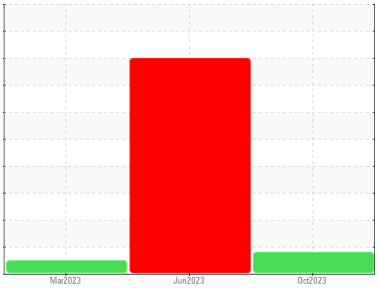
PROBLEM SUMMARY

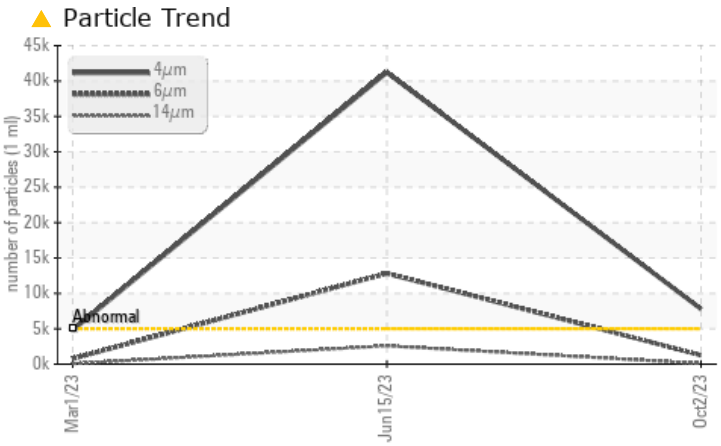
Sample Rating Trend



ISO

Area
[111081]
Machine Id
OVEN 3
Component
Hydraulic System
Fluid
PETRO CANADA PURITY FG AW HYDRAULIC 32 (5 GAL)

COMPONENT CONDITION SUMMARY



RECOMMENDATION

We recommend you service the filters on this component. Resample at the next service interval to monitor. Please specify the component make and model with your next sample.

PROBLEMATIC TEST RESULTS

				ATTENTION	SEVERE	NORMAL
Sample Status						
Particles >4µm		ASTM D7647	>5000	**7797**	41214	4806
Oil Cleanliness		ISO 4406 (c)	>19/17/14	**20/17/14**	23/21/19	19/17/13

Customer Id: GRA685CAM
Sample No.: WC0850461
Lab Number: 02586754
Test Package: IND 2

To manage this report scan the QR code

To discuss the diagnosis or test data:
Kevin Marson +1 (289)291-4644 x4644
Kevin.Marson@wearcheck.com

To change component or sample information:
Gloria Gonzalez +1 (289)291-4643 x4643
gloria.gonzalez@wearcheck.com

RECOMMENDED ACTIONS

Action	Status	Date	Done By	Description
Change Filter	---	---	?	We recommend you service the filters on this component.
Information Required	---	---	?	Please specify the component make and model with your next sample.

HISTORICAL DIAGNOSIS

ISO

15 Jun 2023 Diag: Wes Davis

We advise that you check all areas where contaminants can enter the system. We advise that you perform a filter service, and use off-line filtration to improve the cleanliness of the system fluid. The air breather requires service. If unrated, we recommend that you replace with a suitable micron rated and/or desiccant air breather. If rated, we recommend that you service/replace the breather. Resample in 30-45 days to monitor this situation. Please specify the component make and model with your next sample. Please specify the brand, type, and viscosity of the oil on your next sample.All component wear rates are normal. There is a high amount of particulates (2 to 100 microns in size) present in the oil. The AN level is acceptable for this fluid. The oil is still serviceable provided that the contaminant(s) can be reduced to acceptable levels.

view report

NORMAL

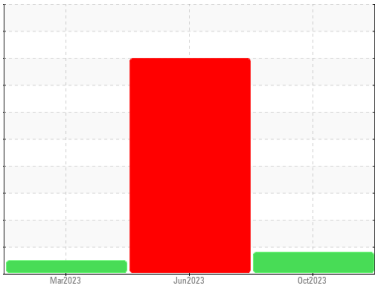
01 Mar 2023 Diag: Wes Davis

Resample at the next service interval to monitor. Please specify the component make and model with your next sample. Please specify the brand, type, and viscosity of the oil on your next sample.All component wear rates are normal. The system cleanliness is acceptable for your target ISO 4406 cleanliness code. The system and fluid cleanliness is acceptable. 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



ISO

Area
[111081]
Machine Id
OVEN 3
Component
Hydraulic System
Fluid
PETRO CANADA PURITY FG AW HYDRAULIC 32 (5 GAL)

DIAGNOSIS

Recommendation
We recommend you service the filters on this component. Resample at the next service interval to monitor. Please specify the component make and model with your next sample.

Wear
All component wear rates are normal.

Contamination
There is a light amount of silt (particulates < 14 microns in size) 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		**WC0850461**	WC0789530	WC0789513
Sample Date		Client Info		**02 Oct 2023**	15 Jun 2023	01 Mar 2023
Machine Age	mths	Client Info		**0**	0	0
Oil Age	mths	Client Info		**3**	0	0
Oil Changed		Client Info		**Not Changd**	Not Changd	N/A
Sample Status				**ATTENTION**	SEVERE	NORMAL

WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185(m)	>20	**3**	8	7
Chromium	ppm	ASTM D5185(m)	>10	**<1**	1	<1
Nickel	ppm	ASTM D5185(m)	>10	**0**	<1	<1
Titanium	ppm	ASTM D5185(m)		**0**	0	0
Silver	ppm	ASTM D5185(m)		**<1**	0	0
Aluminum	ppm	ASTM D5185(m)	>10	**0**	<1	<1
Lead	ppm	ASTM D5185(m)	>10	**<1**	0	0
Copper	ppm	ASTM D5185(m)	>75	**4**	11	10
Tin	ppm	ASTM D5185(m)	>10	**0**	0	0
Antimony	ppm	ASTM D5185(m)		**0**	<1	0
Vanadium	ppm	ASTM D5185(m)		**0**	0	0
Beryllium	ppm	ASTM D5185(m)		**0**	0	0
Cadmium	ppm	ASTM D5185(m)		**0**	0	0

ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185(m)		**<1**	<1	<1
Barium	ppm	ASTM D5185(m)		**<1**	0	0
Molybdenum	ppm	ASTM D5185(m)		**0**	0	0
Manganese	ppm	ASTM D5185(m)		**0**	<1	0
Magnesium	ppm	ASTM D5185(m)		**<1**	2	<1
Calcium	ppm	ASTM D5185(m)		**2**	<1	0
Phosphorus	ppm	ASTM D5185(m)		**435**	454	459
Zinc	ppm	ASTM D5185(m)		**10**	26	17
Sulfur	ppm	ASTM D5185(m)		**838**	1543	1540
Lithium	ppm	ASTM D5185(m)		**<1**	<1	<1

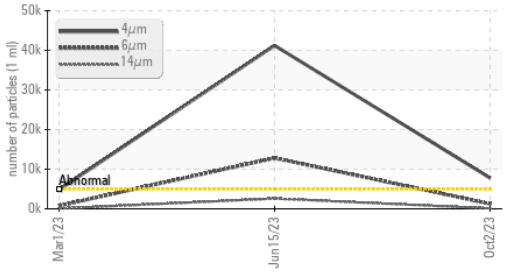
CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185(m)	>20	**4**	4	3
Sodium	ppm	ASTM D5185(m)		**1**	3	2
Potassium	ppm	ASTM D5185(m)	>20	**0**	1	1

FLUID CLEANLINESS		method	limit/base	current	history1	history2
Particles >4µm		ASTM D7647	>5000	▲ **7797**	⬢ 41214	4806
Particles >6µm		ASTM D7647	>1300	**1246**	⬢ 12822	768
Particles >14µm		ASTM D7647	>160	**96**	⬢ 2582	57
Particles >21µm		ASTM D7647	>40	**35**	⬢ 789	13
Particles >38µm		ASTM D7647	>10	**6**	▲ 21	0
Particles >71µm		ASTM D7647	>3	**1**	2	0
Oil Cleanliness		ISO 4406 (c)	>19/17/14	▲ **20/17/14**	⬢ 23/21/19	19/17/13

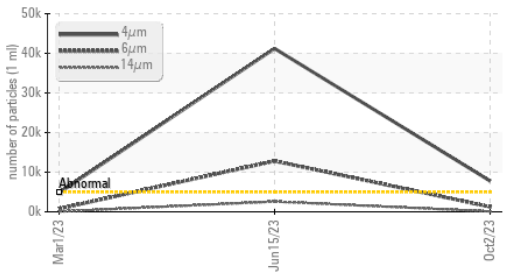
FLUID DEGRADATION		method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D974*	0.26	**0.17**	0.16	0.15

OIL ANALYSIS REPORT

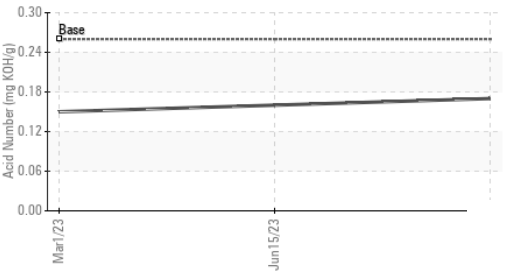
Particle Trend



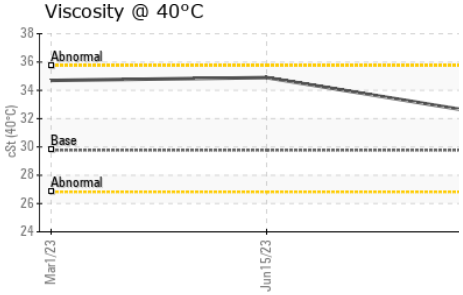
Particle Trend



Acid Number



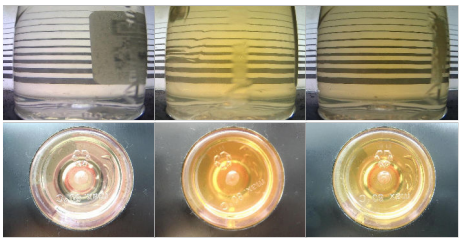
Viscosity @ 40°C



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	**NONE**	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*	>0.1	**NEG**	NEG	NEG
Free Water	scalar	Visual*		**NEG**	NEG	NEG

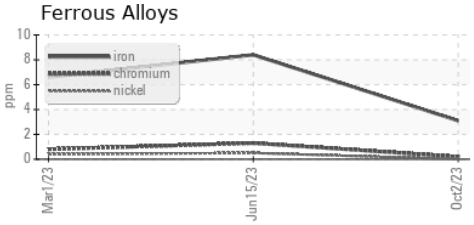
FLUID PROPERTIES		method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D7279(m)	29.77	**32.4**	34.9	34.7

SAMPLE IMAGES	method	limit/base	current	history1	history2
Color					
Bottom					

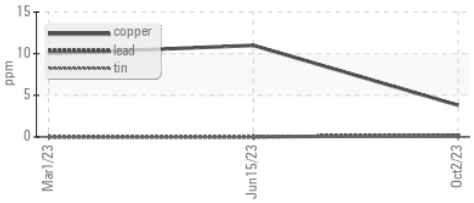


GRAPHS

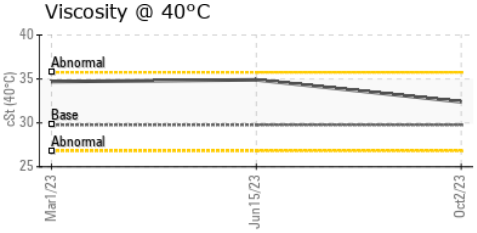
Ferrous Alloys



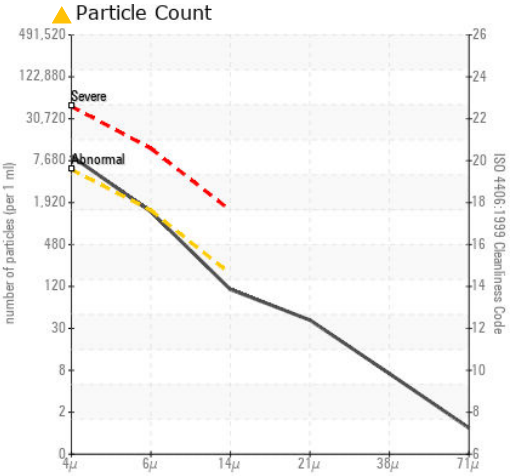
Non-ferrous Metals



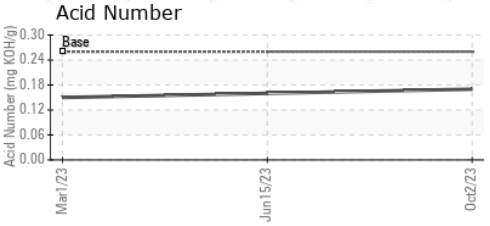
Viscosity @ 40°C



Particle Count



Acid Number



ISO 17025:2017 Accredited Laboratory

Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : WC0850461 **Received** : 04 Oct 2023
Lab Number : 02586754 **Diagnosed** : 05 Oct 2023
Unique Number : 5655820 **Diagnostician** : Kevin Marson
Test Package : IND 2

To discuss this sample report, contact Customer Service at 1-800-268-2131.
Test denoted (*) outside scope of accreditation, (m) method modified, (e) tested at external lab.
Validity of results and interpretation are based on the sample and information as supplied.

GRAND RIVER FOODS
190 VONDRAU DRIVE
CAMBRIDGE, ON
CA N3E 1B8
Contact: Ryan Shea
rshea@grandriverfoods.com
T: (519)653-3577
F: