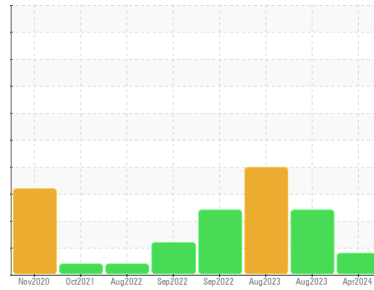




OIL ANALYSIS REPORT

Sample Rating Trend



VISCOSITY



Machine Id
B40392

Component
Gearbox

Fluid
PETRO CANADA 220 (--- GAL)

DIAGNOSIS

Recommendation

We recommend you service the filters on this component if applicable. Resample at the next service interval to monitor. We were unable to perform a particle count due to a high concentration of particles present in this sample.

Wear

All component wear rates are normal.

Contamination

Moderate concentration of visible dirt/debris present in the oil.

Fluid Condition

Viscosity of sample indicates oil is within ISO 46 range, advise investigate. Confirm oil type. The AN level is acceptable for this fluid.

SAMPLE INFORMATION

	method	limit/base	current	history1	history2
Sample Number	Client Info		WC0880635	WC0820551	WC0820547
Sample Date	Client Info		08 Apr 2024	01 Aug 2023	01 Aug 2023
Machine Age	hrs	Client Info	0	0	0
Oil Age	hrs	Client Info	0	0	0
Oil Changed	Client Info		N/A	N/A	N/A
Sample Status			ABNORMAL	ABNORMAL	ABNORMAL

CONTAMINATION

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

WEAR METALS

	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m >200	<1	3	▲ 314
Chromium	ppm	ASTM D5185m >10	0	0	3
Nickel	ppm	ASTM D5185m >10	0	0	0
Titanium	ppm	ASTM D5185m	0	<1	0
Silver	ppm	ASTM D5185m	0	0	0
Aluminum	ppm	ASTM D5185m >25	1	1	2
Lead	ppm	ASTM D5185m >50	0	0	0
Copper	ppm	ASTM D5185m >200	0	<1	<1
Tin	ppm	ASTM D5185m >10	0	0	0
Vanadium	ppm	ASTM D5185m	0	<1	<1
Cadmium	ppm	ASTM D5185m	0	0	0

ADDITIVES

	method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	0	0	0
Barium	ppm	ASTM D5185m	0	0	0
Molybdenum	ppm	ASTM D5185m	0	0	0
Manganese	ppm	ASTM D5185m	0	<1	2
Magnesium	ppm	ASTM D5185m	0	0	0
Calcium	ppm	ASTM D5185m	1	0	2
Phosphorus	ppm	ASTM D5185m	385	154	144
Zinc	ppm	ASTM D5185m	3	0	0
Sulfur	ppm	ASTM D5185m	472	830	842

CONTAMINANTS

	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m >50	<1	9	6
Sodium	ppm	ASTM D5185m	3	<1	4
Potassium	ppm	ASTM D5185m >20	10	0	0

FLUID CLEANLINESS

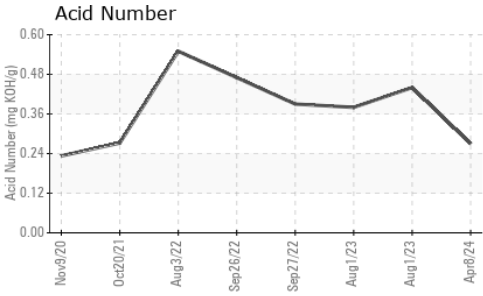
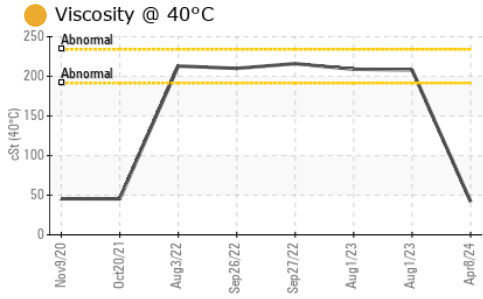
	method	limit/base	current	history1	history2
Particles >4µm	ASTM D7647	>20000	---	▲ 119744	---
Particles >6µm	ASTM D7647	>5000	---	▲ 41356	---
Particles >14µm	ASTM D7647	>640	---	▲ 1925	---
Particles >21µm	ASTM D7647	>160	---	▲ 316	---
Particles >38µm	ASTM D7647	>40	---	8	---
Particles >71µm	ASTM D7647	>10	---	4	---
Oil Cleanliness	ISO 4406 (c)	>21/19/16	---	▲ 24/23/18	---

FLUID DEGRADATION

	method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D8045	0.27	0.44	0.38



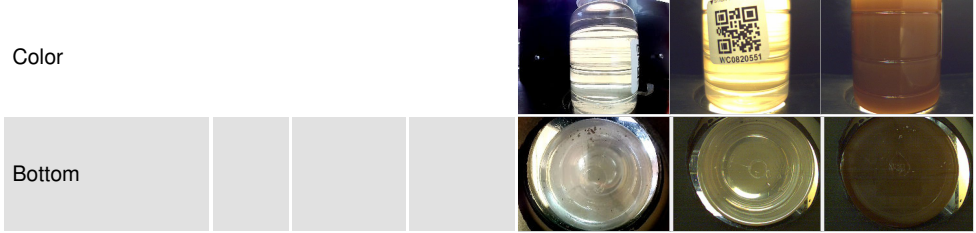
OIL ANALYSIS REPORT



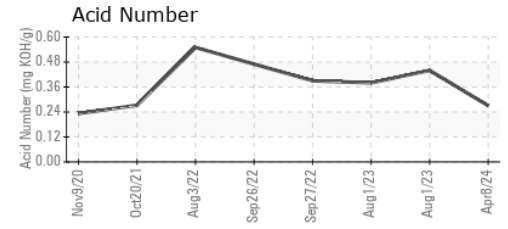
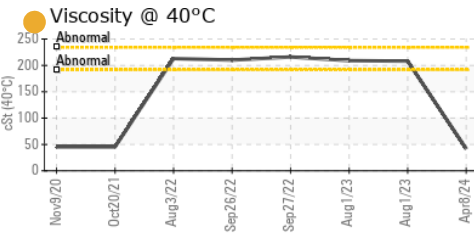
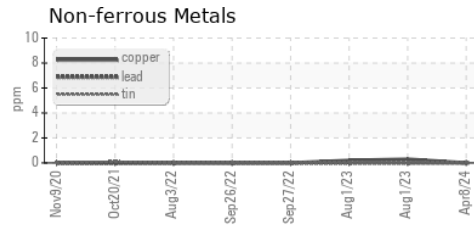
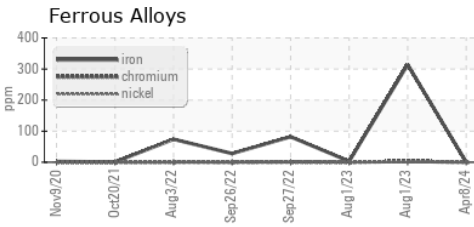
VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	▲ HEAVY
Debris	scalar	*Visual	▲ MODER	▲ MODER	LIGHT
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE
Appearance	scalar	*Visual	NORML	NORML	● MILKY
Odor	scalar	*Visual	NORML	NORML	NORML
Emulsified Water	scalar	*Visual	>0.2	NEG	0.2%
Free Water	scalar	*Visual		NEG	NEG

FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445	● 41.9	208	209

SAMPLE IMAGES	method	limit/base	current	history1	history2
---------------	--------	------------	---------	----------	----------



GRAPHS



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : WC0880635 **Received** : 17 Apr 2024
Lab Number : 06151946 **Tested** : 23 Apr 2024
Unique Number : 10982024 **Diagnosed** : 23 Apr 2024 - Jonathan Hester
Test Package : IND 2 (Additional Tests: PrtCount)

Rochelle Foods - PRE
 1001 South Main, P.O. Box 45
 Rochelle, IL
 US 61068
 Contact: JAMES ROBINSON III
 jrobinson3@hormel.com

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) F: (815)562-4147