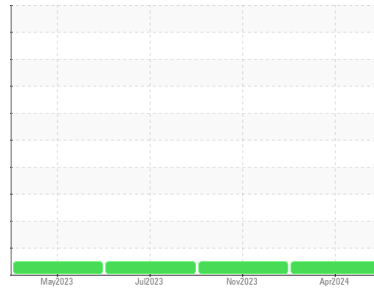


# OIL ANALYSIS REPORT

## Sample Rating Trend



**NORMAL**



Area  
**G. LOPES CONSTRUCTION INC./ON-ROAD**  
 Machine Id  
**363**  
 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>PCA0109888</b>	PCA0109769	PCA0098429
Sample Date	Client Info		<b>10 Apr 2024</b>	15 Nov 2023	19 Jul 2023
Machine Age	mls	Client Info	<b>906000</b>	894000	886000
Oil Age	mls	Client Info	<b>906000</b>	894000	886000
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>14</b>	43	36
Chromium	ppm	ASTM D5185m >20	<b>&lt;1</b>	<1	<1
Nickel	ppm	ASTM D5185m >4	<b>&lt;1</b>	0	<1
Titanium	ppm	ASTM D5185m	<b>&lt;1</b>	<1	1
Silver	ppm	ASTM D5185m >3	<b>0</b>	0	0
Aluminum	ppm	ASTM D5185m >20	<b>1</b>	1	1
Lead	ppm	ASTM D5185m >40	<b>3</b>	2	3
Copper	ppm	ASTM D5185m >330	<b>2</b>	3	6
Tin	ppm	ASTM D5185m >15	<b>2</b>	0	1
Vanadium	ppm	ASTM D5185m	<b>&lt;1</b>	0	0
Cadmium	ppm	ASTM D5185m	<b>&lt;1</b>	<1	0

### ADDITIVES

	method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m 0	<b>4</b>	3	2
Barium	ppm	ASTM D5185m 0	<b>0</b>	<1	2
Molybdenum	ppm	ASTM D5185m 60	<b>59</b>	56	61
Manganese	ppm	ASTM D5185m 0	<b>&lt;1</b>	0	<1
Magnesium	ppm	ASTM D5185m 1010	<b>995</b>	850	904
Calcium	ppm	ASTM D5185m 1070	<b>1159</b>	970	1086
Phosphorus	ppm	ASTM D5185m 1150	<b>1145</b>	922	991
Zinc	ppm	ASTM D5185m 1270	<b>1335</b>	1108	1185
Sulfur	ppm	ASTM D5185m 2060	<b>3800</b>	2918	3120

### CONTAMINANTS

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

### INFRA-RED

	method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844 >3	<b>1.1</b>	2.2	2.5
Nitration	Abs/cm	*ASTM D7624 >20	<b>6.9</b>	7.8	8.2
Sulfation	Abs/.1mm	*ASTM D7415 >30	<b>19.2</b>	22.8	23.4

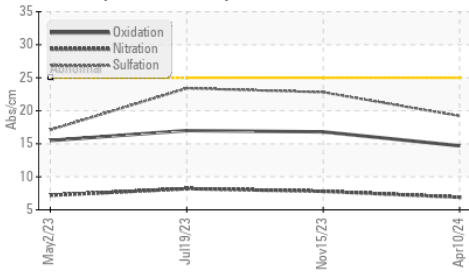
### FLUID DEGRADATION

	method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	*ASTM D7414 >25	<b>14.7</b>	16.8	17.0
Base Number (BN)	mg KOH/g	ASTM D2896 9.8	<b>10.25</b>	9.82	10.55

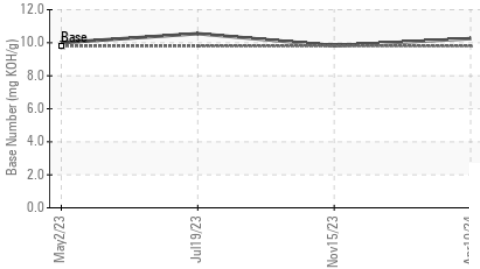


# OIL ANALYSIS REPORT

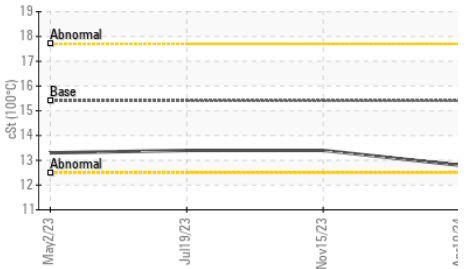
FT-IR (Direct Trend)



Base Number



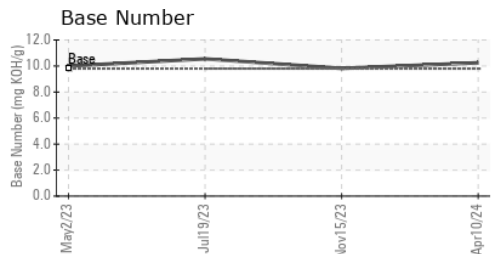
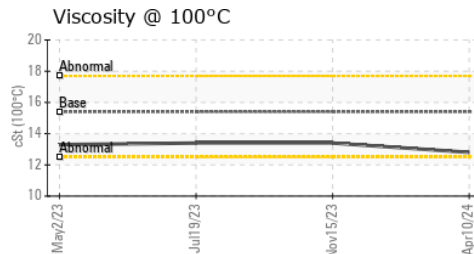
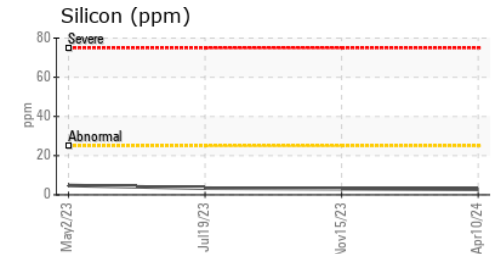
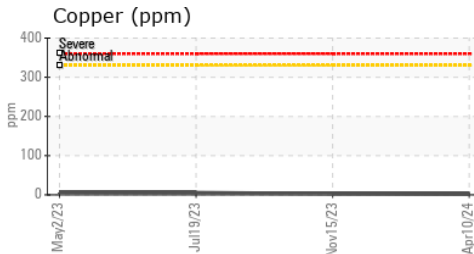
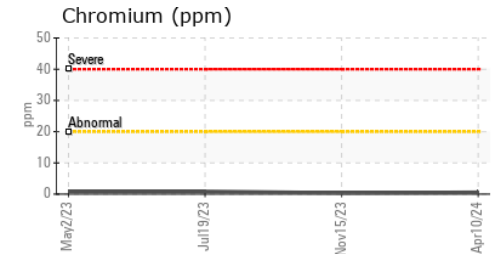
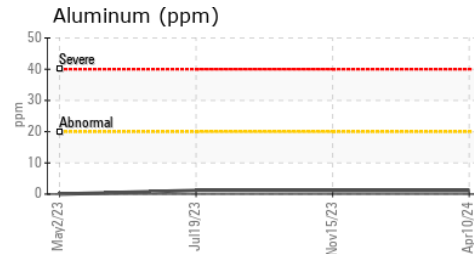
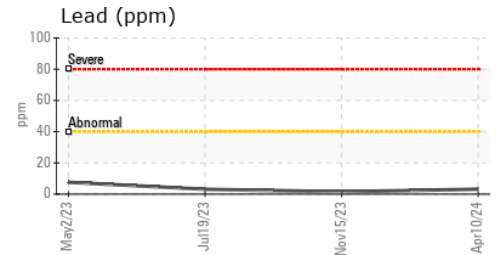
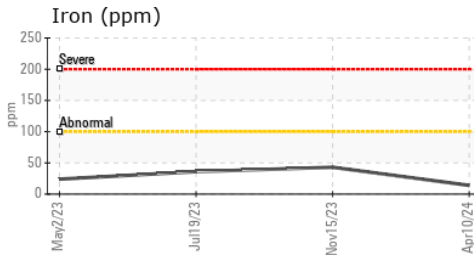
Viscosity @ 100°C



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	12.8	13.4

## GRAPHS



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : PCA0109888  
**Lab Number** : 06147559  
**Unique Number** : 10977637  
**Test Package** : MOB 2

**Received** : 12 Apr 2024  
**Tested** : 15 Apr 2024  
**Diagnosed** : 15 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)