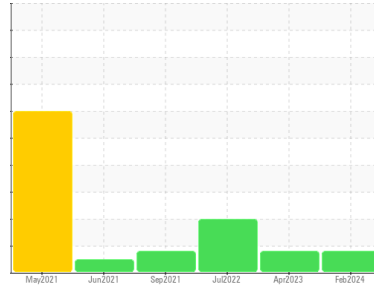


# OIL ANALYSIS REPORT



Area  
**G.LOPES CONSTRUCTION INC./Off-Road**  
 Machine Id  
**E-691**  
 Component  
**Diesel Engine**  
 Fluid  
**PETRO CANADA DURON SHP 15W40 (--- GAL)**

Sample Rating Trend



**WEAR**



## DIAGNOSIS

### ▲ Recommendation

No corrective action is recommended at this time. Resample at the next service interval to monitor.

### ▲ Wear

The aluminum level is abnormal. All other component wear rates are normal.

### Contamination

There is no indication of any contamination in the oil.

### Fluid Condition

The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

## SAMPLE INFORMATION

method	limit/base	current	history1	history2
Sample Number	Client Info	<b>PCA0018792</b>	PCA0083063	PCA0066516
Sample Date	Client Info	<b>07 Feb 2024</b>	05 Apr 2023	05 Jul 2022
Machine Age	hrs	<b>6745</b>	6745	6061
Oil Age	hrs	<b>5822</b>	5822	5822
Oil Changed	Client Info	<b>N/A</b>	N/A	N/A
Sample Status		<b>ABNORMAL</b>	ABNORMAL	ABNORMAL

## CONTAMINATION

method	limit/base	current	history1	history2
Fuel	WC Method >5	<b>&lt;1.0</b>	<1.0	0.5
Water	WC Method >0.2	<b>NEG</b>	NEG	NEG
Glycol	WC Method	<b>NEG</b>	NEG	NEG

## WEAR METALS

method	limit/base	current	history1	history2
Iron	ppm ASTM D5185m >100	<b>40</b>	73	▲ 169
Chromium	ppm ASTM D5185m >20	<b>&lt;1</b>	1	3
Nickel	ppm ASTM D5185m >2	<b>0</b>	0	0
Titanium	ppm ASTM D5185m >2	<b>&lt;1</b>	0	<1
Silver	ppm ASTM D5185m >2	<b>0</b>	0	<1
Aluminum	ppm ASTM D5185m >25	▲ <b>32</b>	▲ 34	▲ 26
Lead	ppm ASTM D5185m >40	<b>1</b>	0	<1
Copper	ppm ASTM D5185m >330	<b>1</b>	1	2
Tin	ppm ASTM D5185m >15	<b>0</b>	0	<1
Antimony	ppm ASTM D5185m	<b>---</b>	---	---
Vanadium	ppm ASTM D5185m	<b>0</b>	0	0
Cadmium	ppm ASTM D5185m	<b>0</b>	0	<1

## ADDITIVES

method	limit/base	current	history1	history2
Boron	ppm ASTM D5185m 0	<b>7</b>	11	55
Barium	ppm ASTM D5185m 0	<b>0</b>	0	0
Molybdenum	ppm ASTM D5185m 60	<b>56</b>	55	42
Manganese	ppm ASTM D5185m 0	<b>1</b>	1	1
Magnesium	ppm ASTM D5185m 1010	<b>857</b>	834	510
Calcium	ppm ASTM D5185m 1070	<b>969</b>	1107	1531
Phosphorus	ppm ASTM D5185m 1150	<b>945</b>	948	918
Zinc	ppm ASTM D5185m 1270	<b>1156</b>	1144	1053
Sulfur	ppm ASTM D5185m 2060	<b>2840</b>	3074	3355

## CONTAMINANTS

method	limit/base	current	history1	history2
Silicon	ppm ASTM D5185m >25	<b>&lt;1</b>	6	8
Sodium	ppm ASTM D5185m	<b>4</b>	7	1
Potassium	ppm ASTM D5185m >20	<b>4</b>	2	5

## INFRA-RED

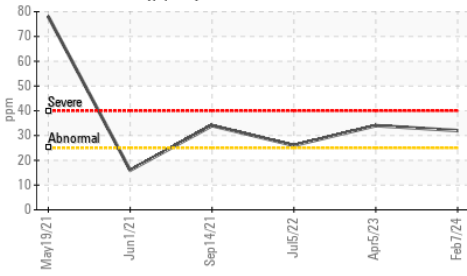
method	limit/base	current	history1	history2
Soot %	% *ASTM D7844 >3	<b>0.1</b>	0.3	0.3
Nitration	Abs/cm *ASTM D7624 >20	<b>6.6</b>	7.3	6.6
Sulfation	Abs/.1mm *ASTM D7415 >30	<b>18.0</b>	18.4	21.1

## FLUID DEGRADATION

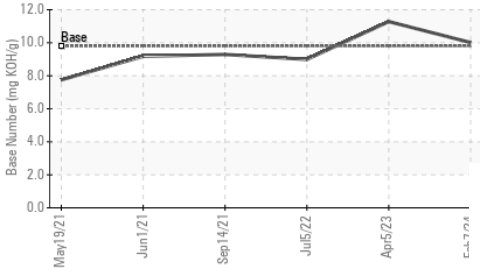
method	limit/base	current	history1	history2
Oxidation	Abs/.1mm *ASTM D7414 >25	<b>14.9</b>	14.6	18.5
Base Number (BN)	mg KOH/g ASTM D2896 9.8	<b>10.01</b>	11.28	8.99

# OIL ANALYSIS REPORT

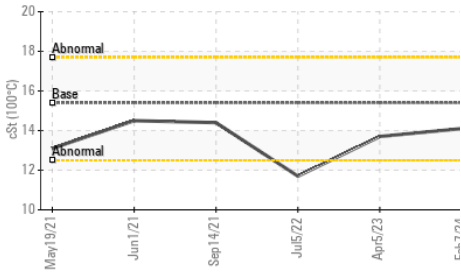
▲ Aluminum (ppm)



Base Number



Viscosity @ 100°C

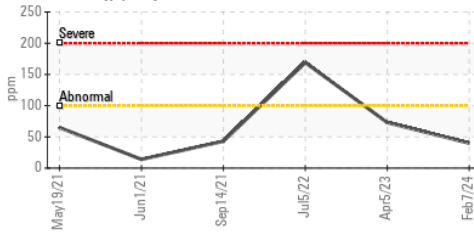


VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE
Appearance	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

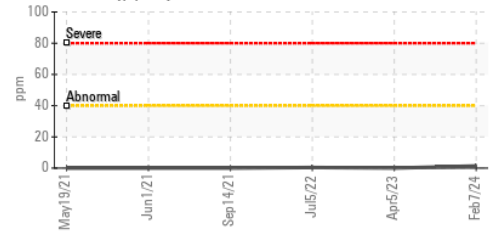
FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 100°C	cSt	ASTM D445	15.4	14.1	13.7 ▲ 11.7

### GRAPHS

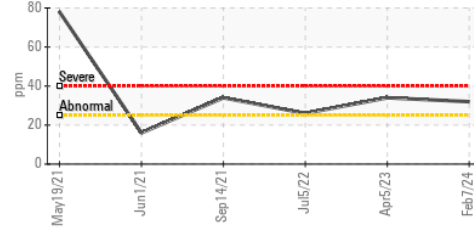
Iron (ppm)



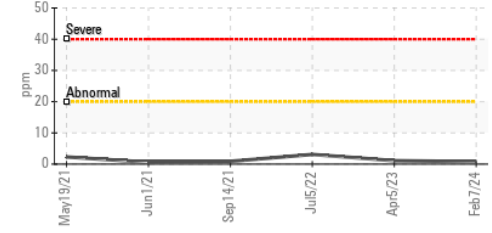
Lead (ppm)



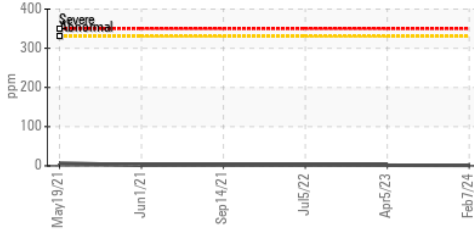
▲ Aluminum (ppm)



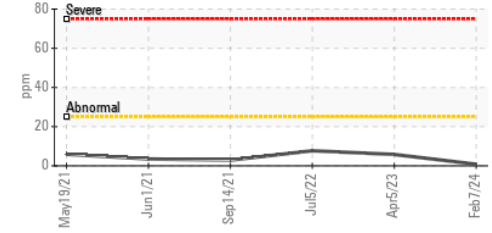
Chromium (ppm)



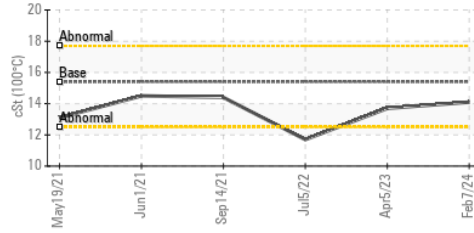
Copper (ppm)



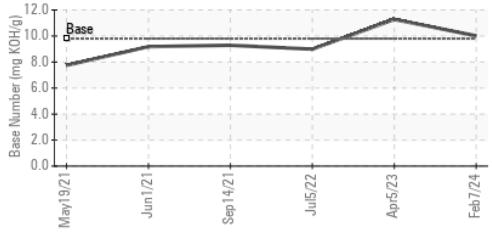
Silicon (ppm)



Viscosity @ 100°C



Base Number



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : PCA0018792 **Received** : 09 Feb 2024  
**Lab Number** : 06084978 **Tested** : 12 Feb 2024  
**Unique Number** : 10872423 **Diagnosed** : 12 Feb 2024 - Don Baldrige  
**Test Package** : MOB 2

**G LOPES CONSTRUCTION**  
 565 WINTHROP ST  
 TAUNTON, MA  
 US 02780  
 Contact: BUTCH MCGRATH  
 bmcgrath@glopes.com

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: