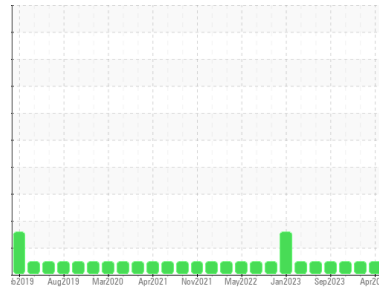


# OIL ANALYSIS REPORT



Area  
**G.LOPES CONSTRUCTION INC./Off-Road**  
 Machine Id  
**L33**  
 Component  
**Diesel Engine**  
 Fluid  
**PETRO CANADA DURON SHP 15W40 (--- GAL)**

### Sample Rating Trend



**NORMAL**



## 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>PCA0122605</b>	PCA0018796	PCA0078194
Sample Date	Client Info		<b>23 Apr 2024</b>	07 Feb 2024	15 Nov 2023
Machine Age	hrs	Client Info	<b>11001</b>	11001	10557
Oil Age	hrs	Client Info	<b>6464</b>	6908	6801
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	>5	<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 >100	<b>20</b>	5	20
Chromium	ppm	ASTM D5185m >20	<b>&lt;1</b>	0	<1
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	0
Aluminum	ppm	ASTM D5185m >25	<b>1</b>	<1	1
Lead	ppm	ASTM D5185m >40	<b>7</b>	5	12
Copper	ppm	ASTM D5185m >330	<b>4</b>	3	5
Tin	ppm	ASTM D5185m >15	<b>0</b>	<1	<1
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>2</b>	8	9
Barium	ppm	ASTM D5185m 0	<b>0</b>	0	<1
Molybdenum	ppm	ASTM D5185m 60	<b>67</b>	61	69
Manganese	ppm	ASTM D5185m 0	<b>&lt;1</b>	1	0
Magnesium	ppm	ASTM D5185m 1010	<b>1138</b>	946	1044
Calcium	ppm	ASTM D5185m 1070	<b>1361</b>	1068	1183
Phosphorus	ppm	ASTM D5185m 1150	<b>1216</b>	1052	1076
Zinc	ppm	ASTM D5185m 1270	<b>1443</b>	1270	1329
Sulfur	ppm	ASTM D5185m 2060	<b>3934</b>	2977	3323

## CONTAMINANTS

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

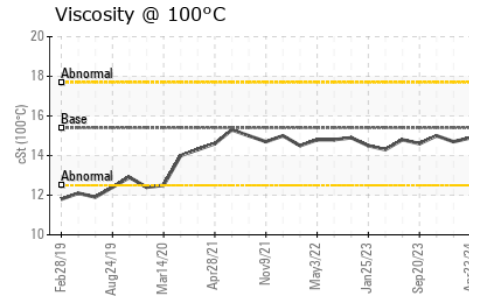
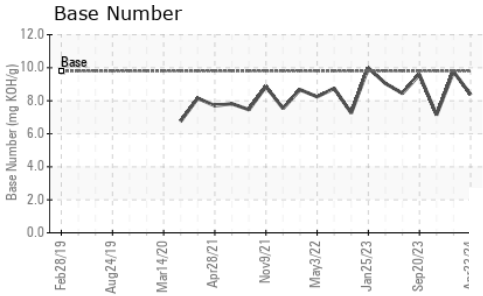
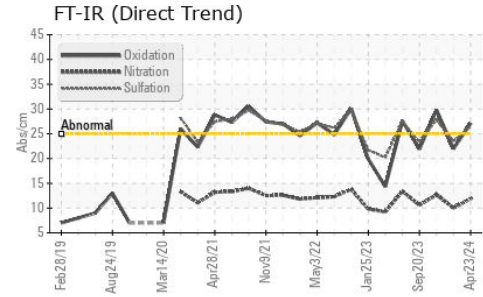
## INFRA-RED

	method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844 >3	<b>0.3</b>	0.2	0.3
Nitration	Abs/cm	*ASTM D7624 >20	<b>11.9</b>	10.0	12.7
Sulfation	Abs/.1mm	*ASTM D7415 >30	<b>26.5</b>	23.5	27.8

## FLUID DEGRADATION

	method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	*ASTM D7414 >25	<b>27.1</b>	22.0	29.8
Base Number (BN)	mg KOH/g	ASTM D2896 9.8	<b>8.37</b>	9.76	7.14

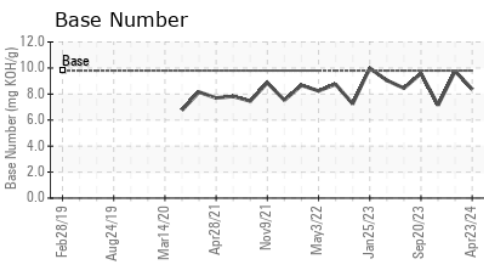
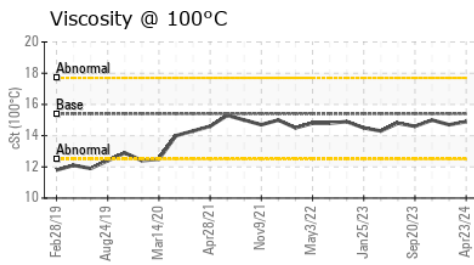
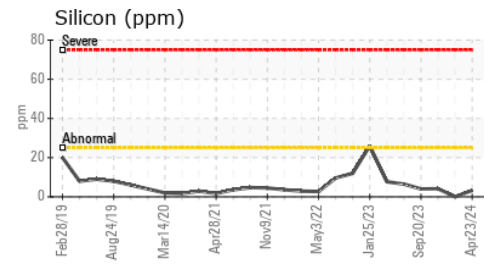
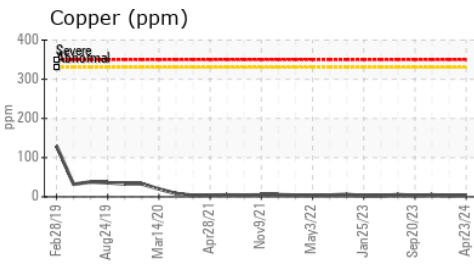
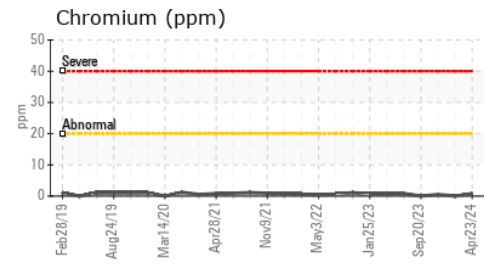
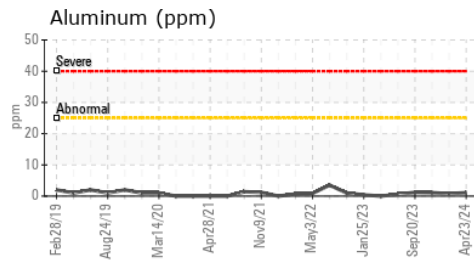
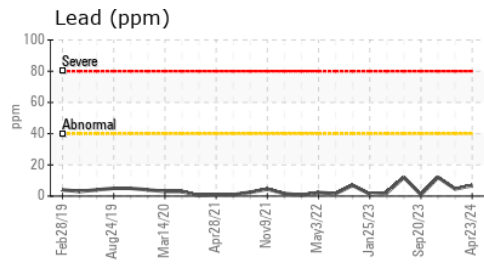
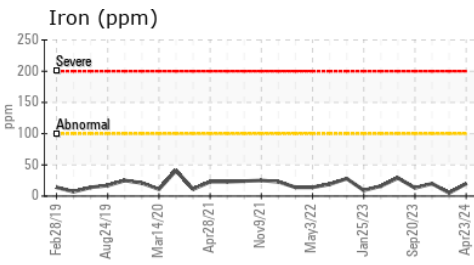
# OIL ANALYSIS REPORT



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>14.9</b>	14.7	15.0

## GRAPHS



**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : PCA0122605      **Received** : 26 Apr 2024  
**Lab Number** : **06161698**      **Tested** : 28 Apr 2024  
**Unique Number** : 10997121      **Diagnosed** : 29 Apr 2024 - Sean Felton  
**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)