

Area
G. LOPES CONSTRUCTION INC./ON-ROAD
Machine Id
PU309
Component
Diesel Engine
Fluid
PETRO CANADA DURON SHP 15W40 (--- GAL)

RECOMMENDATION

We advise that you check the fuel injection system. We recommend an early resample to monitor this condition.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		PCA0109890	PCA0109851	PCA0109651
Sample Date		Client Info		10 Apr 2024	14 Feb 2024	09 Jan 2024
Machine Age	mls	Client Info		35700	32500	31852
Oil Age	mls	Client Info		8200	5648	10852
Filter Age	mls	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				SEVERE	ABNORMAL	ABNORMAL

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>100	9	8	14
Chromium	ppm	ASTM D5185m	>20	2	<1	2
Nickel	ppm	ASTM D5185m	>4	<1	0	2
Titanium	ppm	ASTM D5185m		<1	<1	0
Silver	ppm	ASTM D5185m	>3	0	0	<1
Aluminum	ppm	ASTM D5185m	>20	2	2	3
Lead	ppm	ASTM D5185m	>40	2	0	<1
Copper	ppm	ASTM D5185m	>330	1	1	2
Tin	ppm	ASTM D5185m	>15	1	0	0
Vanadium	ppm	ASTM D5185m		<1	0	<1
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE

CONTAMINATION

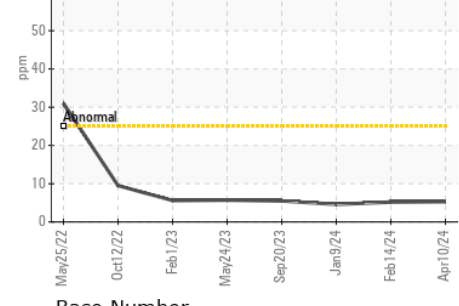
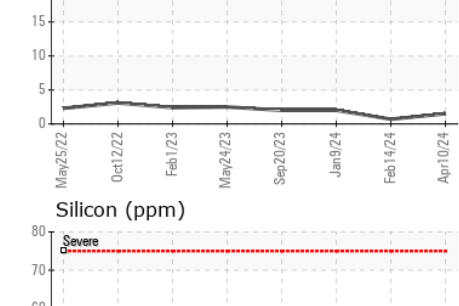
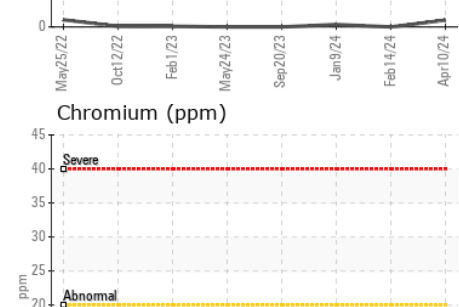
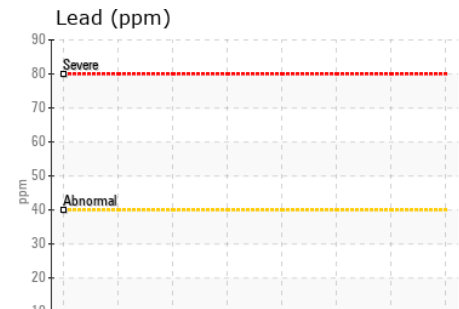
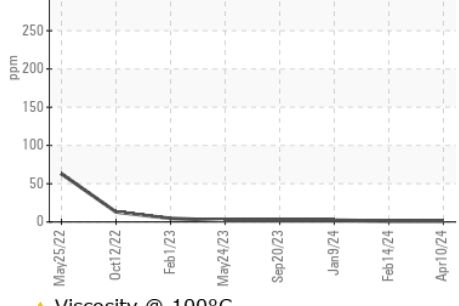
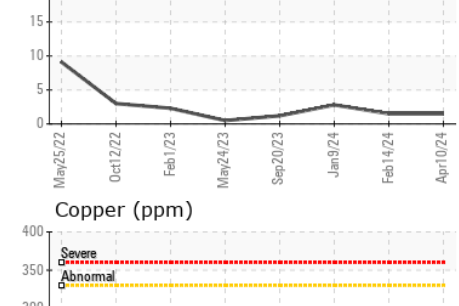
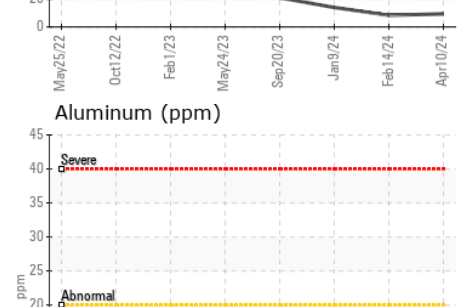
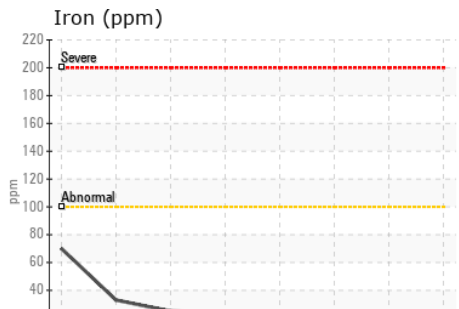
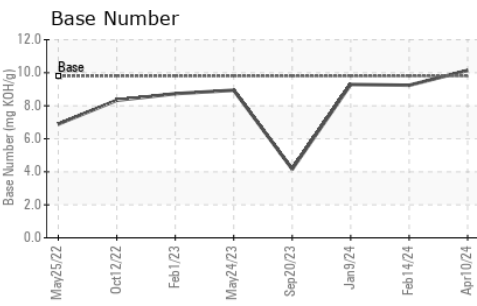
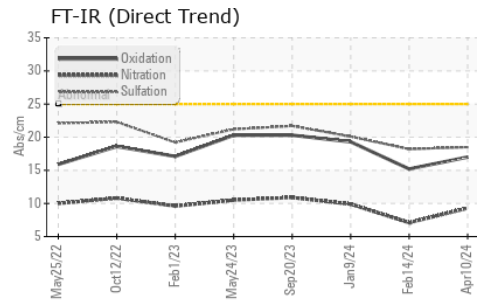
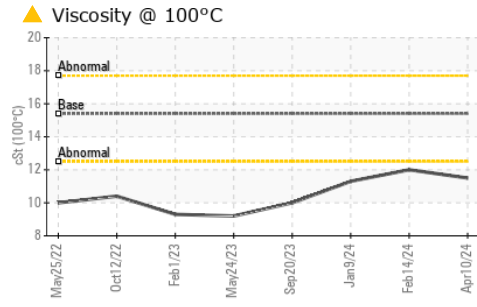
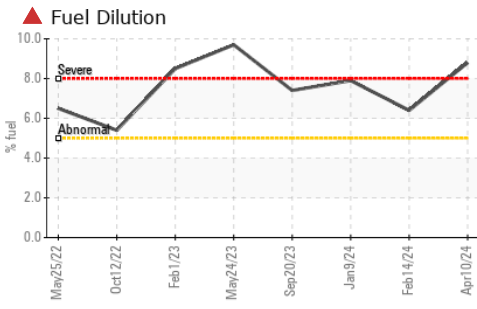
There is a high amount of fuel present in the oil.

Silicon	ppm	ASTM D5185m	>25	5	5	5
Potassium	ppm	ASTM D5185m	>20	2	2	0
Fuel	%	ASTM D3524	>5	▲ 8.8	▲ 6.4	▲ 7.9
Water		WC Method	>0.2	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	NEG
Soot %	%	*ASTM D7844	>3	0.2	0.2	0.3
Nitration	Abs/cm	*ASTM D7624	>20	9.3	7.1	9.9
Sulfation	Abs/.1mm	*ASTM D7415	>30	18.5	18.2	20.1
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

Fuel is present in the oil and is lowering the viscosity. The BN result indicates that there is suitable alkalinity remaining in the oil.

Sodium	ppm	ASTM D5185m		<1	0	0
Boron	ppm	ASTM D5185m	0	2	4	0
Barium	ppm	ASTM D5185m	0	0	10	0
Molybdenum	ppm	ASTM D5185m	60	55	57	54
Manganese	ppm	ASTM D5185m	0	<1	0	<1
Magnesium	ppm	ASTM D5185m	1010	939	882	881
Calcium	ppm	ASTM D5185m	1070	1125	1017	1005
Phosphorus	ppm	ASTM D5185m	1150	1095	1021	964
Zinc	ppm	ASTM D5185m	1270	1298	1154	1222
Sulfur	ppm	ASTM D5185m	2060	3656	3255	3070
Oxidation	Abs/.1mm	*ASTM D7414	>25	17.0	15.2	19.3
Base Number (BN)	mg KOH/g	ASTM D2896	9.8	10.14	9.24	9.29
Visc @ 100°C	cSt	ASTM D445	15.4	▲ 11.5	▲ 12.0	▲ 11.3



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : PCA0109890 **Received** : 12 Apr 2024
Lab Number : 06147560 **Tested** : 17 Apr 2024
Unique Number : 10977638 **Diagnosed** : 17 Apr 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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