

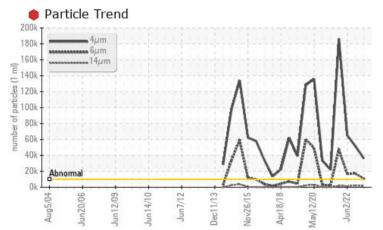
PROBLEM SUMMARY

Area [199029] Machine Id **PBK G UGBR/THBR** Component

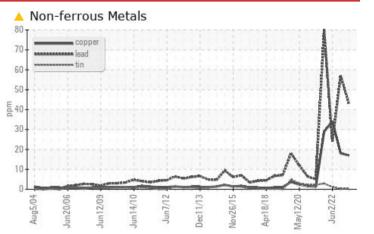
Bearing

MOBIL DTE OIL HVY MEDIUM (170 LTR)

COMPONENT CONDITION SUMMARY







RECOMMENDATION

Check seals and/or filters for points of contaminant entry. We advise that you check all areas where contaminants can enter the system. The air breather requires service. If unrated, we recommend that you replace with a suitable micron rated and/or desiccant air breather. If rated, we recommend that you service/replace the breather. We advise that you follow the water drain-off procedure for this component. We advise that you perform a filter service, and use off-line filtration to improve the cleanliness of the system fluid. Resample in 30-45 days to monitor this situation.

PROBLEMATIC TEST RESULTS							
Sample Status				SEVERE	SEVERE	SEVERE	
Copper	ppm	ASTM D5185(m)	>13	<u> </u>	<u> </u>	• 34	
Particles >4µm		ASTM D7647	>10000	<u> </u>	<mark>▲</mark> 51562	65261	
Particles >6µm		ASTM D7647	>2500	<u> </u>	▲ 17265	▲ 16896	
Particles >14µm		ASTM D7647	>160	🛑 1359	2237	🛑 1315	
Particles >21µm		ASTM D7647	>40	e 461	678	• 335	
Particles >38µm		ASTM D7647	>10	<u> </u>	10	13	
Oil Cleanliness		ISO 4406 (c)	>20/18/14	e 22/21/18	23/21/18	23/21/18	
Appearance	scalar	Visual*	NORML	🔺 WGOIL	🔺 WGOIL	NORML	
Free Water	scalar	Visual*		<u> </u>	▲ 5%	▲ 5%	

Customer Id: NEWSTJ Sample No.: WC0455716 Lab Number: 02563207 Test Package: IND 2



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

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

RECOMMENDED ACTIONS							
Action	Status	Date	Done By	Description			
Change Filter			?	We advise that you perform a filter service, and use off-line filtration to improve the cleanliness of the system fluid.			
Water Drain-off			?	We advise that you follow the water drain-off procedure for this component.			
Resample			?	Resample in 30-45 days to monitor this situation.			
Check Breathers			?	The air breather requires service. If unrated, we recommend that you replace with a suitable micron rated and/or desiccant air breather. If rated, we recommend that you service/replace the breather.			
Check Dirt Access			?	We advise that you check all areas where contaminants can enter the system.			
Check Seals			?	Check seals and/or filters for points of contaminant entry.			
Filter Fluid			?	We advise that you perform a filter service, and use off-line filtration to improve the cleanliness of the system fluid.			

HISTORICAL DIAGNOSIS



15 Nov 2022 Diag: Kevin Marson

Check seals and/or filters for points of contaminant entry. We advise that you check all areas where contaminants can enter the system. The air breather requires service. If unrated, we recommend that you replace with a suitable micron rated and/or desiccant air breather. If rated, we recommend that you service/replace the breather. We advise that you follow the water drain-off procedure for this component. We advise that you perform a filter service, and use off-line filtration to improve the cleanliness of the system fluid. Resample in 30-45 days to monitor this situation.Copper ppm levels are abnormal. Bearing wear is indicated. Particles >14µm are severely high. Particles >21µm are severely high. Oil Cleanliness are severely high. Oil Cleanliness are severely high. Particles >6µm are abnormally high. Free water present. The AN level is acceptable for this fluid. The oil is no longer serviceable as a result of the abnormal and/or severe wear.



02 Jun 2022 Diag: Kevin Marson



Check seals and/or filters for points of contaminant entry. We advise that you check all areas where contaminants can enter the system. The air breather requires service. If unrated, we recommend that you replace with a suitable micron rated and/or desiccant air breather. If rated, we recommend that you service/replace the breather. We advise that you use off-line filtration with water adsorbent filters to attempt to remove the water from this oil. We advise that you perform a filter service, and use off-line filtration to improve the cleanliness of the system fluid. Resample in 30-45 days to monitor this situation.Copper ppm levels are severe. Bearing wear is indicated. Particles >14µm are severely high. Oil Cleanliness are severely high. Oil Cleanliness are severely high. Particles >4µm are abnormally high. Free water present. The AN level is acceptable for this fluid. The oil is no longer serviceable as a result of the abnormal and/or severe wear.

20 Oct 2021 Diag: Kevin Marson



Check seals and/or filters for points of contaminant entry. We advise that you check all areas where contaminants can enter the system. 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. The air breather requires service. If unrated, we recommend that you replace with a suitable micron rated and/or desiccant air breather. If rated, we recommend that you service/replace the breather. We recommend that you change the oil. Resample in 30-45 days to monitor this situation. NOTE: Test values may be askew due high concentration of free water present in sample.Copper ppm levels are severe. Lead ppm levels are abnormal. A sharp increase in the lead level is noted. Bearing wear is indicated. Particles >14µm are severely high. Particles >6µm are severely high. Particles >21µm are abnormally high. Free water present. The white residue present in the sample is oil additive precipitate. The AN level is acceptable for this fluid. The oil is no longer serviceable as a result of the abnormal and/or severe wear.







OIL ANALYSIS REPORT

Area [199029] Machine Id **PBK G UGBR/THBR** Component

Bearing Fluid

MOBIL DTE OIL HVY MEDIUM (170 LTR)

DIAGNOSIS

Recommendation

Check seals and/or filters for points of contaminant entry. We advise that you check all areas where contaminants can enter the system. The air breather requires service. If unrated, we recommend that you replace with a suitable micron rated and/or desiccant air breather. If rated, we recommend that you service/replace the breather. We advise that you follow the water drain-off procedure for this component. We advise that you perform a filter service, and use off-line filtration to improve the cleanliness of the system fluid. Resample in 30-45 days to monitor this situation.

🔺 Wear

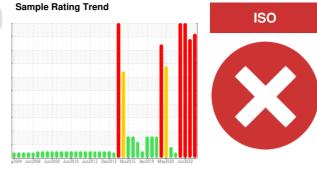
Copper ppm levels are abnormal. Bearing wear is indicated.

Contamination

Particles >14 μ m are severely high. Particles >21 μ m are severely high. Oil Cleanliness are severely high. Oil Cleanliness are severely high.. Oil Cleanliness are severely high... Oil Cleanliness are severely high... Particles >4 μ m are abnormally high. Particles >38 μ m are abnormally high. Particles >6 μ m are abnormally high. Free water present.

Fluid Condition

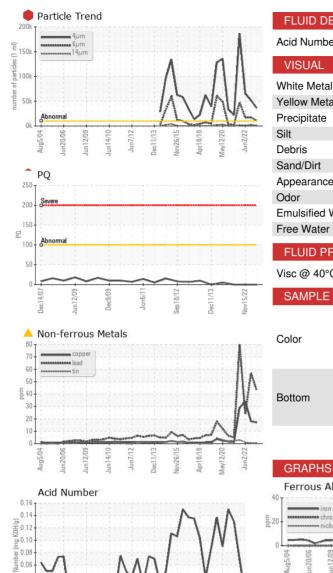
The AN level is acceptable for this fluid. The oil is no longer serviceable as a result of the abnormal and/or severe wear.



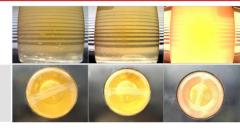
SAMPLE INFORM	ATION	method	limit/base	current	history1	history2
Sample Number		Client Info		WC0455716	WC0455746	WC0445364
Sample Date		Client Info		24 May 2023	15 Nov 2022	02 Jun 2022
	hrs	Client Info		0	0	0
÷	hrs	Client Info		0	0	0
Oil Changed		Client Info		N/A	N/A	N/A
Sample Status				SEVERE	SEVERE	SEVERE
WEAR METALS		method	limit/base	current	history1	history2
PQ		ASTM D8184*		0	0	0
Iron	ppm	ASTM D5185(m)	>63	8	6	14
	ppm	ASTM D5185(m)	>20	0	0	0
Nickel	ppm	ASTM D5185(m)	>20	<1	0	0
Titanium	ppm	ASTM D5185(m)		0	0	0
Silver	ppm	ASTM D5185(m)		0	0	0
	ppm	ASTM D5185(m)	>2	<1	0	0
	ppm	ASTM D5185(m)	>161	43	57	24
-	ppm	ASTM D5185(m)	>13	1 7	1 8	934
Tin	ppm	ASTM D5185(m)	>27	<1	<1	1
	ppm	ASTM D5185(m)		<1	0	<1
	ppm	ASTM D5185(m)		0	0	0
	ppm	ASTM D5185(m)		0	0	0
	ppm	ASTM D5185(m)		<1	1	<1
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185(m)		0	<1	0
Barium	ppm	ASTM D5185(m)		0	0	0
Molybdenum	ppm	ASTM D5185(m)		0	0	0
Manganese	ppm	ASTM D5185(m)		<1	<1	<1
Magnesium	ppm	ASTM D5185(m)		0	0	0
Calcium	ppm	ASTM D5185(m)		0	0	<1
Phosphorus	ppm	ASTM D5185(m)		139	130	132
Zinc	ppm	ASTM D5185(m)		28	31	21
Sulfur	ppm	ASTM D5185(m)		1322	1337	797
Lithium	ppm	ASTM D5185(m)		<1	<1	<1
CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185(m)	>12	<1	<1	<1
	ppm	ASTM D5185(m)		0	<1	<1
	ppm	ASTM D5185(m)	>20	0	<1	<1
FLUID CLEANLINE	ESS	method	limit/base	current	history1	history2
Particles >4µm		ASTM D7647	>10000	A 36212	5 1562	65261
Particles >6µm		ASTM D7647		10878	▲ 17265	▲ 16896
Particles >14µm		ASTM D7647	>160	• 1359	2237	• 1315
Particles >21µm		ASTM D7647		4 61	678	• 335
Particles >38µm		ASTM D7647	>10	▲ 25	10	13
Particles >71µm		ASTM D7647		2	0	1
Oil Cleanliness		ISO 4406 (c)	>20/18/14	- 22/21/18	23/21/18	23/21/18

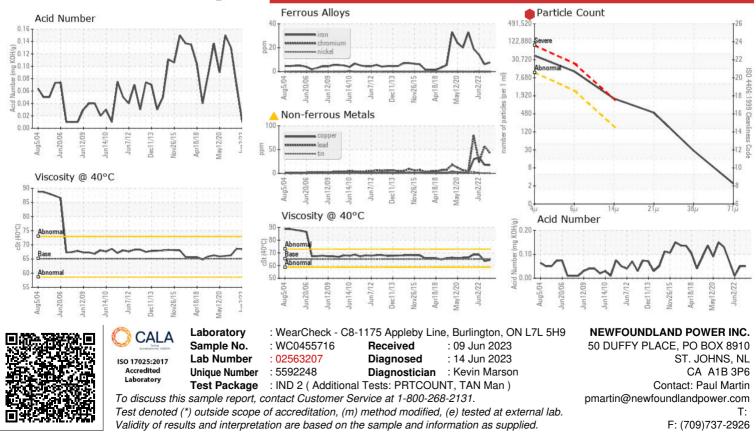


OIL ANALYSIS REPORT



FLUID DEGRAD	ATION	method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D974*		0.05	0.05	0.01
VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	Visual*	NONE	NONE	NONE	NONE
Yellow Metal	scalar	Visual*	NONE	NONE	NONE	NONE
Precipitate	scalar	Visual*	NONE	NONE	NONE	NONE
Silt	scalar	Visual*	NONE	NONE	NONE	NONE
Debris	scalar	Visual*	NONE	NONE	NONE	NONE
Sand/Dirt	scalar	Visual*	NONE	NONE	NONE	VLITE
Appearance	scalar	Visual*	NORML	🔺 WGOIL	🔺 WGOIL	NORML
Odor	scalar	Visual*	NORML	NORML	NORML	NORML
Emulsified Water	scalar	Visual*	>2	.2%	1%	.5%
Free Water	scalar	Visual*		<u> </u>	▲ 5%	▲ 5%
FLUID PROPER	TIES	method	limit/base	current	history1	history2
√isc @ 40°C	cSt	ASTM D7279(m)	65.1	64.2	63.6	68.5
SAMPLE IMAGE	S	method	limit/base	current	history1	history2





Report Id: NEWSTJ [WCAMIS] 02563207 (Generated: 09/26/2023 13:17:43) Rev: 1

Submitted By: Paul Martin Page 4 of 4