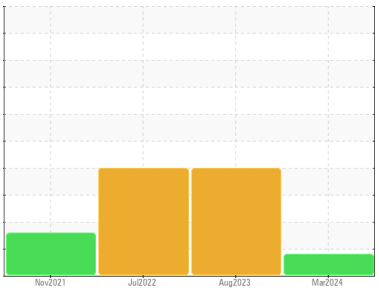
OIL ANALYSIS REPORT

Sample Rating Trend



WEAR

Machine Id
20-64
Component
Right Final Drive
Fluid
GEAR OIL SAE 80W90 (--- GAL)

DIAGNOSIS

Recommendation
No corrective action is recommended at this time. Resample at the next service interval to monitor.

Wear
The iron level has decreased, but is still abnormal. All other component wear rates are normal.

Contamination
There is no indication of any contamination in the oil.

Fluid Condition
The condition of the oil is acceptable for the time in service.

SAMPLE INFORMATION		method	limit/base	current	history1	history2
Sample Number		Client Info		**WC0936890**	WC0818716	WC0619346
Sample Date		Client Info		**19 Mar 2024**	24 Aug 2023	22 Jul 2022
Machine Age	hrs	Client Info		**4466**	4082	3406
Oil Age	hrs	Client Info		**0**	676	3373
Oil Changed		Client Info		**Not Changd**	Changed	Changed
Sample Status				**ABNORMAL**	ABNORMAL	ABNORMAL

CONTAMINATION		method	limit/base	current	history1	history2
Water		WC Method	>0.2	**NEG**	NEG	NEG

WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>500	▲ **528**	▲ 2176	▲ 1946
Chromium	ppm	ASTM D5185m	>10	**7**	▲ 31	▲ 30
Nickel	ppm	ASTM D5185m	>10	**<1**	2	1
Titanium	ppm	ASTM D5185m		**<1**	1	<1
Silver	ppm	ASTM D5185m		**0**	0	0
Aluminum	ppm	ASTM D5185m	>25	**4**	● 17	● 16
Lead	ppm	ASTM D5185m	>25	**0**	<1	0
Copper	ppm	ASTM D5185m	>50	**1**	3	3
Tin	ppm	ASTM D5185m	>10	**0**	0	<1
Antimony	ppm	ASTM D5185m	>5	**---**	---	---
Vanadium	ppm	ASTM D5185m		**<1**	<1	<1
Cadmium	ppm	ASTM D5185m		**<1**	<1	<1

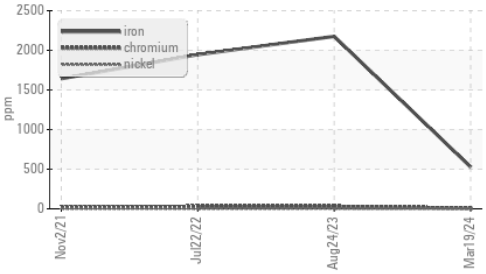
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	400	**38**	137	151
Barium	ppm	ASTM D5185m	200	**1**	2	7
Molybdenum	ppm	ASTM D5185m	12	**<1**	3	2
Manganese	ppm	ASTM D5185m		**5**	20	18
Magnesium	ppm	ASTM D5185m	12	**4**	14	7
Calcium	ppm	ASTM D5185m	150	**15**	21	10
Phosphorus	ppm	ASTM D5185m	1650	**484**	1137	1151
Zinc	ppm	ASTM D5185m	125	**11**	30	27
Sulfur	ppm	ASTM D5185m	22500	**18684**	23432	26219

CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>75	**28**	▲ 102	▲ 87
Sodium	ppm	ASTM D5185m	>170	**<1**	2	3
Potassium	ppm	ASTM D5185m	>20	**4**	13	10

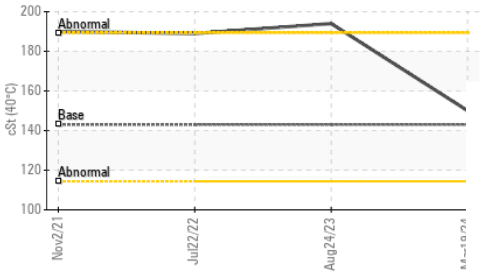
VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	**NONE**	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	**NONE**	NONE	NONE
Precipitate	scalar	*Visual	NONE	**NONE**	NONE	NONE
Silt	scalar	*Visual	NONE	**NONE**	NONE	NONE
Debris	scalar	*Visual	NONE	**NONE**	NONE	NONE
Sand/Dirt	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
Free Water	scalar	*Visual		**NEG**	NEG	NEG

OIL ANALYSIS REPORT

Ferrous Alloys



Viscosity @ 40°C

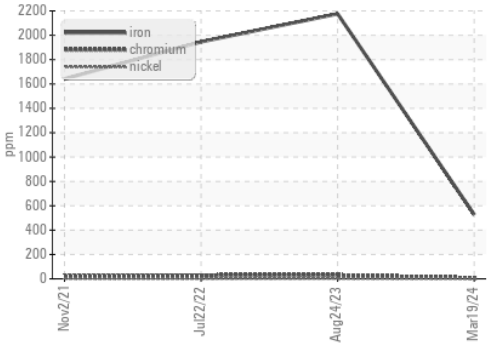


FLUID PROPERTIES		method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445	143	**150**	194	189

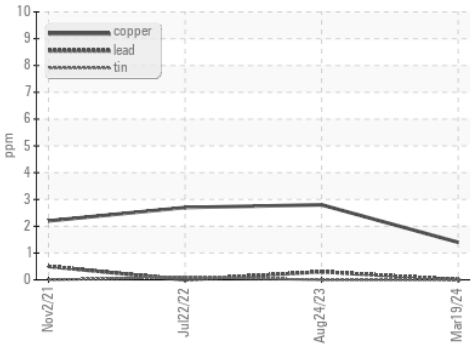
SAMPLE IMAGES	method	limit/base	current	history1	history2
Color			*no image*	*no image*	*no image*
Bottom			*no image*	*no image*	*no image*

GRAPHS

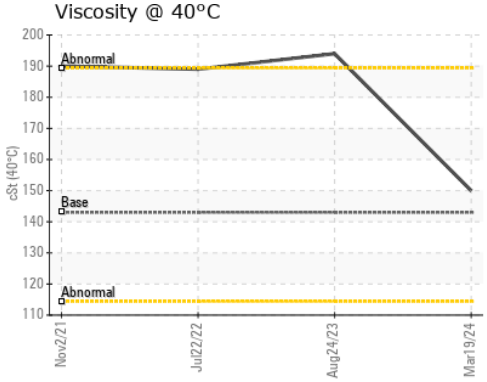
Ferrous Alloys



Non-ferrous Metals



Viscosity @ 40°C



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : WC0936890
Lab Number : 06174345
Unique Number : 11020398
Test Package : CONST

Received : 09 May 2024
Tested : 10 May 2024
Diagnosed : 13 May 2024 - Don Baldridge

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)

MANHATTAN ROAD AND BRIDGE
5601 S 122ND E AVE
TULSA, OK
US 74146
Contact: WILL ANDERSON
will.anderson@manhattanrb.com
T:
F:

Report Id: MANTUL [WUSCAR] 06174345 (Generated: 05/13/2024 12:01:57) Rev: 1

Submitted By: JAMES STEELMON