OIL ANALYSIS REPORT

Sample Rating Trend

VISCOSITY

Machine Id
DR193
Component
Gearbox
Fluid
GEAR OIL ISO 220 (--- LTR)

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. The oil is near the end of it`s useful service life, recommend schedule an oil change. Resample at the next service interval to monitor. The fluid was not specified, however, a fluid match indicates that this fluid is ISO 46 R&O Hydraulic Oil. Please confirm the oil type and grade, and specify the brand of the oil on your next sample. 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.

Wear

All component wear rates are normal.

Contamination

There is no indication of any contamination in the oil.

▲ Fluid Condition

Phosphorus ppm levels are abnormally low. Sulfur ppm levels are abnormally low. Visc @ 100°C is abnormally low. Visc @ 40°C is abnormally low. Viscosity of sample indicates oil is within ISO 46 range, advise investigate. The AN level is acceptable for this fluid.

SAMPLE INFORMATION		method	limit/base	current	history1	history2
Sample Number		Client Info		**PC0080459**	---	---
Sample Date		Client Info		**27 Jan 2024**	---	---
Machine Age	hrs	Client Info		**468**	---	---
Oil Age	hrs	Client Info		**250**	---	---
Oil Changed		Client Info		**Changed**	---	---
Sample Status				**ABNORMAL**	---	---

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

WEAR METALS		method	limit/base	current	history1	history2
PQ		ASTM D8184*		**0**	---	---
Iron	ppm	ASTM D5185(m)	>200	**<1**	---	---
Chromium	ppm	ASTM D5185(m)	>10	**0**	---	---
Nickel	ppm	ASTM D5185(m)	>10	**0**	---	---
Titanium	ppm	ASTM D5185(m)		**0**	---	---
Silver	ppm	ASTM D5185(m)		**0**	---	---
Aluminum	ppm	ASTM D5185(m)	>25	**<1**	---	---
Lead	ppm	ASTM D5185(m)	>50	**<1**	---	---
Copper	ppm	ASTM D5185(m)	>200	**1**	---	---
Tin	ppm	ASTM D5185(m)	>10	**0**	---	---
Antimony	ppm	ASTM D5185(m)	>5	**0**	---	---
Vanadium	ppm	ASTM D5185(m)		**0**	---	---
Beryllium	ppm	ASTM D5185(m)		**0**	---	---
Cadmium	ppm	ASTM D5185(m)		**0**	---	---

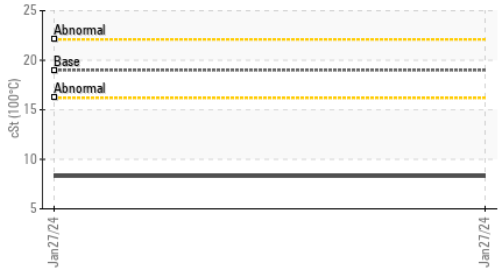
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185(m)	50	**<1**	---	---
Barium	ppm	ASTM D5185(m)	15	**0**	---	---
Molybdenum	ppm	ASTM D5185(m)	15	**0**	---	---
Manganese	ppm	ASTM D5185(m)		**0**	---	---
Magnesium	ppm	ASTM D5185(m)	50	**<1**	---	---
Calcium	ppm	ASTM D5185(m)	50	**8**	---	---
Phosphorus	ppm	ASTM D5185(m)	350	▲ **79**	---	---
Zinc	ppm	ASTM D5185(m)	100	**19**	---	---
Sulfur	ppm	ASTM D5185(m)	12500	▲ **986**	---	---
Lithium	ppm	ASTM D5185(m)		**<1**	---	---

CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185(m)	>50	**4**	---	---
Sodium	ppm	ASTM D5185(m)		**<1**	---	---
Potassium	ppm	ASTM D5185(m)	>20	**<1**	---	---

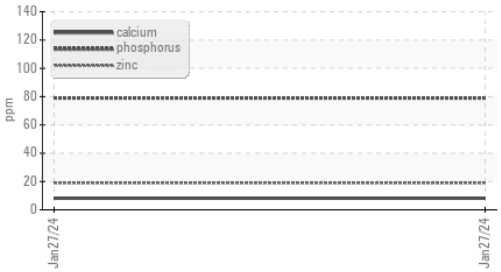
FLUID DEGRADATION		method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D974*	0.85	**0.15**	---	---

OIL ANALYSIS REPORT

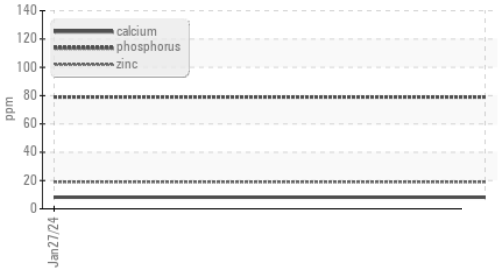
Viscosity @ 100°C



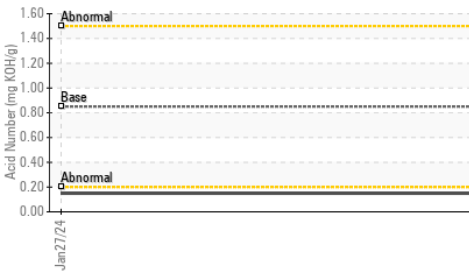
Additives



Additives



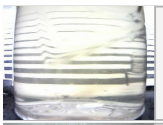
Acid Number



PQ

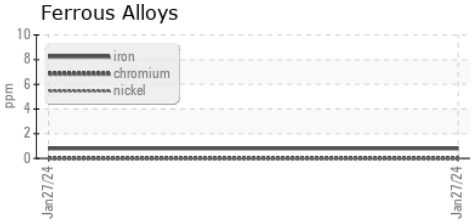
VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	Visual*	NONE	**NONE**	---	---
Yellow Metal	scalar	Visual*	NONE	**NONE**	---	---
Precipitate	scalar	Visual*	NONE	**NONE**	---	---
Silt	scalar	Visual*	NONE	**NONE**	---	---
Debris	scalar	Visual*	NONE	**NONE**	---	---
Sand/Dirt	scalar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

FLUID PROPERTIES		method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D7279(m)	220	▲ **47.3**	---	---
Visc @ 100°C	cSt	ASTM D7279(m)	19.0	▲ **8.3**	---	---
Viscosity Index (VI)	Scale	ASTM D2270*	96	**151**	---	---

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

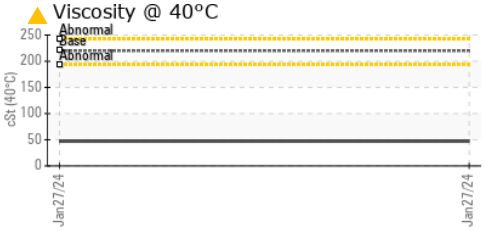
GRAPHS

Ferrous Alloys

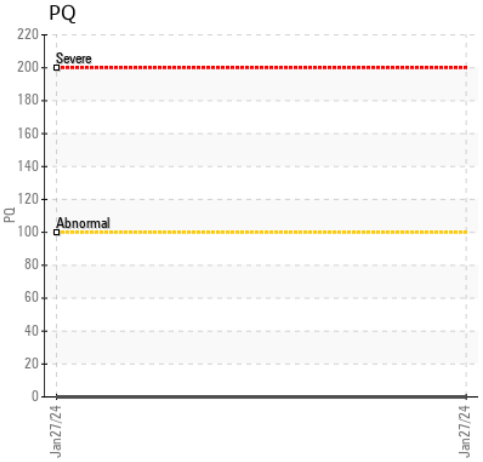


Non-ferrous Metals

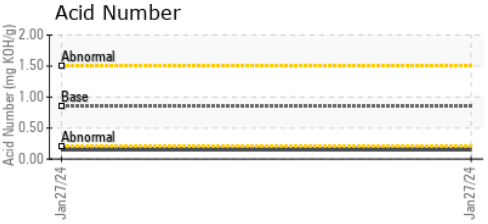
Viscosity @ 40°C



PQ



Acid Number



ISO 17025:2017 Accredited Laboratory

Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : PC0080459 **Recieved** : 01 Feb 2024
Lab Number : 02612923 **Diagnosed** : 03 Feb 2024
Unique Number : 5722018 **Diagnostician** : Bill Quesnel
Test Package : IND 2 (Additional Tests: KV100, VI)

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.

Green Infrastructure and Partners Inc (GIPI) - 286 - Shoring & Foundations
151 Ram Forest Rd,
Stouffville, ON
CA L4A 2G8
Contact: Shannon Abbott
sabbott@gipi.com
T: (905)750-5900
F: