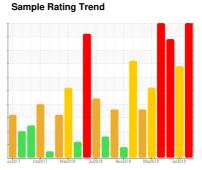


RAW MATS

PROBLEM SUMMARY

Component **Gearbox**

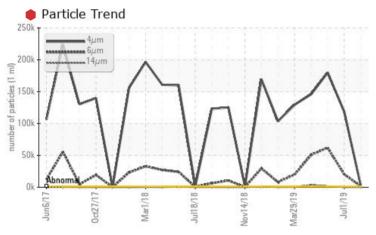
MOBIL SHC 627 (2 GAL)

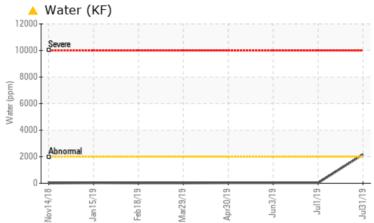




COMPONENT CONDITION SUMMARY

ROTATING ASSY REFINER 2





RECOMMENDATION

We advise that you follow the water drain-off procedure for this component, and use off-line filtration to improve the cleanliness of the system fluid. Resample at the next service interval to monitor.

PROBLEMATIC T	EST RE	SULTS				
Sample Status				SEVERE	SEVERE	SEVERE
Water	%	ASTM D6304	>0.2	△ 0.217	0.003	0.003
ppm Water	ppm	ASTM D6304	>2000	<u> </u>	30	30
Particles >4µm		ASTM D7647	>1300	3218	118411	179829
Particles >6µm		ASTM D7647	>320	1753	20376	62170
Particles >14µm		ASTM D7647	>40	298	171	1731
Particles >21µm		ASTM D7647	>10	100	3 1	279
Particles >38µm		ASTM D7647	>3	1 5	2	• 4
Oil Cleanliness		ISO 4406 (c)	>17/15/12	1 9/18/15	2 4/22/15	25/23/18
Free Water	scalar	*Visual		2.0	NEG	NEG

Customer Id: JAMPUL Sample No.: WC0341559 Lab Number: 04771259 Test Package: IND 2



To manage this report scan the QR code

To discuss the diagnosis or test data: Jonathan Hester +1 919-379-4092 x4092 jhester@wearcheckusa.com

To change component or sample information: Customer Service +1 1-800-237-1369 customerservice@wearcheck.com

RECOMMENDED ACTIONS

Action	Status	Date	Done By	Description
Water Drain-off			?	We advise that you follow the water drain-off procedure for this component, and use off-line filtration to improve the cleanliness of the system fluid.

HISTORICAL DIAGNOSIS

01 Jul 2019 Diag: Jonathan Hester

ISO



We recommend you service the filters on this component if applicable. Resample at the next service interval to monitor. All component wear rates are normal. There is a high amount of particulates present in the oil. The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.



03 Jun 2019 Diag: Don Baldridge

ISO



We recommend you service the filters on this component if applicable. Resample at the next service interval to monitor. All component wear rates are normal. There is a high amount of particulates present in the oil. The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.



30 Apr 2019 Diag: Jonathan Hester

ISO



We recommend you service the filters on this component. Resample at the next service interval to monitor. All component wear rates are normal. There is a high amount of particulates present in the oil. The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.





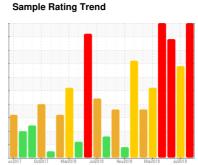
OIL ANALYSIS REPORT

RAW MATS **ROTATING ASSY REFINER 2**

Component

Gearbox

MOBIL SHC 627 (2 GAL)





DIAGNOSIS

Recommendation

We advise that you follow the water drain-off procedure for this component, and use off-line filtration to improve the cleanliness of the system fluid. Resample at the next service interval to monitor.

Wear

All component wear rates are normal.

Contamination

There is a high amount of particulates present in the oil. Free water present. There is a light concentration of water present in the oil.

Fluid Condition

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

		un2017 O	ct2017 Mar2018 J	ul2018 Nov2018 Mar2019	Jul2019	
SAMPLE INFOR	MATION	method	limit/base	current	history1	history2
Sample Number		Client Info		WC0341559	WC0351487	WC0341566
Sample Date		Client Info		31 Jul 2019	01 Jul 2019	03 Jun 2019
Machine Age	days	Client Info		0	0	0
Oil Age	days	Client Info		0	0	0
Oil Changed		Client Info		Not Changd	Not Changd	Not Changd
Sample Status				SEVERE	SEVERE	SEVERE
WEAR METALS		method	limit/base	current	history1	history2
PQ		ASTM D8184		38	25	51
Iron	ppm	ASTM D5185m	>200	13	17	28
Chromium	ppm	ASTM D5185m	>15	<1	<1	<1
Nickel	ppm	ASTM D5185m	>15	0	0	<1
Titanium	ppm	ASTM D5185m		0	0	0
Silver	ppm	ASTM D5185m		0	0	0
Aluminum	ppm	ASTM D5185m	>25	<1	<1	<1
Lead	ppm	ASTM D5185m	>100	0	0	<1
Copper	ppm	ASTM D5185m	>200	0	0	0
Tin	ppm	ASTM D5185m	>25	<1	0	0
Antimony	ppm	ASTM D5185m		0	0	0
Vanadium	ppm	ASTM D5185m		0	0	0
Cadmium	ppm	ASTM D5185m		0	0	0
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m		0	<1	<1
Barium	ppm	ASTM D5185m		0	0	0
Molybdenum	ppm	ASTM D5185m		0	0	0
Manganese	ppm	ASTM D5185m		<1	<1	0
Magnesium	ppm	ASTM D5185m		0	<1	0
Calcium	ppm	ASTM D5185m		2	2	0
Phosphorus	ppm	ASTM D5185m		388	401	436
Zinc	ppm	ASTM D5185m		0	<1	0
Sulfur	ppm	ASTM D5185m		5	174	64
CONTAMINANT	S	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>50	3	2	3
Sodium	ppm	ASTM D5185m		<1	<1	<1
Potassium	ppm	ASTM D5185m	>20	0	<1	0
Water	%	ASTM D6304	>0.2	<u> </u>	0.003	0.003
ppm Water	ppm	ASTM D6304	>2000	<u>^</u> 2170	30	30
FLUID CLEANLI	NESS	method	limit/base	current	history1	history2
Particles >4µm		ASTM D7647	>1300	3218	118411	179829
			>320	-1	20376	62170
ranticles >ouni		ASTIVI D/64/	7020	1/53	20070	■ 0∠170
•		ASTM D7647 ASTM D7647		1753298	T.	Ť
Particles >14μm		ASTM D7647	>40	298	171	1731
Particles >6µm Particles >14µm Particles >21µm Particles >38µm			>40		T.	T.

ASTM D7647 >3

ISO 4406 (c) >17/15/12 **19/18/15**

Particles >71µm

Oil Cleanliness

0

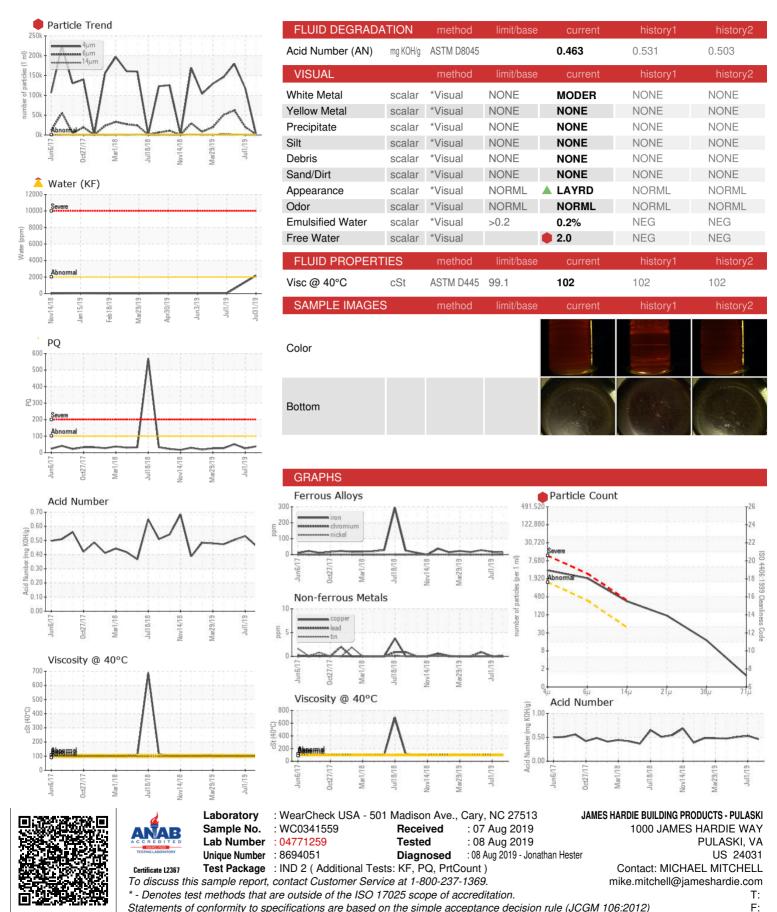
25/23/18

0

24/22/15



OIL ANALYSIS REPORT



Statements of conformity to specifications are based on the simple acceptance decision rule (JCGM 106:2012)