

Area
G. LOPES CONSTRUCTION INC./On-Road
Machine Id
349
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		PCA0072165	PCA0109819	PCA0098352
Sample Date		Client Info		21 Feb 2024	24 Oct 2023	28 Jun 2023
Machine Age	hrs	Client Info		172000	152000	132000
Oil Age	hrs	Client Info		172000	152000	132000
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				NORMAL	NORMAL	NORMAL

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>100	22	23	21
Chromium	ppm	ASTM D5185m	>20	2	2	2
Nickel	ppm	ASTM D5185m	>4	<1	<1	<1
Titanium	ppm	ASTM D5185m		<1	<1	<1
Silver	ppm	ASTM D5185m	>3	<1	0	0
Aluminum	ppm	ASTM D5185m	>20	4	7	3
Lead	ppm	ASTM D5185m	>40	<1	<1	0
Copper	ppm	ASTM D5185m	>330	5	6	7
Tin	ppm	ASTM D5185m	>15	1	<1	<1
Vanadium	ppm	ASTM D5185m		<1	0	0
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE

CONTAMINATION

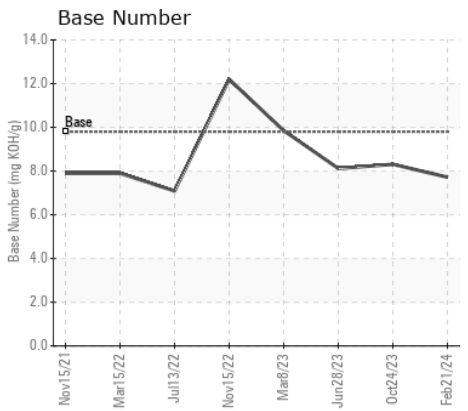
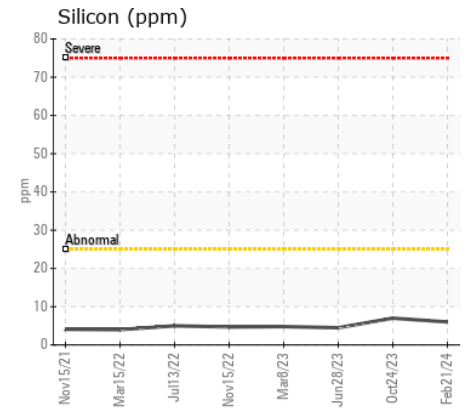
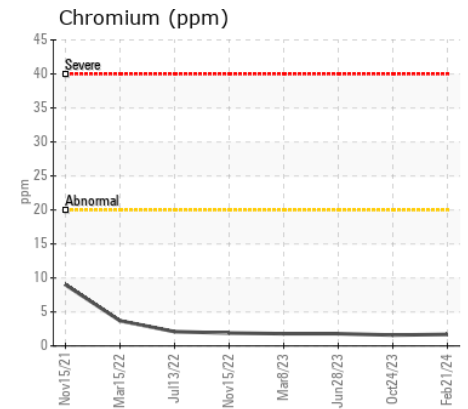
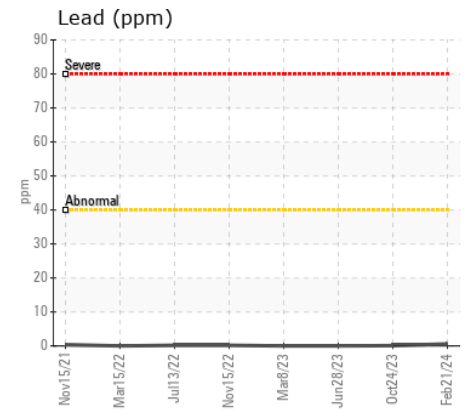
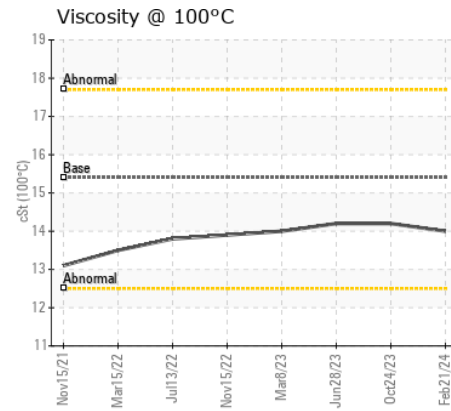
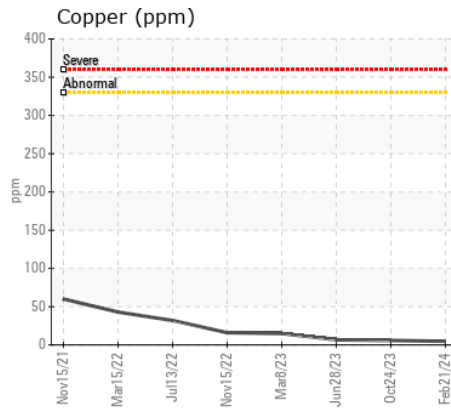
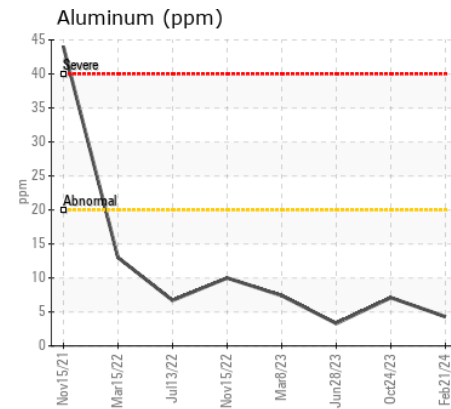
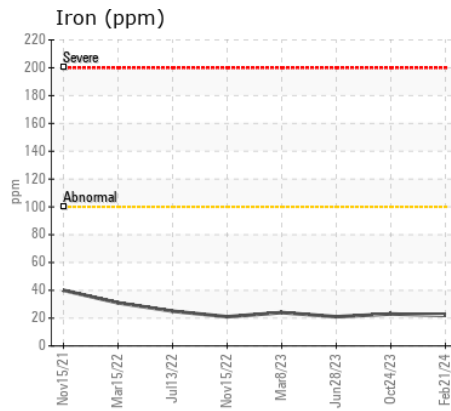
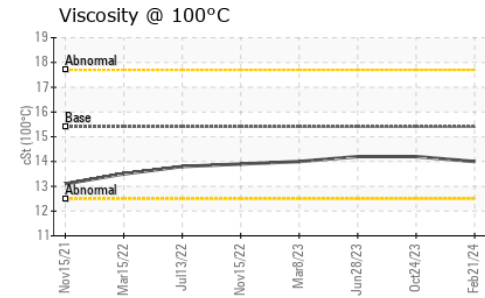
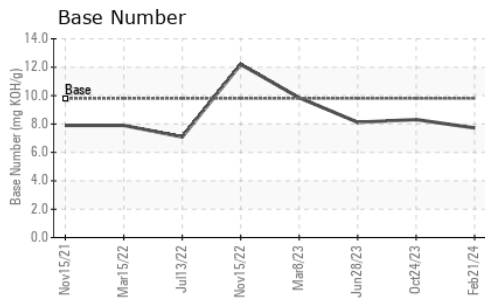
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>25	6	7	4
Potassium	ppm	ASTM D5185m	>20	8	13	4
Fuel		WC Method	>5	<1.0	<1.0	<1.0
Water		WC Method	>0.2	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	NEG
Soot %	%	*ASTM D7844	>3	0.6	0.8	0.6
Nitration	Abs/cm	*ASTM D7624	>20	10.6	10.4	10.3
Sulfation	Abs/.1mm	*ASTM D7415	>30	21.8	22.6	22.8
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		0	3	2
Boron	ppm	ASTM D5185m	0	7	3	3
Barium	ppm	ASTM D5185m	0	5	0	0
Molybdenum	ppm	ASTM D5185m	60	61	60	68
Manganese	ppm	ASTM D5185m	0	<1	<1	<1
Magnesium	ppm	ASTM D5185m	1010	883	953	1097
Calcium	ppm	ASTM D5185m	1070	1059	1076	1235
Phosphorus	ppm	ASTM D5185m	1150	912	966	1115
Zinc	ppm	ASTM D5185m	1270	1167	1236	1443
Sulfur	ppm	ASTM D5185m	2060	2919	2645	3602
Oxidation	Abs/.1mm	*ASTM D7414	>25	17.8	18.5	19.2
Base Number (BN)	mg KOH/g	ASTM D2896	9.8	7.72	8.31	8.12
Visc @ 100°C	cSt	ASTM D445	15.4	14.0	14.2	14.2



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : PCA0072165
Lab Number : 06099314
Unique Number : 10897544
Test Package : MOB 2

Received : 23 Feb 2024
Tested : 26 Feb 2024
Diagnosed : 26 Feb 2024 - Wes Davis

G LOPES CONSTRUCTION
 565 WINTHROP ST
 TAUNTON, MA
 US 02780
 Contact: BUTCH MCGRATH
 bmcgrath@glopes.com

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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F: