

OIL ANALYSIS REPORT

Sample Rating Trend



Machine Id **DR193** Component Left Final Drive Fluic 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. Resample at the next service interval to monitor. 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. Please specify the brand, type, and viscosity of the oil on your next sample.

Wear

All component wear rates are normal.

Contamination

There is no indication of any contamination in the oil.

Fluid Condition

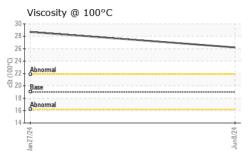
The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

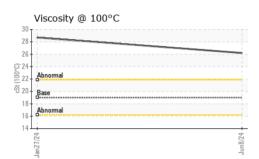
SAMPLE INFORM	MATION	method	limit/base	current	history1	history2
Sample Number		Client Info		PC0087849	PC0080452	
Sample Date		Client Info		08 Jun 2024	27 Jan 2024	
Machine Age	hrs	Client Info		1043	468	
Oil Age	hrs	Client Info		0	250	
Oil Changed		Client Info		Changed	Changed	
Sample Status				NORMAL	ABNORMAL	
CONTAMINATI	ION	method	limit/base	current	history1	history2
Water		WC Method	>0.2	NEG	NEG	
WEAR METAL	S	method	limit/base	current	history1	history2
PQ		ASTM D8184*		12	120	
Iron	ppm	ASTM D5185(m)	>500	13	34	
Chromium	ppm	ASTM D5185(m)	>10	0	<1	
Nickel	ppm	ASTM D5185(m)	>10	<1	<1	
Titanium	ppm	ASTM D5185(m)		0	0	
Silver	ppm	ASTM D5185(m)		0	0	
Aluminum	ppm	ASTM D5185(m)	>25	<1	1	
Lead	ppm	ASTM D5185(m)	>25	0	<1	
Copper	ppm	ASTM D5185(m)	>50	2	6	
Tin	ppm	ASTM D5185(m)	>10	0	<1	
Antimony	ppm	ASTM D5185(m)	>5	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)	50	29	29	
Barium	ppm	ASTM D5185(m)	15	2	8	
Molybdenum	ppm	ASTM D5185(m)	15	0	0	
Manganese	ppm	ASTM D5185(m)		<1	<1	
Magnesium	ppm	ASTM D5185(m)	50	6	<1	
Calcium	ppm	ASTM D5185(m)	50	10	17	
Phosphorus	ppm	ASTM D5185(m)	350	412	440	
Zinc	ppm	ASTM D5185(m)	100	11	5	
Sulfur	ppm	ASTM D5185(m)	12500	4878	5753	
Lithium	ppm	ASTM D5185(m)		<1	<1	
CONTAMINAN	TS	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185(m)	>75	2	7	
Sodium	ppm	ASTM D5185(m)		3	13	
Potassium	ppm	ASTM D5185(m)	>20	<1	2	
FLUID DEGRAD) ATION	method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D974*	0.85	0.75	0.77	

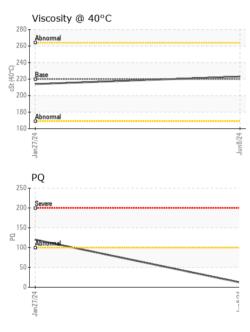


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VIOLIA







VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	Visual*	NONE	VLITE	🔺 MODER	
Yellow Metal	scalar	Visual*	NONE	NONE	NONE	
Precipitate	scalar	Visual*	NONE	NONE	NONE	
Silt	scalar	Visual*	NONE	VLITE	NONE	
Debris	scalar	Visual*	NONE	NONE	NONE	
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	NEG	
Free Water		Visual*		NEG	NEG	
FLUID PROPE	RTIES	method	limit/base	current	history1	history2
/isc @ 40°C	cSt	ASTM D7279(m)	220	223	214	
/isc @ 100°C	cSt	ASTM D7279(m)	19.0	26.2	28.7	
/iscosity Index (VI)	Scale	ASTM D2270*	96	150	173	
SAMPLE IMAG	IES	method	limit/base	current	history1	history2
Color						no image
Bottom						no image
				no image		no image
PrtFilter						no imago
GRAPHS						
GRAPHS				-		ne intage
			220-	PQ		
GRAPHS Ferrous Alloys			200-	PQ		no imago
GRAPHS Ferrous Alloys				PQ		
GRAPHS Ferrous Alloys			200 · 180 · 160 · 52 140 ·	PQ Severe		
GRAPHS Ferrous Alloys			200 · 180 · 160 · 52 140 ·	PQ Severe		no image
GRAPHS Ferrous Alloys	5		200 180 160 140 120 120 100	PQ Severe		
GRAPHS Ferrous Alloys	5		200 180 160 47 7 20 100 20 100 80	PQ Severe		
GRAPHS Ferrous Alloys	5		200 180 160 140 120 120 100	PQ Severe		
GRAPHS Ferrous Alloys	5		200- 180- 160- 140- 20- 140- 20- 20- 20- 20- 20- 20- 20- 20- 20- 2	PQ Severe		
GRAPHS Ferrous Alloys	5		200- 180- 160- 140- 120- 100- 80- 60- 40- 20- 00-	PQ Severe		
GRAPHS Ferrous Alloys	5		200- 180- 160- 120- 120- 100- 80- 80- 60- 40- 40- 20-	PQ Severe		
GRAPHS Ferrous Alloys	5		200- 180- 160- 120- 20- 20- 80- 80- 80- 80- 80- 80- 80- 80- 80- 8	PQ Severe ADnormal		
GRAPHS Ferrous Alloys	5		200- 180- 160- 120- 20- 20- 80- 80- 80- 80- 80- 80- 80- 80- 80- 8	PQ	r	
GRAPHS Ferrous Alloys	5		200- 180- 160- 120- 20- 20- 80- 80- 80- 80- 80- 80- 80- 80- 80- 8	PQ Severe ADnormal	r	
GRAPHS Ferrous Alloys	5		200- 180- 160- 120- 20- 20- 80- 80- 80- 80- 80- 80- 80- 80- 80- 8	PQ Severe Abnormal Acid Numbe	r	
GRAPHS Ferrous Alloys	5		200- 180- 160- 160- 120- 100- 80- 60- 40- 40- 20- 40- 100- 80- 100- 80- 100- 80- 100- 80- 100- 80- 100- 100- 80- 100-	PQ Severe Abnormal Acid Numbe Abnormal Base Abnormal	r	
GRAPHS Ferrous Alloys	5		200- 180- 160- 140- 120- 100- 80- 60- 40- 20- 00-	PQ Severe Abnormal Acid Numbe	r	

: WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9 Green Infrastructure and Partners Inc (GIPI) - 286 - Shoring & Foundations Laboratory CALA Sample No. : PC0087849 Received 151 Ram Forest Rd, : 16 Jul 2024 Lab Number : 02648233 Tested : 17 Jul 2024 Stouffville, ON ISO 17025:2017 Accredited Laboratory Unique Number : 5813785 Diagnosed : 18 Jul 2024 - Kevin Marson CA L4A 2G8 Test Package : IND 2 (Additional Tests: KV100, TAN Man, VI) Contact: Shannon Abbott To discuss this sample report, contact Customer Service at 1-800-268-2131. sabbott@gipi.com T: (905)750-5900 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. F:

Report Id: GFL286 [WCAMIS] 02648233 (Generated: 07/18/2024 08:37:06) Rev: 1

Contact/Location: Shannon Abbott - GFL286 Page 2 of 2