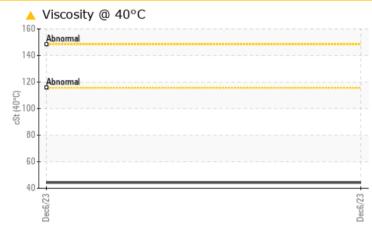


PROBLEM SUMMARY

Area IRON SHORING Machine Id 100-037

Component Right Gear Unit Fluid PETRO CANADA 80W90 (--- GAL)

COMPONENT CONDITION SUMMARY



RECOMMENDATION

Due to this condition we recommend the following action... We advise an early resample to confirm this situation.

PROBLEMATIC T	EST RE	SULTS		
Sample Status			ABNORMAL	
Visc @ 40°C	cSt	ASTM D7279(m)	<u> </u>	

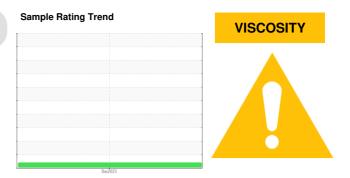
Customer Id: RONVAU Sample No.: WC0872917 Lab Number: 02603313 Test Package: MOBCE



To manage this report scan the QR code

To discuss the diagnosis or test data: Kevin Marson +1 (289)291-4644 x4644 Kevin.Marson@wearcheck.com

To change component or sample information: Gloria Gonzalez +1 (289)291-4643 x4643 gloria.gonzalez@wearcheck.com



RECOMMENDED AC	TIONS			
Action	Status	Date	Done By	Description
Resample			?	We advise an early resample to confirm this situation.

HISTORICAL DIAGNOSIS



OIL ANALYSIS REPORT

Sample Rating Trend

VISCOSITY

Area IRON SHORING Machine Id 100-037

Component Right Gear Unit Fluid PETRO CANADA 80W90 (--- GAL)

DIAGNOSIS

Recommendation

Due to this condition we recommend the following action... We advise an early resample to confirm this situation.

Wear

All component wear rates are normal.

Contamination

There is no indication of any contamination in the oil.

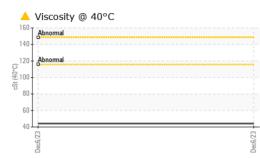
Fluid Condition

Viscosity of sample indicates oil is within ISO 46 range, advise investigate. The condition of the oil is acceptable for the time in service.

SAMPLE INFORM	MATION	method	limit/base	current	history1	history2
Sample Number		Client Info		WC0872917		
Sample Date		Client Info		06 Dec 2023		
Machine Age	hrs	Client Info		0		
Oil Age	hrs	Client Info		0		
Oil Changed		Client Info		N/A		
Sample Status				ABNORMAL		
CONTAMINATIO	N	method	limit/base	current	history1	history2
Water		WC Method	>0.2	NEG		
WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185(m)	>500	6		
Chromium	ppm	ASTM D5185(m)	>8	0		
Nickel	ppm	ASTM D5185(m)	>5	0		
Titanium	ppm	ASTM D5185(m)		0		
Silver	ppm	ASTM D5185(m)		<1		
Aluminum	ppm	ASTM D5185(m)	>20	1		
Lead	ppm	ASTM D5185(m)	>15	0		
Copper	ppm	ASTM D5185(m)	>100	<1		
Tin	ppm	ASTM D5185(m)	>5	0		
Antimony	ppm	ASTM D5185(m)	>5	0		
Vanadium	ppm	ASTM D5185(m)		0		
Beryllium	ppm	ASTM D5185(m)		0		
Cadmium	ppm	ASTM D5185(m)		0		
ADDITIVES		method	limit/base	current	history1	history2
		methou	initia base	Guirent	Thistory I	rilotor y E
Boron	ppm	ASTM D5185(m)		<1		
	ppm ppm					
Boron		ASTM D5185(m)		<1		
Boron Barium	ppm	ASTM D5185(m) ASTM D5185(m)		<1 <1		
Boron Barium Molybdenum	ppm ppm	ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)		<1 <1 0		
Boron Barium Molybdenum Manganese	ppm ppm ppm	ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)		<1 <1 0 0		
Boron Barium Molybdenum Manganese Magnesium	ppm ppm ppm ppm	ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)		<1 <1 0 0 1		
Boron Barium Molybdenum Manganese Magnesium Calcium	ppm ppm ppm ppm ppm	ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)		<1 <1 0 0 1 39	 	
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus	ppm ppm ppm ppm ppm ppm	ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)		<1 <1 0 1 39 319		
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc	ppm ppm ppm ppm ppm ppm	ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)		<1 <1 0 1 39 319 334		
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur	ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)	limit/base	<1 <1 0 1 39 319 334 866	 	
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium	ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)		<1 <1 0 1 39 319 334 866 <1		
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINANTS	ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)	limit/base	<1 <1 0 0 1 39 319 334 866 <1 		 history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINANTS Silicon	ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) method ASTM D5185(m)	limit/base >75	<1 <1 0 0 1 39 319 334 866 <1 current 3 	 history1	 history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINANTS Silicon Sodium	ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185(m) ASTM D5185(m)	limit/base >75	<1 <1 0 0 1 39 319 334 866 <1 current 3 <1 0 	 history1	 history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINANTS Silicon Sodium Potassium	ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185(m) ASTM D5185(m)	limit/base >75 >20	<1 <1 0 0 1 39 319 334 866 <1 current 3 <1 0 	 history1 	 history2 history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINANTS Silicon Sodium Potassium	ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185(m) ASTM D5185(m)	limit/base >75 >20 limit/base	<1 <1 0 0 1 39 319 334 866 <1 current 3 <1 0 current 	 history1 history1	 history2 history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINANTS Silicon Sodium Potassium FLUID CLEANLIN Particles >4µm	ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185(m) ASTM D5185(m)	limit/base >75 >20 limit/base >20000	<1 <1 0 0 1 39 319 334 866 <1 current 3 <1 0 current 46141 	 history1 history1	 history2 history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINANTS Silicon Sodium Potassium FLUID CLEANLIN Particles >6µm	ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185(m) ASTM D5185(m)	limit/base >75 >20 limit/base >20000 >5000 >640	<1 <1 <1 0 0 1 39 319 334 866 <1 current 3 <1 0 current 46141 5274 	 history1 history1 	 history2 history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINANTS Silicon Sodium Potassium FLUID CLEANLIN Particles >4µm Particles >14µm	ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185(m) ASTM D7647 ASTM D7647	limit/base >75 >20 limit/base >20000 >5000 >640	<1 <1 <1 0 0 1 39 319 334 866 <1 current 3 <1 0 current 46141 5274 50 	 history1 history1	 history2 history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINANTS Silicon Sodium Potassium FLUID CLEANLIN Particles >4µm Particles >14µm Particles >21µm	ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185(m) ASTM D7647 ASTM D7647 ASTM D7647 ASTM D7647	limit/base >75 >20 limit/base >20000 >5000 >640 >160 >40	<1 <1 0 0 1 39 319 334 866 <1 current 3 <1 0 current 46141 5274 50 7 	 history1 history1	
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINANTS Silicon Sodium Potassium FLUID CLEANLIN Particles >4µm Particles >14µm Particles >38µm	ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185(m) ASTM D7647 ASTM D7647 ASTM D7647 ASTM D7647	limit/base >75 >20 limit/base >20000 >5000 >640 >160 >40	<1 <1 0 0 1 39 319 334 866 <1 current 3 <1 0 current 46141 5274 50 7 1 		 history2 history2



OIL ANALYSIS REPORT



history2	history1	current	limit/base	method		VISUAL
		NONE	NONE	Visual*	scalar	White Metal
		NONE	NONE	Visual*	scalar	Yellow Metal
		NONE	NONE	Visual*	scalar	Precipitate
		NONE	NONE	Visual*	scalar	Silt
		NONE	NONE	Visual*	scalar	Debris
		NONE	NONE	Visual*	scalar	Sand/Dirt
		NORML	NORML	Visual*	scalar	Appearance
		NORML	NORML	Visual*	scalar	Odor
		NEG	>0.2	Visual*	scalar	Emulsified Water
		NEG		Visual*	scalar	Free Water
history2	history1	current	limit/base	method	IES	FLUID PROPERT
		44.2		ASTM D7279(m)	cSt	Visc @ 40°C
history2	history1	current	limit/base	method	6	SAMPLE IMAGES
no image	no image	C0872917				Color
no image	no image					Bottom
						GRAPHS
		Particle Count				Ferrous Alloys
-24 -24 -22 -20 -18		jevere	7,68			Contraction of the second seco
-16 -14			Dec6/23 number of particles (per 1 ml) 151		5	Non-ferrous Metals
-12			31			-
-10						2 +
-8	/		Dec6/23			Dec6/23
μ 71μ	μ 21μ 38μ	ι 6μ 14				Viscosity @ 40°C
						Abnormal
						P# [
)-
			Dec6/23			Dec6/23
•	N SHORE EXCAV 100 MACINT VAL	l 5H9 roni/iro		1 : 14	75 Apple Recieved Diagnose	: WearCheck - C8-11; : WC0872917 F

