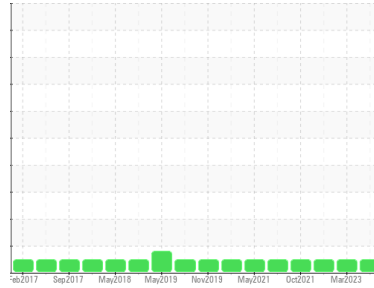


# OIL ANALYSIS REPORT

Sample Rating Trend

**NORMAL**



Area  
**G.LOPES CONSTRUCTION INC./Off-Road**  
 Machine Id  
**S34**  
 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>PCA0104662</b>	PCA0083076	PCA0078357
Sample Date	Client Info			<b>05 Sep 2023</b>	29 Mar 2023	20 Sep 2022
Machine Age	hrs	Client Info		<b>9834</b>	9544	9267
Oil Age	hrs	Client Info		<b>8767</b>	8754	9029
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
Glycol	WC Method			<b>NEG</b>	NEG	NEG

WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>100	<b>14</b>	18	31
Chromium	ppm	ASTM D5185m	>20	<b>2</b>	2	4
Nickel	ppm	ASTM D5185m	>4	<b>&lt;1</b>	0	0
Titanium	ppm	ASTM D5185m		<b>&lt;1</b>	0	<1
Silver	ppm	ASTM D5185m	>3	<b>0</b>	0	0
Aluminum	ppm	ASTM D5185m	>20	<b>5</b>	4	11
Lead	ppm	ASTM D5185m	>40	<b>&lt;1</b>	1	2
Copper	ppm	ASTM D5185m	>330	<b>1</b>	1	4
Tin	ppm	ASTM D5185m	>15	<b>&lt;1</b>	<1	2
Antimony	ppm	ASTM D5185m		<b>---</b>	---	---
Vanadium	ppm	ASTM D5185m		<b>0</b>	0	0
Cadmium	ppm	ASTM D5185m		<b>0</b>	0	0

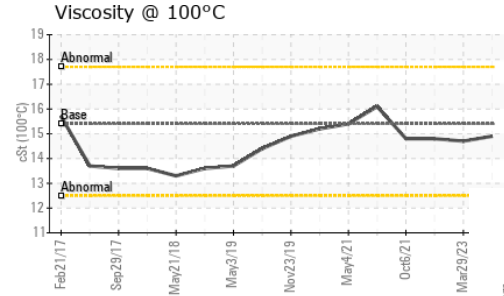
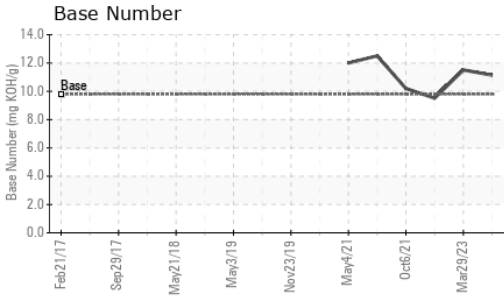
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	0	<b>4</b>	5	2
Barium	ppm	ASTM D5185m	0	<b>2</b>	0	0
Molybdenum	ppm	ASTM D5185m	60	<b>64</b>	60	65
Manganese	ppm	ASTM D5185m	0	<b>&lt;1</b>	1	1
Magnesium	ppm	ASTM D5185m	1010	<b>995</b>	1070	1028
Calcium	ppm	ASTM D5185m	1070	<b>1147</b>	1177	1157
Phosphorus	ppm	ASTM D5185m	1150	<b>1012</b>	1007	1017
Zinc	ppm	ASTM D5185m	1270	<b>1278</b>	1388	1369
Sulfur	ppm	ASTM D5185m	2060	<b>3182</b>	3510	3740

CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>25	<b>9</b>	7	13
Sodium	ppm	ASTM D5185m		<b>4</b>	5	15
Potassium	ppm	ASTM D5185m	>20	<b>1</b>	3	0

INFRA-RED		method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844	>3	<b>0.1</b>	0.1	0.1
Nitration	Abs/cm	*ASTM D7624	>20	<b>7.8</b>	8.1	7.8
Sulfation	Abs/.1mm	*ASTM D7415	>30	<b>19.1</b>	19.1	20.1

FLUID DEGRADATION		method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	*ASTM D7414	>25	<b>16.7</b>	16.8	16.6
Base Number (BN)	mg KOH/g	ASTM D2896	9.8	<b>11.14</b>	11.51	9.51

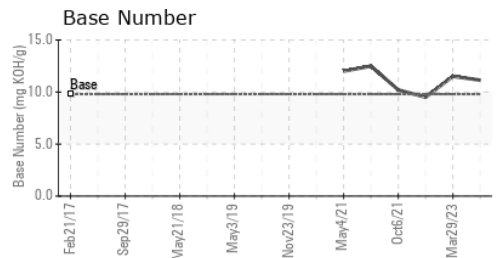
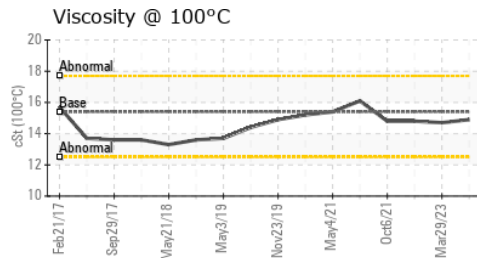
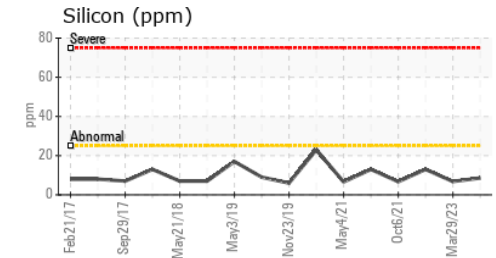
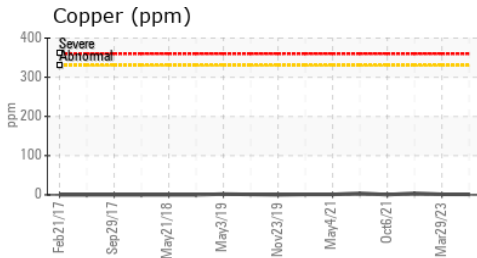
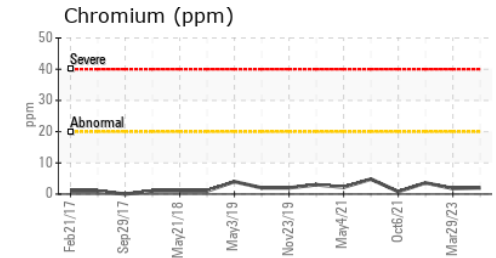
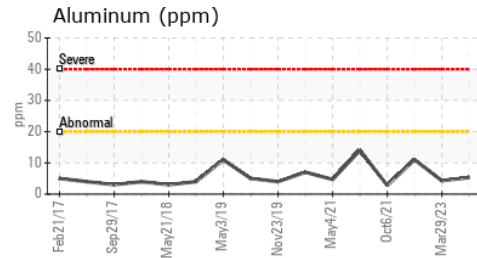
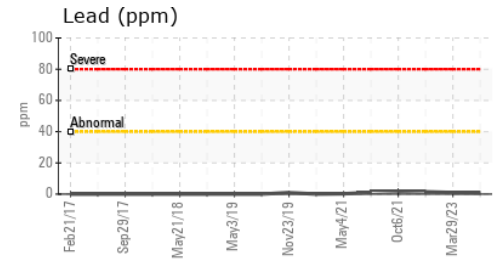
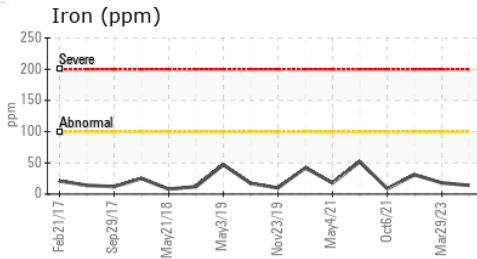
# OIL ANALYSIS REPORT



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	14.8

## GRAPHS



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : PCA0104662 **Received** : 07 Sep 2023  
**Lab Number** : **05944758** **Diagnosed** : 08 Sep 2023  
**Unique Number** : 10635370 **Diagnostician** : Wes Davis  
**Test Package** : MOB 2

**G LOPES CONSTRUCTION**  
 565 WINTHROP ST  
 TAUNTON, MA  
 US 02780  
 Contact: BUTCH MCGRATH  
 bm McGrath@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)

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F: