in the oil. Elemental level of silicon (Si) above normal. The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

view report

OIL ANALYSIS REPORT

Sample Rating Trend



WATER

Area
BAGLINE
Machine Id
KETTLE 6 - BAG
Component
Bottom Refrigeration Compressor
Fluid
PETRO CANADA PURITY FG SYNTH EP GEAR 220 (--- GAL)

DIAGNOSIS

Recommendation
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. We recommend an early resample to monitor this condition. We were unable to perform a particle count due to a high concentration of particles present in this sample.

Wear
The iron level is abnormal.

Contamination
Moderate concentration of visible dirt/debris present in the oil. Excessive free water present. There is a light concentration of water 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		**USP0006492**	USP0004459	USP0001374
Sample Date		Client Info		**21 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				**SEVERE**	ABNORMAL	ABNORMAL

WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>8	▲ **77**	▲ 45	27
Chromium	ppm	ASTM D5185m	>2	**1**	0	0
Nickel	ppm	ASTM D5185m		**<1**	0	0
Titanium	ppm	ASTM D5185m		**<1**	<1	<1
Silver	ppm	ASTM D5185m	>2	**0**	0	0
Aluminum	ppm	ASTM D5185m	>3	**2**	1	1
Lead	ppm	ASTM D5185m	>2	**0**	0	0
Copper	ppm	ASTM D5185m	>8	**<1**	0	0
Tin	ppm	ASTM D5185m	>4	**<1**	0	0
Vanadium	ppm	ASTM D5185m		**<1**	0	0
Cadmium	ppm	ASTM D5185m		**<1**	0	0

ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m		**0**	0	0
Barium	ppm	ASTM D5185m		**<1**	0	0
Molybdenum	ppm	ASTM D5185m		**<1**	0	0
Manganese	ppm	ASTM D5185m		**<1**	<1	<1
Magnesium	ppm	ASTM D5185m		**2**	0	2
Calcium	ppm	ASTM D5185m		**9**	0	14
Phosphorus	ppm	ASTM D5185m		**550**	568	547
Zinc	ppm	ASTM D5185m		**5**	0	2
Sulfur	ppm	ASTM D5185m		**424**	537	825

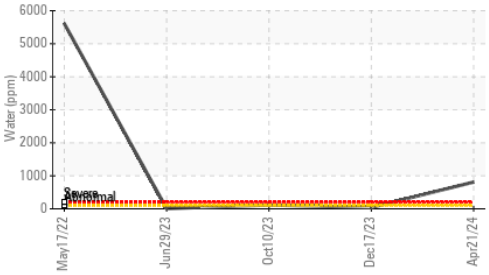
CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>15	**24**	▲ 56	▲ 71
Sodium	ppm	ASTM D5185m		**3**	3	2
Potassium	ppm	ASTM D5185m	>20	**1**	0	0
Water	%	ASTM D6304	>0.01	▲ **0.081**	0.004	0.011
ppm Water	ppm	ASTM D6304	>100	▲ **810**	41	116.0

FLUID CLEANLINESS		method	limit/base	current	history1	history2
Particles >4µm		ASTM D7647	>10000	**---**	▲ 99733	▲ 76814
Particles >6µm		ASTM D7647	>2500	**---**	▲ 9973	▲ 5402
Particles >14µm		ASTM D7647	>640	**---**	38	34
Particles >21µm		ASTM D7647	>160	**---**	10	8
Particles >38µm		ASTM D7647	>40	**---**	6	1
Particles >71µm		ASTM D7647	>10	**---**	2	0
Oil Cleanliness		ISO 4406 (c)	>20/18/16	**---**	▲ 24/20/12	▲ 23/20/12

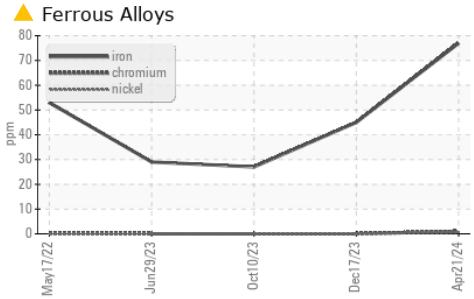
FLUID DEGRADATION		method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D974	0.59	**1.01**	0.38	0.42

OIL ANALYSIS REPORT

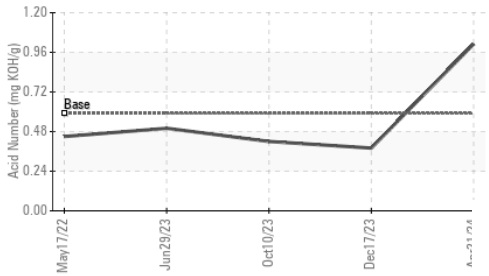
Water (KF)



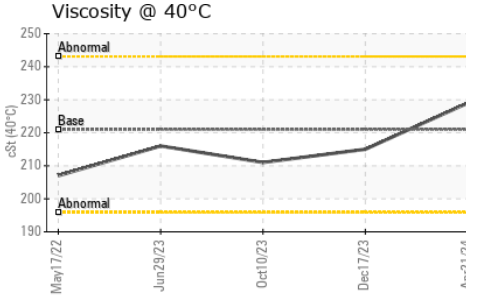
Ferrous Alloys



Acid Number



Viscosity @ 40°C



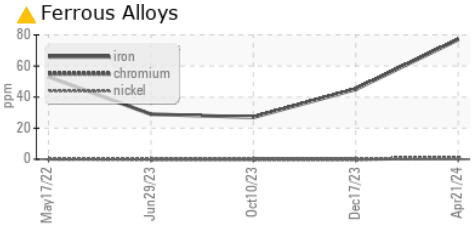
VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	**NONE**	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	**NONE**	NONE	NONE
Precipitate	scalar	*Visual	NONE	**NONE**	NONE	NONE
Silt	scalar	*Visual	NONE	**NONE**	NONE	NONE
Debris	scalar	*Visual	NONE	▲ **MODER**	NONE	NONE
Sand/Dirt	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	▲ **0.2%**	NEG	NEG
Free Water	scalar	*Visual		▲ **>10%**	NEG	NEG

FLUID PROPERTIES		method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445	221	**229**	215	211

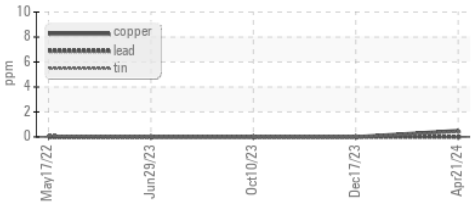
SAMPLE IMAGES	method	limit/base	current	history1	history2
Color					
Bottom					

GRAPHS

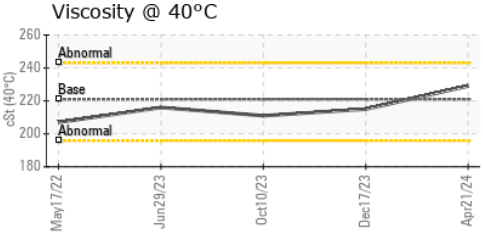
Ferrous Alloys



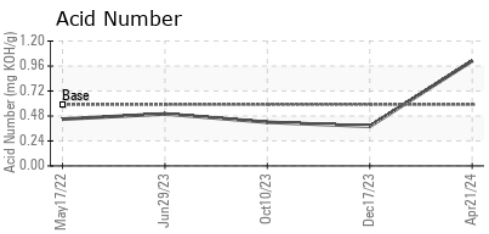
Non-ferrous Metals



Viscosity @ 40°C



Acid Number



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : USP0006492
Lab Number : 06156017
Unique Number : 10991440
Test Package : IND 2

Received : 22 Apr 2024
Tested : 24 Apr 2024
Diagnosed : 24 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: