



# OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Area  
**G.LOPES CONSTRUCTION INC./On-Road**

Machine Id

**331**

Component

**Diesel Engine**

Fluid

**PETRO CANADA DURON SHP 15W40 (--- GAL)**

## RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>PCA0098331</b>	PCA0109809	PCA0098462
Sample Date		Client Info		<b>07 Feb 2024</b>	31 Oct 2023	26 Jul 2023
Machine Age	mls	Client Info		<b>292000</b>	272000	252000
Oil Age	mls	Client Info		<b>132000</b>	132000	132000
Filter Age	mls	Client Info		<b>0</b>	0	0
Oil Changed		Client Info		<b>N/A</b>	N/A	N/A
Filter Changed		Client Info		<b>N/A</b>	N/A	N/A
Sample Status				<b>NORMAL</b>	NORMAL	NORMAL

## WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>65	<b>12</b>	14	18
Chromium	ppm	ASTM D5185m	>5	<b>&lt;1</b>	<1	<1
Nickel	ppm	ASTM D5185m	>3	<b>0</b>	0	0
Titanium	ppm	ASTM D5185m	>5	<b>&lt;1</b>	0	1
Silver	ppm	ASTM D5185m	>2	<b>0</b>	0	0
Aluminum	ppm	ASTM D5185m	>35	<b>8</b>	6	5
Lead	ppm	ASTM D5185m	>10	<b>&lt;1</b>	0	0
Copper	ppm	ASTM D5185m	>180	<b>3</b>	3	4
Tin	ppm	ASTM D5185m	>8	<b>&lt;1</b>	0	0
Vanadium	ppm	ASTM D5185m		<b>0</b>	0	<1
White Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE

## CONTAMINATION

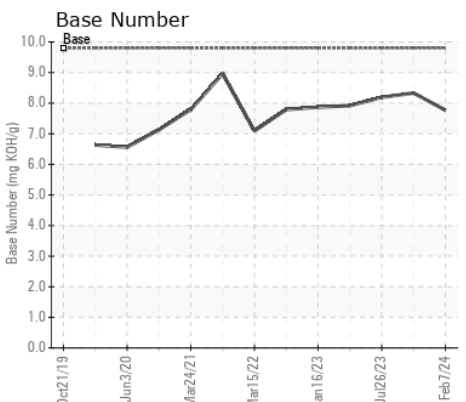
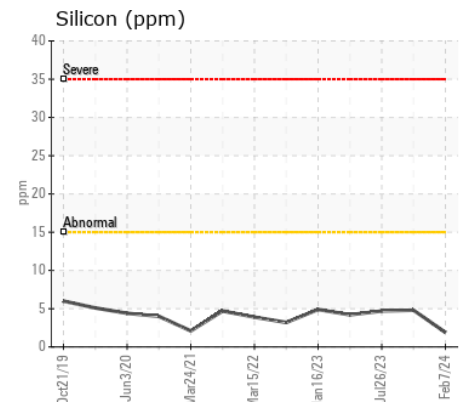
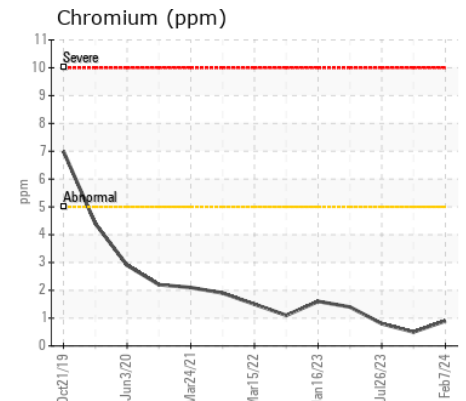
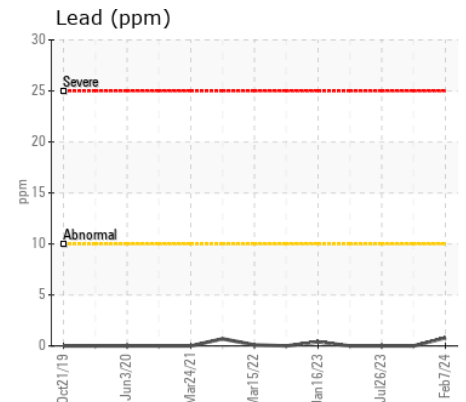
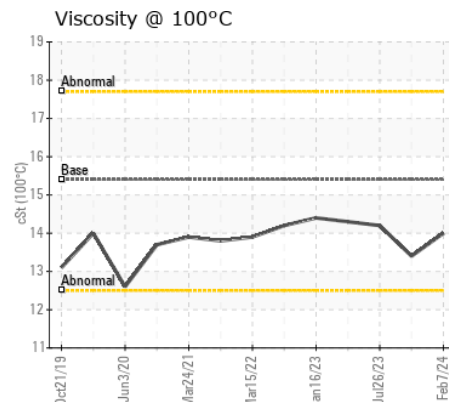
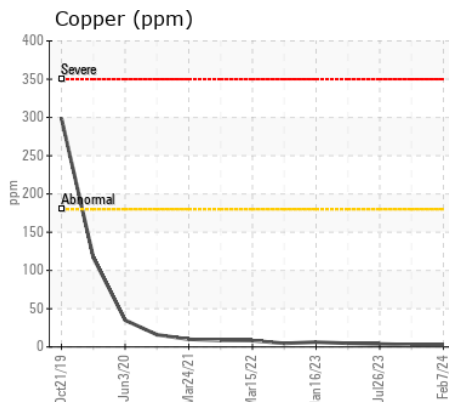
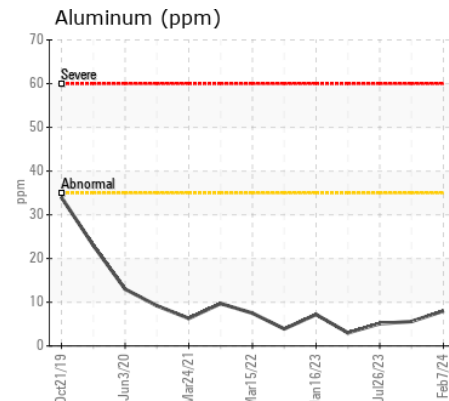
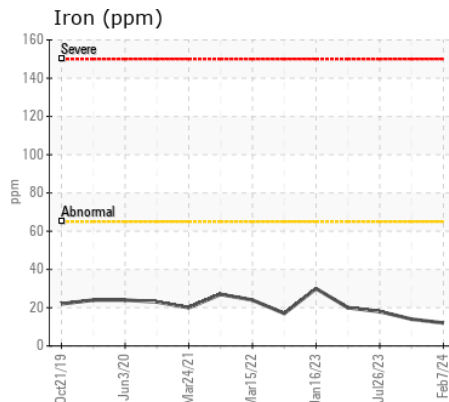
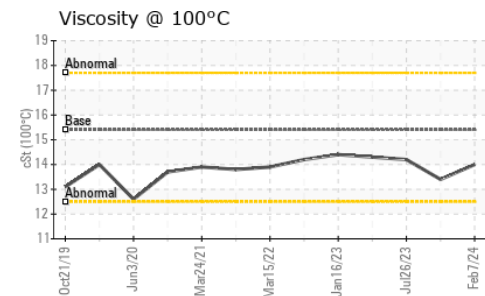
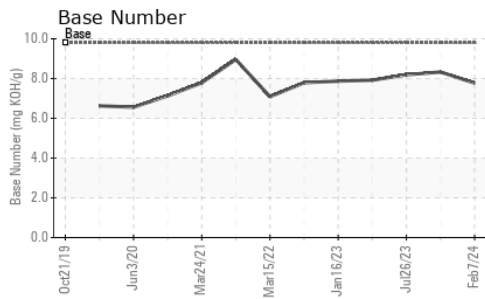
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>15	<b>2</b>	5	5
Potassium	ppm	ASTM D5185m	>20	<b>4</b>	4	3
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
Soot %	%	*ASTM D7844	>3	<b>0.6</b>	0.8	0.4
Nitration	Abs/cm	*ASTM D7624	>20	<b>9.9</b>	9.6	6.4
Sulfation	Abs/.1mm	*ASTM D7415	>30	<b>21.9</b>	22.1	18.3
Silt	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Debris	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Appearance	scalar	*Visual	NORML	<b>NORML</b>	NORML	NORML
Odor	scalar	*Visual	NORML	<b>NORML</b>	NORML	NORML
Emulsified Water	scalar	*Visual	>0.2	<b>NEG</b>	NEG	NEG

## 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.

Sodium	ppm	ASTM D5185m		<b>1</b>	<1	2
Boron	ppm	ASTM D5185m	0	<b>6</b>	6	2
Barium	ppm	ASTM D5185m	0	<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185m	60	<b>60</b>	59	62
Manganese	ppm	ASTM D5185m	0	<b>1</b>	0	<1
Magnesium	ppm	ASTM D5185m	1010	<b>892</b>	921	1003
Calcium	ppm	ASTM D5185m	1070	<b>1001</b>	1128	1143
Phosphorus	ppm	ASTM D5185m	1150	<b>954</b>	943	1022
Zinc	ppm	ASTM D5185m	1270	<b>1186</b>	1288	1294
Sulfur	ppm	ASTM D5185m	2060	<b>2686</b>	2850	3363
Oxidation	Abs/.1mm	*ASTM D7414	>25	<b>17.9</b>	17.4	13.9
Base Number (BN)	mg KOH/g	ASTM D2896	9.8	<b>7.77</b>	8.33	8.19
Visc @ 100°C	cSt	ASTM D445	15.4	<b>14.0</b>	13.4	14.2



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : PCA0098331 **Received** : 09 Feb 2024  
**Lab Number** : 06085007 **Tested** : 12 Feb 2024  
**Unique Number** : 10872452 **Diagnosed** : 12 Feb 2024 - Wes Davis  
**Test Package** : MOB 2

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 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)