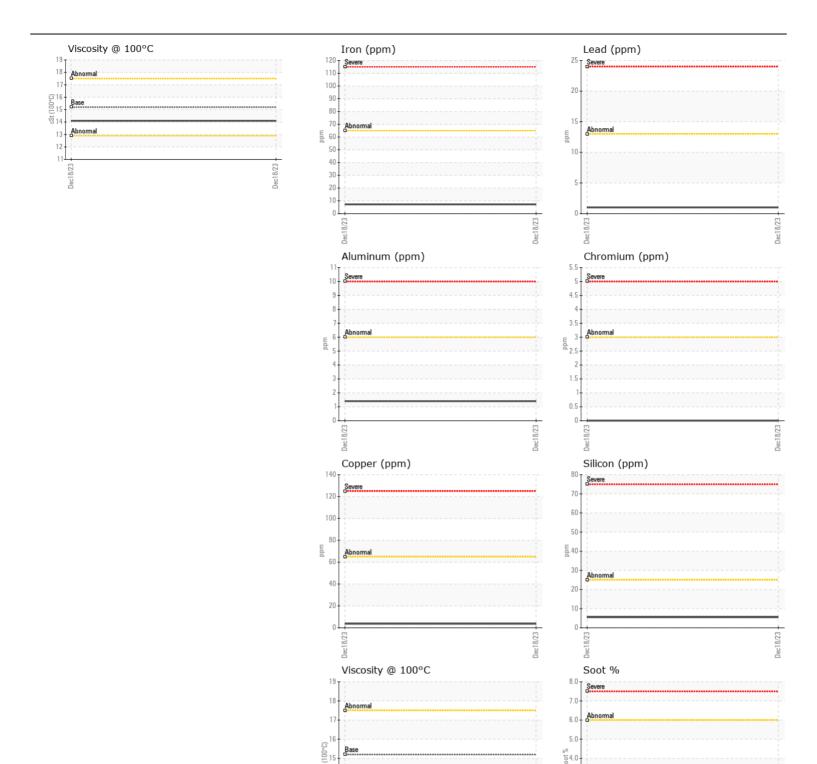
WEAR CONTAMINATION **FLUID CONDITION** **NORMAL NORMAL NORMAL**

Area [331084]

B-I-N2

Component Diesel Engine

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		CU0022066		
Sample Date		Client Info		18 Dec 2023		
Machine Age	hrs	Client Info		62		
Oil Age	hrs	Client Info		0		
Filter Age	hrs	Client Info		0		
Oil Changed		Client Info		N/A		
Filter Changed		Client Info		N/A		
Sample Status				NORMAL		
Iron	ppm	ASTM D5185(m)	>65	7		
Chromium	ppm			0		
Nickel	ppm	ASTM D5185(m)	>2	<1		
Titanium	ppm	ASTM D5185(m)	>2	<1		
Silver	ppm	ASTM D5185(m)	>2	0		
Aluminum	ppm	ASTM D5185(m)	>6	1		
Lead	ppm	ASTM D5185(m)	>13	1		
Copper	ppm	ASTM D5185(m)	>65	4		
Tin	ppm	ASTM D5185(m)	>2	<1		
Vanadium	ppm	ASTM D5185(m)		0		
Silicon	ppm	ASTM D5185(m)	>25	6		
Potassium	ppm	ASTM D5185(m)	>20	<1		
Fuel		WC Method	>3.0	<1.0		
Water		WC Method	>0.2	NEG		
Glycol		WC Method		NEG		
Soot %	%	ASTM D7844*	>6	0		
Nitration	Abs/cm	ASTM D7624*	>20	6.7		
Sulfation	Abs/.1mm	ASTM D7415*	>30	19.4		
Emulsified Water	scalar	Visual*	>0.2	NEG		
Sodium	ppm	ASTM D5185(m)		3		
Boron	ppm	ASTM D5185(m)		39		
Barium	ppm	ASTM D5185(m)		2		
Molybdenum	ppm	ASTM D5185(m)		43		
Manganese	ppm	ASTM D5185(m)		<1		
Magnesium	ppm	ASTM D5185(m)		694		
Calcium	ppm	ASTM D5185(m)		1498		
Phosphorus	ppm	ASTM D5185(m)		739		
Zinc	ppm	ASTM D5185(m)		835		
Sulfur	ppm	ASTM D5185(m)		2216		
Oxidation	Abs/.1mm	ASTM D7414*		16.0		
	Sample Number Sample Date Machine Age Oil Age Filter Age Oil Changed Filter Changed Sample Status Iron Chromium Nickel Titanium Silver Aluminum Lead Copper Tin Vanadium Silicon Potassium Fuel Water Glycol Soot % Nitration Sulfation Emulsified Water Sodium Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc	Sample Number Sample Date Machine Age hrs Oil Age hrs Filter Age hrs Oil Changed Filter Changed Sample Status Iron ppm Chromium ppm Nickel ppm Titanium ppm Silver ppm Aluminum ppm Lead ppm Copper ppm Tin ppm Vanadium ppm Silicon ppm Potassium ppm Fuel Water Glycol Soot % % Nitration Abs/cm Sulfation Abs/.1mm Emulsified Water scalar Sodium ppm Boron ppm Manganese ppm Magnesium ppm Calcium ppm Phosphorus Zinc ppm	Sample Number Sample Date Client Info Machine Age Oil Age hrs Client Info Oil Age hrs Client Info Oil Changed Filter Age Oil Changed Client Info Oil Changed Filter Changed Sample Status Iron Chromium Dpm ASTM D5185(m) Nickel Dpm ASTM D5185(m) ASTM D5185(m) Aluminum Dpm ASTM D5185(m) ASTM D5185(m) Lead Dpm ASTM D5185(m) Copper Dpm ASTM D5185(m) Tin Dpm ASTM D5185(m) Vanadium Dpm ASTM D5185(m) Silicon Dpm ASTM D5185(m) Vanadium Dpm ASTM D5185(m) Silicon Dpm ASTM D5185(m) Vanadium Dpm ASTM D5185(m) Silicon Dpm ASTM D5185(m) Vanadium Dpm ASTM D5185(m) Silicon Dpm ASTM D5185(m) Vanadium Dpm ASTM D5185(m) Silicon Dpm ASTM D5185(m) Vanadium Dpm ASTM D5185(m) Fuel WC Method Water WC Method Water WC Method Soot % No ASTM D7624* Sulfation Abs/cm ASTM D7624* Sulfation Abs/cm ASTM D5185(m) ASTM D5185(m)	Sample Number Sample Date Client Info Machine Age hrs Client Info Oil Age hrs Client Info Filter Age hrs Client Info Oil Changed Client Info Gil Changed Client Info Filter Changed Sample Status Iron ppm ASTM D5185(m) S2 Titanium ppm ASTM D5185(m) S2 Silver ppm ASTM D5185(m) S2 Aluminum ppm ASTM D5185(m) S6 Tin ppm ASTM D5185(m) S1 Copper ppm ASTM D5185(m) S1 Copper ppm ASTM D5185(m) S1 Copper ppm ASTM D5185(m) S2 Vanadium ppm ASTM D5185(m) S2 Vanadium ppm ASTM D5185(m) S2 Vanadium ASTM D5185(m) S2 Vanadium Ppm ASTM D5185(m) S2 Silicon Ppm ASTM D5185(m) S2 Vanadium ASTM D5185(m) S2 Fuel WC Method S3.0 WC Method S00t % ASTM D7844* S6 Nitration Abs/cm ASTM D7844* S6 Nitration Abs/cm ASTM D7844* S6 Nitration Abs/cm ASTM D7844* S6 Sulfation Abs/.1mm ASTM D7844* S0 Sulfation Abs/.1mm ASTM D5185(m) ASTM D51	Sample Number Client Info CU0022066 Sample Date Client Info 18 Dec 2023 Machine Age hrs Client Info 62 Oil Age hrs Client Info 0 Filter Age hrs Client Info N/A Oil Changed Client Info N/A Filter Changed Client Info N/A Sample Status NORMAL Iron ppm ASTM D5185(m) >65 7 Chromium ppm ASTM D5185(m) >3 0 Nickel ppm ASTM D5185(m) >2 <1	Sample Number Client Info Cu0022066 Sample Date Client Info 18 Dec 2023 Sample Date Client Info 62 Sample Date Client Info 62 Sample Date Client Info 62 Sample Date Client Info O Sample Date Client Info O Sample Date Client Info O Sample Date Client Info N/A Sample Client Info Client Info N/A Sample Client Info Client Info Client Info Client Info Client Info Client Info





CALA ISO 17025:2017 Accredited Laboratory

Laboratory

Sample No. Lab Number : 02604391 Unique Number : 5697476

: WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9 : CU0022066

Test Package : MOB 1

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Received : 20 Dec 2023 **Tested** : 20 Dec 2023 Diagnosed

: 20 Dec 2023 - Wes Davis

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.



315 AV LIBERTE CANDIAC, QC **CA J5R 6Z7**

Contact: Thomas Owens is275@cummins.com T: (450)638-6863 F: (450)638-1202