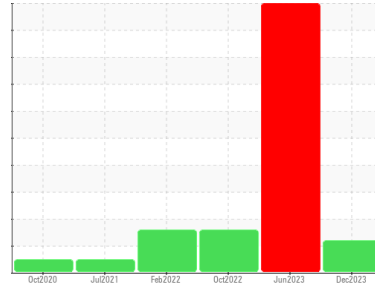


OIL ANALYSIS REPORT

Sample Rating Trend

VISCOSITY


Area
LINE 7
 Machine Id
[LINE 7] LINE 7 TUNNEL 2 LINE 7 TUNNEL 2
 Component
Gearbox
 Fluid
PETRO CANADA PURITY FG EP GEAR FLUID 460 (--- GAL)

DIAGNOSIS
Recommendation

Please confirm the lubricant listed in this report is the correct lubricant for replenishment of this system and is suggested by the OEM or overhaul facility. Inspect for propped oil levels. We recommend an early resample to monitor this condition.

Wear

The copper level is abnormal. An increase in the tin level is noted.

Contamination

There is no indication of any contamination in the oil.

Fluid Condition

Viscosity of sample indicates oil is within ISO 680 range, advise investigate. Confirm oil type. This plus the additive levels indicates that this is not the same brand, or type of oil as reported.

SAMPLE INFORMATION

	method	limit/base	current	history1	history2
Sample Number	Client Info		PCA0106450	PCA0088993	PCA0065766
Sample Date	Client Info		14 Dec 2023	11 Jun 2023	12 Oct 2022
Machine Age	hrs	Client Info	3000	0	3000
Oil Age	hrs	Client Info	0	0	0
Oil Changed	Client Info		N/A	N/A	N/A
Sample Status			ABNORMAL	SEVERE	ABNORMAL

CONTAMINATION

	method	limit/base	current	history1	history2
Water	WC Method	>0.2	NEG	NEG	NEG

WEAR METALS

	method	limit/base	current	history1	history2
PQ	ASTM D8184		19	16	10
Iron	ppm	ASTM D5185m >200	7	10	3
Chromium	ppm	ASTM D5185m >15	<1	0	0
Nickel	ppm	ASTM D5185m >15	4	▲ 21	9
Titanium	ppm	ASTM D5185m	<1	0	0
Silver	ppm	ASTM D5185m	0	<1	0
Aluminum	ppm	ASTM D5185m >25	1	0	0
Lead	ppm	ASTM D5185m >100	0	1	<1
Copper	ppm	ASTM D5185m >200	195	■ 761	▲ 363
Tin	ppm	ASTM D5185m >25	22	■ 118	▲ 52
Antimony	ppm	ASTM D5185m >5	---	---	---
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	1
Molybdenum	ppm	ASTM D5185m	<1	0	0
Manganese	ppm	ASTM D5185m	0	<1	0
Magnesium	ppm	ASTM D5185m	<1	0	0
Calcium	ppm	ASTM D5185m	▲ 3	0	<1
Phosphorus	ppm	ASTM D5185m 135	288	700	516
Zinc	ppm	ASTM D5185m	0	0	2
Sulfur	ppm	ASTM D5185m 660	▲ 10254	682	444

CONTAMINANTS

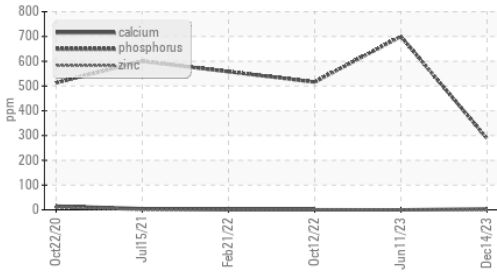
	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m >50	4	<1	2
Sodium	ppm	ASTM D5185m	0	0	0
Potassium	ppm	ASTM D5185m >20	1	<1	<1

FLUID DEGRADATION

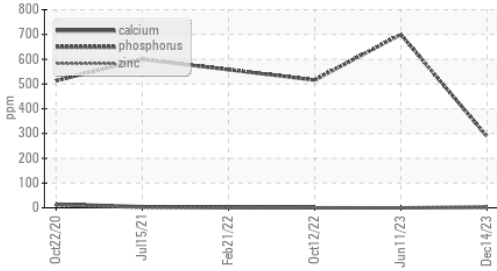
	method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D8045 0.54	0.45	0.53	0.43

OIL ANALYSIS REPORT

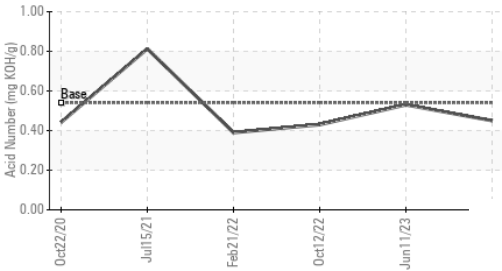
▲ Additives



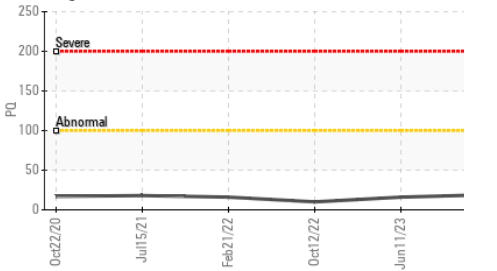
▲ Additives



Acid Number



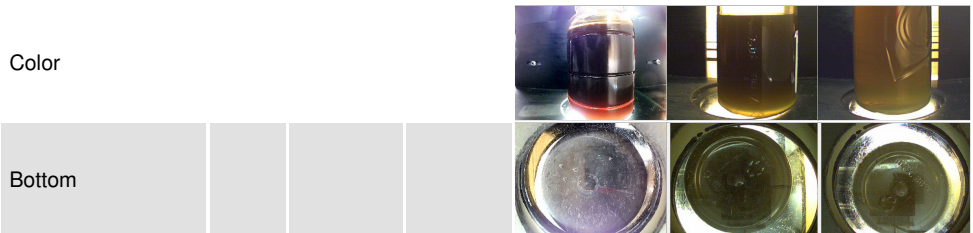
PQ



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

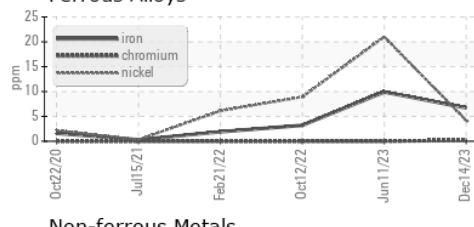
FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445 460	▲ 672	395	387

SAMPLE IMAGES	method	limit/base	current	history1	history2
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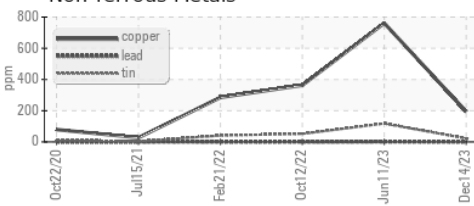


GRAPHS

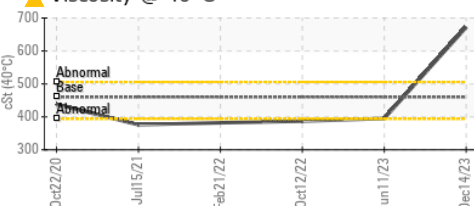
Ferrous Alloys



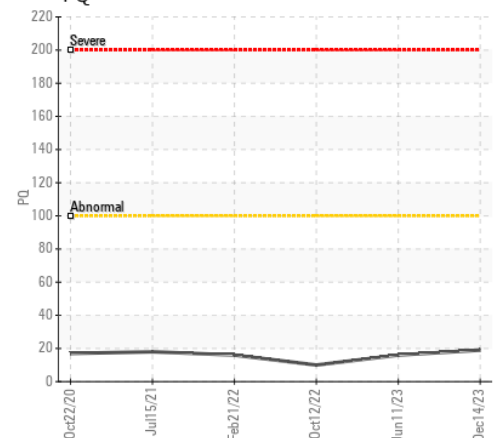
Non-ferrous Metals



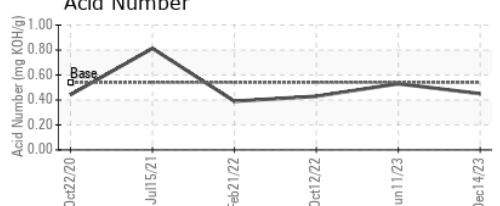
▲ Viscosity @ 40°C



PQ



Acid Number



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : PCA0106450 **Received** : 18 Dec 2023
Lab Number : 06038709 **Diagnosed** : 22 Dec 2023
Unique Number : 10793938 **Diagnostician** : Angela Borella
Test Package : IND 2 (Additional Tests: PQ)

THE HERSHEY COMPANY
 WEST HERSHEY - TECHNICAL ASSURANCE, 1033 OLDE WEST CHOCOLATE
 HERSHEY, PA
 US 17033
 Contact: CLINTON ZOHNER
 clintzohner@hersheys.com
 T: (717)374-4846
 F: (717)374-4594

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)