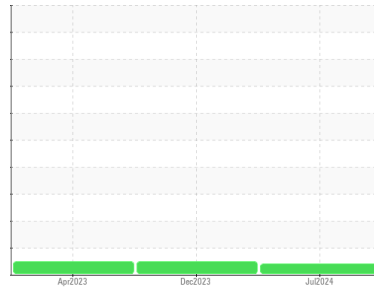




# OIL ANALYSIS REPORT

## Sample Rating Trend



## VISCOSITY



Area

**RONI**

Machine Id

**100-004**

Component

**Diesel Engine**

Fluid

**PETRO CANADA 15W40 (--- GAL)**

### DIAGNOSIS

#### ▲ Recommendation

Resample at the next service interval to monitor.

#### Wear

All component wear rates are normal.

#### Contamination

Tests indicate that there is no fuel present in the oil. There is no indication of any contamination in the oil.

#### ▲ Fluid Condition

Viscosity of sample indicates oil is within SAE 30 range, advise investigate. The condition of the oil is acceptable for the time in service.

### SAMPLE INFORMATION

	method	limit/base	current	history1	history2
Sample Number	Client Info		<b>WC0952929</b>	WC0888423	LH0270803
Sample Date	Client Info		<b>10 Jul 2024</b>	20 Dec 2023	07 Apr 2023
Machine Age	hrs	Client Info	<b>0</b>	0	2897
Oil Age	hrs	Client Info	<b>0</b>	0	0
Oil Changed	Client Info		<b>Changed</b>	Changed	Changed
Sample Status			<b>ABNORMAL</b>	NORMAL	NORMAL

### CONTAMINATION

	method	limit/base	current	history1	history2
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>15</b>	21	15
Chromium	ppm	ASTM D5185(m)	>20	<b>1</b>	2	2
Nickel	ppm	ASTM D5185(m)	>2	<b>&lt;1</b>	<1	0
Titanium	ppm	ASTM D5185(m)		<b>&lt;1</b>	0	0
Silver	ppm	ASTM D5185(m)	>2	<b>0</b>	0	0
Aluminum	ppm	ASTM D5185(m)	>25	<b>4</b>	8	3
Lead	ppm	ASTM D5185(m)	>40	<b>0</b>	0	0
Copper	ppm	ASTM D5185(m)	>330	<b>&lt;1</b>	1	1
Tin	ppm	ASTM D5185(m)	>15	<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)		<b>1</b>	1	9
Barium	ppm	ASTM D5185(m)		<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185(m)		<b>62</b>	59	61
Manganese	ppm	ASTM D5185(m)		<b>&lt;1</b>	0	<1
Magnesium	ppm	ASTM D5185(m)		<b>994</b>	981	989
Calcium	ppm	ASTM D5185(m)		<b>1046</b>	1082	1119
Phosphorus	ppm	ASTM D5185(m)		<b>1081</b>	1018	1109
Zinc	ppm	ASTM D5185(m)		<b>1258</b>	1220	1239
Sulfur	ppm	ASTM D5185(m)		<b>2673</b>	2622	2571
Lithium	ppm	ASTM D5185(m)		<b>&lt;1</b>	<1	<1

### CONTAMINANTS

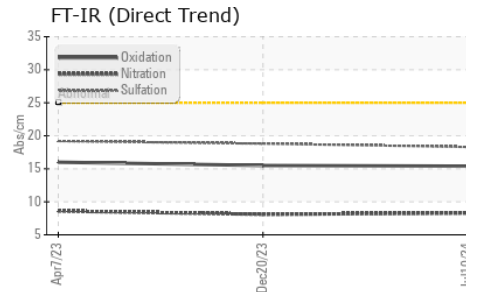
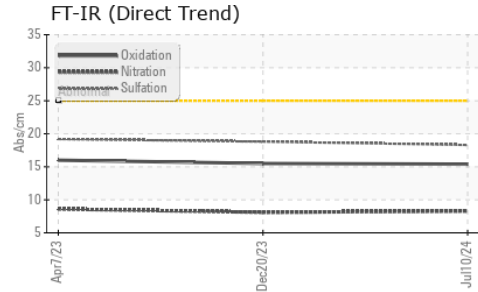
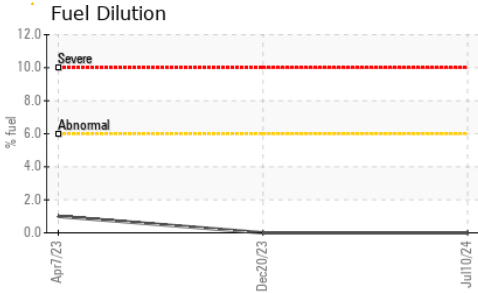
	method	limit/base	current	history1	history2	
Silicon	ppm	ASTM D5185(m)	>25	<b>10</b>	19	4
Sodium	ppm	ASTM D5185(m)		<b>2</b>	2	2
Potassium	ppm	ASTM D5185(m)	>20	<b>1</b>	3	<1
Fuel	%	ASTM D7593*	>6.0	<b>0.0</b>	<1.0	1

### INFRA-RED

	method	limit/base	current	history1	history2	
Soot %	%	ASTM D7844*	>3	<b>0.1</b>	0.2	0.1
Nitration	Abs/cm	ASTM D7624*	>20	<b>8.3</b>	8.1	8.6
Sulfation	Abs/.1mm	ASTM D7415*	>30	<b>18.3</b>	18.8	19.2



# OIL ANALYSIS REPORT

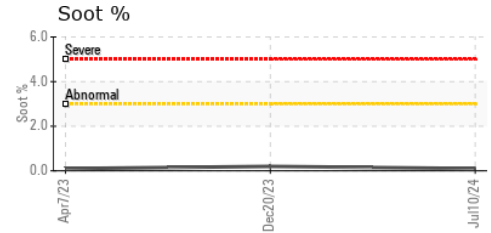
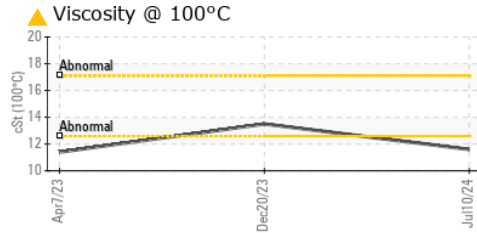
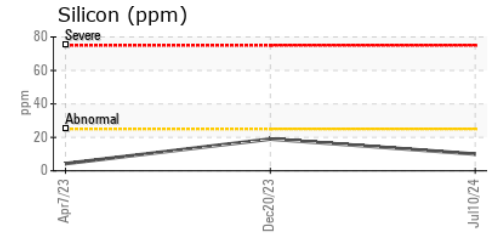
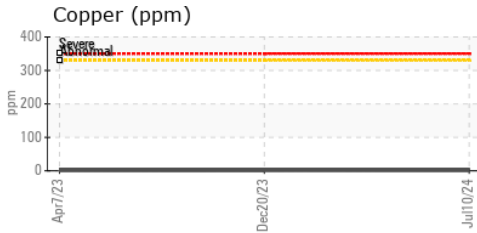
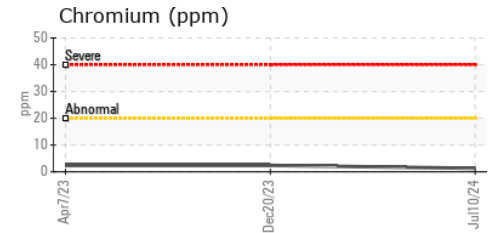
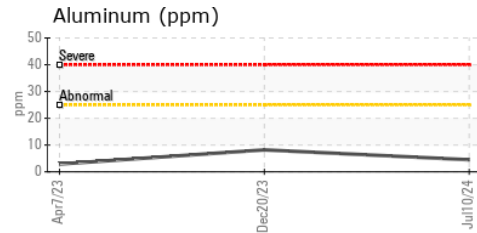
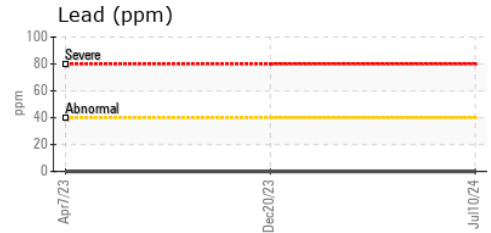
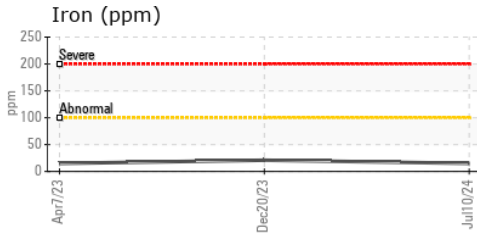


FLUID DEGRADATION	method	limit/base	current	history1	history2	
Oxidation	Abs./1mm	ASTM D7414*	>25	<b>15.4</b>	15.5	16.0

VISUAL	method	limit/base	current	history1	history2	
White Metal	scalar	Visual*	NONE	<b>VLITE</b>	NONE	---
Yellow Metal	scalar	Visual*	NONE	<b>NONE</b>	NONE	---
Precipitate	scalar	Visual*	NONE	<b>NONE</b>	NONE	---
Silt	scalar	Visual*	NONE	<b>NONE</b>	NONE	---
Debris	scalar	Visual*	NONE	<b>NONE</b>	VLITE	---
Sand/Dirt	scalar	Visual*	NONE	<b>NONE</b>	NONE	---
Appearance	scalar	Visual*	NORML	<b>NORML</b>	NORML	---
Odor	scalar	Visual*	NORML	<b>NORML</b>	NORML	NORML
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 @ 100°C	cSt	ASTM D7279(m)	<b>▲ 11.6</b>	13.5	11.4

### GRAPHS



**Laboratory** : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9 **RONI/IRON SHORE EXCAVATING LTD.**  
**Sample No.** : WC0952929 **Received** : 17 Jul 2024 **100 MACINTOSH BLVD**  
**Lab Number** : **02648415** **Tested** : 18 Jul 2024 **VAUGHAN, ON**  
**Unique Number** : 5813967 **Diagnosed** : 18 Jul 2024 - Kevin Marson **CA L4K 4P3**  
**Test Package** : MOBCE ( Additional Tests: FuelDilution, PercentFuel, Visual ) **Contact: Service Team**  
service.team@roni.ca

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.