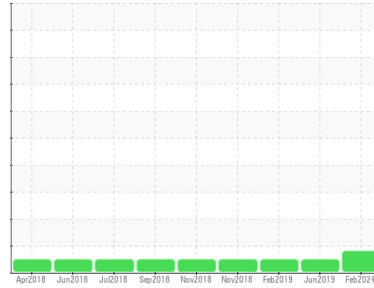




Machine Id  
**OR252**

Component  
**Diesel Engine**

Fluid  
**DIESEL ENGINE OIL SAE 10W30 (42 LTR)**



**DIAGNOSIS**

**Recommendation**  
Resample at the next service interval to monitor.

**Wear**  
All component wear rates are normal.

**Contamination**  
There is no indication of any contamination in the oil.

**Fluid Condition**  
The BN result indicates that there is suitable alkalinity remaining in the oil. Viscosity of sample indicates oil is within SAE 15W40 range, advise investigate. The condition of the oil is suitable for further service.

SAMPLE INFORMATION		method	limit/base	current	history1	history2
Sample Number	Client Info			<b>PC0082014</b>	PC0012635	PC0004991
Sample Date	Client Info			<b>22 Feb 2024</b>	03 Jun 2019	04 Feb 2019
Machine Age	hrs	Client Info		<b>18014</b>	8517	8040
Oil Age	hrs	Client Info		<b>0</b>	8040	0
Oil Changed	Client Info			<b>Not Chngd</b>	Changed	Changed
Sample Status				<b>ABNORMAL</b>	NORMAL	NORMAL

CONTAMINATION		method	limit/base	current	history1	history2
Fuel	WC Method	>5		<b>&lt;1.0</b>	<1.0	<1.0
Water	WC Method	>0.2		<b>NEG</b>	NEG	NEG
Glycol	WC Method			<b>NEG</b>	NEG	NEG

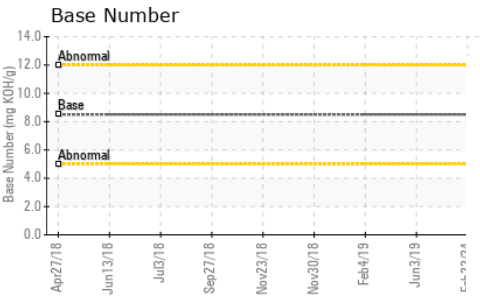
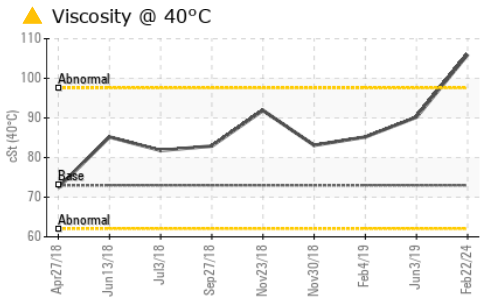
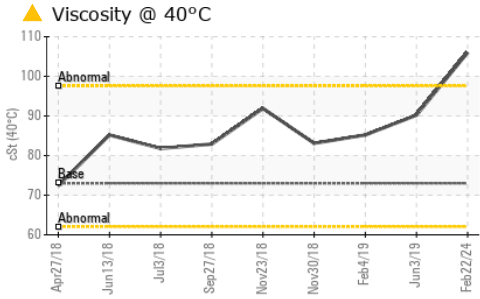
WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185(m)	>100	<b>14</b>	21	18
Chromium	ppm	ASTM D5185(m)	>5	<b>&lt;1</b>	<1	<1
Nickel	ppm	ASTM D5185(m)	>5	<b>&lt;1</b>	<1	0
Titanium	ppm	ASTM D5185(m)		<b>0</b>	0	0
Silver	ppm	ASTM D5185(m)	>3	<b>0</b>	0	0
Aluminum	ppm	ASTM D5185(m)	>15	<b>2</b>	<1	1
Lead	ppm	ASTM D5185(m)	>30	<b>&lt;1</b>	1	<1
Copper	ppm	ASTM D5185(m)	>125	<b>&lt;1</b>	4	1
Tin	ppm	ASTM D5185(m)	>5	<b>0</b>	0	0
Antimony	ppm	ASTM D5185(m)		<b>0</b>	0	0
Vanadium	ppm	ASTM D5185(m)		<b>0</b>	0	0
Beryllium	ppm	ASTM D5185(m)		<b>0</b>	0	0
Cadmium	ppm	ASTM D5185(m)		<b>0</b>	0	0

ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185(m)	250	<b>23</b>	89	81
Barium	ppm	ASTM D5185(m)	10	<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185(m)	100	<b>54</b>	3	8
Manganese	ppm	ASTM D5185(m)		<b>0</b>	<1	<1
Magnesium	ppm	ASTM D5185(m)	450	<b>851</b>	211	481
Calcium	ppm	ASTM D5185(m)	3000	<b>1475</b>	2032	1637
Phosphorus	ppm	ASTM D5185(m)	1150	<b>1105</b>	916	793
Zinc	ppm	ASTM D5185(m)	1350	<b>1285</b>	1099	940
Sulfur	ppm	ASTM D5185(m)	4250	<b>2878</b>	2940	2781
Lithium	ppm	ASTM D5185(m)		<b>&lt;1</b>	<1	0

CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185(m)	>60	<b>5</b>	3	4
Sodium	ppm	ASTM D5185(m)		<b>2</b>	2	2
Potassium	ppm	ASTM D5185(m)	>20	<b>3</b>	6	4

INFRA-RED		method	limit/base	current	history1	history2
Soot %	%	ASTM D7844*	>3	<b>1.5</b>	1.3	0.9
Nitration	Abs/cm	ASTM D7624*	>20	<b>10.7</b>	9.8	8.9
Sulfation	Abs./1mm	ASTM D7415*	>30	<b>23.9</b>	25.1	21.8

# OIL ANALYSIS REPORT

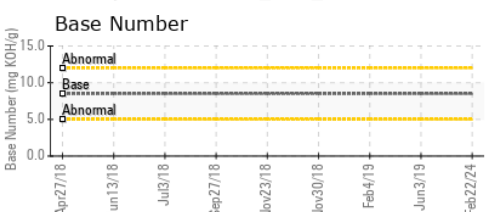
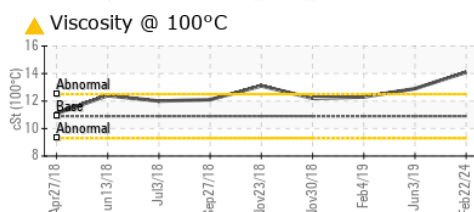
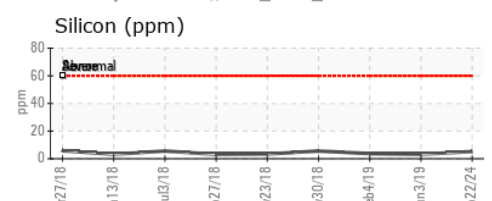
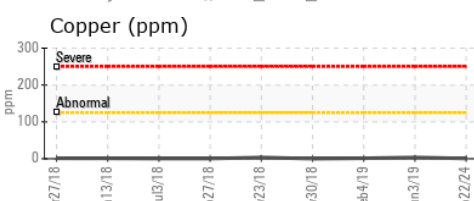
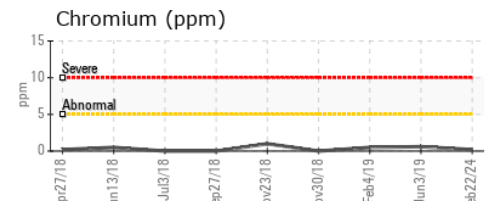
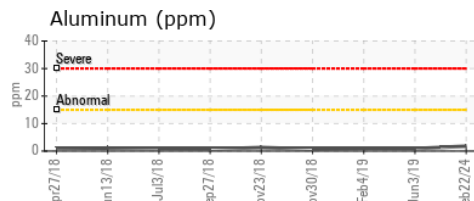
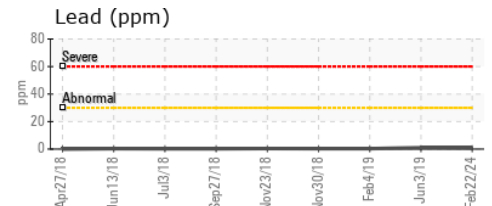
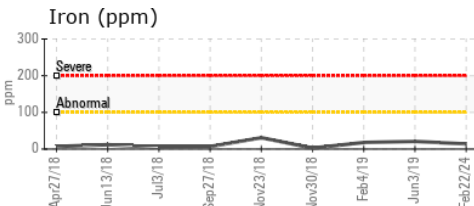


FLUID DEGRADATION		method	limit/base	current	history1	history2
Oxidation	Abs./1mm	ASTM D7414*	>25	<b>18.3</b>	17.6	15.5
Base Number (BN)	mg KOH/g	ASTM D2896*	8.5	<b>9.45</b>	---	---

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

FLUID PROPERTIES		method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D7279(m)	73	<b>▲ 106</b>	90.2	85.2
Visc @ 100°C	cSt	ASTM D7279(m)	10.9	<b>▲ 14.1</b>	12.9	12.3
Viscosity Index (VI)	Scale	ASTM D2270*	138	<b>134</b>	141	139

## GRAPHS



**Laboratory** : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9  
**Sample No.** : PC0082014  
**Lab Number** : **02617989**  
**Unique Number** : 5735099  
**Test Package** : MOB 1 ( Additional Tests: KV40, TBN, VI, Visual )

Green Infrastructure and Partners Inc (GIPI) - 286 - Shoring & Foundations  
 151 Ram Forest Rd,  
 Stouffville, ON  
 CA L4A 2G8  
 Contact: Shannon Abbott  
 sabbott@gipi.com  
 T: (905)750-5900  
 F:

*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.*