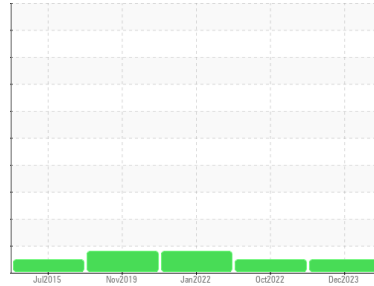


# OIL ANALYSIS REPORT

## Sample Rating Trend

**NORMAL**



Area  
**G.LOPES CONSTRUCTION INC./On-Road**  
 Machine Id  
**220**  
 Component  
**Diesel Engine**  
 Fluid  
**PETRO CANADA DURON SHP 15W40 (--- GAL)**

## DIAGNOSIS

### Recommendation

Resample at the next service interval to monitor.

### Wear

All 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>PCA0109553</b>	PCA0078249	PCA0066675	
Sample Date	Client Info	<b>05 Dec 2023</b>	18 Oct 2022	19 Jan 2022	
Machine Age	hrs	Client Info	<b>528500</b>	528500	528500
Oil Age	hrs	Client Info	<b>528500</b>	528500	528500
Oil Changed	Client Info	<b>N/A</b>	N/A	N/A	
Sample Status		<b>NORMAL</b>	NORMAL	ABNORMAL	

## CONTAMINATION

method	limit/base	current	history1	history2
Fuel	WC Method >3.0	<b>&lt;1.0</b>	<1.0	<1.0
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 >120	<b>2</b>	6	11
Chromium	ppm ASTM D5185m >20	<b>0</b>	<1	<1
Nickel	ppm ASTM D5185m >5	<b>0</b>	0	<1
Titanium	ppm ASTM D5185m >2	<b>0</b>	<1	<1
Silver	ppm ASTM D5185m >2	<b>0</b>	0	0
Aluminum	ppm ASTM D5185m >20	<b>16</b>	17	▲ 21
Lead	ppm ASTM D5185m >40	<b>0</b>	<1	<1
Copper	ppm ASTM D5185m >330	<b>&lt;1</b>	<1	2
Tin	ppm ASTM D5185m >15	<b>0</b>	<1	<1
Antimony	ppm ASTM D5185m	<b>---</b>	---	0
Vanadium	ppm ASTM D5185m	<b>0</b>	0	0
Cadmium	ppm ASTM D5185m	<b>0</b>	0	0

## ADDITIVES

method	limit/base	current	history1	history2
Boron	ppm ASTM D5185m 0	<b>10</b>	19	78
Barium	ppm ASTM D5185m 0	<b>0</b>	0	0
Molybdenum	ppm ASTM D5185m 60	<b>56</b>	52	21
Manganese	ppm ASTM D5185m 0	<b>&lt;1</b>	<1	<1
Magnesium	ppm ASTM D5185m 1010	<b>937</b>	849	592
Calcium	ppm ASTM D5185m 1070	<b>1025</b>	1074	1318
Phosphorus	ppm ASTM D5185m 1150	<b>1029</b>	943	694
Zinc	ppm ASTM D5185m 1270	<b>1256</b>	1117	821
Sulfur	ppm ASTM D5185m 2060	<b>3246</b>	3586	2590

## CONTAMINANTS

method	limit/base	current	history1	history2
Silicon	ppm ASTM D5185m >25	<b>3</b>	2	4
Sodium	ppm ASTM D5185m	<b>3</b>	5	7
Potassium	ppm ASTM D5185m >20	<b>1</b>	0	1

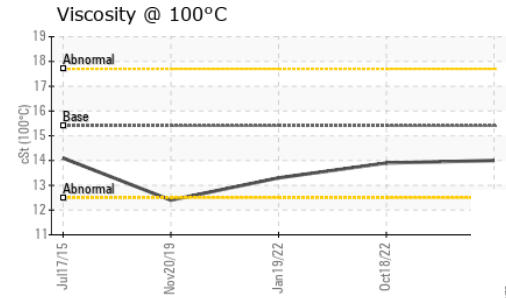
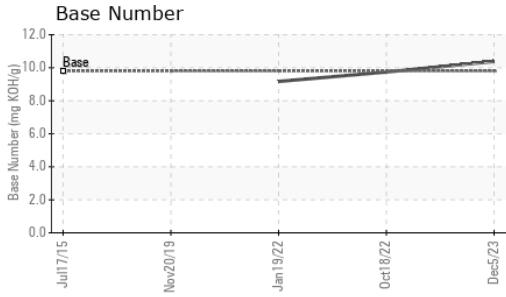
## INFRA-RED

method	limit/base	current	history1	history2
Soot %	% *ASTM D7844 >4	<b>0</b>	0.1	0.1
Nitration	Abs/cm *ASTM D7624 >20	<b>4.7</b>	6.0	8.1
Sulfation	Abs/.1mm *ASTM D7415 >30	<b>17.0</b>	18.9	20.7

## FLUID DEGRADATION

method	limit/base	current	history1	history2
Oxidation	Abs/.1mm *ASTM D7414 >25	<b>12.9</b>	14.2	16.9
Base Number (BN)	mg KOH/g ASTM D2896 9.8	<b>10.38</b>	9.74	9.17

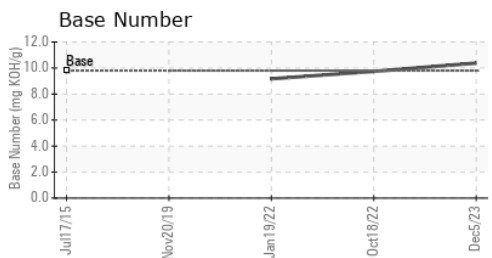
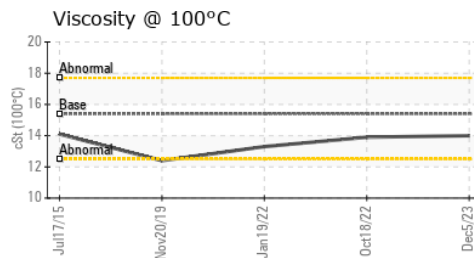
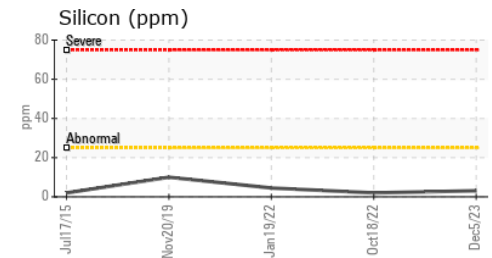
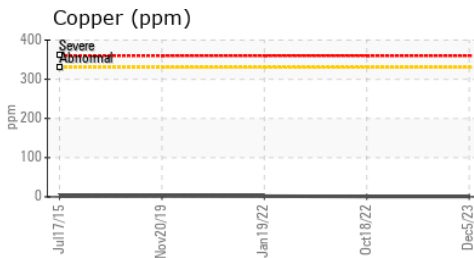
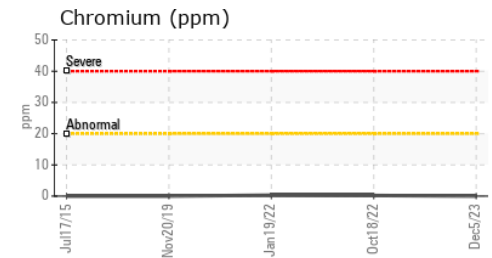
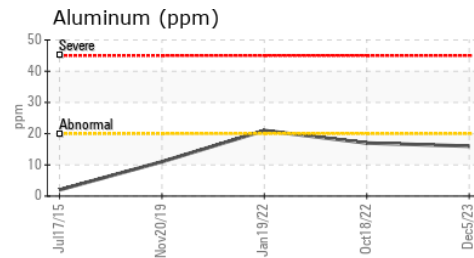
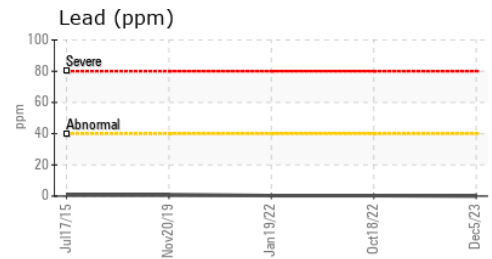
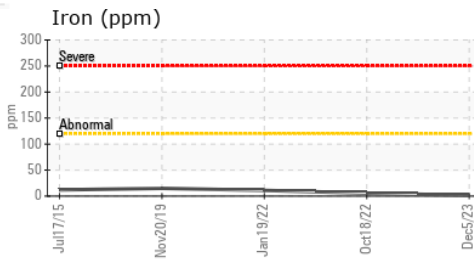
# OIL ANALYSIS REPORT



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	<b>14.0</b>	13.9	13.3

## GRAPHS



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : PCA0109553 **Received** : 07 Dec 2023  
**Lab Number** : 06027965 **Diagnosed** : 08 Dec 2023  
**Unique Number** : 10777756 **Diagnostician** : Wes Davis  
**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: