



OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Machine Id
HAMM 3412 HAMM 3412 #1 (S/N H1800470)
 Component
Diesel Engine
 Fluid
MOBIL DELVAC SUPER 1400 15W40 (--- GAL)

RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		TLY0002573	TLY0001266	---
Sample Date		Client Info		01 Jul 2024	16 Sep 2022	---
Machine Age	hrs	Client Info		4329	3972	---
Oil Age	hrs	Client Info		3972	500	---
Filter Age	hrs	Client Info		3972	500	---
Oil Changed		Client Info		Changed	Changed	---
Filter Changed		Client Info		Changed	Changed	---
Sample Status				NORMAL	NORMAL	---

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>100	42	57	---
Chromium	ppm	ASTM D5185m	>20	4	4	---
Nickel	ppm	ASTM D5185m	>4	0	<1	---
Titanium	ppm	ASTM D5185m		<1	<1	---
Silver	ppm	ASTM D5185m	>3	0	0	---
Aluminum	ppm	ASTM D5185m	>20	5	8	---
Lead	ppm	ASTM D5185m	>40	2	5	---
Copper	ppm	ASTM D5185m	>330	3	3	---
Tin	ppm	ASTM D5185m	>15	<1	1	---
Vanadium	ppm	ASTM D5185m		0	0	---
White Metal	scalar	*Visual	NONE	NONE	NONE	---
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	---

CONTAMINATION

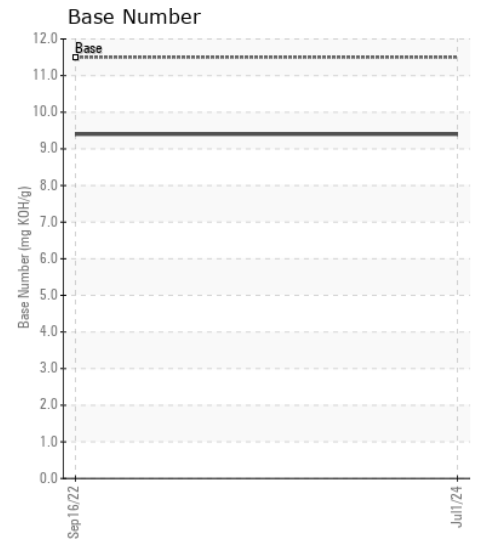
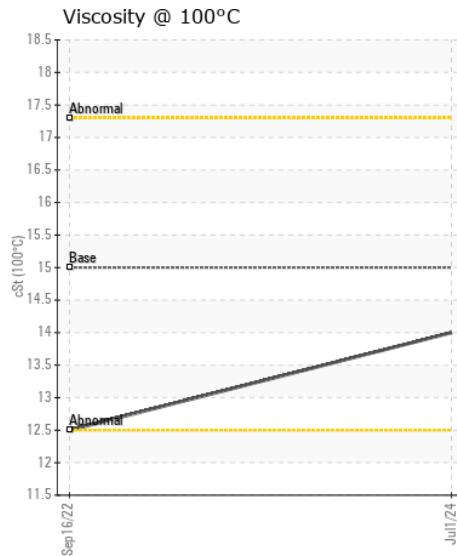
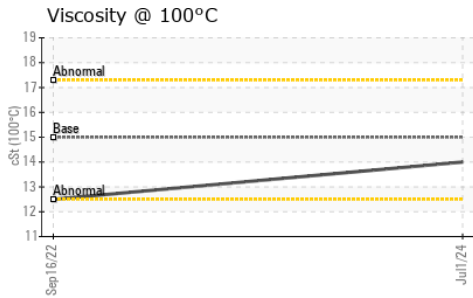
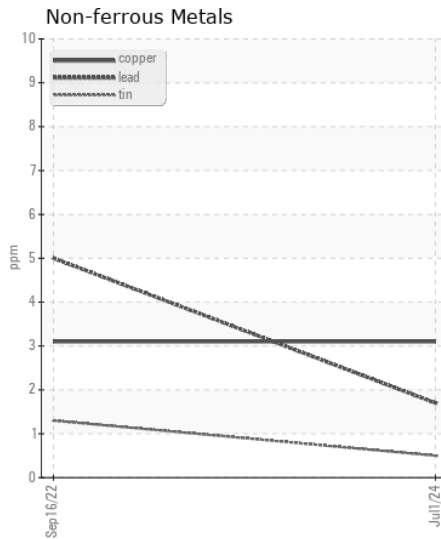
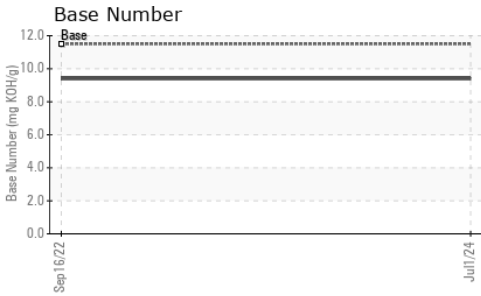
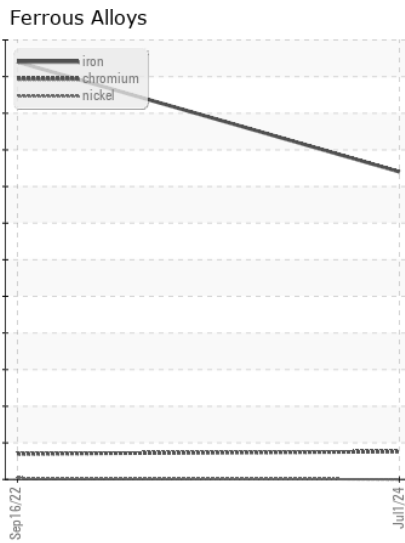
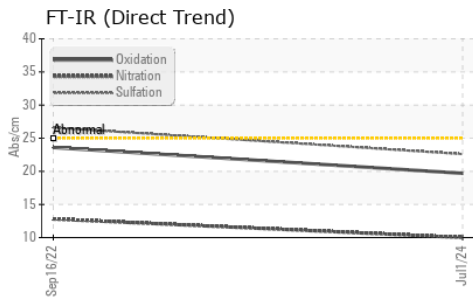
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>25	16	14	---
Potassium	ppm	ASTM D5185m	>20	<1	2	---
Fuel		WC Method	>5	<1.0	<1.0	---
Water		WC Method	>0.2	NEG	NEG	---
Glycol		WC Method		NEG	NEG	---
Soot %	%	*ASTM D7844	>3	1	1.8	---
Nitration	Abs/cm	*ASTM D7624	>20	10.0	12.8	---
Sulfation	Abs/.1mm	*ASTM D7415	>30	22.6	26.6	---
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	---

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		3	5	---
Boron	ppm	ASTM D5185m		39	41	---
Barium	ppm	ASTM D5185m		0	0	---
Molybdenum	ppm	ASTM D5185m		57	62	---
Manganese	ppm	ASTM D5185m		<1	<1	---
Magnesium	ppm	ASTM D5185m		784	596	---
Calcium	ppm	ASTM D5185m		1781	1876	---
Phosphorus	ppm	ASTM D5185m		953	802	---
Zinc	ppm	ASTM D5185m		1185	1045	---
Sulfur	ppm	ASTM D5185m		3279	3139	---
Oxidation	Abs/.1mm	*ASTM D7414	>25	19.7	23.6	---
Base Number (BN)	mg KOH/g	ASTM D2896	11.5	9.4	9.4	---
Visc @ 100°C	cSt	ASTM D445	15.0	14.0	12.5	---



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : TLY0002573 **Received** : 05 Jul 2024
Lab Number : 06229396 **Tested** : 09 Jul 2024
Unique Number : 11112889 **Diagnosed** : 09 Jul 2024 - Wes Davis
Test Package : CONST (Additional Tests: TBN)

GAINES & COMPANY
 112 WESTMINSTER RD
 REISTERSTOWN, MD
 US 21136

Contact: LANCE TANCRAITOR
 ltancraitor@gainesandco.com
 T: (410)833-9833

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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