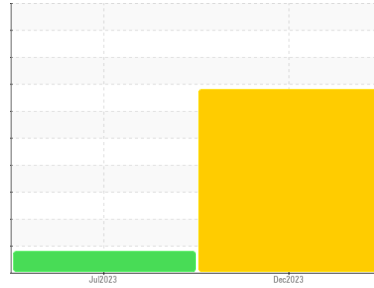




PROBLEM SUMMARY

Sample Rating Trend

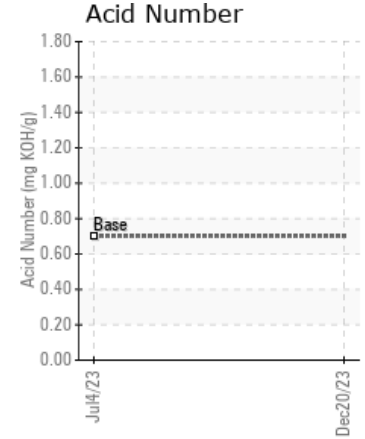
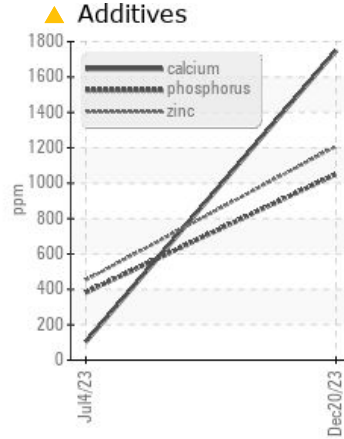
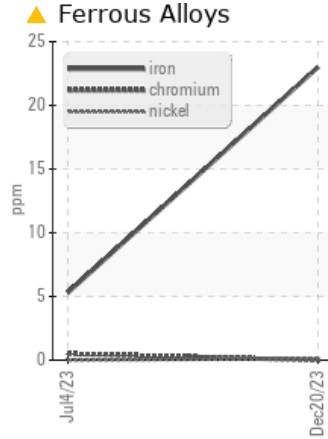
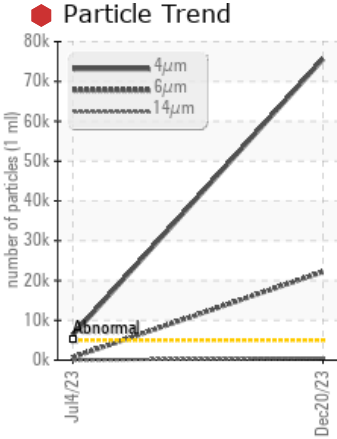


ISO



Area
RONI
 Machine Id
100-004
 Component
Hydraulic System
 Fluid
PETRO CANADA HYDREX AW 46 (--- GAL)

COMPONENT CONDITION SUMMARY



RECOMMENDATION

Check seals and/or filters for points of contaminant entry. The air breather requires service. If unrated, we recommend that you replace with a suitable micron rated and/or desiccant air breather. If rated, we recommend that you service/replace the breather. The filter change at the time of sampling has been noted. Confirm the source of the lubricant being utilized for top-up/fill. Resample in 30-45 days to monitor this situation. The fluid was specified as PETRO CANADA HYDREX AW 46, however, a fluid match indicates that this fluid is SAE 10W Diesel Engine Oil. Please confirm the oil type and grade on your next sample.

PROBLEMATIC TEST RESULTS

Sample Status			SEVERE	ATTENTION	---
Particles >4µm	ASTM D7647	>5000	75605	6255	---
Particles >6µm	ASTM D7647	>1300	22193	717	---
Particles >14µm	ASTM D7647	>160	558	23	---
Oil Cleanliness	ISO 4406 (c)	>19/17/14	23/22/16	20/17/12	---

Customer Id: RONVAU
 Sample No.: WC0888422
 Lab Number: 02605328
 Test Package: MOBCE



To manage this report scan the QR code

To discuss the diagnosis or test data:
 Kevin Marson +1 (289)291-4644 x4644
Kevin.Marson@wearcheck.com

To change component or sample information:
 Gloria Gonzalez +1 (289)291-4643 x4643
gloria.gonzalez@wearcheck.com

RECOMMENDED ACTIONS

Action	Status	Date	Done By	Description
Resample	---	---	?	Resample in 30-45 days to monitor this situation.
Alert	---	---	?	The fluid was specified as PETRO CANADA HYDREX AW 46, however, a fluid match indicates that this fluid is SAE 10W Diesel Engine Oil. Please confirm the oil type and grade on your next sample.
Check Breathers	---	---	?	The air breather requires service. If unrated, we recommend that you replace with a suitable micron rated and/or desiccant air breather. If rated, we recommend that you service/replace the breather.
Check Fluid Source	---	---	?	Confirm the source of the lubricant being utilized for top-up/fill.
Check Seals	---	---	?	Check seals and/or filters for points of contaminant entry.

HISTORICAL DIAGNOSIS

04 Jul 2023 Diag: Wes Davis

ISO



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

view report





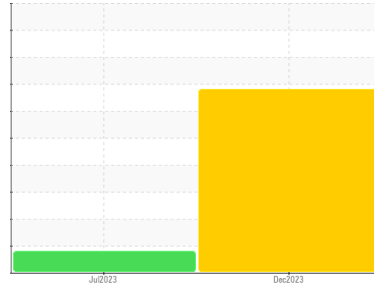
OIL ANALYSIS REPORT

Sample Rating Trend

ISO



Area
RONI
 Machine Id
100-004
 Component
Hydraulic System
 Fluid
PETRO CANADA HYDREX AW 46 (--- GAL)



DIAGNOSIS

Recommendation

Check seals and/or filters for points of contaminant entry. The air breather requires service. If unrated, we recommend that you replace with a suitable micron rated and/or desiccant air breather. If rated, we recommend that you service/replace the breather. The filter change at the time of sampling has been noted. Confirm the source of the lubricant being utilized for top-up/fill. Resample in 30-45 days to monitor this situation. The fluid was specified as PETRO CANADA HYDREX AW 46, however, a fluid match indicates that this fluid is SAE 10W Diesel Engine Oil. Please confirm the oil type and grade on your next sample.

Wear

Iron ppm levels are noted. The low ferrous density (PQ) index indicates the wear metal levels are due to corrosion. All other component wear rates are normal.

Contamination

There is a high amount of silt (particulates < 14 microns in size) present 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 oil is still serviceable provided that the contaminant(s) can be reduced to acceptable levels.

SAMPLE INFORMATION

method	limit/base	current	history1	history2
Sample Number	Client Info	WC0888422	LH0270804	---
Sample Date	Client Info	20 Dec 2023	04 Jul 2023	---
Machine Age	hrs	Client Info	0	2897
Oil Age	hrs	Client Info	0	0
Oil Changed	Client Info	Changed	Not Changd	---
Sample Status		SEVERE	ATTENTION	---

CONTAMINATION

method	limit/base	current	history1	history2
Water	WC Method >0.1	NEG	NEG	---

WEAR METALS

method	limit/base	current	history1	history2
PQ	ASTM D8184*	0	---	---
Iron	ppm	ASTM D5185(m) >20	▲ 23	5
Chromium	ppm	ASTM D5185(m) >10	0	<1
Nickel	ppm	ASTM D5185(m) >10	<1	0
Titanium	ppm	ASTM D5185(m)	0	0
Silver	ppm	ASTM D5185(m)	0	0
Aluminum	ppm	ASTM D5185(m) >10	2	1
Lead	ppm	ASTM D5185(m) >10	1	<1
Copper	ppm	ASTM D5185(m) >75	9	8
Tin	ppm	ASTM D5185(m) >10	0	0
Antimony	ppm	ASTM D5185(m)	0	0
Vanadium	ppm	ASTM D5185(m)	0	0
Beryllium	ppm	ASTM D5185(m)	0	0
Cadmium	ppm	ASTM D5185(m)	0	0

ADDITIVES

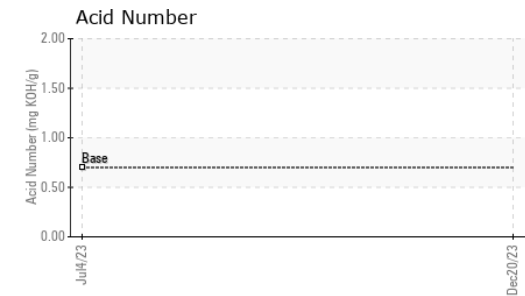
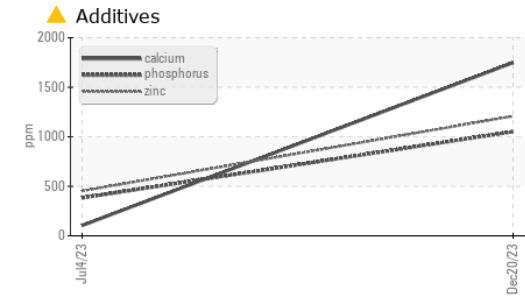
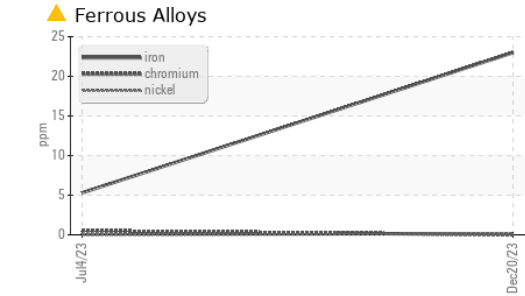
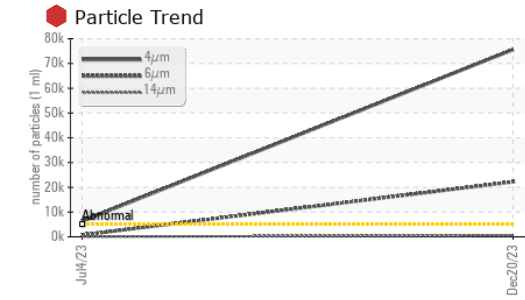
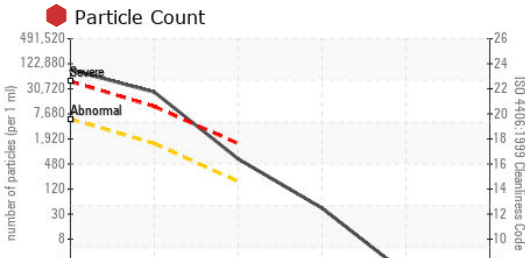
method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185(m) 0	<1	<1
Barium	ppm	ASTM D5185(m) 0	<1	0
Molybdenum	ppm	ASTM D5185(m) 0	0	0
Manganese	ppm	ASTM D5185(m) 0	<1	0
Magnesium	ppm	ASTM D5185(m) 0	▲ 482	3
Calcium	ppm	ASTM D5185(m) 50	▲ 1749	104
Phosphorus	ppm	ASTM D5185(m) 330	▲ 1051	383
Zinc	ppm	ASTM D5185(m) 430	▲ 1208	452
Sulfur	ppm	ASTM D5185(m) 760	▲ 3346	900
Lithium	ppm	ASTM D5185(m)	<1	<1

CONTAMINANTS

method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185(m) >20	3	3
Sodium	ppm	ASTM D5185(m)	1	<1
Potassium	ppm	ASTM D5185(m) >20	1	<1



OIL ANALYSIS REPORT



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9 **RONI/IRON SHORE EXCAVATING LTD.**
Sample No. : WC0888422 **Received** : 27 Dec 2023 **100 MACINTOSH BLVD**
Lab Number : 02605328 **Diagnosed** : 28 Dec 2023 **VAUGHAN, ON**
Unique Number : 5698413 **Diagnostician** : Kevin Marson **CA L4K 4P3**
Test Package : MOBCE (Additional Tests: PQ) **Contact: Service Team**
service.team@roni.ca

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 CLEANLINESS	method	limit/base	current	history1	history2
Particles >4µm	ASTM D7647	>5000	75605	6255	---
Particles >6µm	ASTM D7647	>1300	22193	717	---
Particles >14µm	ASTM D7647	>160	558	23	---
Particles >21µm	ASTM D7647	>40	37	8	---
Particles >38µm	ASTM D7647	>10	1	1	---
Particles >71µm	ASTM D7647	>3	1	0	---
Oil Cleanliness	ISO 4406 (c)	>19/17/14	23/22/16	20/17/12	---

FLUID DEGRADATION	method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D974*	0.70	1.71	---

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*	>0.1	NEG	---
Free Water	scalar	Visual*		NEG	---

FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D7279(m)	46.4	42.5	44.2

SAMPLE IMAGES	method	limit/base	current	history1	history2
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