



OIL ANALYSIS REPORT

WEAR	ABNORMAL
CONTAMINATION	ABNORMAL
FLUID CONDITION	NORMAL

Area
RIG 3
Machine Id
Component
WHITE STAR 2450 R3-P-02G-NKL
Fluid
Gearbox Oil (--- GAL)

RECOMMENDATION

We advise that you check all areas where dirt can enter the system. We recommend you service the filters on this component if applicable. We recommend an early resample to monitor this condition. We were unable to perform a particle count due to a high concentration of particles present in this sample.

WEAR

Gear wear is indicated.

CONTAMINATION

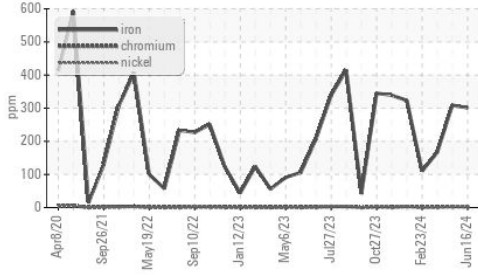
Elemental levels of silicon (Si) and aluminum (Al) indicate alumina-silicate (coarse dirt) ingress. There is a moderate amount of visible silt present in the sample.

FLUID CONDITION

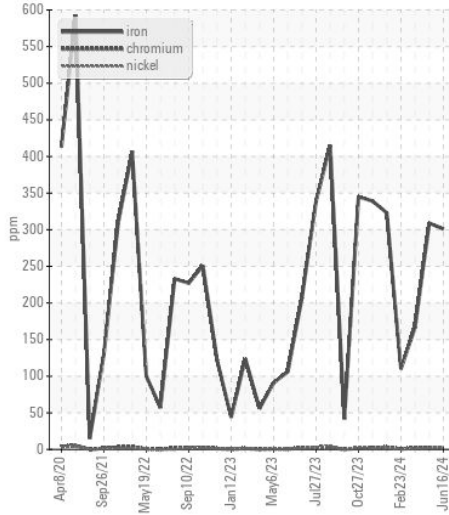
The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		KL0014459	KL0014254	KL0014216
Sample Date		Client Info		16 Jun 2024	14 May 2024	03 Apr 2024
Machine Age	days	Client Info		45449	45416	45375
Oil Age	days	Client Info		0	0	0
Filter Age	days	Client Info		0	0	0
Oil Changed		Client Info		N/A	N/A	N/A
Filter Changed		Client Info		N/A	N/A	N/A
Sample Status				ABNORMAL	ABNORMAL	ABNORMAL
Iron	ppm	ASTM D5185m	>200	▲ 301	▲ 309	167
Chromium	ppm	ASTM D5185m	>10	2	3	2
Nickel	ppm	ASTM D5185m	>10	2	2	1
Titanium	ppm	ASTM D5185m		1	2	1
Silver	ppm	ASTM D5185m		0	0	0
Aluminum	ppm	ASTM D5185m	>25	● 23	● 29	● 15
Lead	ppm	ASTM D5185m	>50	0	0	<1
Copper	ppm	ASTM D5185m	>200	24	24	14
Tin	ppm	ASTM D5185m	>10	<1	<1	<1
Vanadium	ppm	ASTM D5185m		<1	<1	<1
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Silicon	ppm	ASTM D5185m	>50	▲ 101	▲ 122	▲ 64
Potassium	ppm	ASTM D5185m	>20	22	25	20
Water		WC Method	>0.2	NEG	NEG	NEG
Silt	scalar	*Visual	NONE	▲ MODER	▲ HEAVY	▲ HEAVY
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
Sodium	ppm	ASTM D5185m		227	276	225
Boron	ppm	ASTM D5185m		31	29	21
Barium	ppm	ASTM D5185m		62	82	45
Molybdenum	ppm	ASTM D5185m		188	277	314
Manganese	ppm	ASTM D5185m		3	3	1
Magnesium	ppm	ASTM D5185m		50	49	44
Calcium	ppm	ASTM D5185m		171	178	134
Phosphorus	ppm	ASTM D5185m		237	228	265
Zinc	ppm	ASTM D5185m		54	29	32
Sulfur	ppm	ASTM D5185m		9435	8672	8570
Acid Number (AN)	mg KOH/g	ASTM D8045		0.47	0.50	0.50
Visc @ 40°C	cSt	ASTM D445		391	403	● 387.2

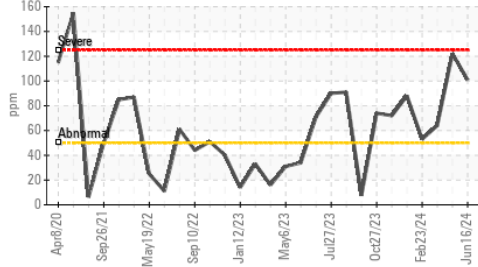
▲ Ferrous Alloys



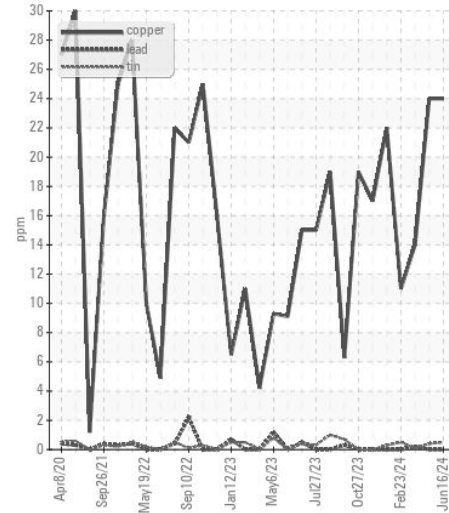
▲ Ferrous Alloys



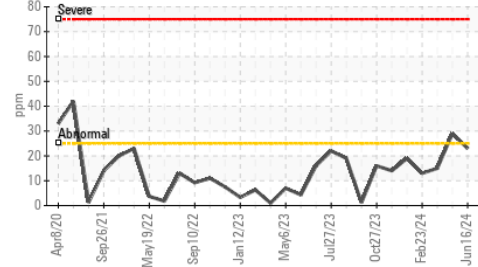
▲ Silicon (ppm)



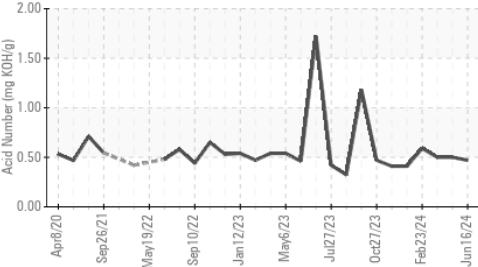
Non-ferrous Metals



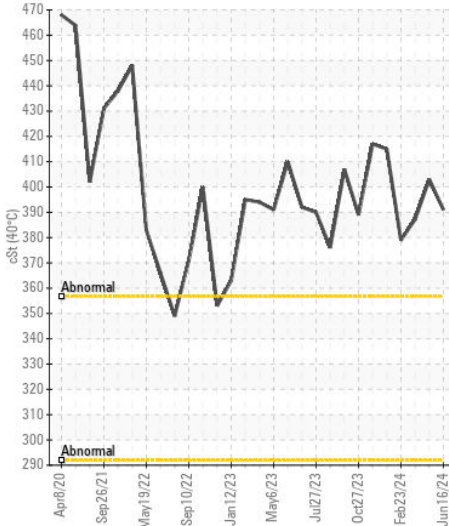
● Aluminum (ppm)



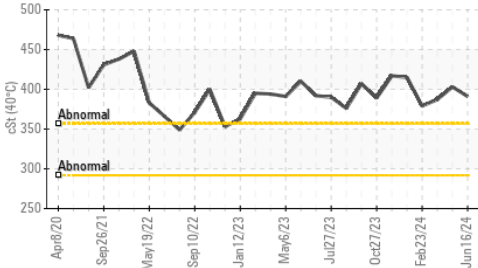
Acid Number



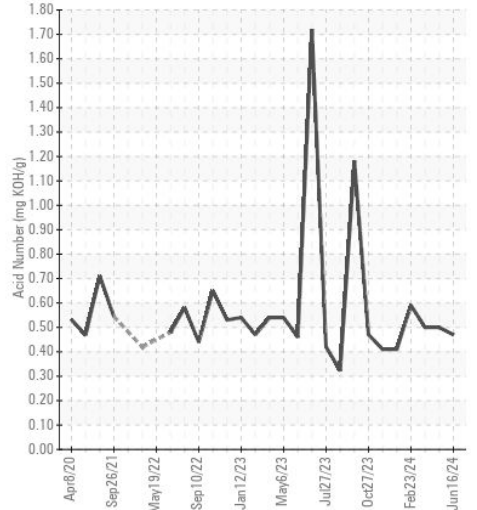
Viscosity @ 40°C



Viscosity @ 40°C



Acid Number



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513

Sample No. : KL0014459

Lab Number : 06226781

Unique Number : 11110274

Test Package : MOB 2 (Additional Tests: PrtCount)

Received : 02 Jul 2024

Tested : 05 Jul 2024

Diagnosed : 05 Jul 2024 - Doug Bogart

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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