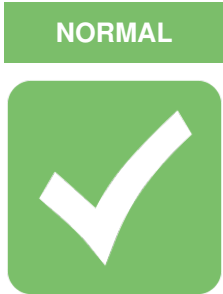
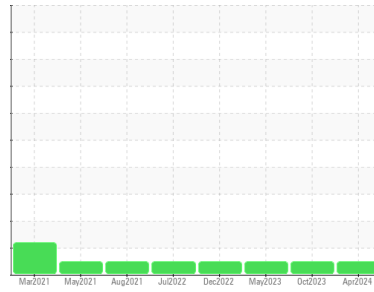


# OIL ANALYSIS REPORT

Area  
**G. LOPES CONSTRUCTION INC./On-Road**  
 Machine Id  
**343**  
 Component  
**Diesel Engine**  
 Fluid  
**PETRO CANADA DURON SHP 15W40 (10 GAL)**

### Sample Rating Trend



## 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>PCA0122611</b>	PCA0104579	PCA0098551
Sample Date	Client Info	<b>23 Apr 2024</b>	18 Oct 2023	17 May 2023
Machine Age	mls	<b>242500</b>	152000	242500
Oil Age	mls	<b>242500</b>	242500	242500
Oil Changed	Client Info	<b>N/A</b>	N/A	N/A
Sample Status		<b>NORMAL</b>	NORMAL	NORMAL

## 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 >200	<b>18</b>	20	24
Chromium	ppm ASTM D5185m >6	<b>1</b>	1	2
Nickel	ppm ASTM D5185m >3	<b>0</b>	<1	<1
Titanium	ppm ASTM D5185m >2	<b>&lt;1</b>	1	<1
Silver	ppm ASTM D5185m >2	<b>0</b>	0	<1
Aluminum	ppm ASTM D5185m >50	<b>6</b>	7	10
Lead	ppm ASTM D5185m >10	<b>0</b>	<1	0
Copper	ppm ASTM D5185m >50	<b>5</b>	7	14
Tin	ppm ASTM D5185m >6	<b>0</b>	<1	<1
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>&lt;1</b>	3	1
Barium	ppm ASTM D5185m 0	<b>0</b>	0	0
Molybdenum	ppm ASTM D5185m 60	<b>63</b>	64	63
Manganese	ppm ASTM D5185m 0	<b>&lt;1</b>	<1	1
Magnesium	ppm ASTM D5185m 1010	<b>1018</b>	964	1001
Calcium	ppm ASTM D5185m 1070	<b>1179</b>	1122	1184
Phosphorus	ppm ASTM D5185m 1150	<b>1044</b>	1054	1004
Zinc	ppm ASTM D5185m 1270	<b>1289</b>	1270	1263
Sulfur	ppm ASTM D5185m 2060	<b>3239</b>	3391	2908

## CONTAMINANTS

method	limit/base	current	history1	history2
Silicon	ppm ASTM D5185m >50	<b>3</b>	5	4
Sodium	ppm ASTM D5185m	<b>3</b>	<1	3
Potassium	ppm ASTM D5185m >20	<b>7</b>	12	14

## INFRA-RED

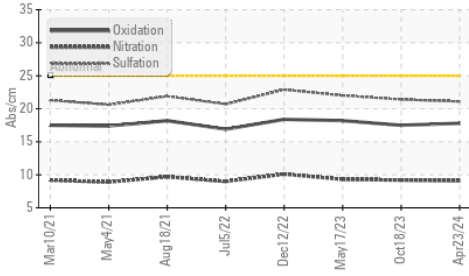
method	limit/base	current	history1	history2
Soot %	% *ASTM D7844 >3	<b>0.5</b>	0.6	0.6
Nitration	Abs/cm *ASTM D7624 >20	<b>9.1</b>	9.2	9.3
Sulfation	Abs/.1mm *ASTM D7415 >30	<b>21.1</b>	21.4	22.0

## FLUID DEGRADATION

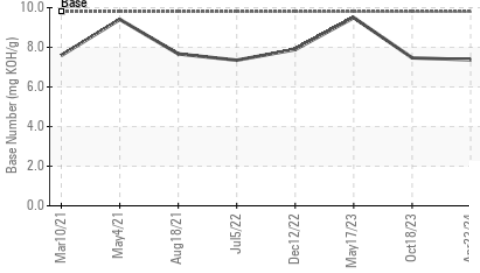
method	limit/base	current	history1	history2
Oxidation	Abs/.1mm *ASTM D7414 >25	<b>17.8</b>	17.5	18.2
Base Number (BN)	mg KOH/g ASTM D2896 9.8	<b>7.37</b>	7.47	9.50

# OIL ANALYSIS REPORT

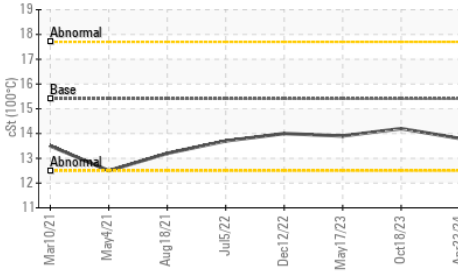
FT-IR (Direct Trend)



Base Number



Viscosity @ 100°C

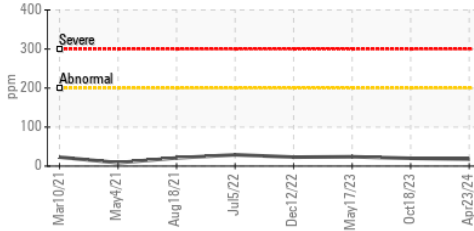


PARAMETER	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE
Appearance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

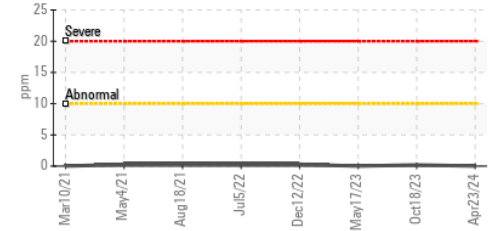
FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 100°C	cSt	ASTM D445	15.4	13.8	14.2

## GRAPHS

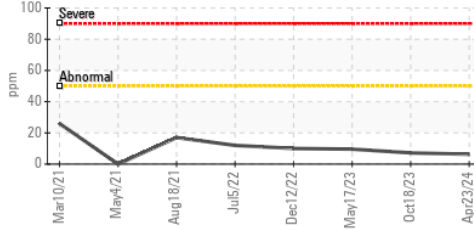
Iron (ppm)



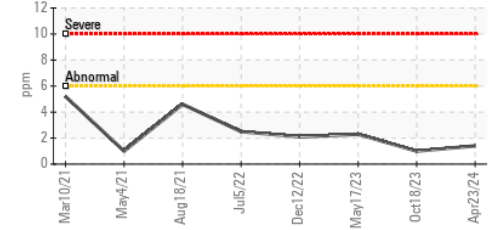
Lead (ppm)



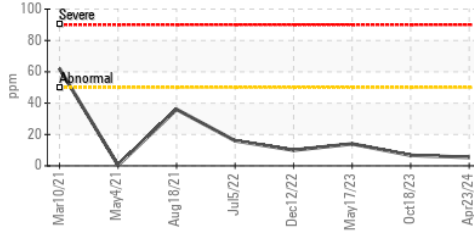
Aluminum (ppm)



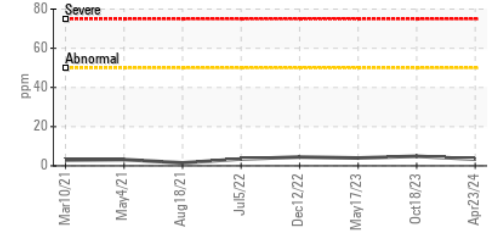
Chromium (ppm)



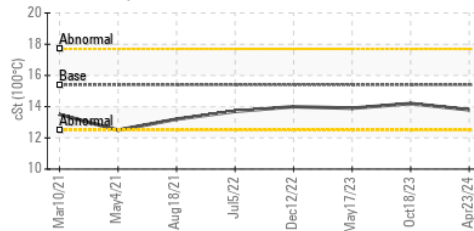
Copper (ppm)



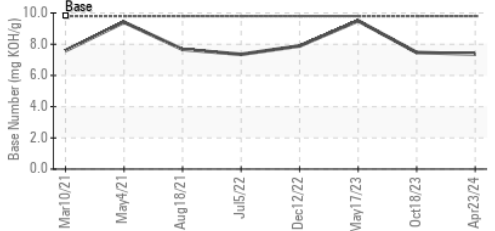
Silicon (ppm)



Viscosity @ 100°C



Base Number



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : PCA0122611  
**Lab Number** : 06161701  
**Unique Number** : 10997124  
**Test Package** : MOB 2

**Received** : 26 Apr 2024  
**Tested** : 28 Apr 2024  
**Diagnosed** : 28 Apr 2024 - Wes Davis

**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: