**WEAR** CONTAMINATION **FLUID CONDITION** 

Current

Test

**UOM** 

Method

**NORMAL ABNORMAL ABNORMAL** 

History1

History2

[103357]

60344988

Diesel Engine

{not provided} (--- GAL)

RECOMMENDATION

HEGOMMENDATION
We are a second that the state of the second the second of the second se
We recommend that you drain the oil from the component if this has
not already been done. We recommend an early resample to monitor
0.1 PM TO 0.11 1 10 11 0.11 0.11

monitor this condition. The fluid was not specified, however, a fluid match indicates that this fluid is SAE 30 Diesel Engine Oil. Please confirm the oil type and grade, and specify the brand of the oil on your next sample.

**WEAR** 

Metal levels are typical for a new component breaking in.

## CONTAMINATION

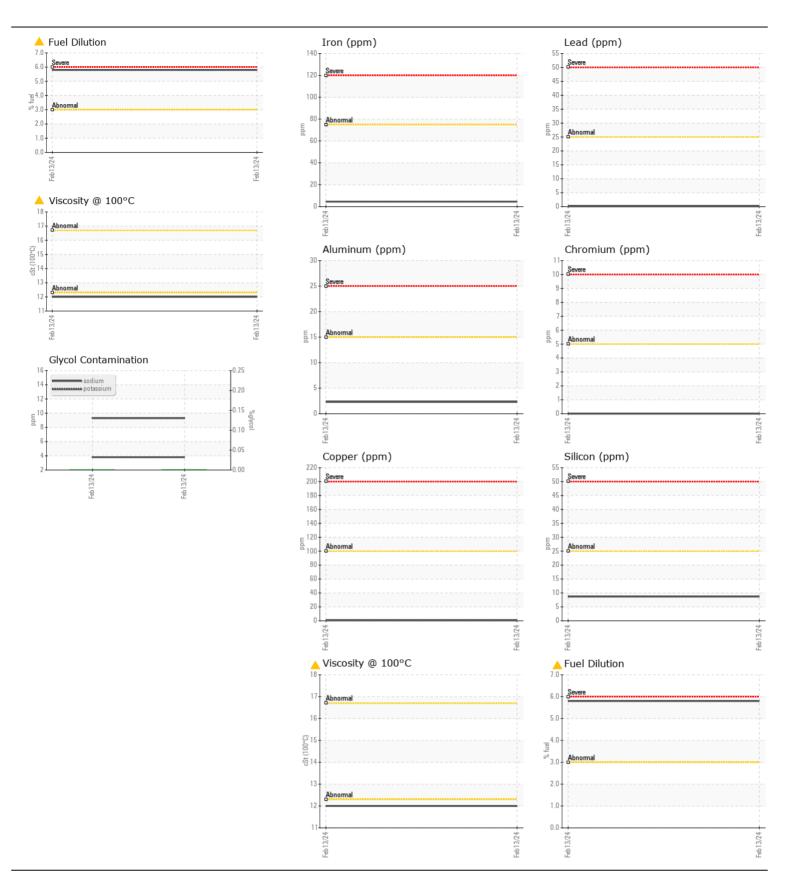
There is a moderate a	amount of fuel presen	it iii tiie oii. Test	s commin me
presence of fuel in the	e oil.		

## FLUID CONDITION

Fuel is present in the oil and is lowering the viscosity. The oil is no longer serviceable due to the presence of contaminants.

Sample Number		Client Info		CU0021081	 
Sample Date		Client Info		13 Feb 2024	 
Machine Age	kms	Client Info		111897	 
Oil Age	kms	Client Info		0	 
Filter Age	kms	Client Info		0	 
Oil Changed		Client Info		N/A	 
Filter Changed		Client Info		N/A	 
Sample Status				ABNORMAL	 
Iron	ppm	ASTM D5185(m)	>75	4	 
Chromium	ppm	ASTM D5185(m)	>5	0	 
Nickel	ppm	ASTM D5185(m)	>4	0	 
Titanium	ppm	ASTM D5185(m)	>2	0	 
Silver	ppm	ASTM D5185(m)	>2	0	 
Aluminum	ppm	ASTM D5185(m)	>15	2	 
Lead	ppm	ASTM D5185(m)	>25	<1	 
Copper	ppm	ASTM D5185(m)	>100	<1	 
Tin	ppm	ASTM D5185(m)	>4	0	 
Vanadium	ppm	ASTM D5185(m)		0	 
White Metal	scalar	Visual*	NONE	VLITE	 
Yellow Metal	scalar	Visual*	NONE	NONE	 
Silicon	nnm	ASTM D5185(m)	>25	9	 
	ppm	ASTM D5185(m)		9	
Potassium	ppm o/	( /	>20		 
Fuel Water	%	ASTM D7593* WC Method	>3.0	▲ 5.8 NEG	
Glycol	%	ASTM D7922*	>0.2	0.0	 
Soot %	%	ASTM D7922 ASTM D7844*	>6	0.0	
Nitration	Abs/cm	ASTM D7644 ASTM D7624*	>20	8.0	 
Sulfation	Abs/.1mm	ASTM D7624 ASTM D7415*	>30	18.1	 
Silt	scalar	Visual*	NONE	NONE	 
Debris	scalar	Visual*	NONE	NONE	 
Sand/Dirt	scalar	Visual*	NONE	NONE	 
Appearance	scalar	Visual*	NORML	NORML	 
Odor	scalar	Visual*	NORML	NORML	 
Emulsified Water	scalar	Visual*	>0.2	NEG	 
Liliuisilled Water	Scalai	v isuai			 
Sodium	ppm	ASTM D5185(m)		4	 
Boron	ppm	ASTM D5185(m)		34	 
Barium	ppm	ASTM D5185(m)		0	 
Molybdenum	ppm	ASTM D5185(m)		73	 
Manganese	ppm	ASTM D5185(m)		0	 
Magnesium	ppm	ASTM D5185(m)		100	 
Calcium	ppm	ASTM D5185(m)		1859	 
Phosphorus	ppm	ASTM D5185(m)		931	 
Zinc	ppm	ASTM D5185(m)		1021	 
Sulfur	ppm	ASTM D5185(m)		2961	 
Oxidation	Abs/.1mm	ASTM D7414*	>25	13.2	 

12.0





CALA ISO 17025:2017 Accredited Laboratory

Laboratory Sample No.

: CU0021081 Lab Number : 02616176

Unique Number : 5733286

: WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9 Received : 16 Feb 2024 **Tested** 

: 20 Feb 2024 Diagnosed

: 20 Feb 2024 - Wes Davis Test Package : MOB 1 ( Additional Tests: FuelDilution, Glycol, PercentFuel, Visual )

OTTAWA, ON CA K1G 3W5 Contact: Cindy Harrison cindy.harrison@cummins.com T: (613)736-1146

3189 SWANSEA CRESCENT

**CUMMINS EASTERN CANADA LP** 

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.

F: x: