



OIL ANALYSIS REPORT

Sample Rating Trend

ISO



Area

Appleton

Machine Id

PARKER AP-G1-HPU

Component

Hydraulic System

Fluid

SHELL TELLUS S2 MX 32 (30 LTR)



DIAGNOSIS

Recommendation

We recommend you service the filters on this component. Resample at the next service interval to monitor.

Wear

All component wear rates are normal. The ferrography results are normal indicating no abnormal wear in the system.

Contaminants

There is a light amount of silt (particulates < 14 microns in size) present in the oil.

Oil Condition

The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

SAMPLE INFORMATION

	method	limit/base	current	history1	history2
Sample Number	Client Info		WC0908334	---	---
Sample Date	Client Info		13 Mar 2024	---	---
Machine Age	Client Info		10	---	---
Oil Age	Client Info		2	---	---
Oil Changed	Client Info		Not Chngd	---	---
Sample Status			ATTENTION	---	---

CONTAMINATION

	method	limit/base	current	history1	history2
Water	WC Method	>0.05	NEG	---	---

WEAR METALS

	method	limit/base	current	history1	history2
PQ	ASTM D8184*	>45	0	---	---
Iron	ppm ASTM D5185(m)	>30	2	---	---
Chromium	ppm ASTM D5185(m)	>2	0	---	---
Nickel	ppm ASTM D5185(m)	>2	<1	---	---
Titanium	ppm ASTM D5185(m)		0	---	---
Silver	ppm ASTM D5185(m)		0	---	---
Aluminum	ppm ASTM D5185(m)	>2	<1	---	---
Lead	ppm ASTM D5185(m)	>10	<1	---	---
Copper	ppm ASTM D5185(m)	>25	<1	---	---
Tin	ppm ASTM D5185(m)	>20	0	---	---
Antimony	ppm ASTM D5185(m)		0	---	---
Vanadium	ppm ASTM D5185(m)		0	---	---
Beryllium	ppm ASTM D5185(m)		0	---	---
Cadmium	ppm ASTM D5185(m)		0	---	---

ADDITIVES

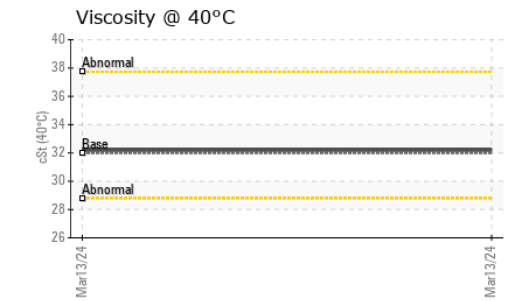
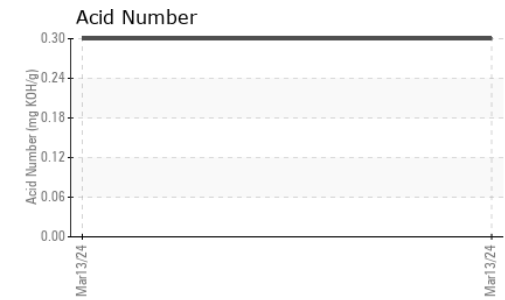
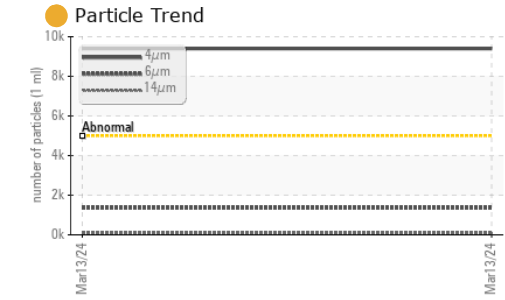
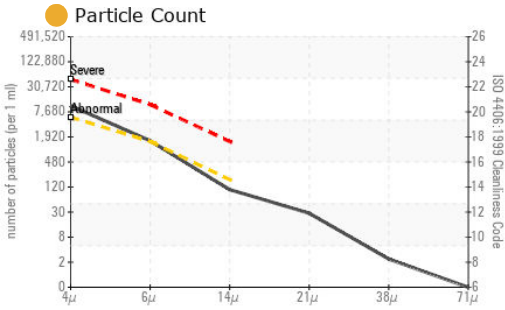
	method	limit/base	current	history1	history2
Boron	ppm ASTM D5185(m)		0	---	---
Barium	ppm ASTM D5185(m)		0	---	---
Molybdenum	ppm ASTM D5185(m)		0	---	---
Manganese	ppm ASTM D5185(m)		0	---	---
Magnesium	ppm ASTM D5185(m)		<1	---	---
Calcium	ppm ASTM D5185(m)		96	---	---
Phosphorus	ppm ASTM D5185(m)		330	---	---
Zinc	ppm ASTM D5185(m)		407	---	---
Sulfur	ppm ASTM D5185(m)		2880	---	---
Lithium	ppm ASTM D5185(m)		<1	---	---

CONTAMINANTS

	method	limit/base	current	history1	history2
Silicon	ppm ASTM D5185(m)	>25	7	---	---
Sodium	ppm ASTM D5185(m)		<1	---	---
Potassium	ppm ASTM D5185(m)	>20	<1	---	---



OIL ANALYSIS REPORT



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : WC0908334 **Received** : 18 Mar 2024
Lab Number : 02622702 **Tested** : 19 Mar 2024
Unique Number : 5747821 **Diagnosed** : 19 Mar 2024 - Kevin Marson
Test Package : IND 3

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.

Portage Power - Energy Ottawa
 4 Booth Street
 Ottawa, ON
 CA K1R 6K8
 Contact: Cheryl Gharib
 info@portagepower.com

T:
 F: x:

FLUID CLEANLINESS	method	limit/base	current	history1	history2
Particles >4µm	ASTM D7647	>5000	● 9398	---	---
Particles >6µm	ASTM D7647	>1300	● 1358	---	---
Particles >14µm	ASTM D7647	>160	92	---	---
Particles >21µm	ASTM D7647	>40	25	---	---
Particles >38µm	ASTM D7647	>10	2	---	---
Particles >71µm	ASTM D7647	>3	0	---	---
Oil Cleanliness	ISO 4406 (c)	>19/17/14	● 20/18/14	---	---

FLUID DEGRADATION	method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D974*	0.30	---	---

VISUAL	method	limit/base	current	history1	history2	
White Metal	scalar	Visual*	NONE	NONE	---	---
Yellow Metal	scalar	Visual*	NONE	NONE	---	---
Precipitate	scalar	Visual*	NONE	NONE	---	---
Silt	scalar	Visual*	NONE	NONE	---	---
Debris	scalar	Visual*	NONE	NONE	---	---
Sand/Dirt	scalar	Visual*	NONE	NONE	---	---
Appearance	scalar	Visual*	NORML	NORML	---	---
Odor	scalar	Visual*	NORML	NORML	---	---
Emulsified Water	scalar	Visual*	>0.05	NEG	---	---
Free Water	scalar	Visual*		NEG	---	---

FLUID PROPERTIES	method	limit/base	current	history1	history2	
Visc @ 40°C	cSt	ASTM D7279(m)	32.0	32.2	---	---

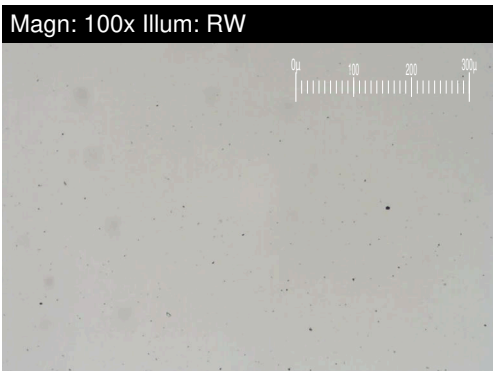
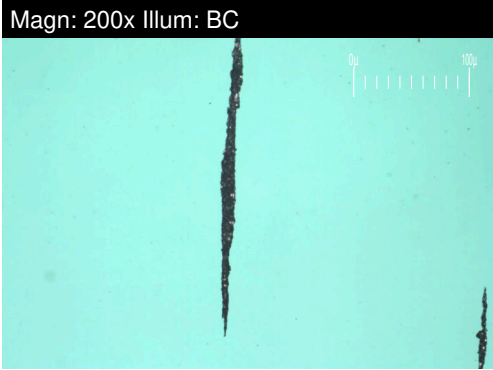
SAMPLE IMAGES	method	limit/base	current	history1	history2
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Color		no image	no image
Bottom		no image	no image



FERROGRAPHY REPORT

Area
Appleton
 Machine Id
PARKER AP-G1-HPU
 Component
Hydraulic System
 Fluid
SHELL TELLUS S2 MX 32 (30 LTR)

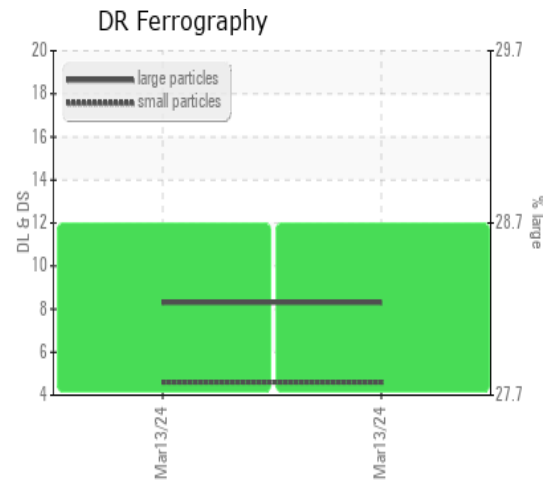


DR-FERROGRAPHY		method	limit/base	current	history1	history2
Large Particles		DR-Ferr*		8.3	---	---
Small Particles		DR-Ferr*		4.6	---	---
Total Particles		DR-Ferr*	>---	12.9	---	---
Large Particles Percentage	%	DR-Ferr*		28.7	---	---
Severity Index		DR-Ferr*		31	---	---

FERROGRAPHY		method	limit/base	current	history1	history2
Ferrous Rubbing	Scale 0-10	ASTM D7684*		2		
Ferrous Sliding	Scale 0-10	ASTM D7684*				
Ferrous Cutting	Scale 0-10	ASTM D7684*				
Ferrous Rolling	Scale 0-10	ASTM D7684*		1		
Ferrous Break-in	Scale 0-10	ASTM D7684*				
Ferrous Spheres	Scale 0-10	ASTM D7684*				
Ferrous Black Oxides	Scale 0-10	ASTM D7684*				
Ferrous Red Oxides	Scale 0-10	ASTM D7684*				
Ferrous Corrosive	Scale 0-10	ASTM D7684*				
Ferrous Other	Scale 0-10	ASTM D7684*				
Nonferrous Rubbing	Scale 0-10	ASTM D7684*				
Nonferrous Sliding	Scale 0-10	ASTM D7684*				
Nonferrous Cutting	Scale 0-10	ASTM D7684*				
Nonferrous Rolling	Scale 0-10	ASTM D7684*				
Nonferrous Other	Scale 0-10	ASTM D7684*				
Carbonaceous Material	Scale 0-10	ASTM D7684*				
Lubricant Degradation	Scale 0-10	ASTM D7684*				
Sand/Dirt	Scale 0-10	ASTM D7684*		1		
Fibres	Scale 0-10	ASTM D7684*				
Spheres	Scale 0-10	ASTM D7684*				
Other	Scale 0-10	ASTM D7684*		1		

WEAR

All component wear rates are normal.
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