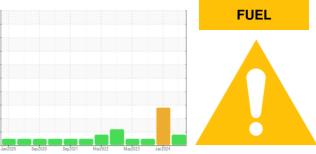


[44093671]

OIL ANALYSIS REPORT

Sample Rating Trend



Diesel Engine Fluid DIESEL ENGINE OIL SAE 10W30 (--- GAL)

DIAGNOSIS

Recommendation

We recommend that you drain the oil from the component if this has not already been done. We recommend an early resample to monitor this condition.

Wear

Area

9497

All component wear rates are normal.

Contamination

There is a moderate amount of fuel present in the oil. Tests confirm the presence of fuel in the oil.

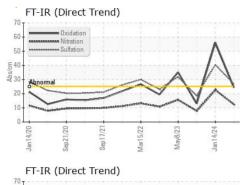
Fluid Condition

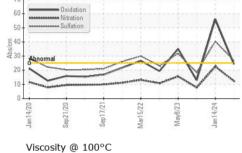
The oil is no longer serviceable due to the presence of contaminants.

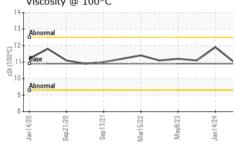
SAMPLE INFORM	ATION	method	limit/base	current	history1	history2
Sample Number		Client Info		WC0924171	WC0853066	WC0796494
Sample Date		Client Info		08 Apr 2024	14 Jan 2024	08 Oct 2023
Machine Age	kms	Client Info		434049	427606	415439
Oil Age	kms	Client Info		0	0	0
Oil Changed		Client Info		Not Changd	Changed	Not Changd
Sample Status				ABNORMAL	SEVERE	NORMAL
CONTAMINATION	N	method	limit/base	current	history1	history2
Water		WC Method	>0.2	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	NEG
WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185(m)	>90	32	▲ 174	20
Chromium	ppm	ASTM D5185(m)	>20	2	6	2
Nickel	ppm	ASTM D5185(m)	>2	0	<1	<1
Titanium	ppm	ASTM D5185(m)	>2	0	0	0
Silver	ppm	ASTM D5185(m)	>2	0	<1	<1
Aluminum	ppm	ASTM D5185(m)	>20	5	14	2
Lead	ppm	ASTM D5185(m)	>40	5	6	1
Copper	ppm	ASTM D5185(m)	>330	1	6	<1
Tin	ppm	ASTM D5185(m)	>15	<1	2	0
Antimony	ppm	ASTM D5185(m)		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)	250	31	23	80
Barium	ppm	ASTM D5185(m)	10	0	0	<1
				-	7	
Molybdenum	ppm	ASTM D5185(m)	100	2	7	<1
Molybdenum Manganese	ppm ppm	ASTM D5185(m) ASTM D5185(m)	100	2 <1	2	<1 0
-			100 450			
Manganese	ppm	ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)		<1	2	0
Manganese Magnesium	ppm ppm	ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)	450 3000 1150	<1 749 1340 688	2 674	0 706 1273 661
Manganese Magnesium Calcium	ppm ppm ppm	ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)	450 3000	<1 749 1340	2 674 1293	0 706 1273
Manganese Magnesium Calcium Phosphorus Zinc Sulfur	ppm ppm ppm ppm	ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)	450 3000 1150 1350 4250	<1 749 1340 688 777 2410	2 674 1293 652 749 2362	0 706 1273 661 747 2412
Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium	ppm ppm ppm ppm ppm ppm	ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)	450 3000 1150 1350 4250	<1 749 1340 688 777	2 674 1293 652 749	0 706 1273 661 747
Manganese Magnesium Calcium Phosphorus Zinc Sulfur	ppm ppm ppm ppm ppm ppm	ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)	450 3000 1150 1350 4250	<1 749 1340 688 777 2410	2 674 1293 652 749 2362 <1 history1	0 706 1273 661 747 2412
Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINANTS Silicon	ppm ppm ppm ppm ppm ppm	ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) Method ASTM D5185(m)	450 3000 1150 1350 4250	<1 749 1340 688 777 2410 <1	2 674 1293 652 749 2362 <1 history1 9	0 706 1273 661 747 2412 <1 <1 history2 4
Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINANTS	ppm ppm ppm ppm ppm ppm	ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)	450 3000 1150 1350 4250 limit/base >25	<1 749 1340 688 777 2410 <1 current	2 674 1293 652 749 2362 <1 history1 9 4	0 706 1273 661 747 2412 <1 ×1 history2 4 2
Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINANTS Silicon Sodium Potassium	ppm ppm ppm ppm ppm ppm ppm	ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)	450 3000 1150 1350 4250 limit/base >25 >20	<1 749 1340 688 777 2410 <1 current 4 3 3	2 674 1293 652 749 2362 <1 history1 9 4 23	0 706 1273 661 747 2412 <1 <1 history2 4 2 4 2 4
Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINANTS Silicon Sodium	ppm ppm ppm ppm ppm ppm	ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)	450 3000 1150 1350 4250 limit/base >25	<1 749 1340 688 777 2410 <1 current 4 3	2 674 1293 652 749 2362 <1 history1 9 4	0 706 1273 661 747 2412 <1 ×1 history2 4 2
Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINANTS Silicon Sodium Potassium	ppm ppm ppm ppm ppm ppm ppm	ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)	450 3000 1150 1350 4250 limit/base >25 >20	<1 749 1340 688 777 2410 <1 current 4 3 3	2 674 1293 652 749 2362 <1 history1 9 4 23	0 706 1273 661 747 2412 <1 <1 history2 4 2 4 2 4
Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINANTS Silicon Sodium Potassium Fuel	ppm ppm ppm ppm ppm ppm ppm	ASTM D5185(m) ASTM D5185(m)	450 3000 1150 1350 4250 imit/base >25 >20 >3.0	<1 749 1340 688 777 2410 <1 current 4 3 3 3 4	2 674 1293 652 749 2362 <1 history1 9 4 23 23 ▲ 6.6	0 706 1273 661 747 2412 <1 history2 4 2 4 2 4 2 4 <1.0
Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINANTS Silicon Sodium Potassium Fuel INFRA-RED	ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185(m) ASTM D5185(m)	450 3000 1150 4250 limit/base >25 >20 >3.0 limit/base	<1 749 1340 688 777 2410 <1 current 4 3 3 3 4 4 2 4	2 674 1293 652 749 2362 <1 history1 9 4 23 ▲ 6.6 history1	0 706 1273 661 747 2412 <1 history2 4 2 4 2 4 <1.0 history2



OIL ANALYSIS REPORT







FLUID DEGRADA	ATION	method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	ASTM D7414*	>25	24.3	56.1	13.0
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	VLITE		
Debris	scalar	Visual*	NONE	NONE		
Sand/Dirt	scalar	Visual*	NONE	NONE		
Appearance	scalar	Visual*	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 PROPERT	TIES	method	limit/base	current	history1	history2
/isc @ 100°C	cSt	ASTM D7279(m)	10.9	11.0	11.9	11.1
GRAPHS						
Iron (ppm)				Lead (ppm)		
Severe			8	Courses.		
				0-		
Abnormal		/				
	~	\sim	2			
1/20	5/22 -	3/23			5/21 -	8/23 -
Jan 14/20 Sep 21/20 Sep 17/21	Mar15/22	May8/23	+7/+1 UBD	Jan 14/20 Sep 21/20	Sep17/21 Mar15/22	May8/23 Jan 14/24
Aluminum (ppm)			_	Chromium (ppm)	
Severe			5	Courses.		
T I I I I				-		
Abnormal			und 2	0 - Abnormal		
		~/	\sim 1	0		
20+02	22 -				21+	24
Jan 14/20 Sep 21/20 Sep 17/21	Mar15/22	May8/23	an 1+/	Jan 1 4/20 Sep 2 1/20	Sep17/21 Mar15/22	May8/23 Jan 14/24
Copper (ppm)	Z	£ .	7	Silicon (ppm	_	
Severe			8		,	
			6	0-		
			<u>특</u> 4	0-		
				Abnormal		
				0		\rightarrow
Jan 14/20 Sep 2 1/20 Sep 1 7/2 1	Mar15/22	May8/23	47/4	Jan 1 4/20 Sep 2 1/20	Sep17/21 Mar15/22	May8/23 Jan 14/24
		M	Lier		Sep Mar	Jan
Viscosity @ 100°C	:			Fuel Dilution		
Abnormal			6.	Severe		~
Bese			- the second sec			/
2 Base Abnormal			ر ^{وو} 2.	-	~	
			- 0.	i i i i		\searrow
4/20 +	5/22	8/23	+7/+		5/22 -	8/23
Jan 14/20 Sep 21/20 Sep 17/21	Mar15/22	May8/23	lan	Jan 14/20 Sep 21/20	Sep17/21 Mar15/22	May8/23 Jan 14/24

Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9 CALA Sample No. : WC0924171 Received : 17 Apr 2024 Lab Number : 02629560 Tested : 18 Apr 2024 ISO 17025:2017 Accredited Laboratory Unique Number : 5762692 Diagnosed : 18 Apr 2024 - Wes Davis Test Package : MOB 1 (Additional Tests: PercentFuel, Visual) 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.

Rush Truck Centres 7450 Torbram Rd. Mississauga, ON CA L4T 1G9 Contact: Serdar Okur sokur@rushtruckcentres.ca T: (905)671-7600 F:

Report Id: RUSMIS [WCAMIS] 02629560 (Generated: 04/18/2024 09:58:30) Rev: 1

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Contact/Location: Serdar Okur - RUSMIS

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