

OIL ANALYSIS REPORT

IRON SHORING 100-026

Component **Diesel Engine**

PETRO CANADA 10W30 (--- GAL)

Sample Rating Trend



		L	Apr2023	Dec2023		
SAMPLE INFORM	MATION	method	limit/base	current	history1	history2
Sample Number		Client Info		WC0873017	LH0232073	
Sample Date		Client Info		06 Dec 2023	13 Apr 2023	
Machine Age	hrs	Client Info		0	1000	
Oil Age	hrs	Client Info		0	0	
Oil Changed		Client Info		Not Changd	Changed	
Sample Status				NORMAL	NORMAL	
CONTAMINATION	N	method	limit/base	current	history1	history2
Fuel		WC Method	>5	<1.0	<1.0	
Water		WC Method	>0.2	NEG	NEG	
Glycol		WC Method		NEG	NEG	
WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185(m)	>100	21	49	
Chromium	ppm	ASTM D5185(m)	>20	1	2	
Nickel	ppm	ASTM D5185(m)	>4	<1	1	
Titanium	ppm	ASTM D5185(m)		0	<1	
Silver	ppm	ASTM D5185(m)	>3	<1	0	
Aluminum	ppm	ASTM D5185(m)	>20	9	29	
Lead	ppm	ASTM D5185(m)	>40	<1	<1	
Copper	ppm	ASTM D5185(m)	>330	10	17	
Tin	ppm	ASTM D5185(m)	>15	<1	3	
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)		4	21	
Barium	ppm	ASTM D5185(m)		<1	<1	
Molybdenum	ppm	ASTM D5185(m)		62	51	
Manganese	ppm	ASTM D5185(m)		0	1	
Magnesium	ppm	ASTM D5185(m)		994	695	
Calcium	ppm	ASTM D5185(m)		1044	1585	
Phosphorus	ppm	ASTM D5185(m)		1028	1095	
Zinc	ppm	ASTM D5185(m)		1272	1270	
Sulfur	ppm	ASTM D5185(m)		2662	2709	
Lithium	ppm	ASTM D5185(m)		<1	<1	
CONTAMINANTS	;	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185(m)	>25	24	7	
Sodium	ppm	ASTM D5185(m)		2	3	
Potassium	ppm	ASTM D5185(m)	>20	7	40	

Recommendation

Resample at the next service interval to monitor.

All component wear rates are normal.

Contamination

There is no indication of any contamination in the

Fluid Condition

The condition of the oil is acceptable for the time in service.

INFRA-RED

%

ASTM D7844*

Abs/cm ASTM D7624* >20

Abs/.1mm ASTM D7415* >30

0.1

8.3

18.7

Soot %

Nitration

Sulfation

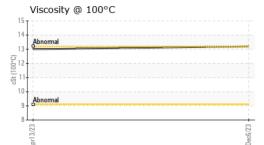
0.3

10.8

22.2



OIL ANALYSIS REPORT



Oxidation Abs/Imm ASTM D7414* >25 15.7 19.2 VISUAL method limit/base current history1 history2 White Metal scalar Visual* NONE NONE NONE Precipitate scalar Visual* NONE NONE NONE NONE NONE NONE NONE NON	FLUID DEGRADA	TION	method				history2
White Metal scalar Visual* NONE NONE NONE NONE Yellow Metal scalar Visual* NONE NONE NONE Precipitate scalar Visual* NONE NONE NONE Silt scalar Visual* NONE NONE NONE Sand/Dirt scalar Visual* NORML NORML NORML Appearance scalar Visual* NORML NORML NORML NORML Special Scalar Visual* NORML NORML NORML NORML NORML Scalar Visual* NORML	Oxidation	Abs/.1mm	ASTM D7414*	>25	15.7	19.2	
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Silt scalar Visual* NONE NONE NONE NONE Sand/Dirt scalar Visual* NONE NONE NONE NONE Sand/Dirt scalar Visual* NONE NONE NONE NONE NONE Sand/Dirt scalar Visual* NORML NORML NORML NORML Scalar Visual* NORML NORML NORML NORML Scalar Visual* NORML NORML NORML NORML NORML Scalar Visual* NORML NORML NORML NORML NORML NORML Scalar Visual* NEG NEG NEG NEG NEG Scalar Visual* NEG NEG NEG Scalar Visual* NEG NEG NEG Scalar Visual* NEG NEG NEG NEG NEG Scalar Visual* NEG NEG NEG NEG Scalar Visual* NEG	Yellow Metal	scalar	Visual*	NONE	NONE	NONE	
Debris scalar Visual* NONE NONE NONE NONE Sand/Dirt scalar Visual* NONE NONE NONE NONE Appearance scalar Visual* NORML NORML NORML Codor scalar Visual* NORML	Precipitate	scalar	Visual*	NONE	NONE	NONE	
Sand/Dirt scalar Visual* NONE NONE NORML NORML Appearance scalar Visual* NORML NORML NORML Codor scalar Visual* NORML NORML NORML NORML Emulsified Water scalar Visual* >0.2 NEG NEG Free Water scalar Visual* NORML	Silt	scalar	Visual*	NONE	NONE	NONE	
Appearance scalar Visual* NORML NORML NORML Odor scalar Visual* NORML NORML NORML Emulsified Water scalar Visual* >0.2 NEG NEG Free Water scalar Visual* NEG NEG Free Water scalar Visual* NEG NEG FLUID PROPERTIES method limit/base current history1 history2 Visc @ 100°C cSt ASTM D7279(m) 13.2 13.0 GRAPHS Iron (ppm) Abnormal Abnormal Chromium (ppm) Copper (ppm) Silicon (ppm) Viscosity @ 100°C South Astala Silicon (ppm) Silicon (ppm) Silicon (ppm) Silicon (ppm) Silicon (ppm) South Abnormal Silicon (ppm)	Debris	scalar	Visual*	NONE	NONE	NONE	
Odor scalar Visual* NORML NORML NORML Emulsified Water scalar Visual* >0.2 NEG NEG Free Water scalar Visual* NEG NEG NEG FLUID PROPERTIES method limit/base current history1 history2 Visc @ 100°C cSt ASTM D7279(m) 13.2 13.0 GRAPHS Iron (ppm) Aluminum (ppm) Chromium (ppm) Chromium (ppm) Copper (ppm) Sillicon (ppm) Source Sout % Sout % Sout %	Sand/Dirt	scalar	Visual*	NONE	NONE	NONE	
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) 13.2 13.0 GRAPHS Iron (ppm) Aluminum (ppm) Aluminum (ppm) Copper (ppm) Copper (ppm) Silicon (ppm) Silicon (ppm) Silicon (ppm) Silicon (ppm) Some Soot % Soot % Soot %	Appearance	scalar	Visual*	NORML	NORML	NORML	
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Copper (ppm) Silicon (ppm) Silicon (ppm) Severe Abnormal Viscosity @ 100°C Soot % 6.0					Chromium (p	pm)	
Copper (ppm) Silicon (ppm) Severe FOR THAP OF THE PROPERTY	C				Severe		
Copper (ppm) Silicon (ppm) Severe Discosity @ 100°C Soot % 6.0							
Copper (ppm) Silicon (ppm) Severe Discosity @ 100°C Soot % 6.0	0 - Abnormal			<u> </u>	Abnormal		
Copper (ppm) Silicon (ppm) Severe EXELUAL Solution (ppm) S	0 +			10	-		
Copper (ppm) Silicon (ppm) Silicon (ppm) Silicon (ppm) Silicon (ppm) Silicon (ppm) Source Abnormal Viscosity @ 100°C Soot % 6.0					53		
Viscosity @ 100°C Soot % 60 EXECUTED 100°C	Apr13/			Dec6/	Apr13/		
Viscosity @ 100°C Soot % 6.0					Silicon (ppm)		
Viscosity @ 100°C Soot %	Abnormal				Severe		
Viscosity @ 100°C Soot %							
Viscosity @ 100°C Soot %	0			<u>-</u> <u>5</u> 40	Abnormal		
Viscosity @ 100°C Soot %	0			20			
Viscosity @ 100°C Soot %				- 73	/23		
6.0 7	Apr13			Dece	Apr13		
6.0 Severe	Viscosity @ 100°C						
	6T			6.0	Severe		



CALA ISO 17025:2017 Accredited Laboratory

Laboratory Sample No. Lab Number Unique Number : 5696150

: WC0873017

Received : 02603065

Diagnosed Test Package : MOBCE (Additional Tests: Visual)

: 14 Dec 2023 : 14 Dec 2023

0.0

Diagnostician : Kevin Marson

: WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9 RONI/IRON SHORE EXCAVATING LTD. 100 MACINTOSH BLVD VAUGHAN, ON CA L4K 4P3

Contact: Service Team service.team@roni.ca T:

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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