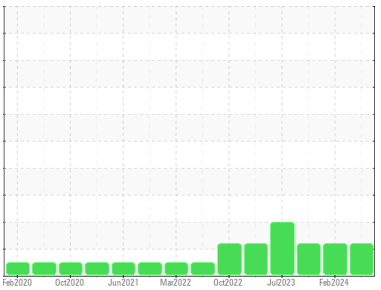
OIL ANALYSIS REPORT

Sample Rating Trend



VISCOSITY

Machine Id
034-M-010 Medium Fiber Thickener
Component
Gearbox
Fluid
ESSO SPARTAN EP 460 (72 LTR)

DIAGNOSIS

Recommendation
Confirm the source of the lubricant being utilized for top-up/fill. Resample at the next service interval to monitor. The fluid was specified as ESSO SPARTAN EP 460, however, a fluid match indicates that this fluid is ISO 220 Synthetic (PAG) Gear Oil. Please confirm the oil type and grade on your next sample.

Wear
All component wear rates are normal.

Contamination
There is no indication of any contamination in the oil.

Fluid Condition
Viscosity of sample indicates oil is within ISO 220 range, advise investigate. This plus the additive levels indicates that this is not the same brand, or type of oil as reported. 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		**WC0962290**	WC0913382	WC0879777
Sample Date		Client Info		**03 Jul 2024**	26 Feb 2024	08 Nov 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
PQ		ASTM D8184*		**0**	0	0
Iron	ppm	ASTM D5185(m)	>200	**3**	2	2
Chromium	ppm	ASTM D5185(m)	>15	**0**	0	0
Nickel	ppm	ASTM D5185(m)	>15	**<1**	<1	0
Titanium	ppm	ASTM D5185(m)		**0**	0	0
Silver	ppm	ASTM D5185(m)		**0**	0	<1
Aluminum	ppm	ASTM D5185(m)	>25	**<1**	<1	<1
Lead	ppm	ASTM D5185(m)	>100	**0**	<1	0
Copper	ppm	ASTM D5185(m)	>200	**<1**	<1	<1
Tin	ppm	ASTM D5185(m)	>25	**0**	0	0
Antimony	ppm	ASTM D5185(m)	>5	**0**	0	0
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)	.8	**4**	4	4
Barium	ppm	ASTM D5185(m)		**<1**	0	<1
Molybdenum	ppm	ASTM D5185(m)	.4	**0**	0	0
Manganese	ppm	ASTM D5185(m)		**0**	0	0
Magnesium	ppm	ASTM D5185(m)	.7	**0**	<1	0
Calcium	ppm	ASTM D5185(m)	17	**2**	2	2
Phosphorus	ppm	ASTM D5185(m)	250	**418**	442	424
Zinc	ppm	ASTM D5185(m)	5.5	**2**	2	1
Sulfur	ppm	ASTM D5185(m)		**1588**	1764	1607
Lithium	ppm	ASTM D5185(m)		**<1**	<1	<1

CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185(m)	>50	**19**	17	19
Sodium	ppm	ASTM D5185(m)		**<1**	<1	<1
Potassium	ppm	ASTM D5185(m)	>20	**<1**	<1	0

FLUID DEGRADATION		method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D974*	0.75	**0.43**	0.43	0.57

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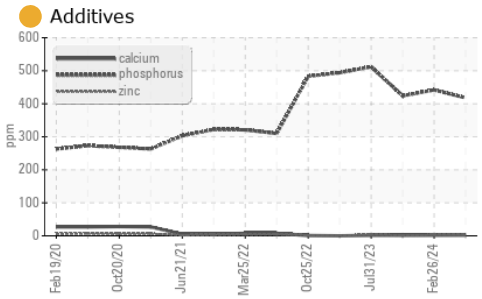
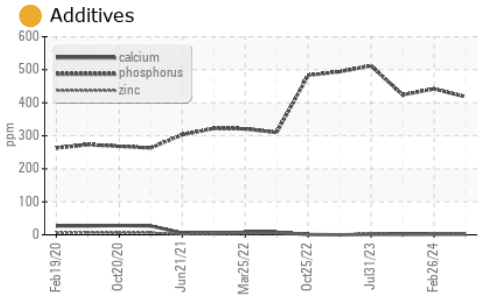
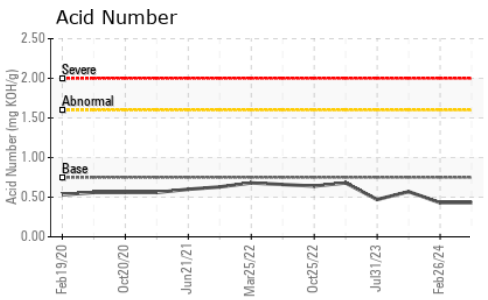
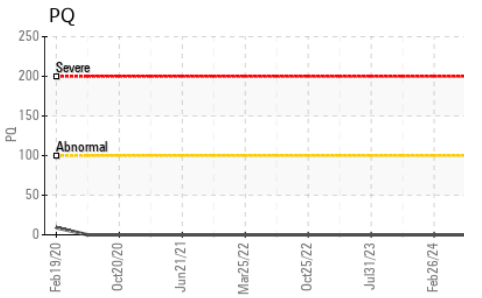


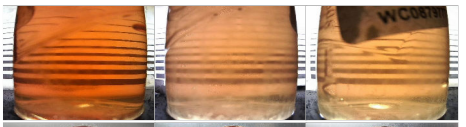




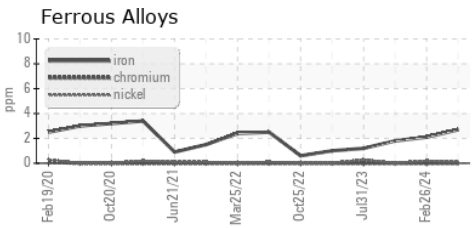


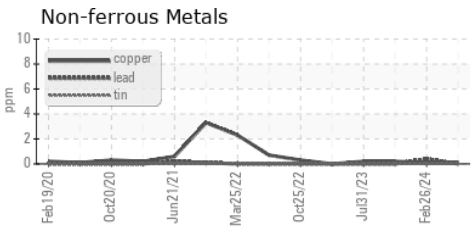
VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	Visual*	NONE	**VLITE**	NONE	NONE
Yellow Metal	scalar	Visual*	NONE	**NONE**	NONE	NONE
Precipitate	scalar	Visual*	NONE	**NONE**	NONE	NONE
Silt	scalar	Visual*	NONE	**NONE**	NONE	NONE
Debris	scalar	Visual*	NONE	**NONE**	NONE	NONE
Sand/Dirt	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

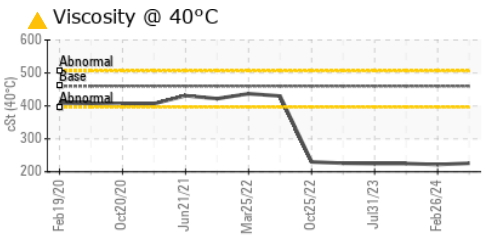
FLUID PROPERTIES		method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D7279(m)	460	▲ **226**	▲ 222	▲ 225

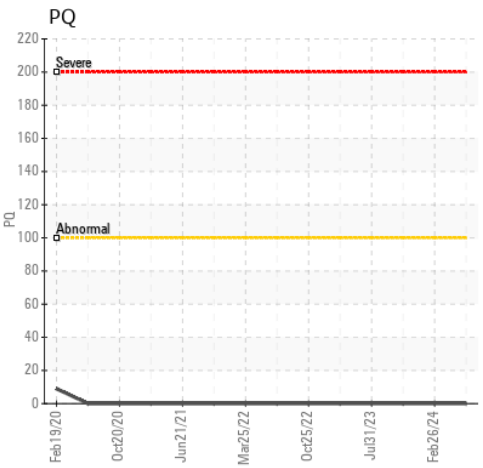
SAMPLE IMAGES	method	limit/base	current	history1	history2
Color					
Bottom					

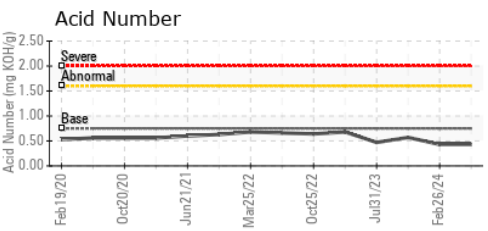
GRAPHS











ISO 17025:2017 Accredited Laboratory

Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : WC0962290
Lab Number : 02645619
Unique Number : 5803158
Test Package : IND 2

Received : 04 Jul 2024
Tested : 08 Jul 2024
Diagnosed : 08 Jul 2024 - Kevin Marson

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.

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