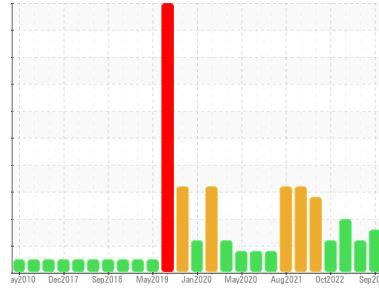




# PROBLEM SUMMARY

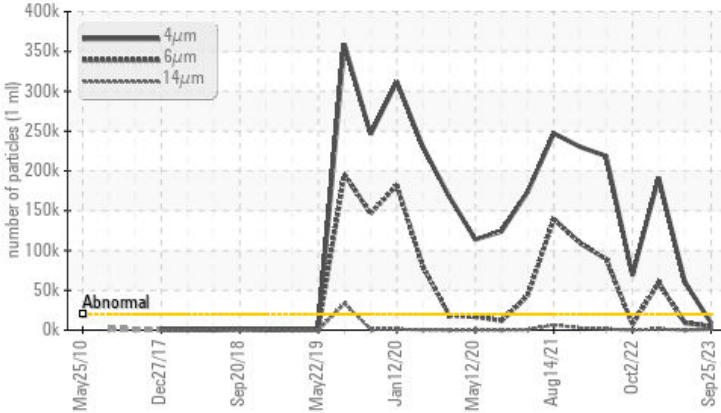
Sample Rating Trend



Machine Id  
**STORK TOPSIDE GEARBOX 1 (S/N 401 211 023-1-10)**  
 Component  
**Gearbox**  
 Fluid  
**PETRO CANADA ENDURATEX EP 680 (15 LTR)**

## COMPONENT CONDITION SUMMARY

▲ Particle Trend



## RECOMMENDATION

No corrective action is recommended at this time.  
 Resample at the next service interval to monitor.

## PROBLEMATIC TEST RESULTS

Sample Status			ATTENTION	ABNORMAL	ABNORMAL
Particles >14µm	ASTM D7647	>640	▲ 825	143	▲ 1366
Particles >21µm	ASTM D7647	>160	▲ 278	28	▲ 206
Particles >38µm	ASTM D7647	>40	▲ 43	5	14
Oil Cleanliness	ISO 4406 (c)	>21/19/16	▲ 20/19/17	▲ 23/20/14	▲ 25/23/18

Customer Id: HORBEL  
 Sample No.: WC0842437  
 Lab Number: 05966251  
 Test Package: IND 2



To manage this report scan the QR code

To discuss the diagnosis or test data:  
 Doug Bogart +1 (800)237-1369 x4016  
[dougb@wearcheckusa.com](mailto:dougb@wearcheckusa.com)

To change component or sample information:  
 Customer Service +1 1-800-237-1369  
[customerservice@wearcheck.com](mailto:customerservice@wearcheck.com)

## RECOMMENDED ACTIONS

*There are no recommended actions for this sample.*

## HISTORICAL DIAGNOSIS

### 25 Nov 2022 Diag: Jonathan Hester

ISO



No corrective action is recommended at this time. Resample at the next service interval to monitor. All component wear rates are normal. There is a high amount of silt (particulates < 14 microns in size) present in the oil. The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

view report



### 18 Oct 2022 Diag: Jonathan Hester

ISO



We recommend you service the filters on this component if applicable. Resample at the next service interval to monitor. All component wear rates are normal. There is a high amount of particulates present in the oil. The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

view report



### 02 Oct 2022 Diag: Don Baldrige

ISO



We recommend you service the filters on this component if applicable. Resample at the next service interval to monitor. All component wear rates are normal. There is a high amount of silt (particulates < 14 microns in size) present in the oil. The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

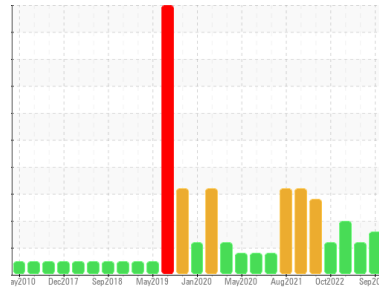
view report





# OIL ANALYSIS REPORT

Sample Rating Trend



ISO



Machine Id  
**STORK TOPSIDE GEARBOX 1 (S/N 401 211 023-1-10)**

Component  
**Gearbox**  
Fluid

**PETRO CANADA ENDURATEX EP 680 (15 LTR)**

## DIAGNOSIS

### Recommendation

No corrective action is recommended at this time. Resample at the next service interval to monitor.

### Wear

All component wear rates are normal.

### Contamination

There is a moderate amount of particulates present in the oil.

### Fluid Condition

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>WC0842437</b>	WC0743724	WC0735964
Sample Date	Client Info		<b>25 Sep 2023</b>	25 Nov 2022	18 Oct 2022
Machine Age	mths	Client Info	<b>0</b>	0	0
Oil Age	mths	Client Info	<b>0</b>	0	0
Oil Changed	Client Info		<b>N/A</b>	N/A	N/A
Sample Status			<b>ATTENTION</b>	ABNORMAL	ABNORMAL

## WEAR METALS

	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m >200	<b>4</b>	0	43
Chromium	ppm	ASTM D5185m >15	<b>0</b>	0	0
Nickel	ppm	ASTM D5185m >15	<b>2</b>	<1	<1
Titanium	ppm	ASTM D5185m	<b>0</b>	0	<1
Silver	ppm	ASTM D5185m	<b>0</b>	0	1
Aluminum	ppm	ASTM D5185m >25	<b>0</b>	0	0
Lead	ppm	ASTM D5185m >100	<b>&lt;1</b>	0	0
Copper	ppm	ASTM D5185m >200	<b>42</b>	33	20
Tin	ppm	ASTM D5185m >25	<b>4</b>	3	1
Vanadium	ppm	ASTM D5185m	<b>0</b>	0	<1
Cadmium	ppm	ASTM D5185m	<b>0</b>	0	0

## ADDITIVES

	method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m 55	<b>0</b>	<1	0
Barium	ppm	ASTM D5185m 0	<b>0</b>	4	0
Molybdenum	ppm	ASTM D5185m 0	<b>0</b>	0	<1
Manganese	ppm	ASTM D5185m 0	<b>0</b>	0	1
Magnesium	ppm	ASTM D5185m 0	<b>0</b>	0	2
Calcium	ppm	ASTM D5185m 6	<b>0</b>	1	0
Phosphorus	ppm	ASTM D5185m 250	<b>3</b>	334	27
Zinc	ppm	ASTM D5185m 2	<b>0</b>	0	7
Sulfur	ppm	ASTM D5185m 9410	<b>2794</b>	4224	4062

## CONTAMINANTS

	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m >50	<b>2</b>	<1	4
Sodium	ppm	ASTM D5185m	<b>0</b>	0	0
Potassium	ppm	ASTM D5185m >20	<b>&lt;1</b>	0	0

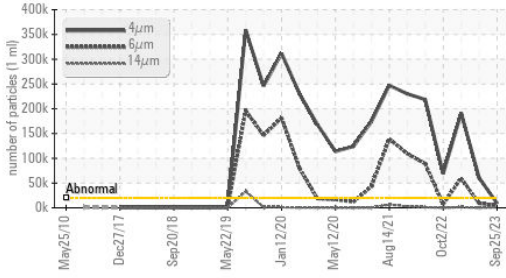
## FLUID CLEANLINESS

	method	limit/base	current	history1	history2
Particles >4µm	ASTM D7647	>20000	<b>8900</b>	▲ 60573	▲ 191471
Particles >6µm	ASTM D7647	>5000	<b>4848</b>	▲ 9116	▲ 59425
Particles >14µm	ASTM D7647	>640	▲ <b>825</b>	143	▲ 1366
Particles >21µm	ASTM D7647	>160	▲ <b>278</b>	28	▲ 206
Particles >38µm	ASTM D7647	>40	▲ <b>43</b>	5	14
Particles >71µm	ASTM D7647	>10	<b>4</b>	2	2
Oil Cleanliness	ISO 4406 (c)	>21/19/16	▲ <b>20/19/17</b>	▲ 23/20/14	▲ 25/23/18

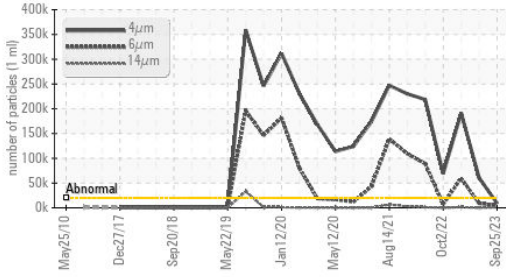
## FLUID DEGRADATION

	method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D8045 0.59	<b>0.78</b>	0.70	0.74

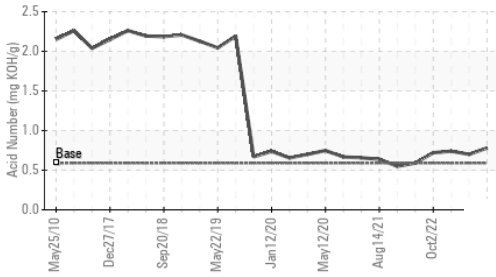
### ▲ Particle Trend



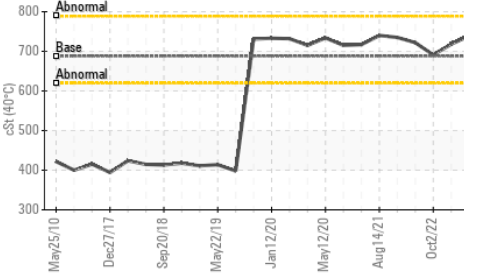
### ▲ Particle Trend



### Acid Number



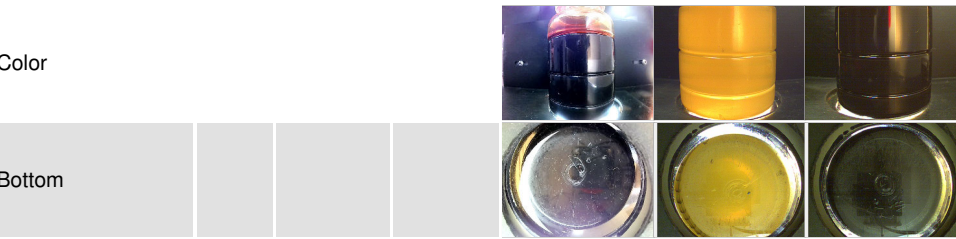
### Viscosity @ 40°C



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	VLITE
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

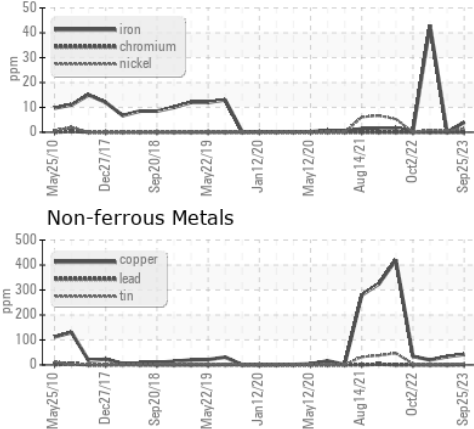
FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445 688	712	739	718

### SAMPLE IMAGES

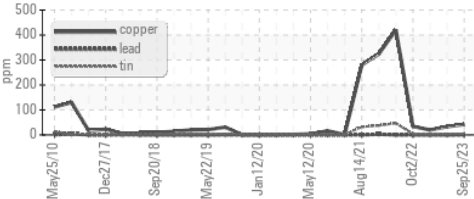


### GRAPHS

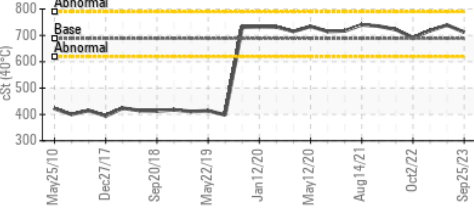
#### Ferrous Alloys



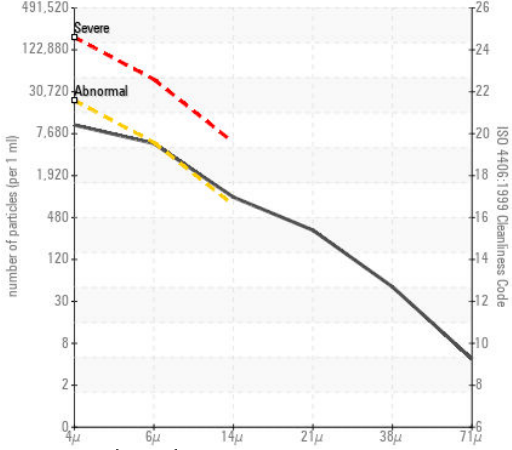
#### Non-ferrous Metals



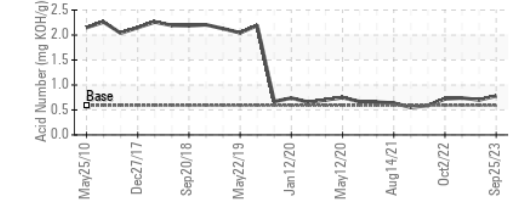
#### Viscosity @ 40°C



#### ▲ Particle Count



#### Acid Number



**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : WC0842437 **Received** : 02 Oct 2023  
**Lab Number** : 05966251 **Diagnosed** : 08 Oct 2023  
**Unique Number** : 10672802 **Diagnostician** : Doug Bogart  
**Test Package** : IND 2 ( Additional Tests: PrtCount )

**HORMEL FOODS-BELOIT**  
 3000 KENNEDY DRIVE  
 BELOIT, WI  
 US 53511  
 Contact: RANDY HSU  
 rhsu@hormel.com  
 T:  
 F: (608)365-8322

Certificate L2367  
 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)