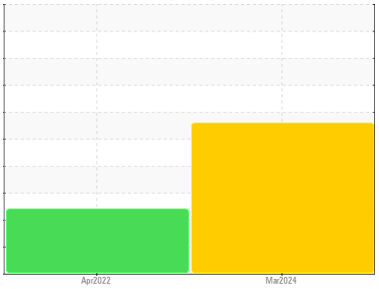
GREASE ANALYSIS

Sample Rating Trend



WEAR

Machine Id
ID FAN #3-DE
Component
Bottom Grease
Fluid
MOBIL MOBILITH SHC SERIES 100 (--- GAL)

DIAGNOSIS

Recommendation

We recommend that you re-grease the component if this has not already been done. We recommend an early resample to monitor this condition. Diagnostician's Note: There is a high concentration of ferrous red oxides and dirt present in the grease sample. This indicates dirt and water ingression in the bearing. Check the bearing seals.

Wear

PQ levels are abnormal. Wear particle analysis indicates that the ferrous red oxides particles are abnormal. Iron ppm levels are abnormal.

Grease Condition

The grease is no longer serviceable as a result of the abnormal and/or severe wear.

Contaminants

High concentration of dirt present in the grease.

SAMPLE INFORMATION		method	limit/base	current	history1	history2
Sample Number		Client Info		**PP0840968**	WC	---
Sample Date		Client Info		**07 Mar 2024**	19 Apr 2022	---
Machine Age	yrs	Client Info		**2**	20	---
Grease Age	yrs	Client Info		**0**	2	---
Grease Serviced		Client Info		**N/A**	N/A	---
Sample Status				**ABNORMAL**	ABNORMAL	---

WEAR METALS		method	limit/base	current	history1	history2
PQ		ASTM D8184*	>200	▲ **1090**	180	---
Iron	ppm	ASTM D5185(m)	>250	▲ **378**	▲ 420	---
Chromium	ppm	ASTM D5185(m)	>10	**3**	2	---
Nickel	ppm	ASTM D5185(m)	>5	**<1**	<1	---
Cadmium	ppm	ASTM D5185(m)		**0**	0	---
Titanium	ppm	ASTM D5185(m)		**0**	0	---
Vanadium	ppm	ASTM D5185(m)		**0**	0	---
Lead	ppm	ASTM D5185(m)	>25	**0**	0	---
Copper	ppm	ASTM D5185(m)	>75	**1**	1	---
Tin	ppm	ASTM D5185(m)	>5	**0**	<1	---
Silver	ppm	ASTM D5185(m)	>5	**0**	0	---

ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185(m)	0	**<1**	<1	---
Magnesium	ppm	ASTM D5185(m)	0	**<1**	0	---
Manganese	ppm	ASTM D5185(m)	0	**1**	2	---
Molybdenum	ppm	ASTM D5185(m)	0	**0**	0	---
Phosphorus	ppm	ASTM D5185(m)	200	**182**	198	---
Zinc	ppm	ASTM D5185(m)	250	**263**	260	---
Antimony	ppm	ASTM D5185(m)	0	**0**	0	---

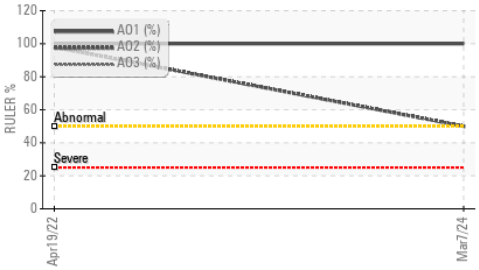
THICKENER/SOAP		method	limit/base	current	history1	history2
Aluminum	ppm	ASTM D5185(m)	0	**<1**	<1	---
Barium	ppm	ASTM D5185(m)	0	**0**	0	---
Calcium	ppm	ASTM D5185(m)	0	**3**	<1	---
Sodium	ppm	ASTM D5185(m)	2	**2**	2	---
Lithium	ppm	ASTM D5185(m)	400	**476**	198	---
Sulfur	ppm	ASTM D5185(m)	750	**748**	760	---

CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185(m)	>150	**6**	6	---
Potassium	ppm	ASTM D5185(m)		**<1**	<1	---
Water	%	ASTM D6304*	>0.1	**0.001**	0.047	---
ppm Water	ppm	ASTM D6304*	>1000	**10**	471.7	---

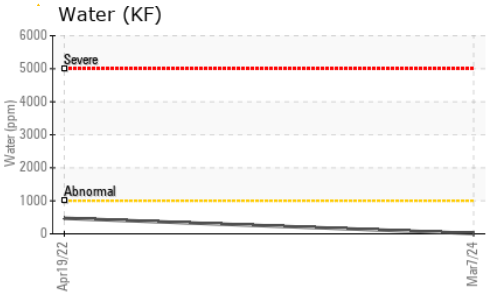
GREASE CONDITION		method	limit/base	current	history1	history2
Grease Color		Visual*	red	**Burgundy**	Red	---
Texture		In-house*		**Short fiber**	Buttery	---
NLGI Consistency	NLGI Scale	SKF Method*	2	**2**	2	---
Oil Separation (Bleed)	%	SKF Method*	>+/-25%	**-11.8**	-8.8	---
Anti-Oxidant 1	%	ASTM D6971*	<25%	**100**	100	---
Anti-Oxidant 2	%	ASTM D6971*	<25%	**50**	98	---

GREASE ANALYSIS

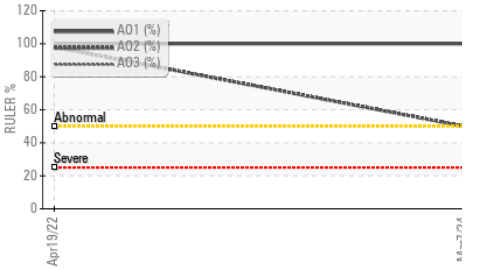
Remaining Life (RULER)



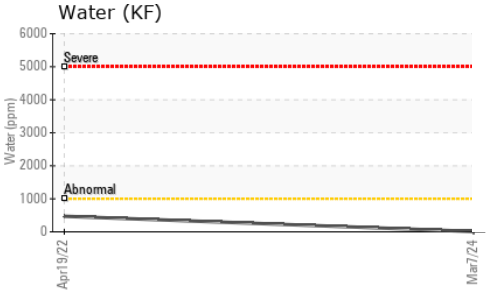
Water (KF)

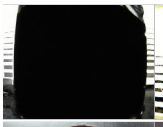
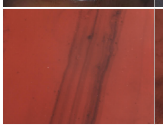
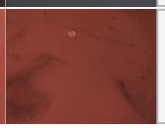


Remaining Life (RULER)



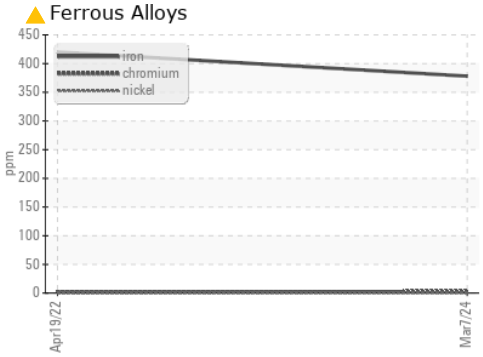
Water (KF)



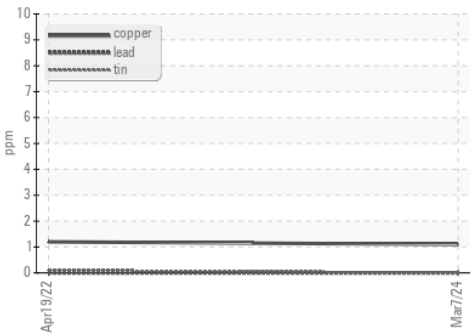
SAMPLE IMAGES	method	limit/base	current	history1	history2
Color					no image
Bottom					no image
PrtFilter					no image

GRAPHS

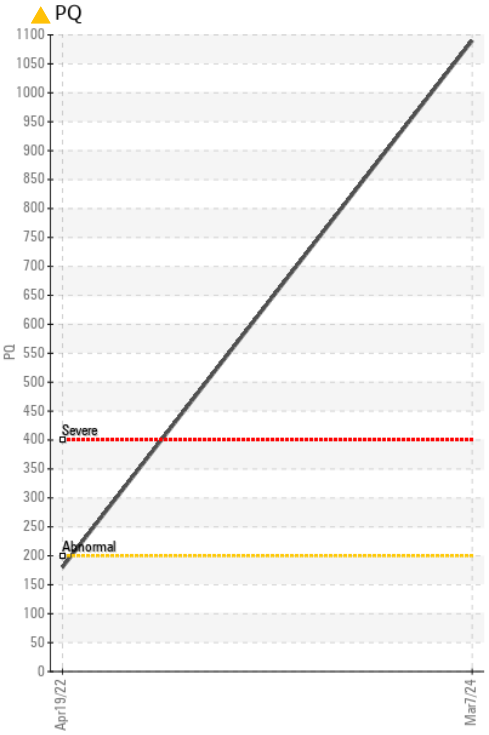
Ferrous Alloys



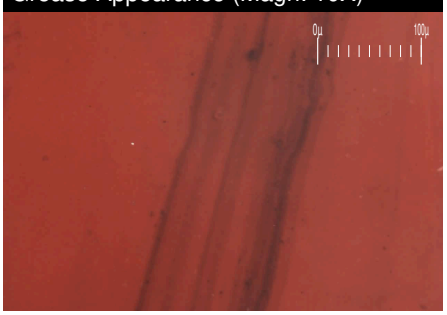
Non-ferrous Metals



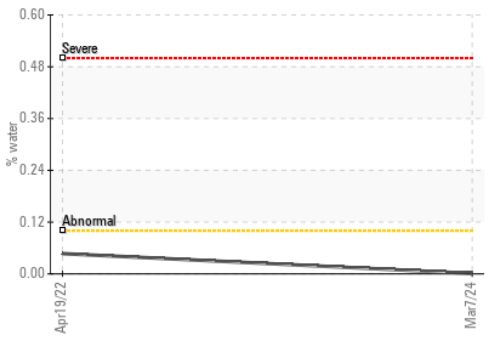
PQ



Grease Appearance (Magn: 10X)



Water



ISO 17025:2017 Accredited Laboratory

Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : PP0840968
Lab Number : 02621642
Unique Number : 5746761
Test Package : GRS 3 (Additional Tests: BottomAnalysis)

Received : 12 Mar 2024
Tested : 26 Mar 2024
Diagnosed : 26 Mar 2024 - Bill Quesnel

To discuss this sample report, contact Customer Service at 1-800-268-2131.
Test denoted (*) outside scope of accreditation, (m) method modified, (e) tested at external lab.
Validity of results and interpretation are based on the sample and information as supplied.

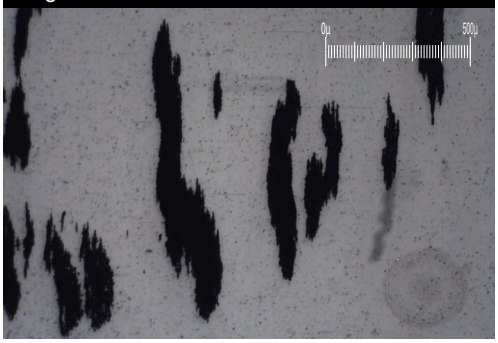
DUFFIN CREEK (YORK-DURHAM) WPCP
901 MCKAY ROAD
PICKERING, ON
CA L1W 3A3
Contact: Al Roffey
AL.ROFFEY@REGION.DURHAM.ON.CA
T: (905)683-9109
F: (905)686-3956

FERROGRAPHY REPORT

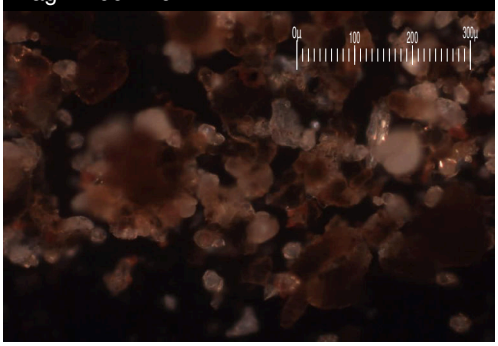
Machine Id
ID FAN #3-DE
Component
Bottom Grease
Fluid
MOBIL MOBILITH SHC SERIES 100 (--- GAL)

Magn: 200x Illum: BC

Magn: 50x Illum: RW



Magn: 100x Illum: PZ



Magn: 100x Illum: PZ

FERROGRAPHY		method	limit/base	current	history1	history2
Ferrous Rubbing	Scale 0-10	ASTM D7684*		4	3	
Ferrous Sliding	Scale 0-10	ASTM D7684*		2	2	
Ferrous Cutting	Scale 0-10	ASTM D7684*				
Ferrous Rolling	Scale 0-10	ASTM D7684*		2	2	
Ferrous Break-in	Scale 0-10	ASTM D7684*				
Ferrous Spheres	Scale 0-10	ASTM D7684*				
Ferrous Black Oxides	Scale 0-10	ASTM D7684*		2	▲ 3	
Ferrous Red Oxides	Scale 0-10	ASTM D7684*		▲ 4		
Ferrous Corrosive	Scale 0-10	ASTM D7684*				
Ferrous Other	Scale 0-10	ASTM D7684*				
Nonferrous Rubbing	Scale 0-10	ASTM D7684*				
Nonferrous Sliding	Scale 0-10	ASTM D7684*				
Nonferrous Cutting	Scale 0-10	ASTM D7684*				
Nonferrous Rolling	Scale 0-10	ASTM D7684*				
Nonferrous Other	Scale 0-10	ASTM D7684*				
Carbonaceous Material	Scale 0-10	ASTM D7684*				
Lubricant Degradation	Scale 0-10	ASTM D7684*				
Sand/Dirt	Scale 0-10	ASTM D7684*		▲ 4	2	
Fibres	Scale 0-10	ASTM D7684*				
Spheres	Scale 0-10	ASTM D7684*				
Other	Scale 0-10	ASTM D7684*				

WEAR

PQ levels are abnormal. Wear particle analysis indicates that the ferrous red oxides particles are abnormal. Iron ppm levels are abnormal.

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