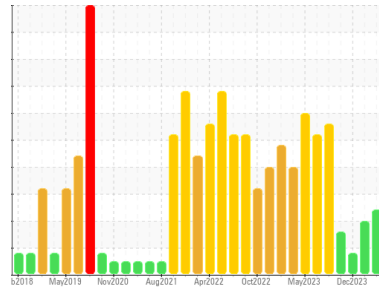




OIL ANALYSIS REPORT

Sample Rating Trend



VISCOSITY



Area

NORTH KETTLE ROOM

Machine Id

STERLING B26487 - NORTH KETTLE 2

Component

Gearbox

Fluid

PETRO CANADA ENDURATEX SYNTHETIC EP 220 (--- GAL)

DIAGNOSIS

▲ Recommendation

We recommend you service the filters on this component if applicable. Resample at the next service interval to monitor.

Wear

All component wear rates are normal.

▲ Contamination

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

● Fluid Condition

Viscosity of sample indicates oil is within ISO 320 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		WC0930427	WC0885415	WC0872432
Sample Date	Client Info		07 Jun 2024	20 Feb 2024	26 Dec 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	15	51	95
Chromium	ppm	ASTM D5185m	>10	<1	<1	0
Nickel	ppm	ASTM D5185m	>10	0	<1	0
Titanium	ppm	ASTM D5185m		0	0	0
Silver	ppm	ASTM D5185m		0	0	0
Aluminum	ppm	ASTM D5185m	>25	8	<1	0
Lead	ppm	ASTM D5185m	>50	0	<1	0
Copper	ppm	ASTM D5185m	>200	0	0	0
Tin	ppm	ASTM D5185m	>10	0	0	0
Vanadium	ppm	ASTM D5185m		0	0	0
Cadmium	ppm	ASTM D5185m		0	0	0

ADDITIVES

	method	limit/base	current	history1	history2	
Boron	ppm	ASTM D5185m	33	0	0	0
Barium	ppm	ASTM D5185m	5	0	0	0
Molybdenum	ppm	ASTM D5185m		0	0	0
Manganese	ppm	ASTM D5185m		0	<1	0
Magnesium	ppm	ASTM D5185m	5	<1	2	0
Calcium	ppm	ASTM D5185m	5	11	3	0
Phosphorus	ppm	ASTM D5185m	437	303	50	90
Zinc	ppm	ASTM D5185m	5	3	0	0
Sulfur	ppm	ASTM D5185m	5000	580	721	645

CONTAMINANTS

	method	limit/base	current	history1	history2	
Silicon	ppm	ASTM D5185m	>50	11	4	4
Sodium	ppm	ASTM D5185m		4	3	2
Potassium	ppm	ASTM D5185m	>20	1	2	0

FLUID CLEANLINESS

	method	limit/base	current	history1	history2
Particles >4µm	ASTM D7647	>20000	▲ 90372	---	---
Particles >6µm	ASTM D7647	>5000	▲ 24093	---	---
Particles >14µm	ASTM D7647	>640	▲ 685	---	---
Particles >21µm	ASTM D7647	>160	▲ 166	---	---
Particles >38µm	ASTM D7647	>40	10	---	---
Particles >71µm	ASTM D7647	>10	1	---	---
Oil Cleanliness	ISO 4406 (c)	>21/19/16	▲ 24/22/17	---	---

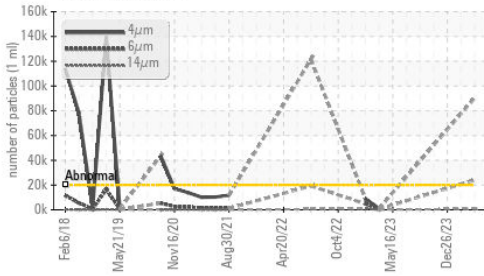
FLUID DEGRADATION

	method	limit/base	current	history1	history2	
Acid Number (AN)	mg KOH/g	ASTM D8045	0.7	0.25	0.27	0.27

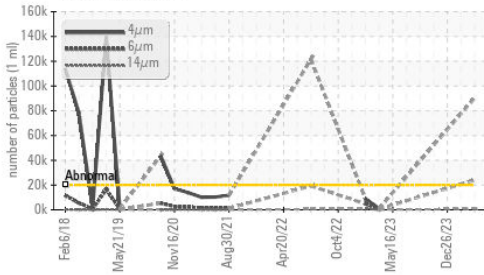


OIL ANALYSIS REPORT

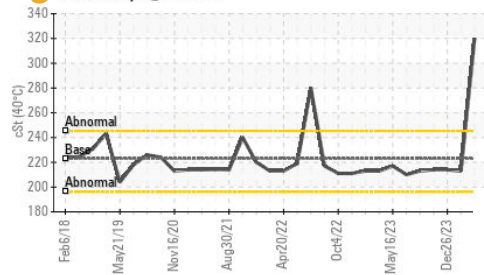
▲ Particle Trend



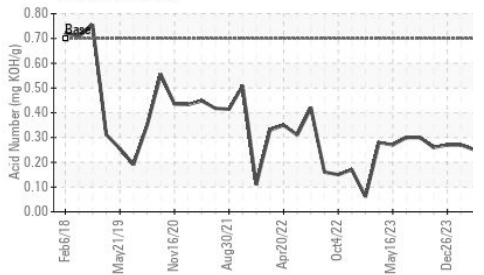
▲ Particle Trend



● Viscosity @ 40°C



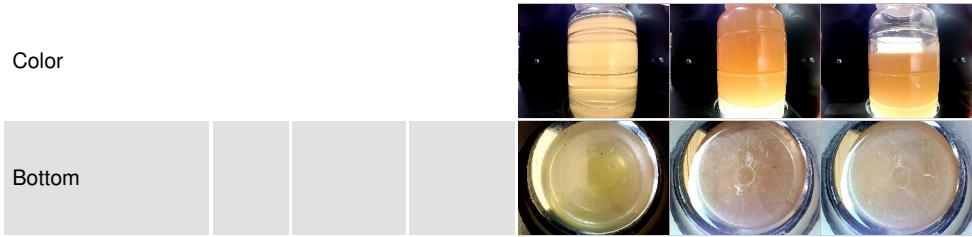
Acid Number



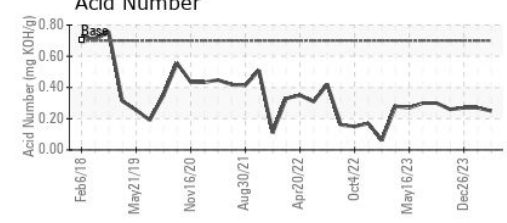
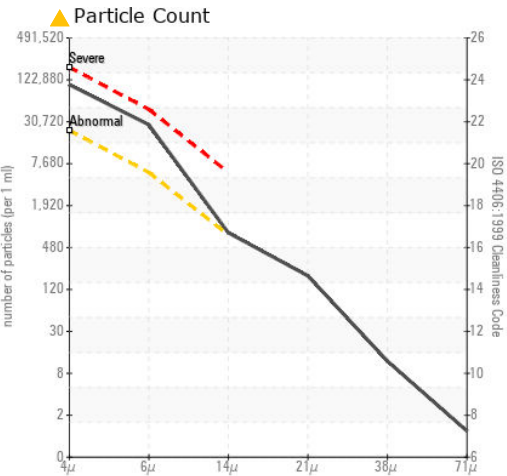
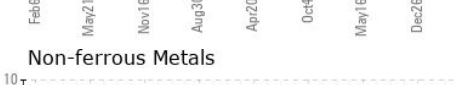
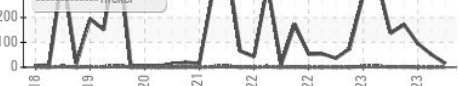
VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	▲ MODER
Debris	scalar	*Visual	NONE	▲ MODER	LIGHT
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE
Appearance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

FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445	223 ● 320	213	214

SAMPLE IMAGES	method	limit/base	current	history1	history2
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GRAPHS



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : WC0930427 **Received** : 19 Jun 2024
Lab Number : 06214649 **Tested** : 20 Jun 2024
Unique Number : 11087513 **Diagnosed** : 21 Jun 2024 - Don Baldrige
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

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