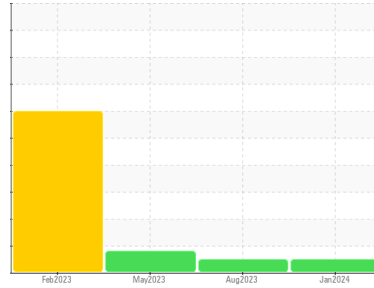


# OIL ANALYSIS REPORT

Sample Rating Trend



**NORMAL**



Area  
**G. LOPES CONSTRUCTION INC./ON-ROAD**  
 Machine Id  
**358**  
 Component  
**Diesel Engine**  
 Fluid  
**PETRO CANADA DURON SHP 15W40 (--- GAL)**

## DIAGNOSIS

### Recommendation

Resample at the next service interval to monitor. Please specify the component make and model with your next sample.

### 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>PCA0109653</b>	PCA0098392	PCA0098521
Sample Date	Client Info		<b>09 Jan 2024</b>	23 Aug 2023	17 May 2023
Machine Age	hrs	Client Info	<b>92000</b>	72000	52000
Oil Age	hrs	Client Info	<b>92000</b>	72000	52000
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	>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>7</b>	9	8
Chromium	ppm	ASTM D5185m >20	<b>2</b>	2	2
Nickel	ppm	ASTM D5185m >4	<b>2</b>	<1	<1
Titanium	ppm	ASTM D5185m	<b>&lt;1</b>	1	<1
Silver	ppm	ASTM D5185m >3	<b>&lt;1</b>	<1	<1
Aluminum	ppm	ASTM D5185m >20	<b>9</b>	14	6
Lead	ppm	ASTM D5185m >40	<b>&lt;1</b>	<1	4
Copper	ppm	ASTM D5185m >330	<b>17</b>	102	▲ 419
Tin	ppm	ASTM D5185m >15	<b>&lt;1</b>	<1	1
Vanadium	ppm	ASTM D5185m	<b>&lt;1</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>0</b>	4	4
Barium	ppm	ASTM D5185m 0	<b>0</b>	1	0
Molybdenum	ppm	ASTM D5185m 60	<b>59</b>	66	61
Manganese	ppm	ASTM D5185m 0	<b>&lt;1</b>	<1	<1
Magnesium	ppm	ASTM D5185m 1010	<b>938</b>	967	993
Calcium	ppm	ASTM D5185m 1070	<b>1056</b>	1214	1141
Phosphorus	ppm	ASTM D5185m 1150	<b>982</b>	1021	1000
Zinc	ppm	ASTM D5185m 1270	<b>1288</b>	1322	1212
Sulfur	ppm	ASTM D5185m 2060	<b>2858</b>	2912	2956

## CONTAMINANTS

	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m >25	<b>4</b>	4	4
Sodium	ppm	ASTM D5185m	<b>0</b>	0	3
Potassium	ppm	ASTM D5185m >20	<b>19</b>	35	11

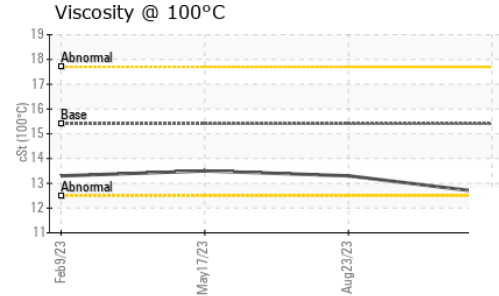
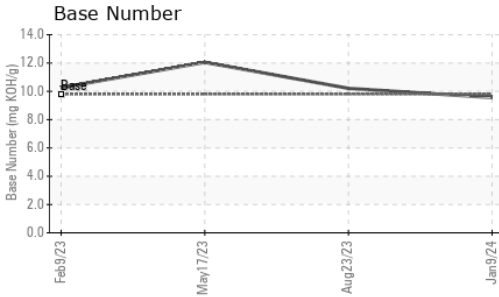
## INFRA-RED

	method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844 >3	<b>0.3</b>	0.2	0.2
Nitration	Abs/cm	*ASTM D7624 >20	<b>7.5</b>	7.5	11.4
Sulfation	Abs/.1mm	*ASTM D7415 >30	<b>19.0</b>	19.4	19.6

## FLUID DEGRADATION

	method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	*ASTM D7414 >25	<b>14.7</b>	15.6	17.5
Base Number (BN)	mg KOH/g	ASTM D2896 9.8	<b>9.56</b>	10.21	12.05

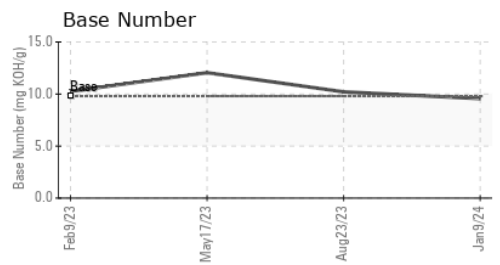
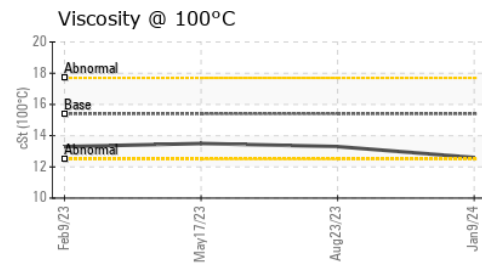
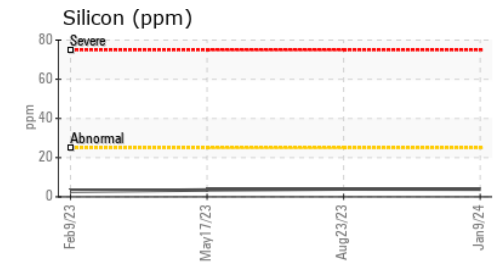
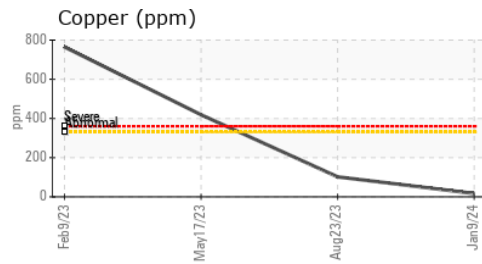
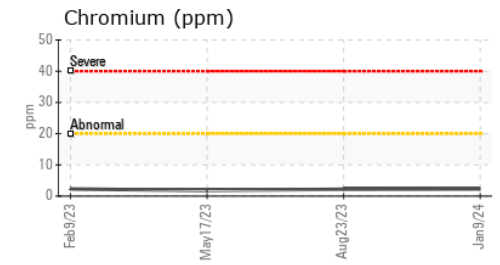
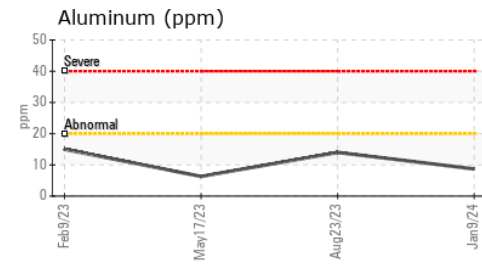
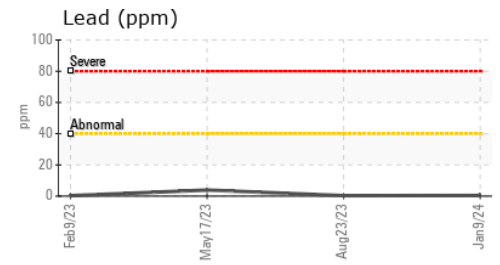
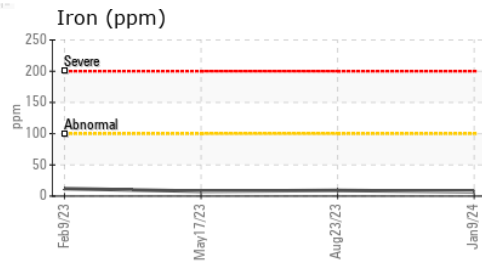
# OIL ANALYSIS REPORT



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>12.6</b>	13.3	13.5

## GRAPHS



**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : PCA0109653 **Recieved** : 12 Jan 2024  
**Lab Number** : 06059429 **Diagnosed** : 15 Jan 2024  
**Unique Number** : 10830811 **Diagnostician** : Wes Davis  
**Test Package** : MOB 2

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

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)