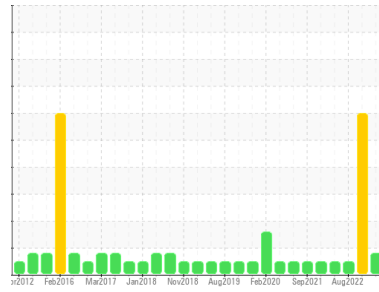


OIL ANALYSIS REPORT



Area
G.LOPES CONSTRUCTION INC./Off-Road
 Machine Id
E83
 Component
Diesel Engine
 Fluid
PETRO CANADA DURON SHP 15W40 (--- GAL)

Sample Rating Trend



WEAR



DIAGNOSIS

Recommendation

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

Wear

The aluminum level has decreased, but is still abnormal. All other component wear rates are normal.

Contamination

There is no indication of any contamination in the oil.

Fluid Condition

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

SAMPLE INFORMATION

	method	limit/base	current	history1	history2
Sample Number	Client Info		PCA0023324	PCA0109744	PCA0078142
Sample Date	Client Info		01 Apr 2024	16 Jan 2024	17 Aug 2022
Machine Age	hrs	Client Info	12761	11997	11997
Oil Age	hrs	Client Info	11098	10900	11050
Oil Changed	Client Info		N/A	N/A	N/A
Sample Status			ABNORMAL	SEVERE	NORMAL

CONTAMINATION

	method	limit/base	current	history1	history2
Fuel	WC Method	>5	<1.0	<1.0	<1.0
Water	WC Method	>0.2	NEG	NEG	NEG
Glycol	WC Method		NEG	NEG	NEG

WEAR METALS

	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m >100	27	74	20
Chromium	ppm	ASTM D5185m >20	1	4	<1
Nickel	ppm	ASTM D5185m >2	0	0	0
Titanium	ppm	ASTM D5185m >2	0	<1	<1
Silver	ppm	ASTM D5185m >2	0	0	0
Aluminum	ppm	ASTM D5185m >25	▲ 39	▲ 97	21
Lead	ppm	ASTM D5185m >40	0	0	0
Copper	ppm	ASTM D5185m >330	2	9	3
Tin	ppm	ASTM D5185m >15	0	0	<1
Vanadium	ppm	ASTM D5185m	0	<1	0
Cadmium	ppm	ASTM D5185m	0	0	0

ADDITIVES

	method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m 0	4	9	6
Barium	ppm	ASTM D5185m 0	0	0	0
Molybdenum	ppm	ASTM D5185m 60	60	61	63
Manganese	ppm	ASTM D5185m 0	<1	1	<1
Magnesium	ppm	ASTM D5185m 1010	1010	1008	845
Calcium	ppm	ASTM D5185m 1070	1157	1090	1031
Phosphorus	ppm	ASTM D5185m 1150	1086	1064	952
Zinc	ppm	ASTM D5185m 1270	1276	1285	1108
Sulfur	ppm	ASTM D5185m 2060	3919	3214	2793

CONTAMINANTS

	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m >25	5	8	4
Sodium	ppm	ASTM D5185m	<1	2	43
Potassium	ppm	ASTM D5185m >20	1	6	28

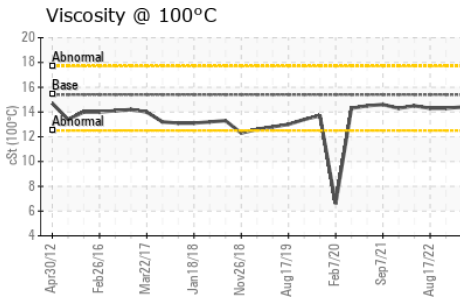
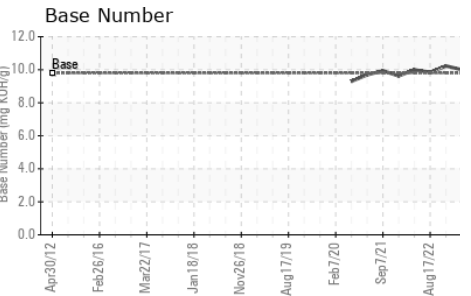
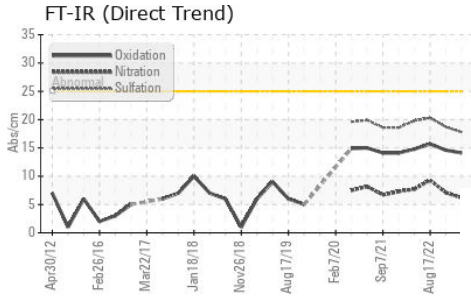
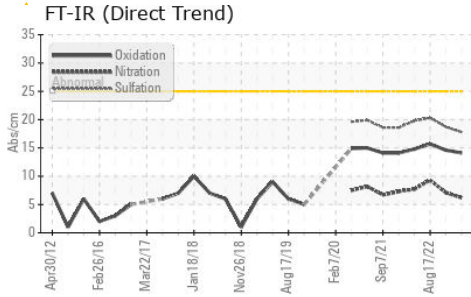
INFRA-RED

	method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844 >3	0.2	0.5	0.6
Nitration	Abs/cm	*ASTM D7624 >20	6.2	7.1	9.3
Sulfation	Abs/.1mm	*ASTM D7415 >30	17.8	18.7	20.3

FLUID DEGRADATION

	method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	*ASTM D7414 >25	14.1	14.6	15.7
Base Number (BN)	mg KOH/g	ASTM D2896 9.8	10.00	10.23	9.83

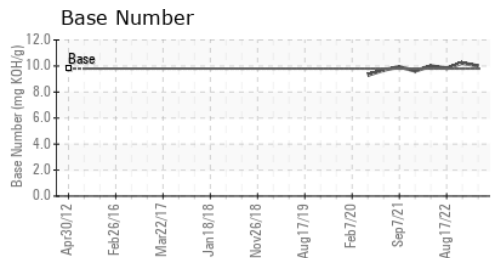
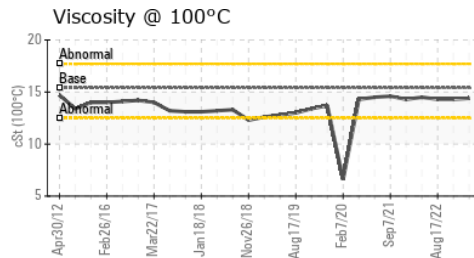
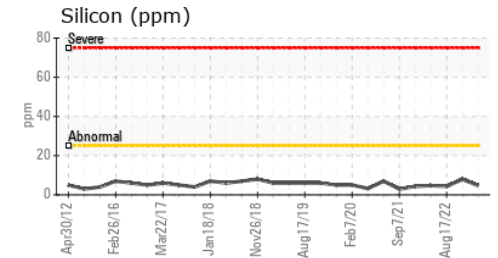
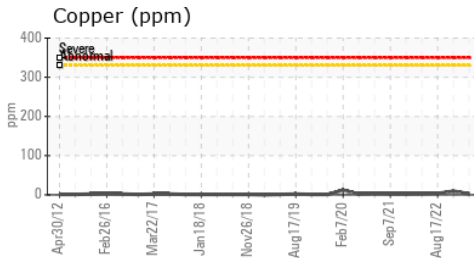
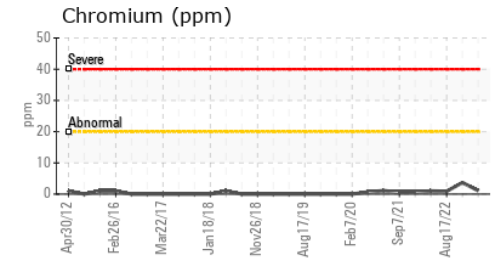
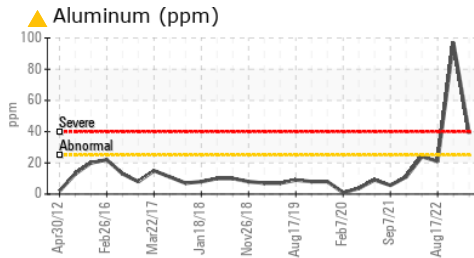
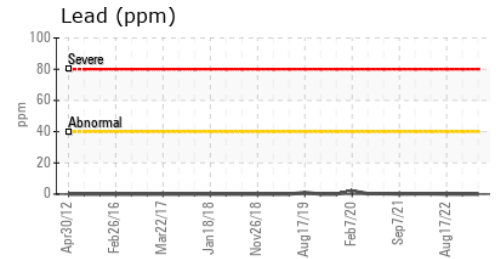
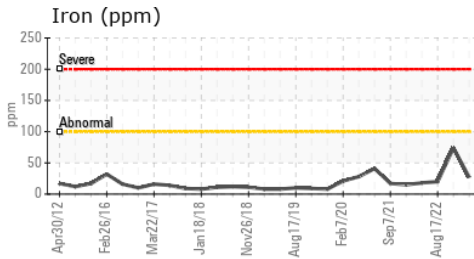
OIL ANALYSIS REPORT



PARAMETER	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE
Appearance	scalar	*Visual	NORML	NORML	NORML
Odor	scalar	*Visual	NORML	NORML	NORML
Emulsified Water	scalar	*Visual	>0.2	NEG	NEG
Free Water	scalar	*Visual		NEG	NEG

FLUID PROPERTIES	method	limit/base	current	history1	history2	
Visc @ 100°C	cSt	ASTM D445	15.4	14.4	14.3	14.3

GRAPHS



Certificate L2367

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

Sample No. : PCA0023324

Lab Number : 06137619

Unique Number : 10957084

Test Package : MOB 2

Received : 03 Apr 2024

Tested : 04 Apr 2024

Diagnosed : 05 Apr 2024 - Sean Felton

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)