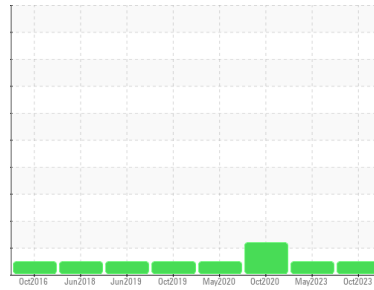




# OIL ANALYSIS REPORT

Sample Rating Trend



**NORMAL**



Area

**BUILDING 46 - GRAIN ELEVATOR [449087]**

Machine Id

**CONV. NORTH RETRIEVAL GEAR BOX (S/N 46CRTN-GB)**

Component

**Gearbox**

Fluid

**LUBRICATION ENG DUOLEC 1605 GEAR OIL 220 (--- LTR)**

## 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		<b>WC0802584</b>	WC0582734	WC0498962
Sample Date	Client Info		<b>05 Oct 2023</b>	08 May 2023	21 Oct 2020
Machine Age	hrs	Client Info	<b>0</b>	0	30
Oil Age	hrs	Client Info	<b>0</b>	0	1
Oil Changed	Client Info		<b>Not Changed</b>	Not Changd	Not Changed
Sample Status			<b>NORMAL</b>	NORMAL	ABNORMAL

## CONTAMINATION

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

## WEAR METALS

	method	limit/base	current	history1	history2
PQ	ASTM D8184*		<b>0</b>	0	103
Iron	ppm	ASTM D5185(m) >200	<b>15</b>	15	17
Chromium	ppm	ASTM D5185(m) >15	<b>0</b>	0	<1
Nickel	ppm	ASTM D5185(m) >15	<b>0</b>	0	0
Titanium	ppm	ASTM D5185(m)	<b>0</b>	<1	0
Silver	ppm	ASTM D5185(m)	<b>&lt;1</b>	0	<1
Aluminum	ppm	ASTM D5185(m) >25	<b>2</b>	2	<1
Lead	ppm	ASTM D5185(m) >100	<b>0</b>	0	<1
Copper	ppm	ASTM D5185(m) >200	<b>&lt;1</b>	0	<1
Tin	ppm	ASTM D5185(m) >25	<b>0</b>	0	0
Antimony	ppm	ASTM D5185(m) >5	<b>0</b>	0	0
Vanadium	ppm	ASTM D5185(m)	<b>0</b>	0	0
Beryllium	ppm	ASTM D5185(m)	<b>0</b>	0	0
Cadmium	ppm	ASTM D5185(m)	<b>0</b>	0	0

## ADDITIVES

	method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185(m)	<b>51</b>	49	22
Barium	ppm	ASTM D5185(m)	<b>&lt;1</b>	<1	0
Molybdenum	ppm	ASTM D5185(m)	<b>0</b>	0	<1
Manganese	ppm	ASTM D5185(m)	<b>0</b>	<1	<1
Magnesium	ppm	ASTM D5185(m)	<b>23</b>	24	1
Calcium	ppm	ASTM D5185(m)	<b>8</b>	6	6
Phosphorus	ppm	ASTM D5185(m)	<b>800</b>	873	447
Zinc	ppm	ASTM D5185(m)	<b>5</b>	6	4
Sulfur	ppm	ASTM D5185(m)	<b>11335</b>	10986	5822
Lithium	ppm	ASTM D5185(m)	<b>&lt;1</b>	<1	<1

## CONTAMINANTS

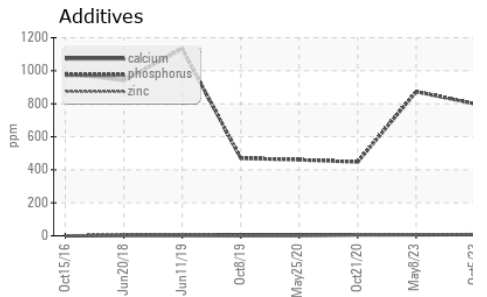
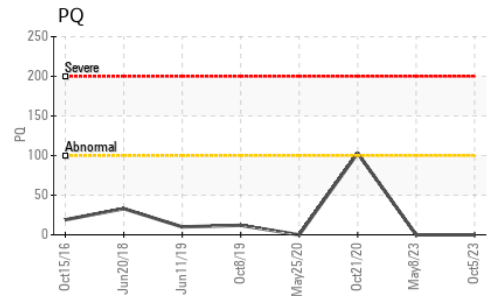
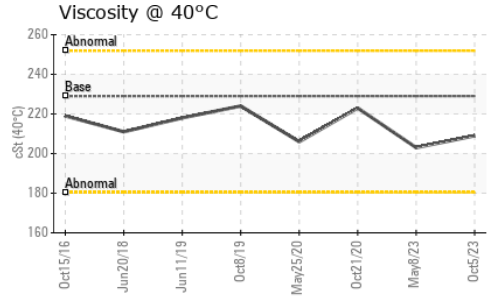
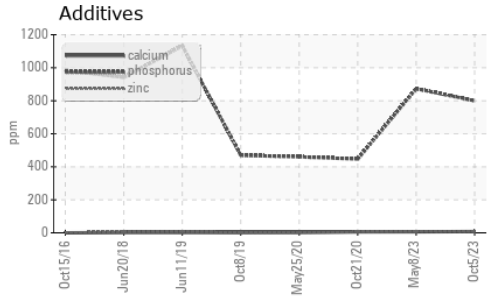
	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185(m) >50	<b>38</b>	42	4
Sodium	ppm	ASTM D5185(m)	<b>5</b>	6	<1
Potassium	ppm	ASTM D5185(m) >20	<b>&lt;1</b>	1	<1

## FLUID DEGRADATION

	method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D974*	<b>1.92</b>	1.82	0.93



# OIL ANALYSIS REPORT

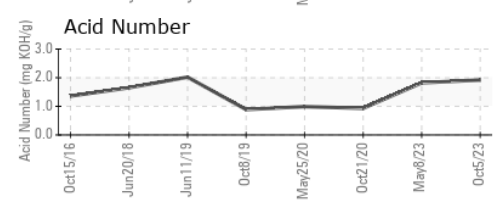
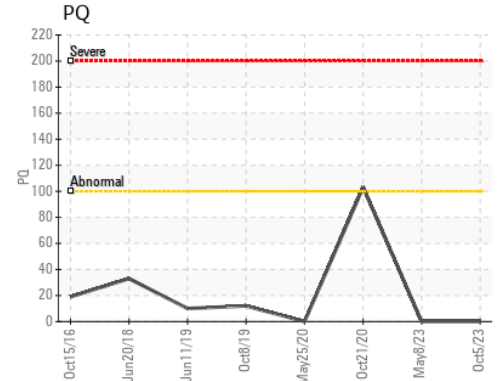
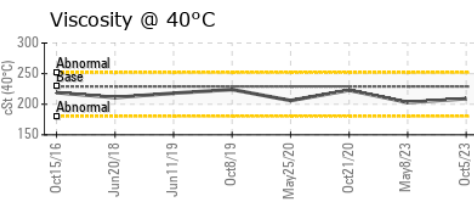
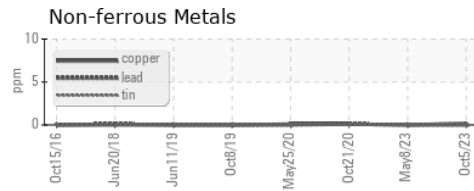
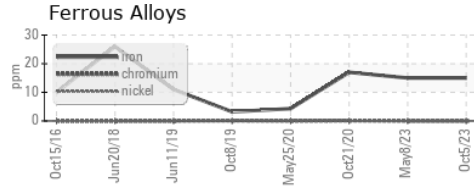


VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	Visual*	NONE	VLITE	NONE ▲ LIGHT
Yellow Metal	scalar	Visual*	NONE	NONE	NONE
Precipitate	scalar	Visual*	NONE	NONE	NONE
Silt	scalar	Visual*	NONE	NONE	NONE
Debris	scalar	Visual*	NONE	NONE	NONE
Sand/Dirt	scalar	Visual*	NONE	NONE	NONE
Appearance	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)	229.0	203	223

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

## GRAPHS



**Laboratory** : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9  
**Sample No.** : WC0802584      **Received** : 25 Oct 2023  
**Lab Number** : 02591867      **Tested** : 26 Oct 2023  
**Unique Number** : 5668946      **Diagnosed** : 26 Oct 2023 - Kevin Marson  
**Test Package** : IND 2 ( Additional Tests: PQ, TAN Man )

**HIRAM WALKER & SONS LTD.**  
 2072 RIVERSIDE DRIVE EAST, BOX 2518  
 WINDSOR, ON  
 CA N8Y 4S5  
 Contact: Matt Morand  
 matt.morand@pernod-ricard.com  
 T: (519)561-5359  
 F: (519)971-5719

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.