



WEAR	<b>NORMAL</b>
CONTAMINATION	<b>NORMAL</b>
FLUID CONDITION	<b>NORMAL</b>



Area  
**G.LOPES CONSTRUCTION INC./Off-Road**  
Machine Id  
**D676**  
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>PCA0122946</b>	PCA0071935	PCA0059499
Sample Date		Client Info		<b>12 Jun 2024</b>	02 Aug 2022	02 Nov 2021
Machine Age	hrs	Client Info		<b>12521</b>	12187	11506
Oil Age	hrs	Client Info		<b>11573</b>	11920	267
Filter Age	hrs	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	>100	<b>26</b>	31	15
Chromium	ppm	ASTM D5185m	>20	<b>1</b>	1	<1
Nickel	ppm	ASTM D5185m	>2	<b>&lt;1</b>	0	<1
Titanium	ppm	ASTM D5185m	>2	<b>&lt;1</b>	<1	<1
Silver	ppm	ASTM D5185m	>2	<b>0</b>	0	<1
Aluminum	ppm	ASTM D5185m	>25	<b>2</b>	2	1
Lead	ppm	ASTM D5185m	>40	<b>1</b>	4	3
Copper	ppm	ASTM D5185m	>330	<b>3</b>	4	2
Tin	ppm	ASTM D5185m	>15	<b>&lt;1</b>	<1	<1
Vanadium	ppm	ASTM D5185m		<b>0</b>	0	0
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.

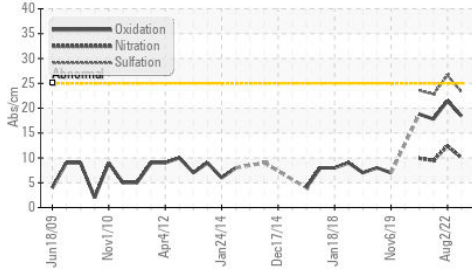
Silicon	ppm	ASTM D5185m	>25	<b>4</b>	3	3
Potassium	ppm	ASTM D5185m	>20	<b>2</b>	0	<1
Fuel		WC Method	>5	<b>&lt;1.0</b>	<1.0	<1.0
Water		WC Method	>0.2	<b>NEG</b>	NEG	NEG
Glycol		WC Method		<b>NEG</b>	NEG	NEG
Soot %	%	*ASTM D7844	>3	<b>0.6</b>	0.8	0.4
Nitration	Abs/cm	*ASTM D7624	>20	<b>10.0</b>	12.4	9.5
Sulfation	Abs/.1mm	*ASTM D7415	>30	<b>23.2</b>	26.6	22.8
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**

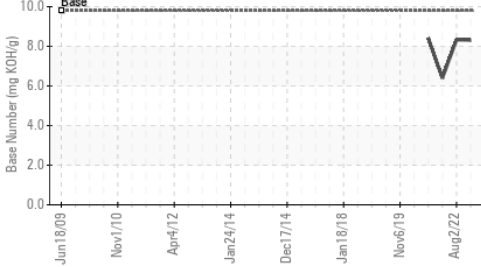
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

Sodium	ppm	ASTM D5185m		<b>3</b>	2	2
Boron	ppm	ASTM D5185m	0	<b>7</b>	10	15
Barium	ppm	ASTM D5185m	0	<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185m	60	<b>66</b>	67	61
Manganese	ppm	ASTM D5185m	0	<b>&lt;1</b>	<1	<1
Magnesium	ppm	ASTM D5185m	1010	<b>1001</b>	956	928
Calcium	ppm	ASTM D5185m	1070	<b>1407</b>	1510	1349
Phosphorus	ppm	ASTM D5185m	1150	<b>1142</b>	1154	1106
Zinc	ppm	ASTM D5185m	1270	<b>1412</b>	1415	1286
Sulfur	ppm	ASTM D5185m	2060	<b>3604</b>	4379	3241
Oxidation	Abs/.1mm	*ASTM D7414	>25	<b>18.4</b>	21.5	17.8
Base Number (BN)	mg KOH/g	ASTM D2896	9.8	<b>8.31</b>	8.33	6.40
Visc @ 100°C	cSt	ASTM D445	15.4	<b>12.8</b>	13.4	12.7

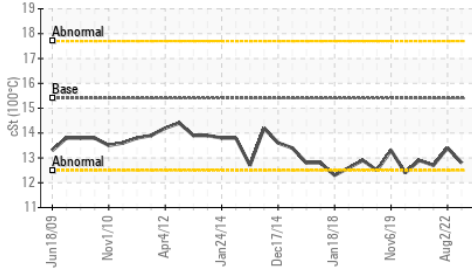
**FT-IR (Direct Trend)**



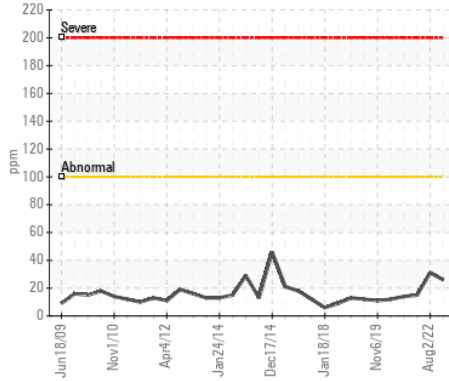
**Base Number**



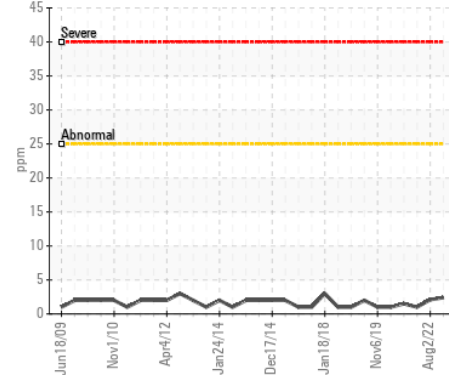
**Viscosity @ 100°C**



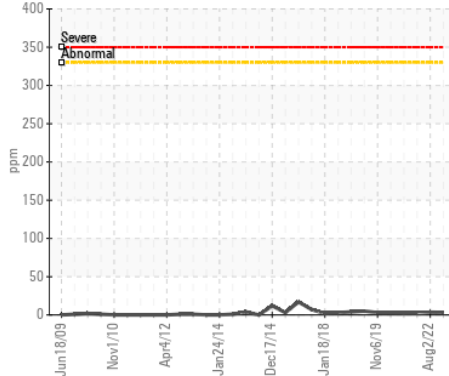
**Iron (ppm)**



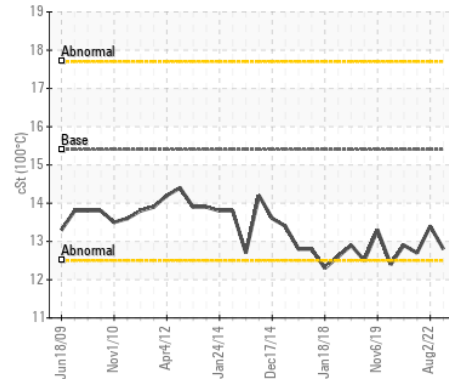
**Aluminum (ppm)**



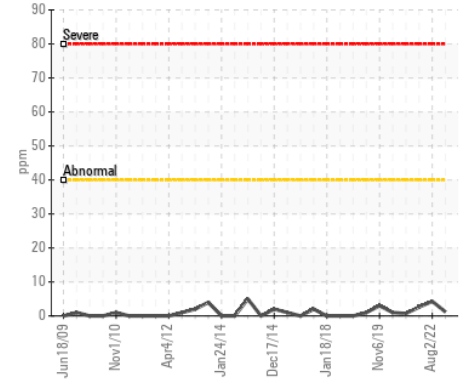
**Copper (ppm)**



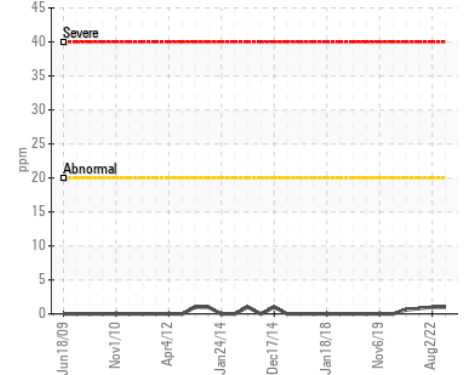
**Viscosity @ 100°C**



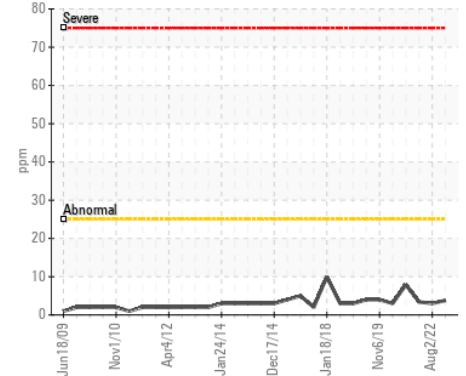
**Lead (ppm)**



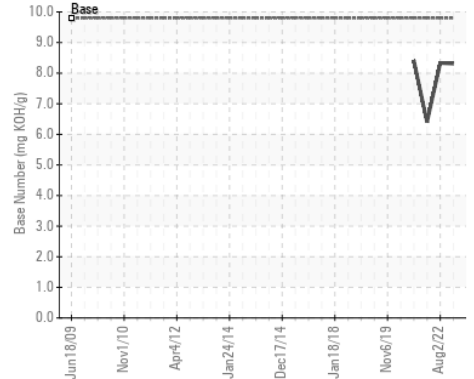
**Chromium (ppm)**



**Silicon (ppm)**



**Base Number**



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513

**Sample No.** : PCA0122946

**Lab Number** : 06210351

**Unique Number** : 11083215

**Test Package** : MOB 2

**Received** : 14 Jun 2024

**Tested** : 17 Jun 2024

**Diagnosed** : 17 Jun 2024 - Wes Davis

**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)