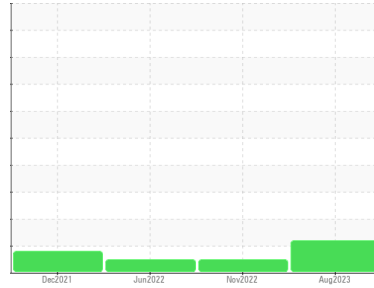




OIL ANALYSIS REPORT

Sample Rating Trend



FUEL



Machine Id
281907

Component
Diesel Engine

Fluid
DIESEL ENGINE OIL SAE 15W40 (--- GAL)

DIAGNOSIS

▲ Recommendation

Resample at the next service interval to monitor.

Wear

All component wear rates are normal.

▲ Contamination

Light fuel dilution occurring.

▲ Fluid Condition

Fuel is present in the oil and is lowering the viscosity. The condition of the oil is acceptable for the time in service.

SAMPLE INFORMATION

	method	limit/base	current	history1	history2
Sample Number	Client Info		WC0702950	WC0737530	WC0703044
Sample Date	Client Info		06 Aug 2023	05 Nov 2022	18 Jun 2022
Machine Age	kms	Client Info	373729	332189	315545
Oil Age	kms	Client Info	0	0	0
Oil Changed	Client Info		Not Chngd	Changed	Changed
Sample Status			ABNORMAL	NORMAL	NORMAL

CONTAMINATION

	method	limit/base	current	history1	history2
Glycol	WC Method		NEG	NEG	NEG

WEAR METALS

	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185(m) >90	17	18	32
Chromium	ppm	ASTM D5185(m) >20	<1	<1	1
Nickel	ppm	ASTM D5185(m) >2	<1	<1	<1
Titanium	ppm	ASTM D5185(m) >2	<1	<1	0
Silver	ppm	ASTM D5185(m) >2	<1	0	<1
Aluminum	ppm	ASTM D5185(m) >20	4	5	9
Lead	ppm	ASTM D5185(m) >40	0	0	<1
Copper	ppm	ASTM D5185(m) >330	1	1	2
Tin	ppm	ASTM D5185(m) >15	0	<1	<1
Antimony	ppm	ASTM D5185(m)	0	<1	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	54	51	33
Barium	ppm	ASTM D5185(m) 10	0	0	0
Molybdenum	ppm	ASTM D5185(m) 100	2	5	16
Manganese	ppm	ASTM D5185(m)	<1	<1	<1
Magnesium	ppm	ASTM D5185(m) 450	758	665	591
Calcium	ppm	ASTM D5185(m) 3000	1435	1326	1458
Phosphorus	ppm	ASTM D5185(m) 1150	736	707	700
Zinc	ppm	ASTM D5185(m) 1350	790	730	809
Sulfur	ppm	ASTM D5185(m) 4250	2493	2530	2629
Lithium	ppm	ASTM D5185(m)	<1	<1	<1

CONTAMINANTS

	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185(m) >25	5	4	5
Sodium	ppm	ASTM D5185(m) >158	2	3	2
Potassium	ppm	ASTM D5185(m) >20	6	6	12
Fuel	%	ASTM D7593* >3.0	▲ 1.6	<1.0	<1.0

INFRA-RED

	method	limit/base	current	history1	history2
Soot %	%	ASTM D7844* >6	0.2	0.1	0.2
Nitration	Abs/cm	ASTM D7624* >20	10.5	10.3	11.5
Sulfation	Abs/.1mm	ASTM D7415* >30	21.7	21.4	25.8

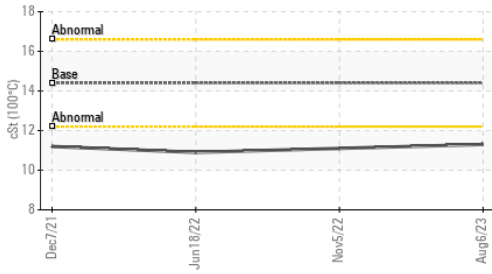
FLUID DEGRADATION

	method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	ASTM D7414* >25	16.8	16.9	19.9

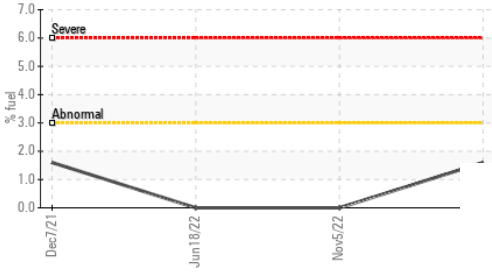


OIL ANALYSIS REPORT

▲ Viscosity @ 100°C



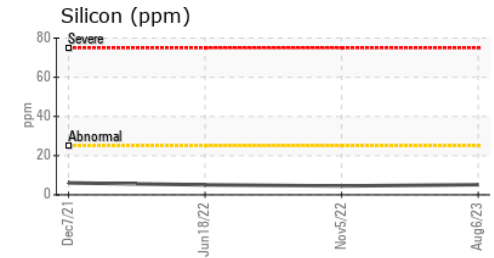
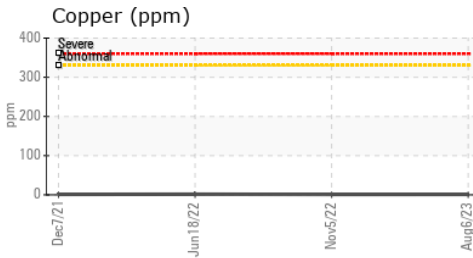
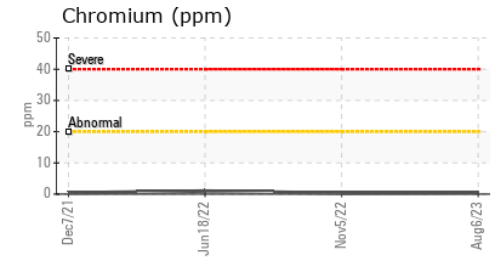
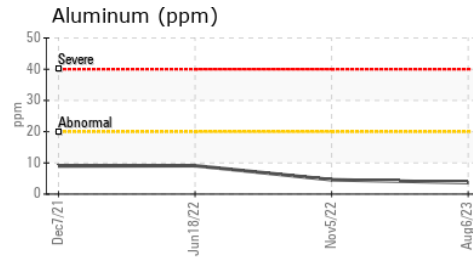
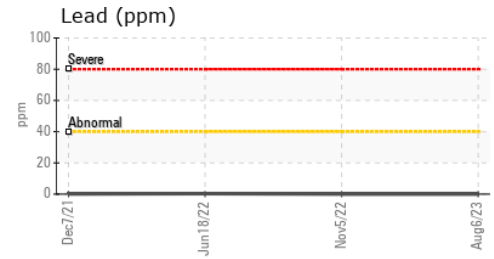
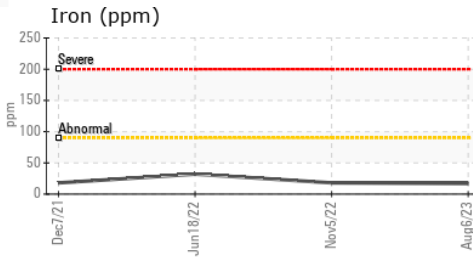
▲ Fuel Dilution



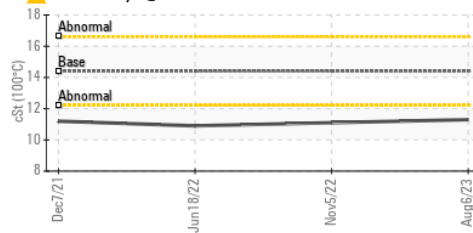
VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	Visual*	NONE	NONE	---
Yellow Metal	scalar	Visual*	NONE	NONE	---
Precipitate	scalar	Visual*	NONE	NONE	---
Silt	scalar	Visual*	NONE	VLITE	---
Debris	scalar	Visual*	NONE	VLITE	---
Sand/Dirt	scalar	Visual*	NONE	NONE	---
Appearance	scalar	Visual*	NORML	NORML	---
Odor	scalar	Visual*	NORML	NORML	NORML
Emulsified Water	scalar	Visual*	>0.2	NEG	NEG
Free Water	scalar	Visual*		NEG	NEG

FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 100°C	cSt	ASTM D7279(m)	14.4 ▲ 11.3	11.1	10.9

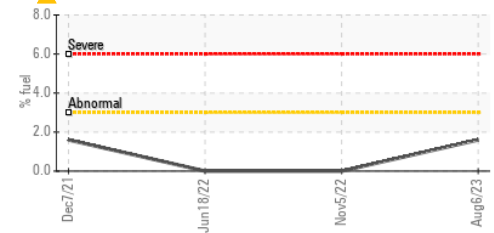
GRAPHS



▲ Viscosity @ 100°C



▲ Fuel Dilution



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : WC0702950 **Received** : 11 Aug 2023
Lab Number : 02575294 **Diagnosed** : 14 Aug 2023
Unique Number : 5620345 **Diagnostician** : Wes Davis
Test Package : MOB 1 (Additional Tests: FuelDilution, 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.

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