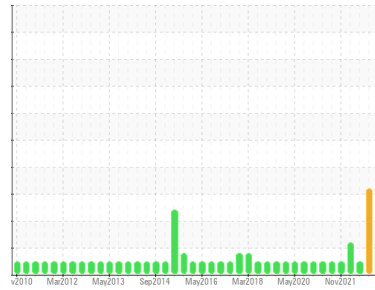




OIL ANALYSIS REPORT

Sample Rating Trend



ADDITIVES



Area
TC02
Machine Id
TC02 4.5 Inch
Component
Gearbox
Fluid
SHELL OMALA S2 G 220 (16 GAL)

DIAGNOSIS

Recommendation

Confirm the source of the lubricant being utilized for top-up/fill. Resample at the next service interval to monitor. NOTE: Please provide information regarding reservoir capacity, filter type and micron rating with next sample.

Wear

All component wear rates are normal.

Contamination

There is no indication of any contamination in the oil.

Fluid Condition

Additive levels indicate the addition of a different brand, or type of oil. The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

SAMPLE INFORMATION

method	limit/base	current	history1	history2
Sample Number	Client Info	WC0841284	WC22128058	WC0754409
Sample Date	Client Info	25 Aug 2023	25 Apr 2023	05 Feb 2023
Machine Age	hrs	Client Info	0	0
Oil Age	hrs	Client Info	0	0
Oil Changed	Client Info	N/A	N/A	N/A
Sample Status		ATTENTION	ABNORMAL	NORMAL

CONTAMINATION

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

WEAR METALS

method	limit/base	current	history1	history2
PQ	ASTM D8184*	0	0	0
Iron	ppm ASTM D5185(m) >200	21	38	20
Chromium	ppm ASTM D5185(m) >15	0	<1	0
Nickel	ppm ASTM D5185(m) >15	0	2	<1
Titanium	ppm ASTM D5185(m)	0	<1	0
Silver	ppm ASTM D5185(m)	0	0	0
Aluminum	ppm ASTM D5185(m) >25	<1	8	1
Lead	ppm ASTM D5185(m) >100	7	18	6
Copper	ppm ASTM D5185(m) >200	2	▲ 122	2
Tin	ppm ASTM D5185(m) >25	<1	<1	0
Antimony	ppm ASTM D5185(m) >5	0	0	0
Vanadium	ppm ASTM D5185(m)	0	<1	0
Beryllium	ppm ASTM D5185(m)	0	0	0
Cadmium	ppm ASTM D5185(m)	0	<1	0

ADDITIVES

method	limit/base	current	history1	history2
Boron	ppm ASTM D5185(m) 4.4	6	<1	7
Barium	ppm ASTM D5185(m) 0.0	<1	<1	0
Molybdenum	ppm ASTM D5185(m) 0	▲ 118	0	117
Manganese	ppm ASTM D5185(m)	0	<1	<1
Magnesium	ppm ASTM D5185(m) 0	<1	▲ 36	<1
Calcium	ppm ASTM D5185(m) 0	▲ 42	▲ 72	43
Phosphorus	ppm ASTM D5185(m) 215	464	▲ 770	471
Zinc	ppm ASTM D5185(m) 0	▲ 117	▲ 586	116
Sulfur	ppm ASTM D5185(m) 7039	9762	▲ 2299	9993
Lithium	ppm ASTM D5185(m)	<1	<1	<1

CONTAMINANTS

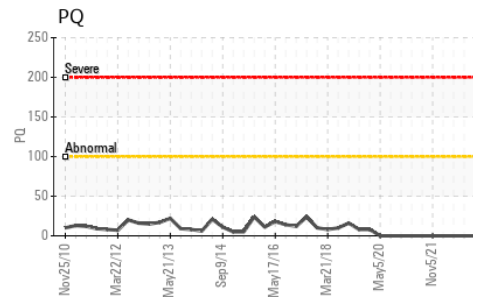
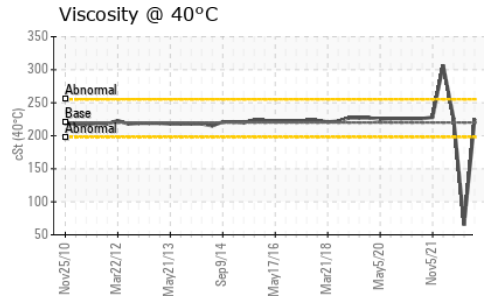
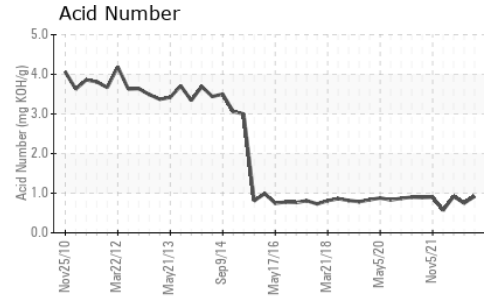
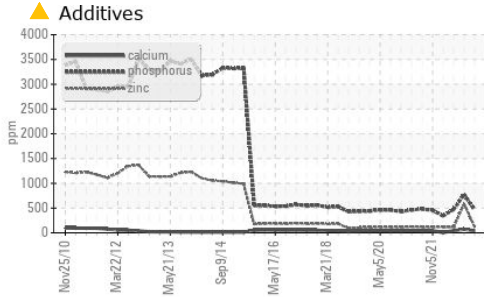
method	limit/base	current	history1	history2
Silicon	ppm ASTM D5185(m) >50	26	16	26
Sodium	ppm ASTM D5185(m)	1	2	2
Potassium	ppm ASTM D5185(m) >20	<1	<1	0

FLUID DEGRADATION

method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g ASTM D974*	0.92	0.75	0.92



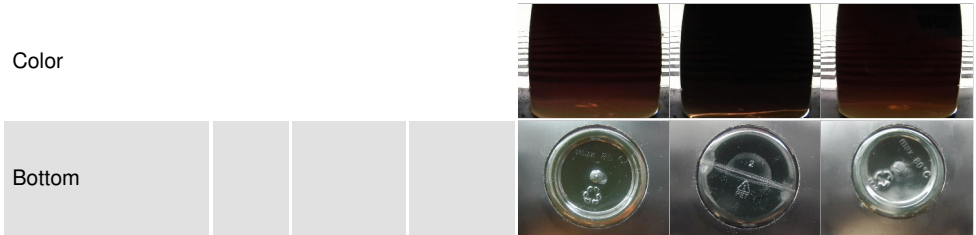
OIL ANALYSIS REPORT



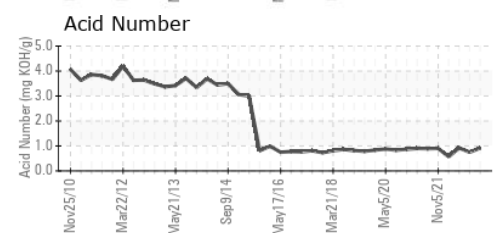
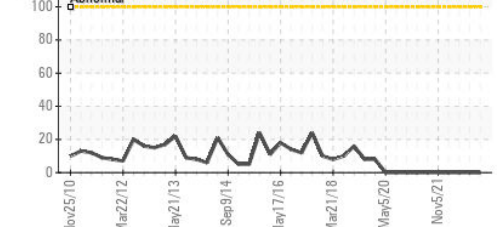
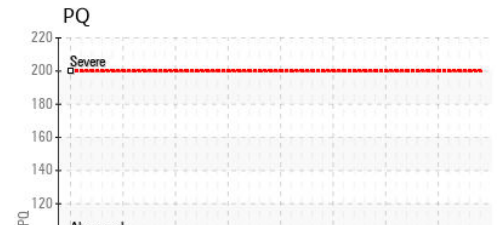
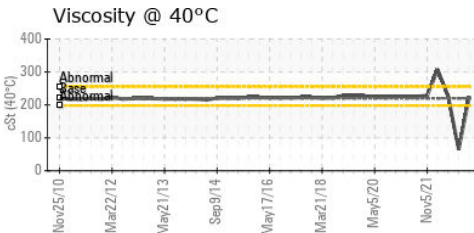
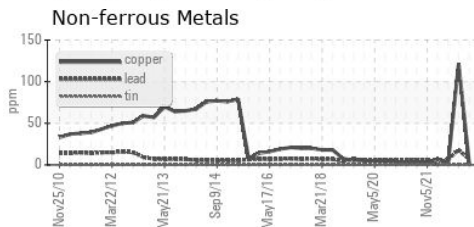
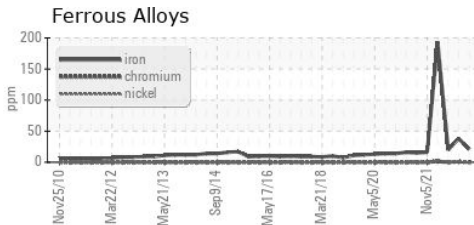
VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	Visual*	NONE	NONE	NONE
Yellow Metal	scalar	Visual*	NONE	NONE	NONE
Precipitate	scalar	Visual*	NONE	NONE	NONE
Silt	scalar	Visual*	NONE	NONE	NONE
Debris	scalar	Visual*	NONE	NONE	NONE
Sand/Dirt	scalar	Visual*	NONE	NONE	NONE
Appearance	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)	220	225	▲ 64.8

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. : WC0841284 **Received** : 31 Aug 2023
Lab Number : 02579778 **Tested** : 01 Sep 2023
Unique Number : 5632838 **Diagnosed** : 01 Sep 2023 - Kevin Marson
Test Package : IND 2 (Additional Tests: TAN Man)

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.

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