



OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	ABNORMAL

GLENN LEROY MARTIN-TLD-GLENN TRANSPORT

NAVISTAR 3019287

Diesel Engine

DIESEL ENGINE OIL SAE 15W40 (--- GAL)

RECOMMENDATION

Oil and filter change at the time of sampling has been noted. Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		NL0001763	NL0001994	NL0000881
Sample Date		Client Info		23 May 2024	29 Jan 2024	11 Jan 2023
Machine Age	mls	Client Info		424051	375723	237846
Oil Age	mls	Client Info		53857	61055	39789
Filter Age	mls	Client Info		53857	61055	39789
Oil Changed		Client Info		Changed	Changed	Changed
Filter Changed		Client Info		Changed	Changed	Changed
Sample Status				ABNORMAL	ABNORMAL	NORMAL

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>100	58	51	44
Chromium	ppm	ASTM D5185m	>20	2	2	2
Nickel	ppm	ASTM D5185m	>4	<1	0	0
Titanium	ppm	ASTM D5185m		0	0	0
Silver	ppm	ASTM D5185m	>3	<1	0	0
Aluminum	ppm	ASTM D5185m	>20	9	6	5
Lead	ppm	ASTM D5185m	>40	9	9	4
Copper	ppm	ASTM D5185m	>330	1	<1	<1
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

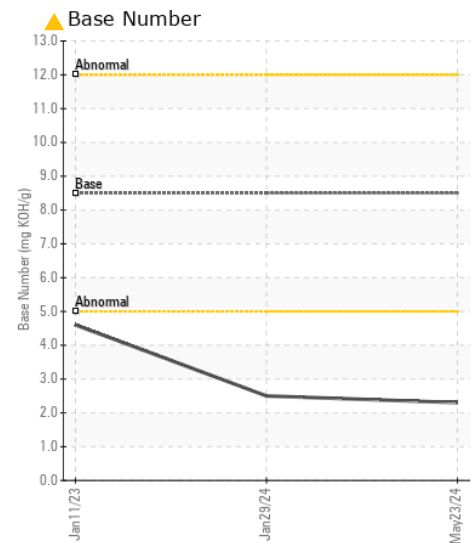
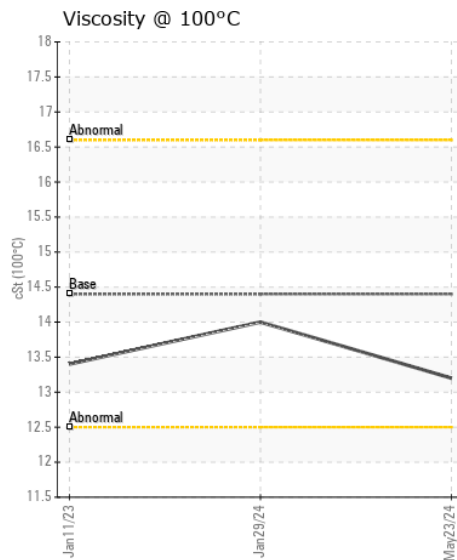
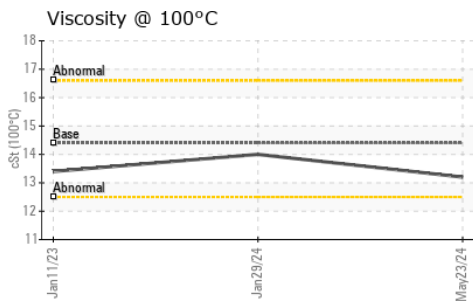
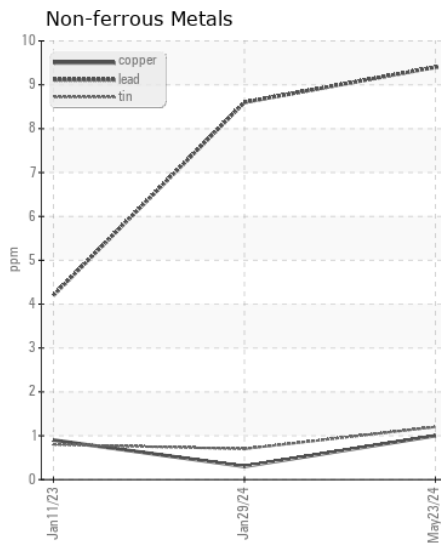
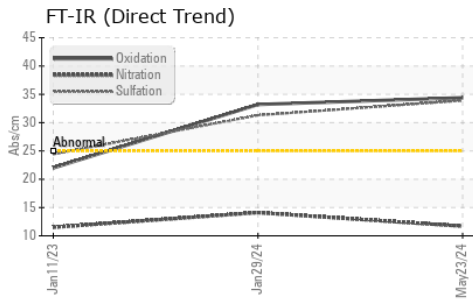
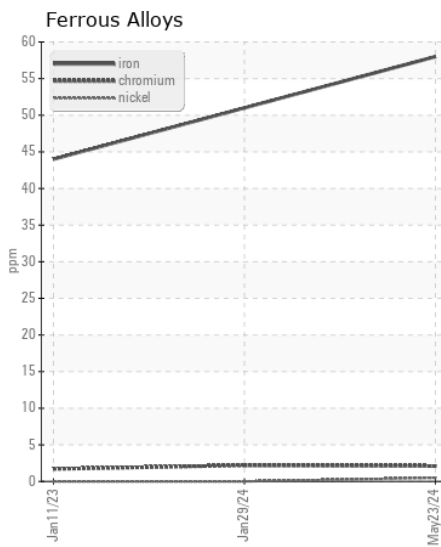
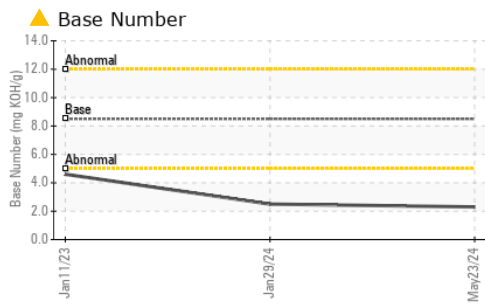
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>25	11	10	7
Potassium	ppm	ASTM D5185m	>20	12	1	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	0.8	0.9	0.5
Nitration	Abs/cm	*ASTM D7624	>20	11.7	14.1	11.5
Sulfation	Abs/.1mm	*ASTM D7415	>30	33.9	31.3	24.4
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 level is low. The condition of the oil is acceptable for the time in service.

Sodium	ppm	ASTM D5185m	>158	4	2	1
Boron	ppm	ASTM D5185m	250	35	19	3
Barium	ppm	ASTM D5185m	10	0	0	0
Molybdenum	ppm	ASTM D5185m	100	78	69	67
Manganese	ppm	ASTM D5185m		1	<1	<1
Magnesium	ppm	ASTM D5185m	450	524	923	952
Calcium	ppm	ASTM D5185m	3000	1359	1069	1113
Phosphorus	ppm	ASTM D5185m	1150	1041	1062	940
Zinc	ppm	ASTM D5185m	1350	1298	1300	1263
Sulfur	ppm	ASTM D5185m	4250	3117	2568	3033
Oxidation	Abs/.1mm	*ASTM D7414	>25	34.4	33.2	22.0
Base Number (BN)	mg KOH/g	ASTM D2896	8.5	▲ 2.3	▲ 2.5	4.6
Visc @ 100°C	cSt	ASTM D445	14.4	13.2	14.0	13.4



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : NL0001763
Lab Number : 06193391
Unique Number : 11050143
Test Package : FLEET

Received : 28 May 2024
Tested : 30 May 2024
Diagnosed : 30 May 2024 - Sean Felton

KIRK NATIONALEASE - SHOP 81 RM
 3885 W MICHIGAN AVE
 SIDNEY, OH
 US 45365
 Contact: SARAH BLEININGER
 sarah_bleininger@knl.cc

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)

T: (937)498-9920