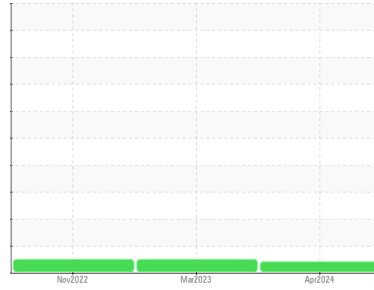




OIL ANALYSIS REPORT

Sample Rating Trend



VISCOSITY



Area
EAST CRANE
 Machine Id
170831 HOIST

Component
Brake
 Fluid
GEAR OIL LS 80W90 (--- GAL)

DIAGNOSIS

Recommendation

Little or no information is provided as to the component and lubricant being tested. Recommendations are therefore generic in nature and may not apply to the current application. Please forward information as to equipment type, reservoir capacity, lubricant type and any pertinent information to allow for a more accurate assessment. Resample at the next service interval to monitor. NOTE: Please provide information regarding reservoir capacity, filter type and micron rating with next sample. Please specify the component make and model with your next sample. Please specify the brand, type, and viscosity of the oil on your next sample.

Wear

All component wear rates are normal.

Contamination

There is no indication of any contamination in the fluid.

Fluid Condition

Viscosity of sample indicates oil is within SAE 80 range, advise investigate. The AN level is acceptable for this fluid. The condition of the fluid is suitable for further service.

SAMPLE INFORMATION

method	limit/base	current	history1	history2
Sample Number	Client Info	PP	PP	PP
Sample Date	Client Info	18 Apr 2024	07 Mar 2023	21 Nov 2022
Machine Age	hrs	0	0	0
Oil Age	hrs	0	0	0
Oil Changed	Client Info	N/A	N/A	N/A
Sample Status		ABNORMAL	NORMAL	NORMAL

CONTAMINATION

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

WEAR METALS

method	limit/base	current	history1	history2		
PQ	ASTM D8184*	12	4	0		
Iron	ppm	ASTM D5185(m)	>350	47	37	22
Chromium	ppm	ASTM D5185(m)	>5	0	<1	0
Nickel	ppm	ASTM D5185(m)	>5	0	<1	<1
Titanium	ppm	ASTM D5185(m)	0	0	0	
Silver	ppm	ASTM D5185(m)	0	0	0	
Aluminum	ppm	ASTM D5185(m)	>8	0	<1	<1
Lead	ppm	ASTM D5185(m)	>10	<1	<1	<1
Copper	ppm	ASTM D5185(m)	>150	34	17	6
Tin	ppm	ASTM D5185(m)	>5	<1	<1	<1
Antimony	ppm	ASTM D5185(m)	>5	0	0	0
Vanadium	ppm	ASTM D5185(m)	0	0	0	
Beryllium	ppm	ASTM D5185(m)	0	0	0	
Cadmium	ppm	ASTM D5185(m)	0	0	0	

ADDITIVES

method	limit/base	current	history1	history2		
Boron	ppm	ASTM D5185(m)	150	193	219	227
Barium	ppm	ASTM D5185(m)	0	0	0	
Molybdenum	ppm	ASTM D5185(m)	0	0	0	
Manganese	ppm	ASTM D5185(m)	<1	<1	<1	
Magnesium	ppm	ASTM D5185(m)	10	2	20	21
Calcium	ppm	ASTM D5185(m)	70	7	21	22
Phosphorus	ppm	ASTM D5185(m)	2000	1002	1375	1410
Zinc	ppm	ASTM D5185(m)	50	46	21	16
Sulfur	ppm	ASTM D5185(m)	20000	16582	22760	23575
Lithium	ppm	ASTM D5185(m)	<1	<1	<1	

CONTAMINANTS

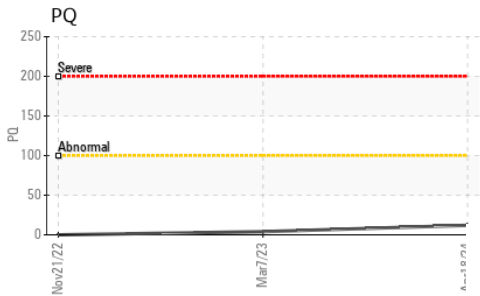
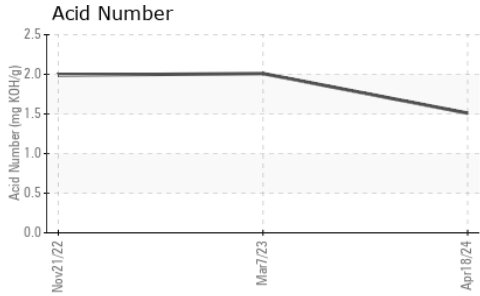
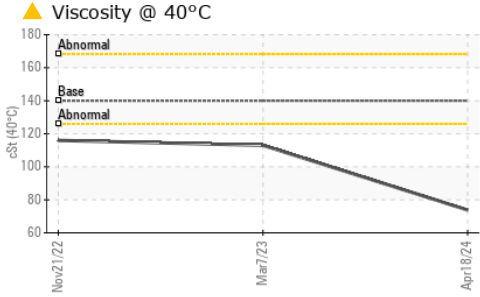
method	limit/base	current	history1	history2		
Silicon	ppm	ASTM D5185(m)	>400	0	<1	<1
Sodium	ppm	ASTM D5185(m)	<1	3	2	
Potassium	ppm	ASTM D5185(m)	>20	<1	2	<1

FLUID DEGRADATION

method	limit/base	current	history1	history2	
Acid Number (AN)	mg KOH/g	ASTM D974*	1.51	2.01	1.99



OIL ANALYSIS REPORT



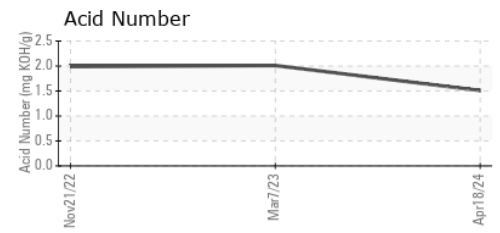
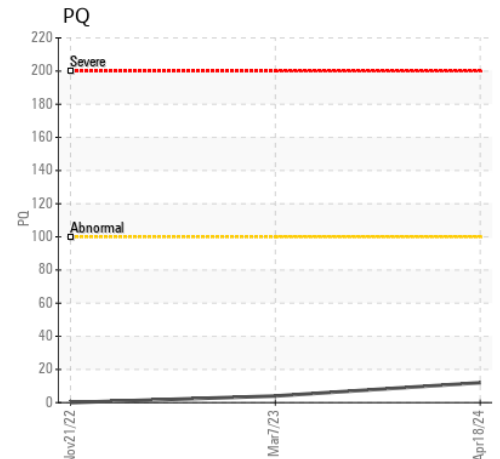
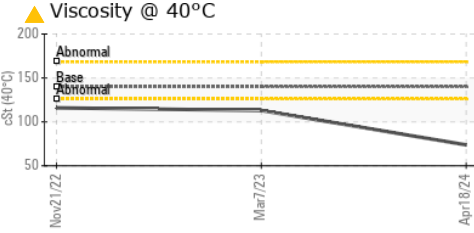
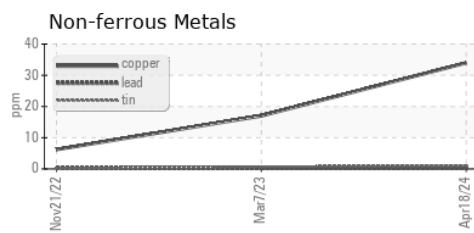
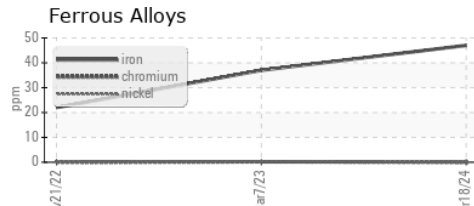
VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	Visual*	NONE	NONE	NONE
Yellow Metal	scalar	Visual*	NONE	NONE	NONE
Precipitate	scalar	Visual*	NONE	NONE	NONE
Silt	scalar	Visual*	NONE	NONE	NONE
Debris	scalar	Visual*	NONE	NONE	NONE
Sand/Dirt	scalar	Visual*	NONE	NONE	NONE
Appearance	scalar	Visual*	NORML	NORML	NORML
Odor	scalar	Visual*	NORML	NORML	NORML
Emulsified Water	scalar	Visual*	>0.2	NEG	NEG
Free Water	scalar	Visual*		NEG	NEG

FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D7279(m)	140 ▲ 73.8	113	116

SAMPLE IMAGES	method	limit/base	current	history1	history2
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GRAPHS



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : PP **Received** : 19 Apr 2024
Lab Number : 02630374 **Tested** : 23 Apr 2024
Unique Number : 5763506 **Diagnosed** : 23 Apr 2024 - Kevin Marson
Test Package : IND 2 (Additional Tests: TAN Man)

HIBERNIA MGMT & DEVELOPMENT CO. LTD
 SUITE 1000,, 100 NEW GOWER STREET
 ST.JOHN'S, NL
 CA A1C 6K3
 Contact: Sam Nash
 samantha.m.nash@exxonmobil.com

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.

T:
 F: (709)722-3766