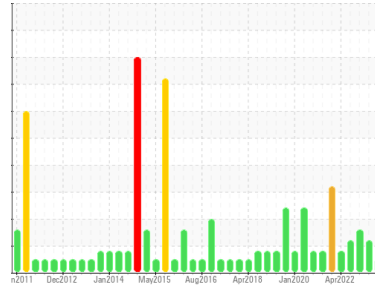




OIL ANALYSIS REPORT

Sample Rating Trend



NORMAL



Area
System 56 - Hazardous Drains
 Machine Id
Z-5601A Centrifuge Gearbox Lube Oil
 Component
Gearbox
 Fluid
GEAR OIL ISO 320 (13 LTR)

DIAGNOSIS

Recommendation

Resample at the next service interval to monitor. Please specify the brand, type, and viscosity of the oil on your next sample.

Wear

All component wear rates are normal.

Contamination

The system cleanliness is acceptable for your target ISO 4406 cleanliness code. The water content is negligible. The system and fluid cleanliness is acceptable.

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	WC0861475	PP	PP
Sample Date	Client Info	13 Dec 2023	08 Aug 2023	11 Mar 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		NORMAL	ABNORMAL	ABNORMAL

WEAR METALS

method	limit/base	current	history1	history2	
Iron	ppm	ASTM D5185(m) >150	46	57	21
Chromium	ppm	ASTM D5185(m) >10	<1	<1	<1
Nickel	ppm	ASTM D5185(m) >10	<1	<1	<1
Titanium	ppm	ASTM D5185(m)	0	0	0
Silver	ppm	ASTM D5185(m)	0	0	0
Aluminum	ppm	ASTM D5185(m) >5	2	1	<1
Lead	ppm	ASTM D5185(m) >65	3	3	2
Copper	ppm	ASTM D5185(m) >80	74	59	42
Tin	ppm	ASTM D5185(m) >8	1	2	2
Antimony	ppm	ASTM D5185(m) >5	0	0	<1
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) 50	4	4	8
Barium	ppm	ASTM D5185(m) 15	<1	<1	0
Molybdenum	ppm	ASTM D5185(m) 15	0	0	0
Manganese	ppm	ASTM D5185(m)	<1	1	<1
Magnesium	ppm	ASTM D5185(m) 50	4	4	3
Calcium	ppm	ASTM D5185(m) 50	17	17	14
Phosphorus	ppm	ASTM D5185(m) 350	200	223	268
Zinc	ppm	ASTM D5185(m) 100	73	63	26
Sulfur	ppm	ASTM D5185(m) 12500	4817	5124	5764
Lithium	ppm	ASTM D5185(m)	<1	<1	<1

CONTAMINANTS

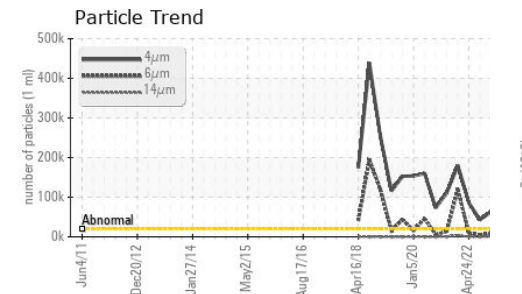
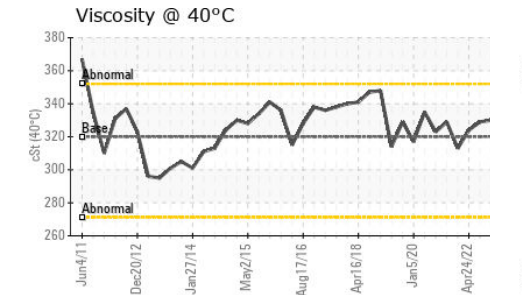
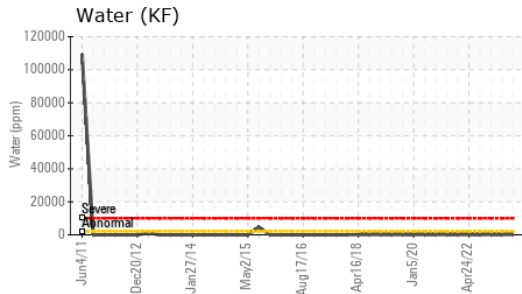
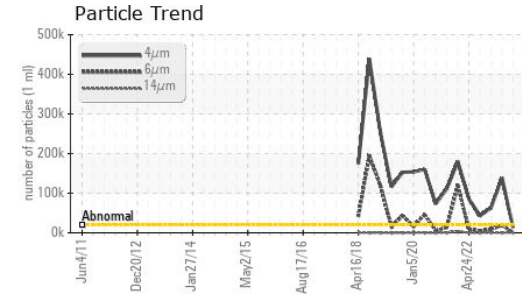
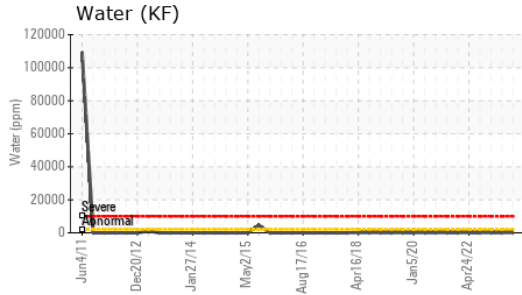
method	limit/base	current	history1	history2	
Silicon	ppm	ASTM D5185(m) >20	3	4	2
Sodium	ppm	ASTM D5185(m)	24	24	2
Potassium	ppm	ASTM D5185(m) >20	4	2	<1
Water	%	ASTM D6304* >0.2	0.006	0.008	0.008
ppm Water	ppm	ASTM D6304* >2000	61	87.9	83.2

FLUID CLEANLINESS

method	limit/base	current	history1	history2
Particles >4µm	ASTM D7647 >20000	13336	▲ 138831	▲ 62449
Particles >6µm	ASTM D7647 >5000	1132	▲ 18584	▲ 9425
Particles >14µm	ASTM D7647 >640	51	216	268
Particles >21µm	ASTM D7647 >160	10	30	38
Particles >38µm	ASTM D7647 >40	1	1	0
Particles >71µm	ASTM D7647 >10	0	0	0
Oil Cleanliness	ISO 4406 (c) >21/19/16	21/17/13	▲ 24/21/15	▲ 23/20/15



OIL ANALYSIS REPORT



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9 **HIBERNIA MGMT & DEVELOPMENT CO. LTD**
Sample No. : WC0861475 **Received** : 02 Jan 2024
Lab Number : 02606104 **Diagnosed** : 03 Jan 2024
Unique Number : 5707190 **Diagnostician** : Kevin Marson
Test Package : MAR 2 (Additional Tests: KF, PrtCount, TAN Man)

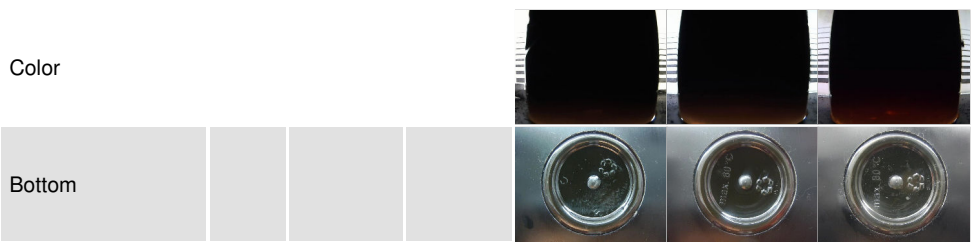
To discuss this sample report, contact Customer Service at 1-800-268-2131.
 Test denoted (*) outside scope of accreditation, (m) method modified, (e) tested at external lab.
 Validity of results and interpretation are based on the sample and information as supplied.

FLUID DEGRADATION		method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D974*	0.85	0.83	0.57	0.63

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

FLUID PROPERTIES		method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D7279(m)	320	330	327	▲ 330

SAMPLE IMAGES		method	limit/base	current	history1	history2
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GRAPHS

