



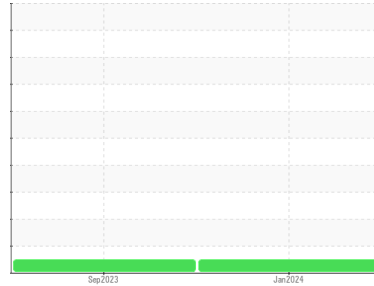
OIL ANALYSIS REPORT

Sample Rating Trend

NORMAL



Area
NIRO BROTHERS
 Machine Id
365
 Component
Diesel Engine
 Fluid
PETRO CANADA 10W30 (--- GAL)



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

Viscosity of sample indicates oil is within SAE 40 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		WC0888510	LH0275268	---
Sample Date	Client Info		04 Jan 2024	02 Sep 2023	---
Machine Age	hrs	Client Info	0	10989	---
Oil Age	hrs	Client Info	0	0	---
Oil Changed	Client Info		Not Chngd	Changed	---
Sample Status			NORMAL	NORMAL	---

CONTAMINATION

	method	limit/base	current	history1	history2
Fuel	WC Method	>2.1	<1.0	0.4	---
Water	WC Method	>0.21	NEG	NEG	---
Glycol	WC Method		NEG	NEG	---

WEAR METALS

	method	limit/base	current	history1	history2	
Iron	ppm	ASTM D5185(m)	>51	22	22	---
Chromium	ppm	ASTM D5185(m)	>11	<1	<1	---
Nickel	ppm	ASTM D5185(m)	>5	<1	1	---
Titanium	ppm	ASTM D5185(m)		0	0	---
Silver	ppm	ASTM D5185(m)	>3	0	0	---
Aluminum	ppm	ASTM D5185(m)	>31	2	2	---
Lead	ppm	ASTM D5185(m)	>26	0	<1	---
Copper	ppm	ASTM D5185(m)	>26	<1	<1	---
Tin	ppm	ASTM D5185(m)	>4	<1	<1	---
Antimony	ppm	ASTM D5185(m)		0	0	---
Vanadium	ppm	ASTM D5185(m)		0	0	---
Beryllium	ppm	ASTM D5185(m)		0	0	---
Cadmium	ppm	ASTM D5185(m)		0	0	---

ADDITIVES

	method	limit/base	current	history1	history2	
Boron	ppm	ASTM D5185(m)		<1	2	---
Barium	ppm	ASTM D5185(m)		0	0	---
Molybdenum	ppm	ASTM D5185(m)		60	62	---
Manganese	ppm	ASTM D5185(m)		0	<1	---
Magnesium	ppm	ASTM D5185(m)		981	1033	---
Calcium	ppm	ASTM D5185(m)		1083	1089	---
Phosphorus	ppm	ASTM D5185(m)		993	1103	---
Zinc	ppm	ASTM D5185(m)		1202	1259	---
Sulfur	ppm	ASTM D5185(m)		2538	2533	---
Lithium	ppm	ASTM D5185(m)		<1	<1	---

CONTAMINANTS

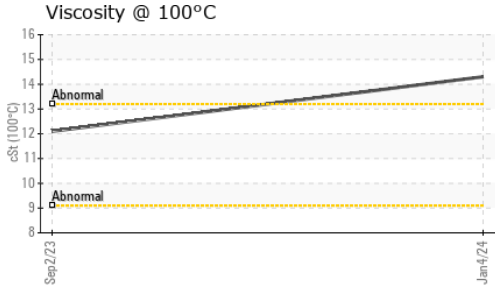
	method	limit/base	current	history1	history2	
Silicon	ppm	ASTM D5185(m)	>22	3	5	---
Sodium	ppm	ASTM D5185(m)		2	3	---
Potassium	ppm	ASTM D5185(m)	>20	<1	<1	---

INFRA-RED

	method	limit/base	current	history1	history2	
Soot %	%	ASTM D7844*	>3	0.7	0.7	---
Nitration	Abs/cm	ASTM D7624*	>20	8.7	8.9	---
Sulfation	Abs.1mm	ASTM D7415*	>30	20.2	20.2	---



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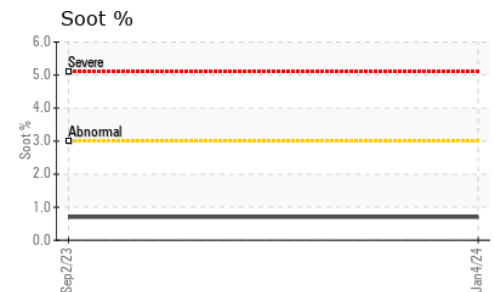
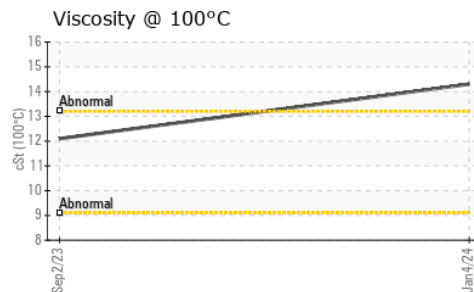
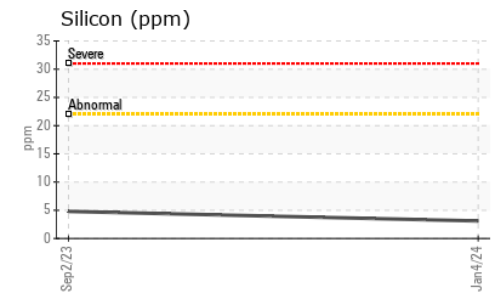
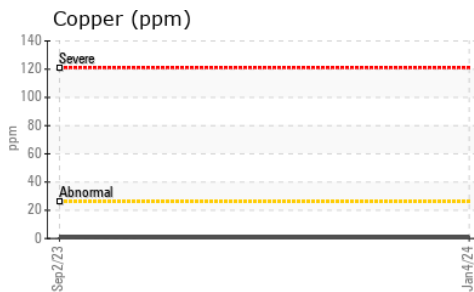
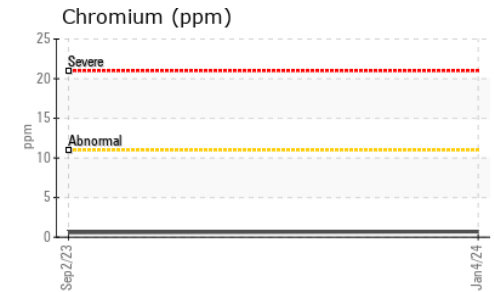
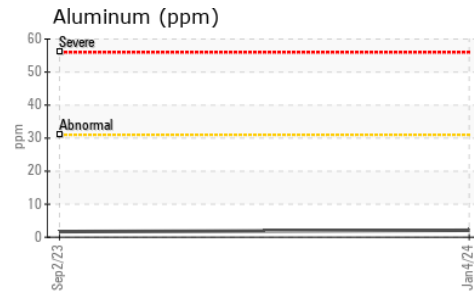
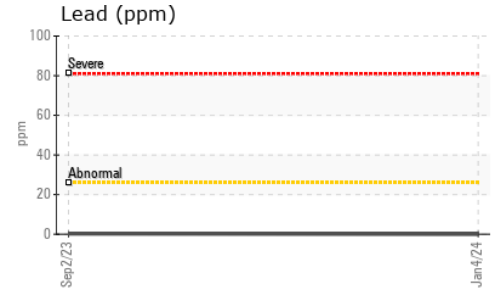
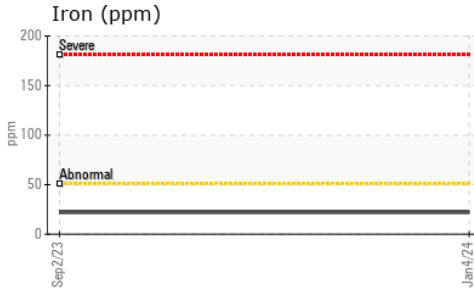


FLUID DEGRADATION	method	limit/base	current	history1	history2	
Oxidation	Abs./1mm	ASTM D7414*	>25	15.6	15.6	---

VISUAL	method	limit/base	current	history1	history2	
Emulsified Water	scalar	Visual*	>0.21	NEG	NEG	---
Free Water	scalar	Visual*		NEG	NEG	---

FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 100°C	cSt	ASTM D7279(m)	14.3	12.1	---

GRAPHS



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9 **RONI/IRON SHORE EXCAVATING LTD.**
Sample No. : WC0888510 **Received** : 17 Jan 2024 **100 MACINTOSH BLVD**
Lab Number : 02609211 **Diagnosed** : 17 Jan 2024 **VAUGHAN, ON**
Unique Number : 5710297 **Diagnostician** : Kevin Marson **CA L4K 4P3**
Test Package : MOBCE **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.