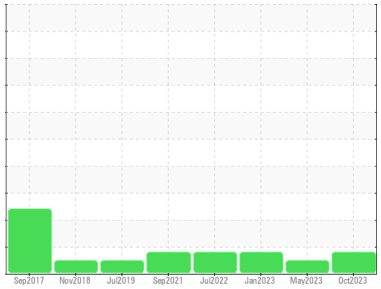
OIL ANALYSIS REPORT

OIL DIAGNOSTICS

Area
G.LOPES CONSTRUCTION INC./Off-Road
Machine Id
L00
Component
Transmission
Fluid
PETRO CANADA PRODURO TO-4 SAE 30 (--- GAL)

Sample Rating Trend



WEAR

DIAGNOSIS

Recommendation
No corrective action is recommended at this time. We recommend an early resample to monitor this condition.

Wear
The copper level is abnormal. Clutch disc wear or oil cooler leaching indicated.

Contamination
There is no indication of any contamination in the fluid.

Fluid Condition
The AN level is acceptable for this fluid. The condition of the fluid is acceptable for the time in service.

SAMPLE INFORMATION		method	limit/base	current	history1	history2
Sample Number		Client Info		**PCA0104586**	PCA0083255	PCA0083440
Sample Date		Client Info		**11 Oct 2023**	24 May 2023	09 Jan 2023
Machine Age	hrs	Client Info		**34603**	34603	34603
Oil Age	hrs	Client Info		**25531**	25531	25531
Oil Changed		Client Info		**N/A**	N/A	N/A
Sample Status				**ABNORMAL**	NORMAL	ABNORMAL

WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>200	**16**	13	11
Chromium	ppm	ASTM D5185m	>10	**0**	<1	0
Nickel	ppm	ASTM D5185m		**0**	0	0
Titanium	ppm	ASTM D5185m		**0**	<1	0
Silver	ppm	ASTM D5185m		**0**	0	0
Aluminum	ppm	ASTM D5185m	>50	**<1**	0	0
Lead	ppm	ASTM D5185m	>50	**9**	1	6
Copper	ppm	ASTM D5185m	>200	▲ **823**	551	▲ 461
Tin	ppm	ASTM D5185m	>10	**<1**	<1	<1
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	2	**5**	4	3
Barium	ppm	ASTM D5185m	0	**0**	0	0
Molybdenum	ppm	ASTM D5185m	0	**1**	2	2
Manganese	ppm	ASTM D5185m	9	**<1**	<1	<1
Magnesium	ppm	ASTM D5185m	1	**22**	25	23
Calcium	ppm	ASTM D5185m	3131	**2780**	2806	2895
Phosphorus	ppm	ASTM D5185m	1194	**1016**	1046	870
Zinc	ppm	ASTM D5185m	1281	**919**	1066	997
Sulfur	ppm	ASTM D5185m	3811	**5576**	7193	6146

CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>50	**4**	4	3
Sodium	ppm	ASTM D5185m		**9**	7	8
Potassium	ppm	ASTM D5185m	>20	**0**	1	0
Glycol	%	*ASTM D2982		**---**	0.0	---

FLUID DEGRADATION		method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D8045		**0.37**	0.58	0.81

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	**LIGHT**	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

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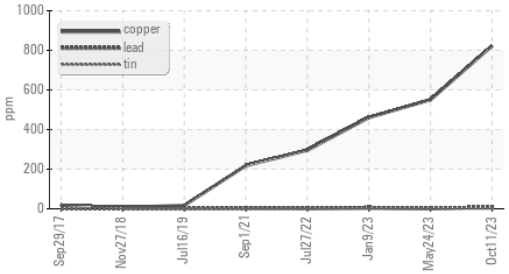
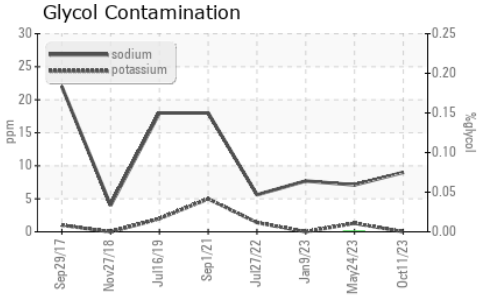
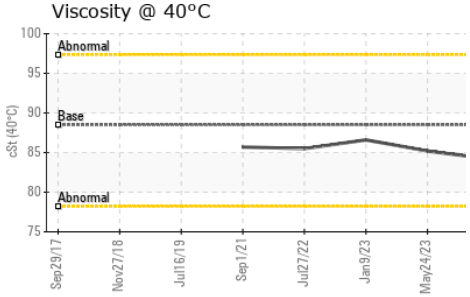
Non-ferrous Metals



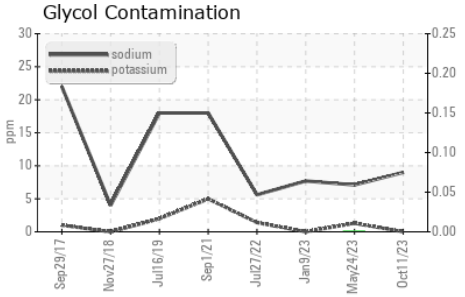
Glycol Contamination



Viscosity @ 40°C



Glycol Contamination

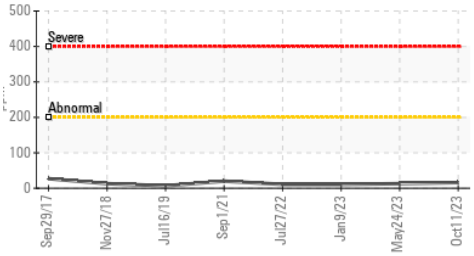


FLUID PROPERTIES		method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445	88.5	**84.2**	85.2	86.6

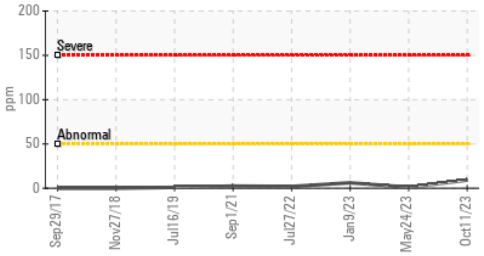
SAMPLE IMAGES	method	limit/base	current	history1	history2
Color			*no image*	*no image*	*no image*
Bottom			*no image*	*no image*	*no image*

GRAPHS

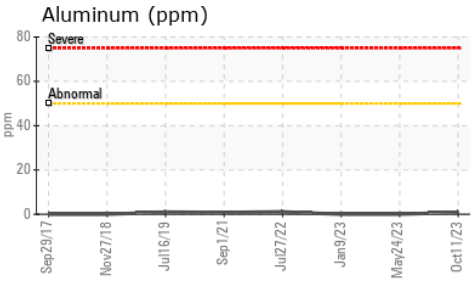
Iron (ppm)



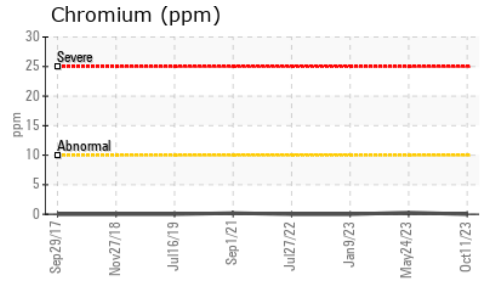
Lead (ppm)



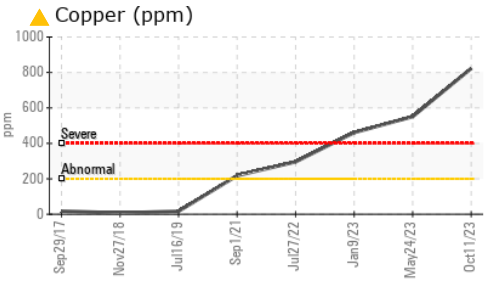
Aluminum (ppm)



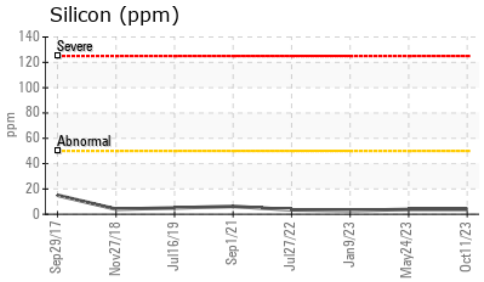
Chromium (ppm)



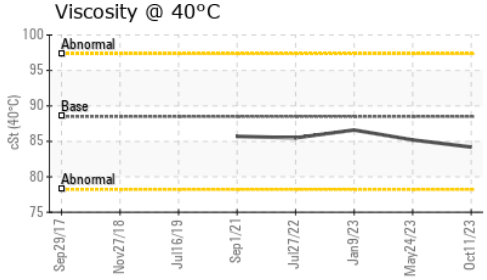
Copper (ppm)



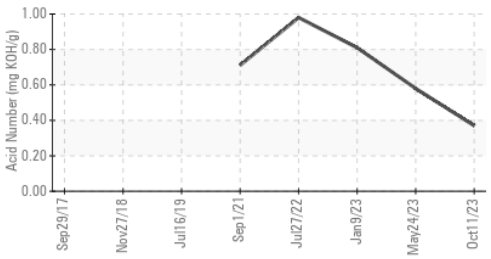
Silicon (ppm)



Viscosity @ 40°C



Acid Number



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : PCA0104586 **Received** : 13 Oct 2023
Lab Number : 05978403 **Diagnosed** : 19 Oct 2023
Unique Number : 10695698 **Diagnostician** : Jonathan Hester
Test Package : MOB 2 (Additional Tests: Glycol)

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)

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