



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



Area  
**G.LOPES CONSTRUCTION INC./Off-Road**  
Machine Id  
**E60**  
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>PCA0122467</b>	PCA0109811	PCA0104748
Sample Date		Client Info		<b>02 Jul 2024</b>	07 Nov 2023	20 Sep 2023
Machine Age	hrs	Client Info		<b>12537</b>	12277	12200
Oil Age	hrs	Client Info		<b>10219</b>	10036	10298
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>8</b>	6	28
Chromium	ppm	ASTM D5185m	>20	<b>&lt;1</b>	<1	<1
Nickel	ppm	ASTM D5185m	>2	<b>&lt;1</b>	0	0
Titanium	ppm	ASTM D5185m	>2	<b>&lt;1</b>	<1	<1
Silver	ppm	ASTM D5185m	>2	<b>&lt;1</b>	0	0
Aluminum	ppm	ASTM D5185m	>25	<b>2</b>	<1	1
Lead	ppm	ASTM D5185m	>40	<b>&lt;1</b>	0	<1
Copper	ppm	ASTM D5185m	>330	<b>3</b>	1	3
Tin	ppm	ASTM D5185m	>15	<b>&lt;1</b>	0	<1
Vanadium	ppm	ASTM D5185m		<b>&lt;1</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.

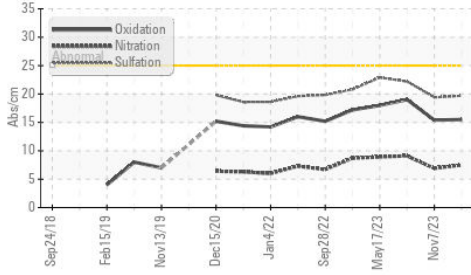
Silicon	ppm	ASTM D5185m	>25	<b>4</b>	4	9
Potassium	ppm	ASTM D5185m	>20	<b>2</b>	<1	2
Fuel		WC Method	>5	<b>&lt;1.0</b>	<1.0	<1.0
Water		WC Method	>0.2	<b>NEG</b>	NEG	NEG
Glycol		WC Method		<b>NEG</b>	NEG	NEG
Soot %	%	*ASTM D7844	>3	<b>0.3</b>	0.3	0.9
Nitration	Abs/cm	*ASTM D7624	>20	<b>7.5</b>	6.9	9.1
Sulfation	Abs/.1mm	*ASTM D7415	>30	<b>19.7</b>	19.4	22.2
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**

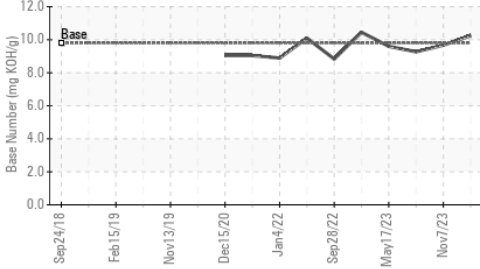
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

Sodium	ppm	ASTM D5185m		<b>0</b>	<1	3
Boron	ppm	ASTM D5185m	0	<b>29</b>	13	54
Barium	ppm	ASTM D5185m	0	<b>0</b>	2	0
Molybdenum	ppm	ASTM D5185m	60	<b>64</b>	59	67
Manganese	ppm	ASTM D5185m	0	<b>&lt;1</b>	<1	0
Magnesium	ppm	ASTM D5185m	1010	<b>928</b>	854	952
Calcium	ppm	ASTM D5185m	1070	<b>1157</b>	950	1299
Phosphorus	ppm	ASTM D5185m	1150	<b>998</b>	994	1036
Zinc	ppm	ASTM D5185m	1270	<b>1265</b>	1191	1364
Sulfur	ppm	ASTM D5185m	2060	<b>3093</b>	2820	3538
Oxidation	Abs/.1mm	*ASTM D7414	>25	<b>15.5</b>	15.4	19.0
Base Number (BN)	mg KOH/g	ASTM D2896	9.8	<b>10.24</b>	9.67	9.27
Visc @ 100°C	cSt	ASTM D445	15.4	<b>12.6</b>	12.8	13.0

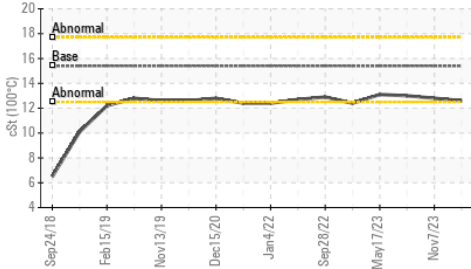
**FT-IR (Direct Trend)**



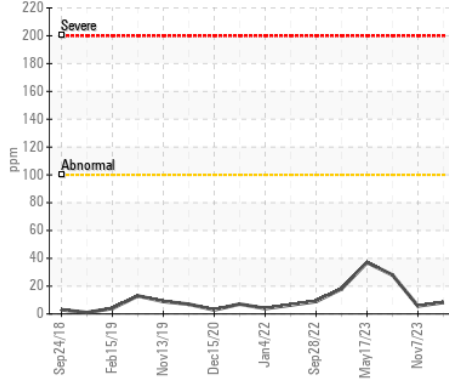
**Base Number**



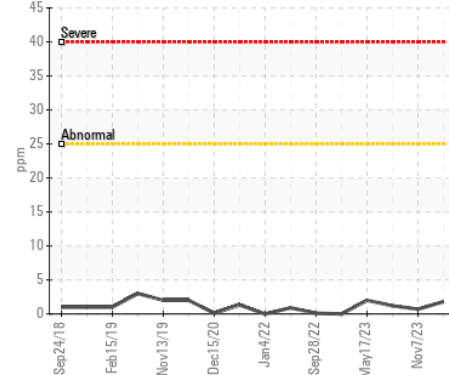
**Viscosity @ 100°C**



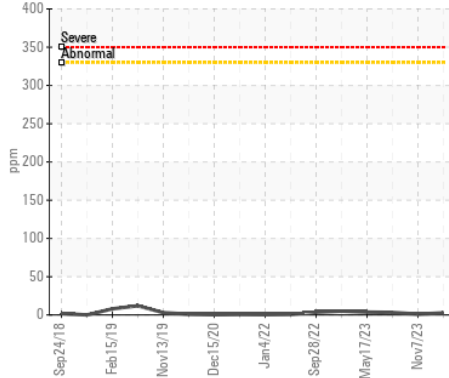
**Iron (ppm)**



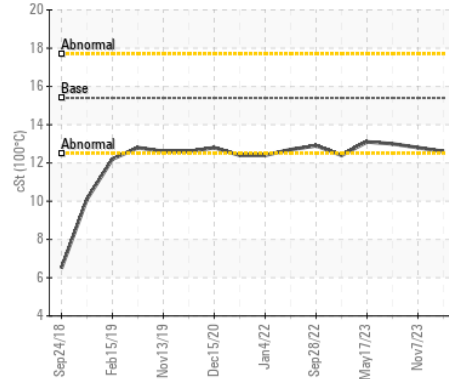
**Aluminum (ppm)**



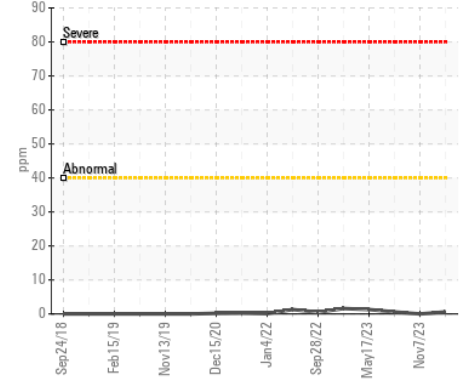
**Copper (ppm)**



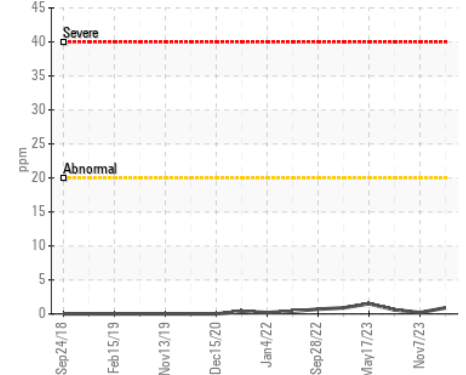
**Viscosity @ 100°C**



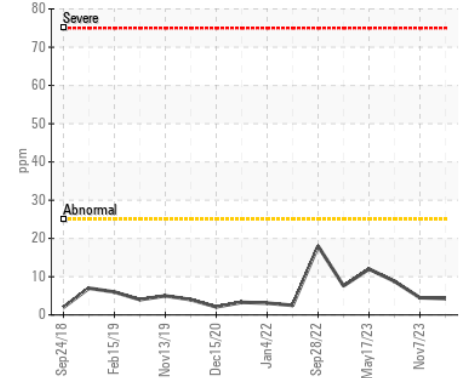
**Lead (ppm)**



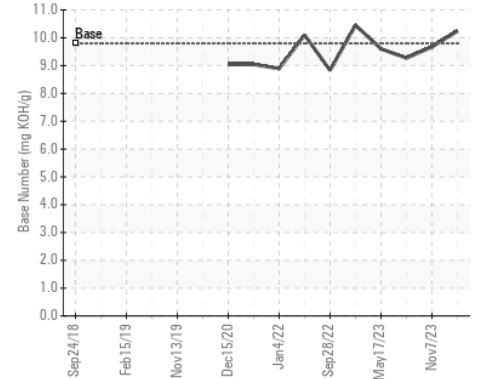
**Chromium (ppm)**



**Silicon (ppm)**



**Base Number**



Certificate L2367

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

**Sample No.** : PCA0122467

**Lab Number** : 06230394

**Unique Number** : 11113887

**Test Package** : MOB 2

**Received** : 08 Jul 2024

**Tested** : 09 Jul 2024

**Diagnosed** : 09 Jul 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)