

Area
G. LOPES CONSTRUCTION INC./ON-ROAD
Machine Id
PU248
Component
Diesel Engine
Fluid
PETRO CANADA DURON SHP 15W40 (--- GAL)

RECOMMENDATION

No corrective action is recommended at this time. Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		PCA0122627	PCA0109696	PCA0109770
Sample Date		Client Info		08 May 2024	19 Mar 2024	15 Nov 2023
Machine Age	hrs	Client Info		146000	144000	139155
Oil Age	hrs	Client Info		146000	144000	139155
Filter Age	hrs	Client Info		0	0	0
Oil Changed		Client Info		N/A	N/A	N/A
Filter Changed		Client Info		N/A	N/A	N/A
Sample Status				MARGINAL	ABNORMAL	SEVERE

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>100	16	29	23
Chromium	ppm	ASTM D5185m	>20	1	2	2
Nickel	ppm	ASTM D5185m	>4	0	0	0
Titanium	ppm	ASTM D5185m		<1	<1	<1
Silver	ppm	ASTM D5185m	>3	0	0	0
Aluminum	ppm	ASTM D5185m	>20	3	5	5
Lead	ppm	ASTM D5185m	>40	0	<1	0
Copper	ppm	ASTM D5185m	>330	1	3	2
Tin	ppm	ASTM D5185m	>15	0	<1	0
Vanadium	ppm	ASTM D5185m		0	0	0
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE

CONTAMINATION

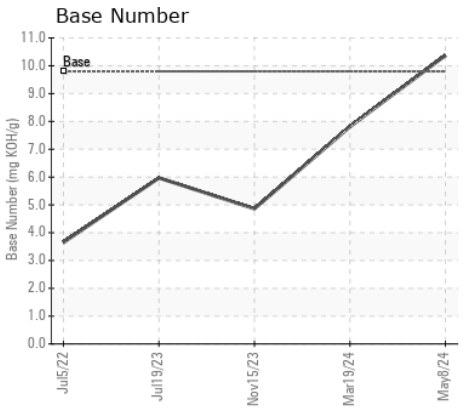
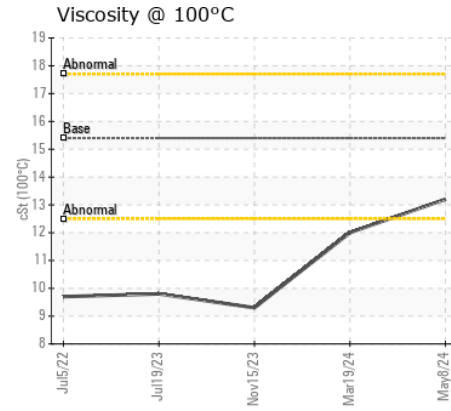
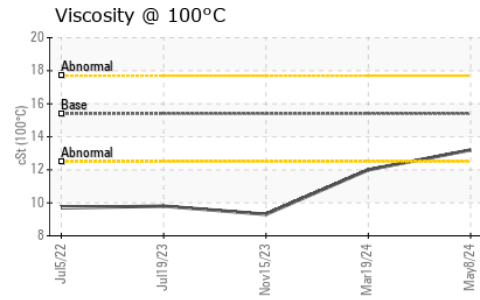
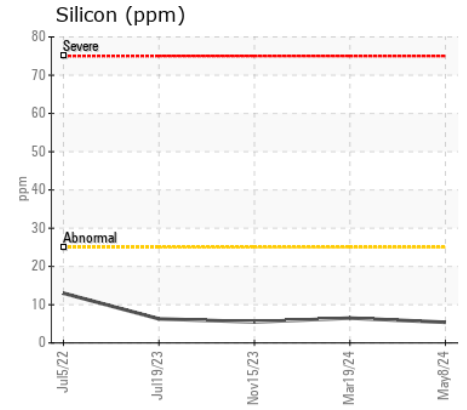
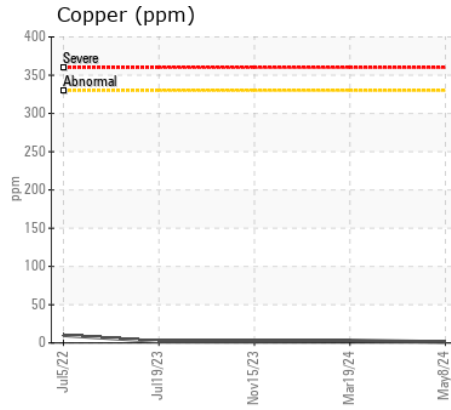
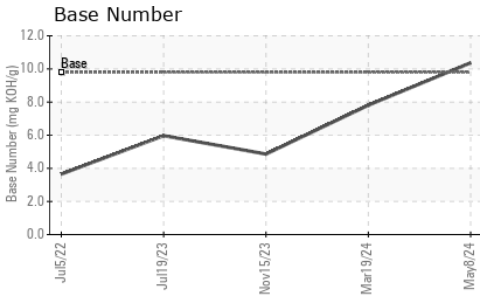
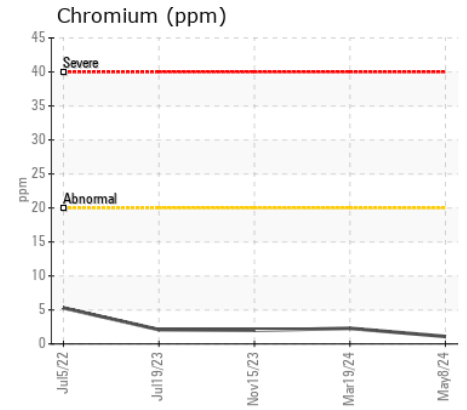
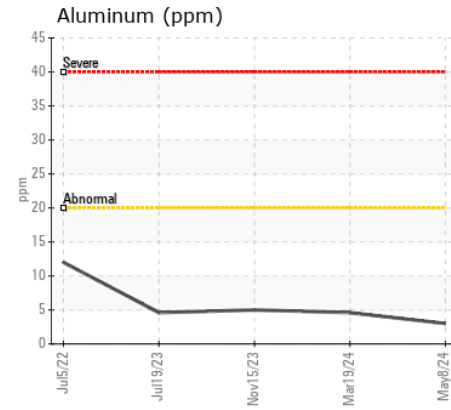
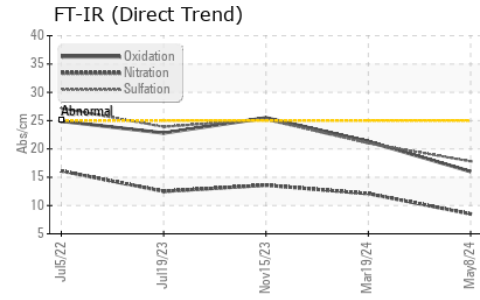
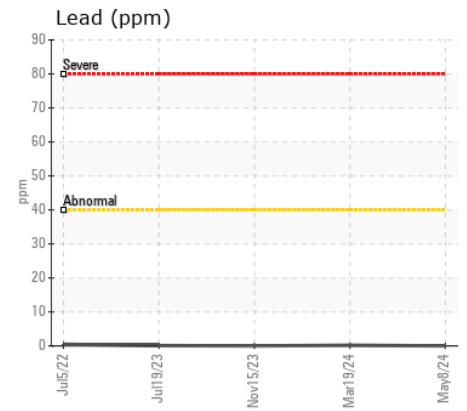
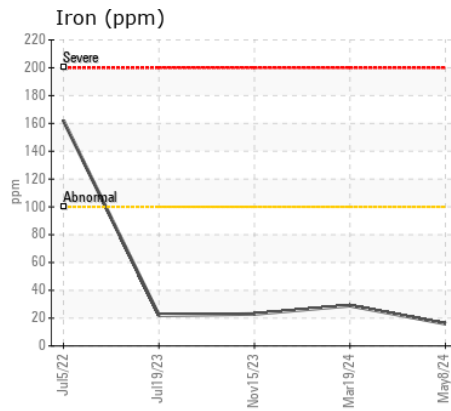
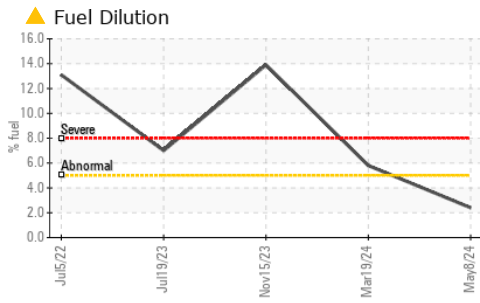
Light fuel dilution occurring.

Silicon	ppm	ASTM D5185m	>25	5	6	6
Potassium	ppm	ASTM D5185m	>20	<1	0	3
Fuel	%	ASTM D3524	>5	▲ 2.4	▲ 5.8	▲ 13.9
Water		WC Method	>0.2	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	NEG
Soot %	%	*ASTM D7844	>3	0.2	0.3	0.2
Nitration	Abs/cm	*ASTM D7624	>20	8.5	12.1	13.6
Sulfation	Abs/.1mm	*ASTM D7415	>30	17.8	21.0	25.2
Silt	scalar	*Visual	NONE	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE	NONE
Appearance	scalar	*Visual	NORML	NORML	NORML	NORML
Odor	scalar	*Visual	NORML	NORML	NORML	NORML
Emulsified Water	scalar	*Visual	>0.2	NEG	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		2	2	<1
Boron	ppm	ASTM D5185m	0	7	12	21
Barium	ppm	ASTM D5185m	0	<1	0	<1
Molybdenum	ppm	ASTM D5185m	60	61	66	77
Manganese	ppm	ASTM D5185m	0	<1	1	<1
Magnesium	ppm	ASTM D5185m	1010	993	815	32
Calcium	ppm	ASTM D5185m	1070	1188	1205	1797
Phosphorus	ppm	ASTM D5185m	1150	1108	1053	834
Zinc	ppm	ASTM D5185m	1270	1343	1203	998
Sulfur	ppm	ASTM D5185m	2060	3799	3302	3319
Oxidation	Abs/.1mm	*ASTM D7414	>25	16.0	21.3	25.5
Base Number (BN)	mg KOH/g	ASTM D2896	9.8	10.37	7.81	4.86
Visc @ 100°C	cSt	ASTM D445	15.4	13.2	▲ 12.0	▲ 9.3



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : PCA0122627 **Received** : 10 May 2024
Lab Number : 06175706 **Tested** : 16 May 2024
Unique Number : 11021759 **Diagnosed** : 16 May 2024 - Jonathan Hester
Test Package : MOB 2 (Additional Tests: PercentFuel)

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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