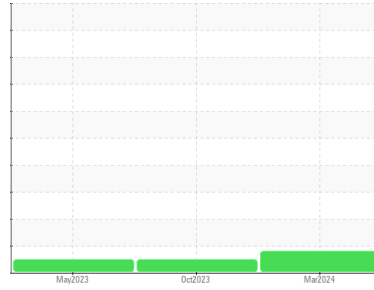




OIL ANALYSIS REPORT

Sample Rating Trend



WEAR



Area

AMR-Manchester

Machine Id

646242 144845

Component

Splitter Box

Fluid

LIEBHERR GEAR BASIC 90 LS (--- GAL)

DIAGNOSIS

Recommendation

The oil change at the time of sampling has been noted. Resample at the next service interval to monitor.

Wear

An increase in the iron level is noted. 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			DJJ0013965	DJJ0019185	DJJ0013563
Sample Date	Client Info			26 Mar 2024	09 Oct 2023	23 May 2023
Machine Age	hrs	Client Info		1529	991	500
Oil Age	hrs	Client Info		250	250	0
Oil Changed	Client Info			Changed	Changed	N/A
Sample Status				ATTENTION	NORMAL	NORMAL

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	>325	261	10	53
Chromium	ppm	ASTM D5185m	>5	4	3	0
Nickel	ppm	ASTM D5185m	>10	<1	0	0
Titanium	ppm	ASTM D5185m		<1	0	0
Silver	ppm	ASTM D5185m		0	0	0
Aluminum	ppm	ASTM D5185m	>5	2	0	0
Lead	ppm	ASTM D5185m		<1	0	<1
Copper	ppm	ASTM D5185m	>30	1	<1	8
Tin	ppm	ASTM D5185m		<1	0	0
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	0	0	0	40
Barium	ppm	ASTM D5185m	0	0	0	0
Molybdenum	ppm	ASTM D5185m	0	<1	<1	<1
Manganese	ppm	ASTM D5185m	0	1	0	1
Magnesium	ppm	ASTM D5185m	<1	<1	1	2
Calcium	ppm	ASTM D5185m	<1	23	17	31
Phosphorus	ppm	ASTM D5185m	2143	2538	2082	2250
Zinc	ppm	ASTM D5185m	<1	11	18	24
Sulfur	ppm	ASTM D5185m	23468	32111	29397	34802

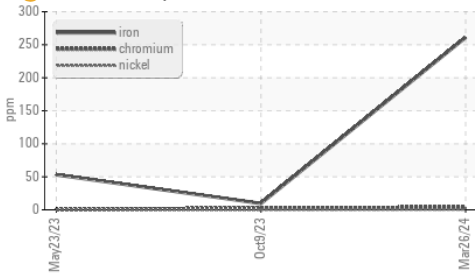
CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>20	4	<1	2
Sodium	ppm	ASTM D5185m		1	<1	3
Potassium	ppm	ASTM D5185m	>20	1	2	4

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	MODER	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

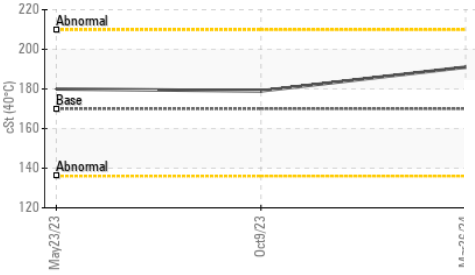


OIL ANALYSIS REPORT

Ferrous Alloys



Viscosity @ 40°C



FLUID PROPERTIES

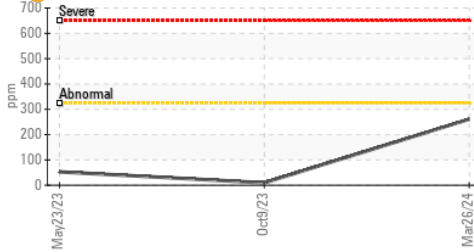
method	limit/base	current	history1	history2
Visc @ 40°C	cSt ASTM D445	170	191	179

SAMPLE IMAGES

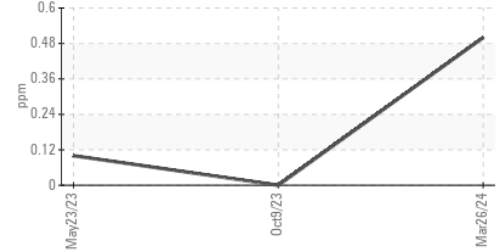
method	limit/base	current	history1	history2
Color			no image	no image
Bottom			no image	no image

GRAPHS

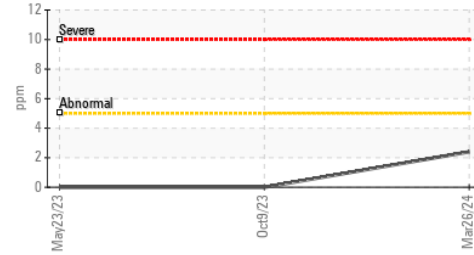
Iron (ppm)



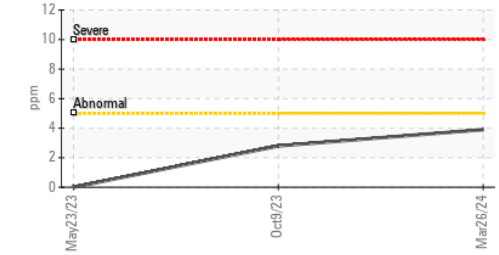
Lead (ppm)



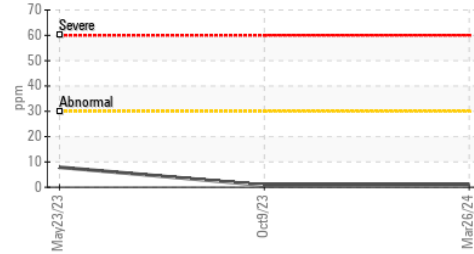
Aluminum (ppm)



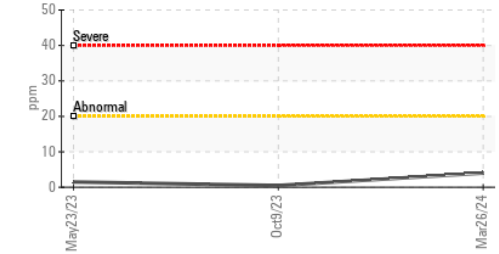
Chromium (ppm)



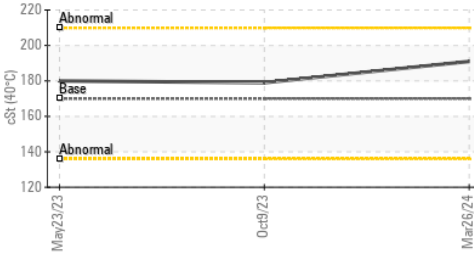
Copper (ppm)



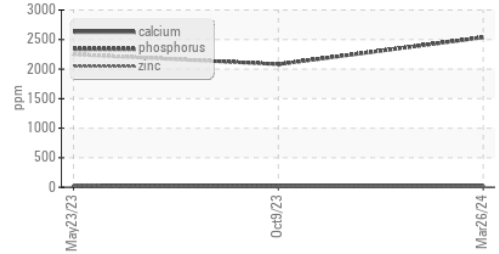
Silicon (ppm)



Viscosity @ 40°C



Additives



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : DJJ0013965
Lab Number : 06147819
Unique Number : 10977897
Test Package : MOBCE

Received : 12 Apr 2024
Tested : 15 Apr 2024
Diagnosed : 16 Apr 2024 - Don Baldrige

ADVANTAGE METALS RECYCLING - MANCHESTER
 3005 MANCHESTER TRAFFICWAY
 KANSAS CITY, MO
 US 64129

Contact: STEVE BROWN
 steve.brown@advantagerecycling.com

T: (816)922-5100

F: (816)861-7670

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)