



WEAR	NORMAL
CONTAMINATION	MARGINAL
FLUID CONDITION	NORMAL

Machine Id
4481L
 Component
Diesel Engine
 Fluid
DIESEL ENGINE OIL SAE 15W40 (--- QTS)

RECOMMENDATION

No corrective action is recommended at this time. Resample at the next service interval to monitor. Please specify the component make and model with your next sample. Please specify the brand, type, and viscosity of the oil on your next sample.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		IL06175099	IL0034338	IL0032500
Sample Date		Client Info		12 Apr 2024	23 Jan 2024	05 Oct 2023
Machine Age	mls	Client Info		0	243126	226492
Oil Age	mls	Client Info		15000	15000	15000
Filter Age	mls	Client Info		0	15000	15000
Oil Changed		Client Info		N/A	Changed	Changed
Filter Changed		Client Info		N/A	Changed	Changed
Sample Status				MARGINAL	NORMAL	NORMAL

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>100	23	41	41
Chromium	ppm	ASTM D5185m	>20	<1	<1	<1
Nickel	ppm	ASTM D5185m	>4	0	<1	<1
Titanium	ppm	ASTM D5185m		0	0	0
Silver	ppm	ASTM D5185m	>3	0	0	<1
Aluminum	ppm	ASTM D5185m	>20	3	7	4
Lead	ppm	ASTM D5185m	>40	0	0	0
Copper	ppm	ASTM D5185m	>330	<1	2	2
Tin	ppm	ASTM D5185m	>15	0	<1	0
Vanadium	ppm	ASTM D5185m		0	0	0
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE

CONTAMINATION

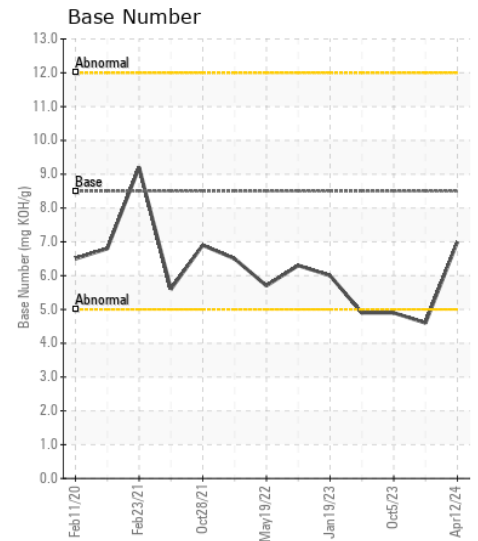
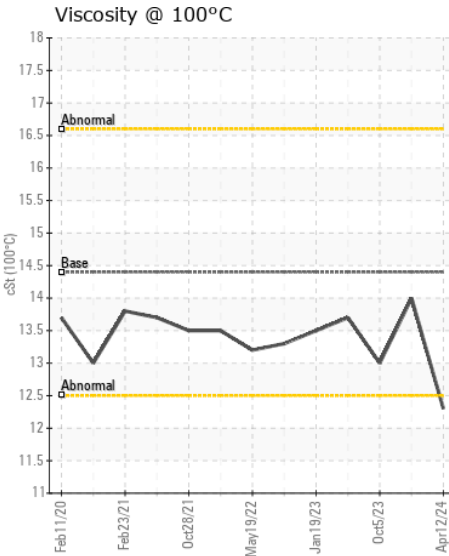
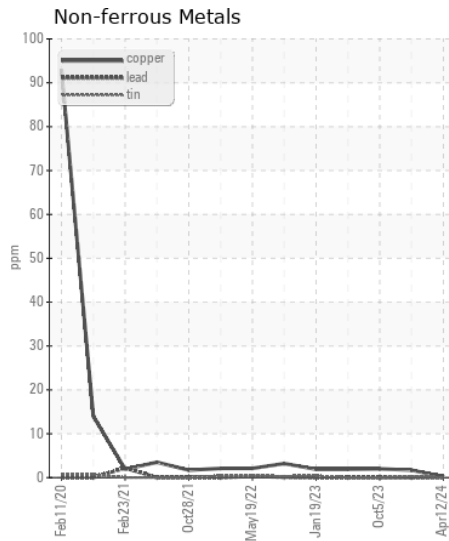
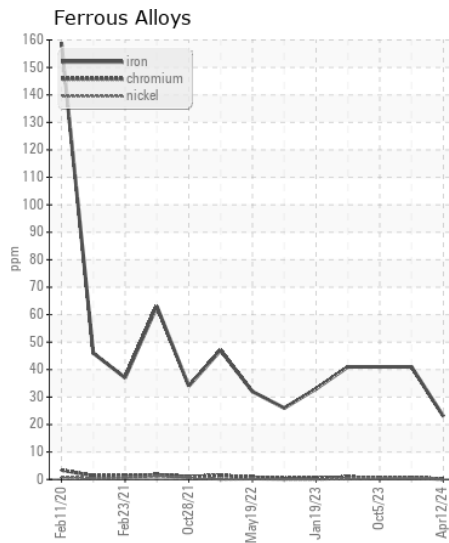
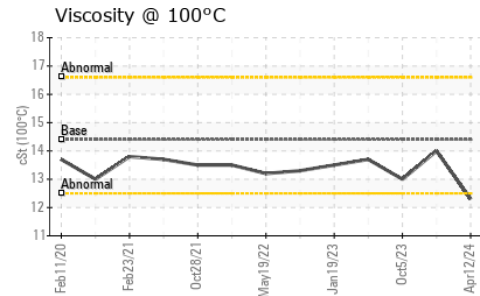
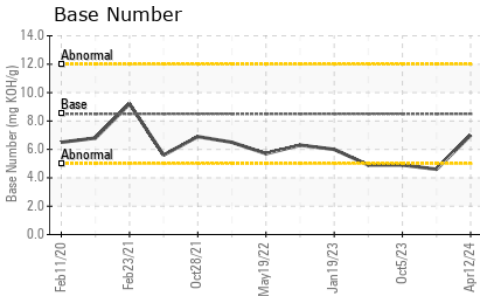
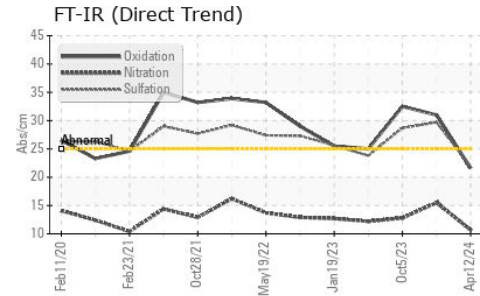
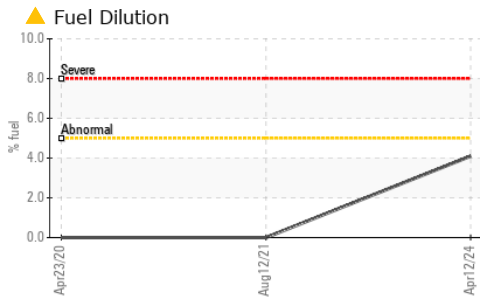
Light fuel dilution occurring. No other contaminants were detected in the oil.

Silicon	ppm	ASTM D5185m	>25	3	7	5
Potassium	ppm	ASTM D5185m	>20	4	4	5
Fuel	%	ASTM D3524	>5	▲ 4.1	<1.0	<1.0
Water		WC Method	>0.2	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	NEG
Soot %	%	*ASTM D7844	>3	0.3	1	0.6
Nitration	Abs/cm	*ASTM D7624	>20	10.7	15.5	12.8
Sulfation	Abs/.1mm	*ASTM D7415	>30	21.9	29.7	28.7
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	>158	1	1	0
Boron	ppm	ASTM D5185m	250	0	2	0
Barium	ppm	ASTM D5185m	10	0	0	4
Molybdenum	ppm	ASTM D5185m	100	65	64	66
Manganese	ppm	ASTM D5185m		<1	<1	<1
Magnesium	ppm	ASTM D5185m	450	1029	1043	946
Calcium	ppm	ASTM D5185m	3000	1170	1133	1113
Phosphorus	ppm	ASTM D5185m	1150	1083	1125	904
Zinc	ppm	ASTM D5185m	1350	1307	1423	1256
Sulfur	ppm	ASTM D5185m	4250	3495	3266	3275
Oxidation	Abs/.1mm	*ASTM D7414	>25	21.6	31.0	32.5
Base Number (BN)	mg KOH/g	ASTM D2896	8.5	7.0	4.6	4.9
Visc @ 100°C	cSt	ASTM D445	14.4	12.3	14.0	13.0



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : IL06175099 **Received** : 10 May 2024
Lab Number : 06175099 **Tested** : 15 May 2024
Unique Number : 11021152 **Diagnosed** : 15 May 2024 - Wes Davis
Test Package : FLEET (Additional Tests: FUELDILUTION, PercentFuel)

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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)