



WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Area

[W64342]

Machine Id

Hyundai (S/N HHKHK701HE0000378)

Component

Rear Diesel Engine

Fluid

DIESEL ENGINE OIL SAE 15W40 (6 GAL)

RECOMMENDATION

Resample at the next service interval to monitor. (Customer Sample Comment: W64342)

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		JR0203454	---	---
Sample Date		Client Info		13 Feb 2024	---	---
Machine Age	hrs	Client Info		3515	---	---
Oil Age	hrs	Client Info		3515	---	---
Filter Age	hrs	Client Info		0	---	---
Oil Changed		Client Info		Changed	---	---
Filter Changed		Client Info		Changed	---	---
Sample Status				NORMAL	---	---

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>100	50	---	---
Chromium	ppm	ASTM D5185m	>20	1	---	---
Nickel	ppm	ASTM D5185m	>4	<1	---	---
Titanium	ppm	ASTM D5185m		1	---	---
Silver	ppm	ASTM D5185m	>3	0	---	---
Aluminum	ppm	ASTM D5185m	>20	4	---	---
Lead	ppm	ASTM D5185m	>40	0	---	---
Copper	ppm	ASTM D5185m	>330	4	---	---
Tin	ppm	ASTM D5185m	>15	<1	---	---
Vanadium	ppm	ASTM D5185m		0	---	---
White Metal	scalar	*Visual	NONE	NONE	---	---
Yellow Metal	scalar	*Visual	NONE	NONE	---	---

CONTAMINATION

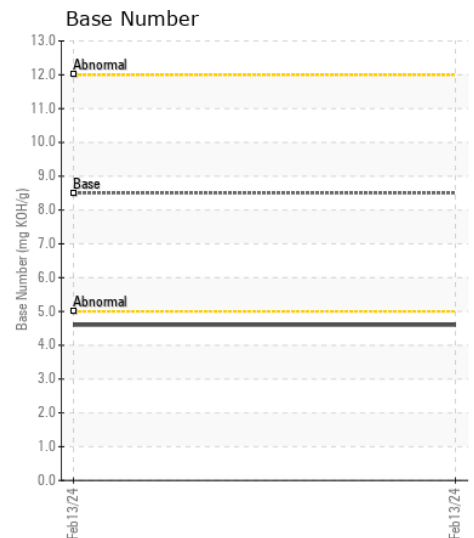
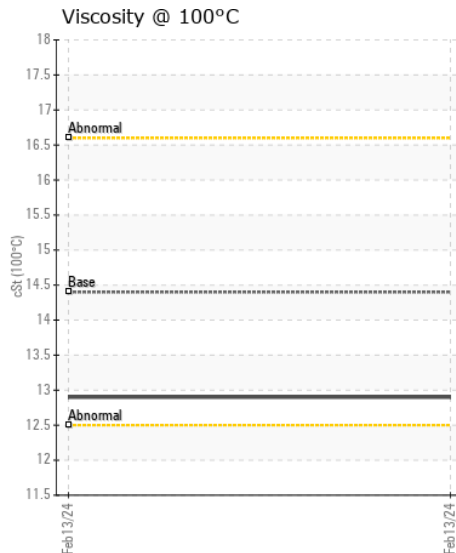
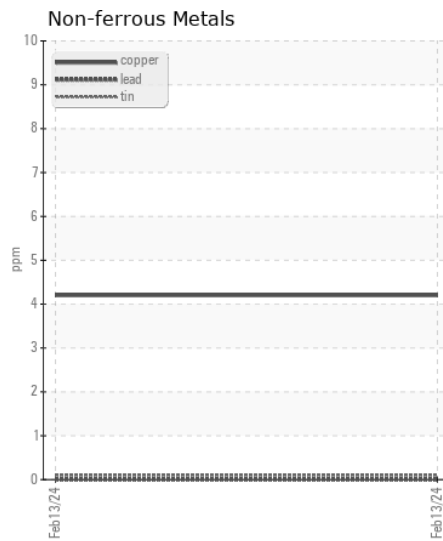
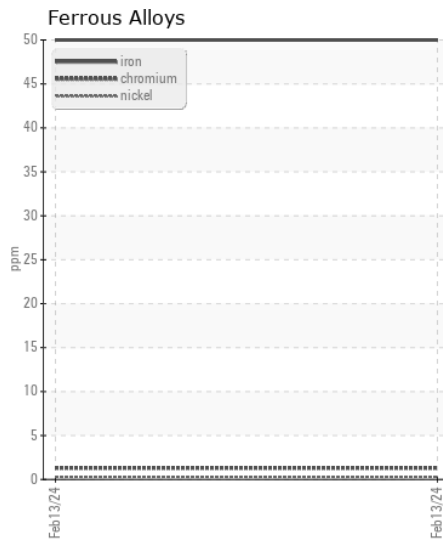
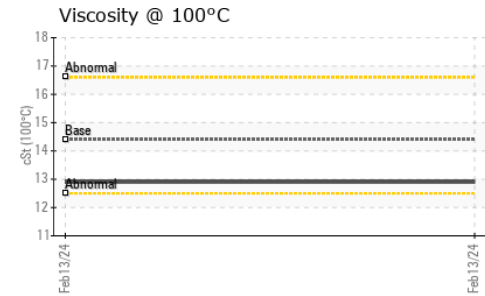
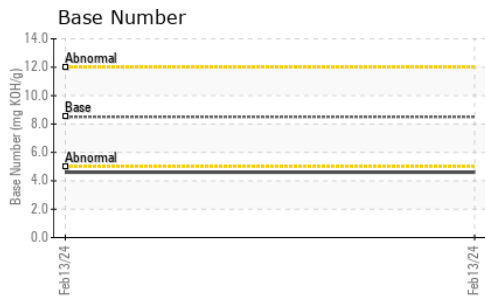
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>25	16	---	---
Potassium	ppm	ASTM D5185m	>20	7	---	---
Fuel		WC Method	>5	<1.0	---	---
Water		WC Method	>0.2	NEG	---	---
Glycol		WC Method		NEG	---	---
Soot %	%	*ASTM D7844	>3	0.5	---	---
Nitration	Abs/cm	*ASTM D7624	>20	9.5	---	---
Sulfation	Abs/.1mm	*ASTM D7415	>30	27.1	---	---
Silt	scalar	*Visual	NONE	NONE	---	---
Debris	scalar	*Visual	NONE	NONE	---	---
Sand/Dirt	scalar	*Visual	NONE	NONE	---	---
Appearance	scalar	*Visual	NORML	NORML	---	---
Odor	scalar	*Visual	NORML	NORML	---	---
Emulsified Water	scalar	*Visual	>0.2	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	0	---	---
Boron	ppm	ASTM D5185m	250	80	---	---
Barium	ppm	ASTM D5185m	10	12	---	---
Molybdenum	ppm	ASTM D5185m	100	100	---	---
Manganese	ppm	ASTM D5185m		<1	---	---
Magnesium	ppm	ASTM D5185m	450	407	---	---
Calcium	ppm	ASTM D5185m	3000	1469	---	---
Phosphorus	ppm	ASTM D5185m	1150	1096	---	---
Zinc	ppm	ASTM D5185m	1350	1303	---	---
Sulfur	ppm	ASTM D5185m	4250	3431	---	---
Oxidation	Abs/.1mm	*ASTM D7414	>25	22.6	---	---
Base Number (BN)	mg KOH/g	ASTM D2896	8.5	4.6	---	---
Visc @ 100°C	cSt	ASTM D445	14.4	12.9	---	---



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : JR0203454 **Received** : 14 Feb 2024
Lab Number : 06088637 **Tested** : 15 Feb 2024
Unique Number : 10876082 **Diagnosed** : 15 Feb 2024 - Sean Felton
Test Package : CONST (Additional Tests: TBN)

JRE - CHARLOTTE
 9550 STATESVILLE ROAD
 CHARLOTTE, NC
 US 28269

Contact: CHARLOTTE SHOP
 myoung@jamesriverequipment.com

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: (704)597-0211
 F: (704)596-6198