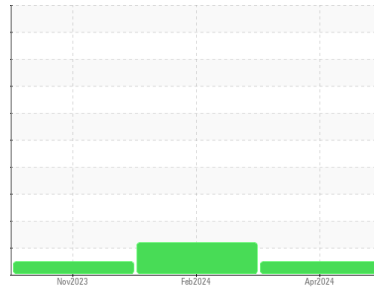


OIL ANALYSIS REPORT

Sample Rating Trend



NORMAL



Machine Id
MH-87
 Component
Diesel Engine
 Fluid
DIESEL ENGINE OIL SAE 15W40 (--- GAL)

DIAGNOSIS

Recommendation

The oil change at the time of sampling has been noted. Resample at the next service interval to monitor. No other corrective action is recommended at this time.

Wear

All component wear rates are normal.

Contamination

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

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.

SAMPLE INFORMATION		method	limit/base	current	history1	history2
Sample Number	Client Info			PCA0120885	PCA0113826	PCA0103220
Sample Date	Client Info			11 Apr 2024	12 Feb 2024	20 Nov 2023
Machine Age	hrs	Client Info		3964	3476	9666
Oil Age	hrs	Client Info		0	250	500
Oil Changed	Client Info			Changed	N/A	N/A
Sample Status				NORMAL	ABNORMAL	NORMAL

CONTAMINATION		method	limit/base	current	history1	history2
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	7	15	2
Chromium	ppm	ASTM D5185m	>20	1	<1	0
Nickel	ppm	ASTM D5185m	>4	1	0	0
Titanium	ppm	ASTM D5185m		<1	<1	0
Silver	ppm	ASTM D5185m	>3	<1	0	0
Aluminum	ppm	ASTM D5185m	>20	2	2	2
Lead	ppm	ASTM D5185m	>40	1	0	0
Copper	ppm	ASTM D5185m	>330	2	<1	<1
Tin	ppm	ASTM D5185m	>15	1	0	<1
Vanadium	ppm	ASTM D5185m		<1	0	0
Cadmium	ppm	ASTM D5185m		<1	0	0

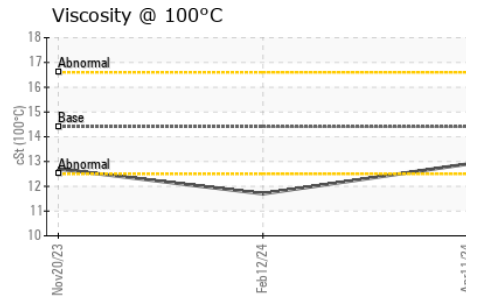
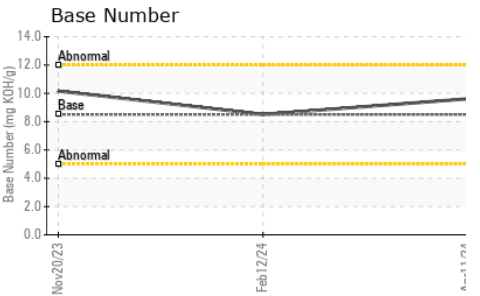
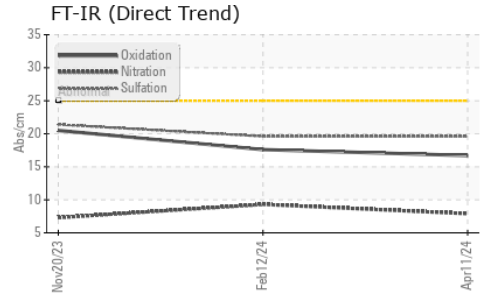
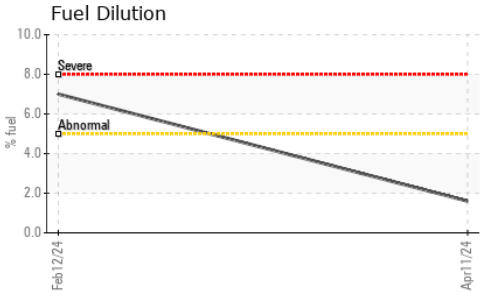
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	250	2	4	4
Barium	ppm	ASTM D5185m	10	<1	0	0
Molybdenum	ppm	ASTM D5185m	100	59	52	54
Manganese	ppm	ASTM D5185m		1	<1	<1
Magnesium	ppm	ASTM D5185m	450	930	885	867
Calcium	ppm	ASTM D5185m	3000	1083	1027	993
Phosphorus	ppm	ASTM D5185m	1150	1060	980	993
Zinc	ppm	ASTM D5185m	1350	1243	1197	1207
Sulfur	ppm	ASTM D5185m	4250	3475	2936	3009

CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>25	4	6	2
Sodium	ppm	ASTM D5185m	>158	<1	1	2
Potassium	ppm	ASTM D5185m	>20	4	2	3
Fuel	%	ASTM D3524	>5	1.6	▲ 7.0	<1.0

INFRA-RED		method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844	>3	0.1	0.2	0.1
Nitration	Abs/cm	*ASTM D7624	>20	7.9	9.3	7.3
Sulfation	Abs/.1mm	*ASTM D7415	>30	19.6	19.6	21.4

FLUID DEGRADATION		method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	*ASTM D7414	>25	16.7	17.6	20.5
Base Number (BN)	mg KOH/g	ASTM D2896	8.5	9.61	8.51	10.16

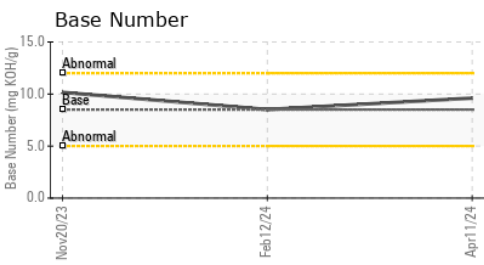
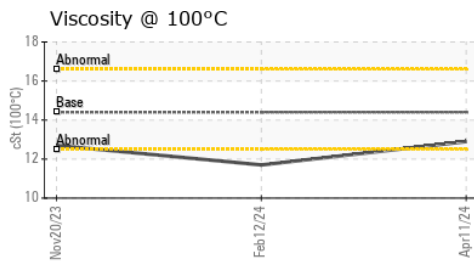
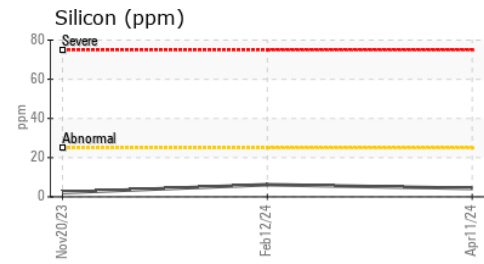
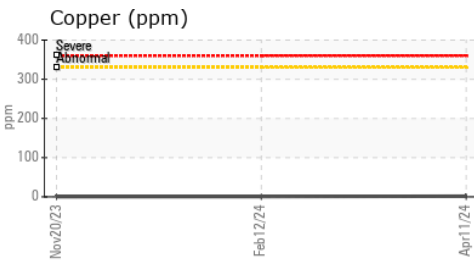
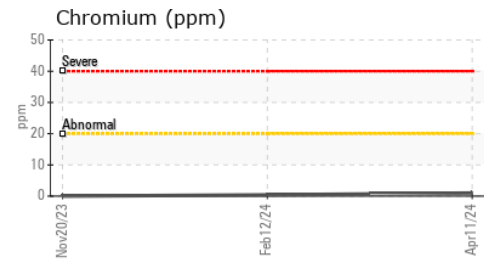
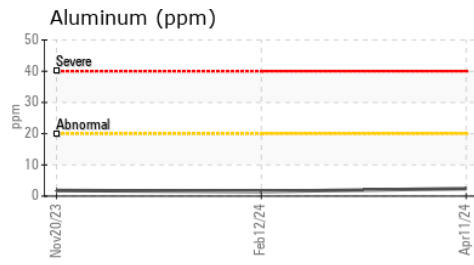
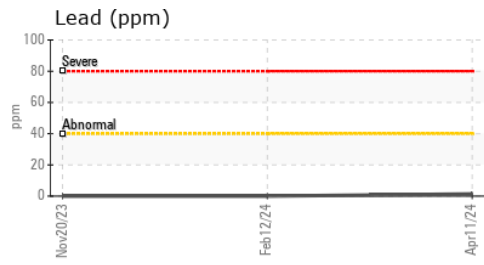
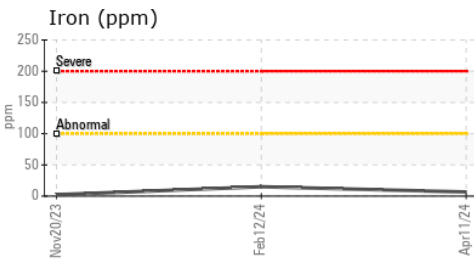
OIL ANALYSIS REPORT



VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	LIGHT	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	14.4	12.9	▲ 11.7

GRAPHS



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : PCA0120885 **Received** : 24 Apr 2024
Lab Number : 06159854 **Tested** : 29 Apr 2024
Unique Number : 10995277 **Diagnosed** : 29 Apr 2024 - Wes Davis
Test Package : MOB 2 (Additional Tests: PercentFuel)

SCRAP METAL SERVICES NON-FERROUS DIVISION
 3000 W 139TH ST
 BLUE ISLAND, IL
 US 60406

To discuss this sample report, contact Customer Service at 1-800-237-1369.

Contact: SERGIO FERNANDEZ
 sfernandez@scrapmetalservices.com

* - 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:
F: