



LEAHY-WOLF
Lubricating specialists since 1946

OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL



Machine Id
MACK 4014 ASL
Component
Diesel Engine
Fluid
PETRO CANADA DURON HP 15W40 (--- GAL)

RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		LW0009035	LW0009034	LW0006671
Sample Date		Client Info		24 Jun 2024	14 Mar 2024	10 Oct 2023
Machine Age	hrs	Client Info		0	0	0
Oil Age	hrs	Client Info		0	0	0
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	>120	11	14	10
Chromium	ppm	ASTM D5185m	>20	<1	<1	<1
Nickel	ppm	ASTM D5185m	>5	<1	<1	<1
Titanium	ppm	ASTM D5185m	>2	<1	<1	0
Silver	ppm	ASTM D5185m	>2	0	0	0
Aluminum	ppm	ASTM D5185m	>20	4	3	0
Lead	ppm	ASTM D5185m	>40	<1	<1	<1
Copper	ppm	ASTM D5185m	>330	1	2	1
Tin	ppm	ASTM D5185m	>15	<1	1	<1
Vanadium	ppm	ASTM D5185m		<1	<1	0
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE

CONTAMINATION

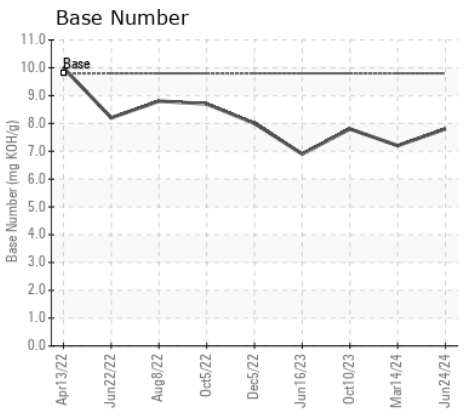
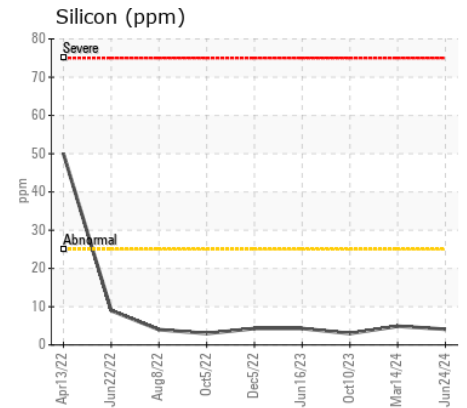
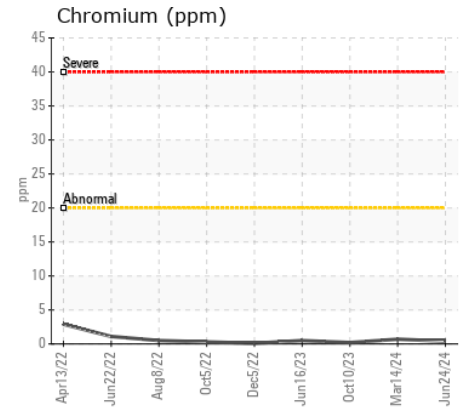
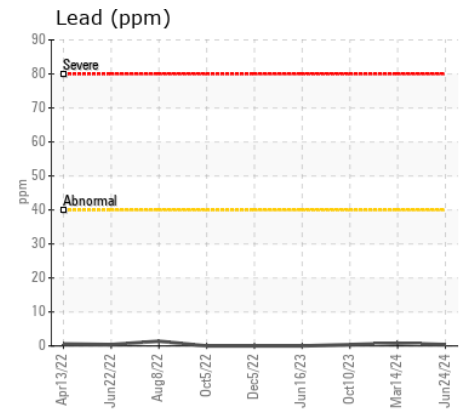
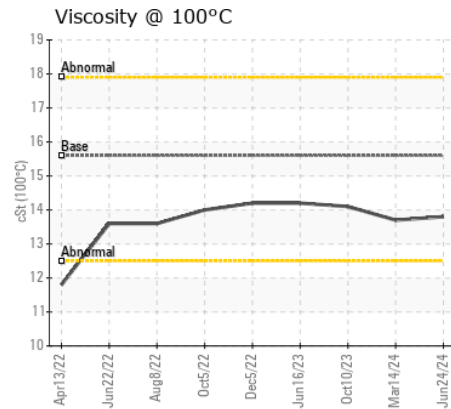
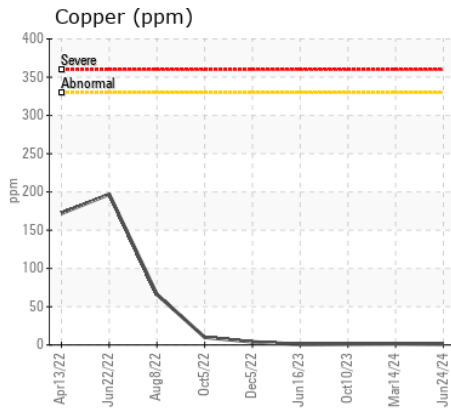
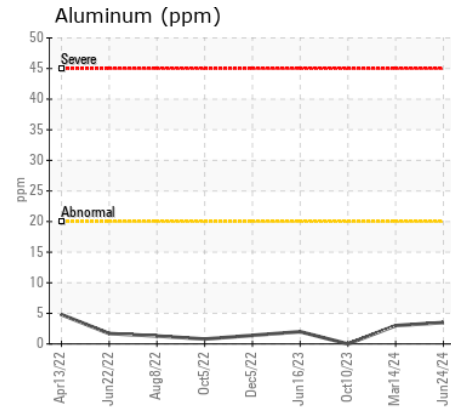
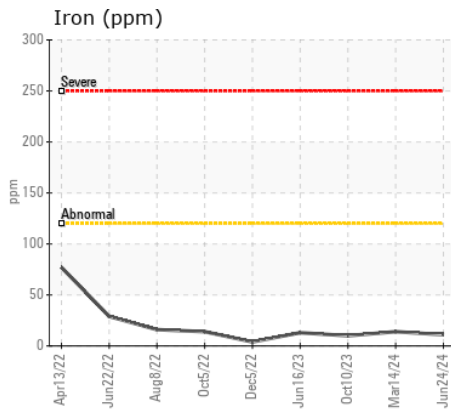
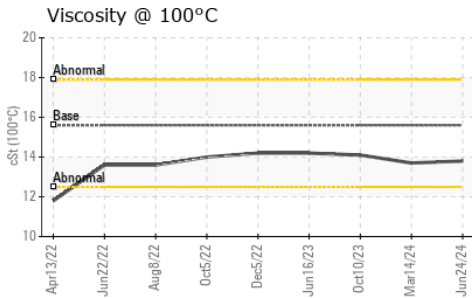
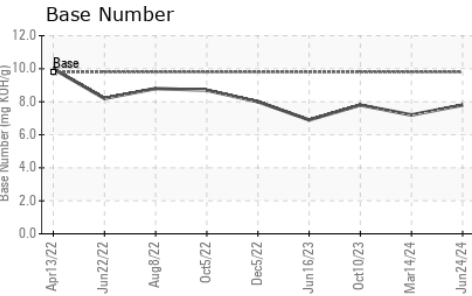
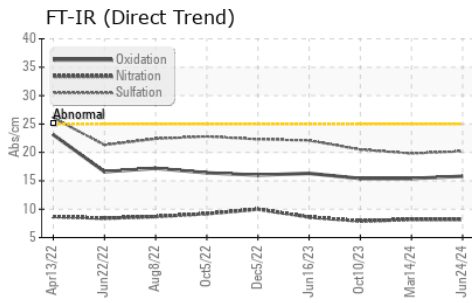
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>25	4	5	3
Potassium	ppm	ASTM D5185m	>20	2	2	2
Fuel		WC Method	>3.0	<1.0	<1.0	<1.0
Water		WC Method	>0.2	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	NEG
Soot %	%	*ASTM D7844	>4	0.6	0.7	0.7
Nitration	Abs/cm	*ASTM D7624	>20	8.2	8.2	7.9
Sulfation	Abs/.1mm	*ASTM D7415	>30	20.2	19.8	20.5
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		8	4	<1
Boron	ppm	ASTM D5185m		1	3	5
Barium	ppm	ASTM D5185m		0	0	2
Molybdenum	ppm	ASTM D5185m		61	64	56
Manganese	ppm	ASTM D5185m		<1	<1	<1
Magnesium	ppm	ASTM D5185m		1048	1040	878
Calcium	ppm	ASTM D5185m		1106	1204	1073
Phosphorus	ppm	ASTM D5185m		1049	1210	949
Zinc	ppm	ASTM D5185m		1369	1369	1201
Sulfur	ppm	ASTM D5185m		3119	3352	2914
Oxidation	Abs/.1mm	*ASTM D7414	>25	15.8	15.4	15.4
Base Number (BN)	mg KOH/g	ASTM D2896	9.8	7.8	7.2	7.8
Visc @ 100°C	cSt	ASTM D445	15.6	13.8	13.7	14.1



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : LW0009035 **Received** : 27 Jun 2024
Lab Number : 06222000 **Tested** : 27 Jun 2024
Unique Number : 11100197 **Diagnosed** : 27 Jun 2024 - Wes Davis
Test Package : MOB 1 (Additional Tests: TBN)

LRs - NILES
 33541 REUM RD
 NILES, MI
 US 49120

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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