

PROBLEM SUMMARY

Area
M11
Machine Id

44-P-2530C-NDE WATER INJ. BOOSTER PUMP NON-DRIVE END

Component **Bearing**

MOBIL DTE OIL LIGHT (--- LTR)

evicios Janicios Jani

Sample Rating Trend



COMPONENT CONDITION SUMMARY

No relevant graphs to display

RECOMMENDATION

We advise that you check for the source of water entry. Check seals and/or filters for points of contaminant entry. 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 recommend an early resample to monitor this condition. NOTE: Please provide information regarding reservoir capacity, filter type and micron rating with next sample.

PROBLEMATIC TEST RESULTS								
Sample Status				ABNORMAL	ABNORMAL	ABNORMAL		
Appearance	scalar	Visual*	NORML	WGOIL	▲ WGOIL	NORML		
Free Water	scalar	Visual*		1 %	<u>1</u> %	5 %		

Customer Id: SPESTJ Sample No.: PP Lab Number: 02592290 Test Package: IND 1

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 ACTIONS Action **Status** Date Done By Description Water Drain-off ? We advise that you follow the water drain-off procedure for this component. Resample ? We recommend an early resample to monitor this condition. NOTE: Please provide information regarding reservoir capacity, filter type ? Information Required and micron rating with next sample. The air breather requires service. If unrated, we recommend that you replace with a **Check Breathers** ? suitable micron rated and/or desiccant air breather. If rated, we recommend that you service/replace the breather

We advise that you check for the source of water entry.

Check seals and/or filters for points of contaminant entry.

HISTORICAL DIAGNOSIS

Check Water Access

Check Seals

28 Jun 2023 Diag: Kevin Marson

22 May 2023 Diag: Kevin Marson

We advise that you check for the source of water entry. Check seals and/or filters for points of contaminant entry. 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 recommend an early resample to monitor this condition. NOTE: Please provide information regarding reservoir capacity, filter type and micron rating with next sample.All component wear rates are normal. Free water present. The oil is still serviceable provided that the contaminant(s) can be reduced to acceptable levels.

?



WATER



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ATER



05 Feb 2023 Diag: Kevin Marson

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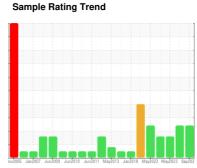
OIL ANALYSIS REPORT

Area **M11**

44-P-2530C-NDE WATER INJ. BOOSTER PUMP NON-DRIVE END

Bearing

MOBIL DTE OIL LIGHT (--- LTR)





DIAGNOSIS

Recommendation

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Wear

All component wear rates are normal.

Contamination

Free water present.

Fluid Condition

The oil is still serviceable provided that the contaminant(s) can be reduced to acceptable levels.

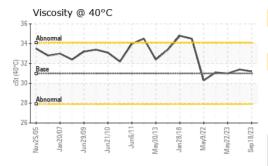
Sample Number Sample Date	MATION	method	limit/base	current	history1	history2
•		Client Info		PP	PP	PP
		Client Info		18 Sep 2023	28 Jun 2023	22 May 2023
Machine Age	hrs	Client Info		0	0	0
Oil Age	hrs	Client Info		0	0	0
Oil Changed	0	Client Info		N/A	N/A	N/A
Sample Status				ABNORMAL	ABNORMAL	ABNORMAL
WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185(m)	>20	3	2	2
Chromium	ppm	ASTM D5185(m)	>2	0	0	0
Nickel	ppm	ASTM D5185(m)	>2	0	0	<1
Titanium	ppm	ASTM D5185(m)		0	0	0
Silver	ppm	ASTM D5185(m)		<1	0	0
Aluminum	ppm	ASTM D5185(m)	\5	<1	<1	<1
Lead	ppm	ASTM D5185(m)	>25	0	0	0
Copper	ppm	ASTM D5185(m)		2	<1	<1
Tin	ppm	ASTM D5185(m)	>15	0	0	0
Antimony	ppm	ASTM D5185(m)	>10	0	0	0
Vanadium		ASTM D5185(m)		0	0	0
Beryllium	ppm	ASTM D5185(III) ASTM D5185(m)		0	0	0
Cadmium	ppm	ASTM D5185(III) ASTM D5185(m)		0	0	0
	ppm	ASTINI DOTOS(III)		U		
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185(m)		<1	<1	0
Barium	ppm	ASTM D5185(m)		<1	0	0
Molybdenum	ppm	ASTM D5185(m)		0	0	0
Manganese	ppm	ASTM D5185(m)		0	0	0
Magnesium	ppm	ASTM D5185(m)		0	<1	0
A 1 '	ppm	ASTM D5185(m)		<1	9	6
Calcium Phosphorus	ppm	ASTM D5185(m)		1131	1202	1210
Phosphorus	ppm ppm	ASTM D5185(m) ASTM D5185(m)			1202 3	
		. ,		1131	1202	1210
Phosphorus Zinc	ppm	ASTM D5185(m)		1131 2	1202 3	1210
Phosphorus Zinc Sulfur	ppm ppm	ASTM D5185(m) ASTM D5185(m)	limit/base	1131 2 62	1202 3 58	1210 2 56
Phosphorus Zinc Sulfur Lithium	ppm ppm	ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)		1131 2 62 <1	1202 3 58 <1	1210 2 56 <1
Phosphorus Zinc Sulfur Lithium CONTAMINANTS	ppm ppm ppm	ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) method		1131 2 62 <1 current	1202 3 58 <1 history1	1210 2 56 <1 history2
Phosphorus Zinc Sulfur Lithium CONTAMINANTS Silicon	ppm ppm ppm	ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) method ASTM D5185(m)		1131 2 62 <1 current	1202 3 58 <1 history1	1210 2 56 <1 history2
Phosphorus Zinc Sulfur Lithium CONTAMINANTS Silicon Sodium	ppm ppm ppm	ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) method ASTM D5185(m) ASTM D5185(m)	>15	1131 2 62 <1 current <1	1202 3 58 <1 history1 <1 <1	1210 2 56 <1 history2 <1 <1
Phosphorus Zinc Sulfur Lithium CONTAMINANTS Silicon Sodium Potassium	ppm ppm ppm	ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) method ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)	>15 >20	1131 2 62 <1 current <1 <1	1202 3 58 <1 history1 <1 <1 0	1210 2 56 <1 history2 <1 <1 0
Phosphorus Zinc Sulfur Lithium CONTAMINANTS Silicon Sodium Potassium VISUAL	ppm ppm ppm	ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) method ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) method	>15 >20 limit/base	1131 2 62 <1 current <1 <1 0	1202 3 58 <1 history1 <1 <1 0 history1	1210 2 56 <1 history2 <1 <1 0
Phosphorus Zinc Sulfur Lithium CONTAMINANTS Silicon Sodium Potassium VISUAL White Metal Yellow Metal	ppm ppm ppm ppm ppm ppm scalar	ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) method ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) method Visual*	>15 >20 limit/base NONE	1131 2 62 <1 current <1 <1 0 current NONE	1202 3 58 <1 history1 <1 <1 0 history1 NONE	1210 2 56 <1 history2 <1 <1 0 history2 NONE
Phosphorus Zinc Sulfur Lithium CONTAMINANTS Silicon Sodium Potassium VISUAL White Metal	ppm ppm ppm ppm ppm ppm scalar scalar	ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) method ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) method Visual*	>15 >20 limit/base NONE NONE	1131 2 62 <1 current <1 <1 0 current NONE NONE	1202 3 58 <1 history1 <1 <1 0 history1 NONE	1210 2 56 <1 history2 <1 <1 0 history2 NONE NONE
Phosphorus Zinc Sulfur Lithium CONTAMINANTS Silicon Sodium Potassium VISUAL White Metal Yellow Metal Precipitate	ppm ppm ppm ppm ppm ppm scalar scalar	ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) method ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) Method Visual* Visual* Visual*	>15 >20 limit/base NONE NONE NONE	1131 2 62 <1 current <1 <1 0 current NONE NONE VLITE	1202 3 58 <1 history1 <1 <1 0 history1 NONE NONE NONE	1210 2 56 <1 history2 <1 <1 0 history2 NONE NONE
Phosphorus Zinc Sulfur Lithium CONTAMINANTS Silicon Sodium Potassium VISUAL White Metal Yellow Metal Precipitate Silt Debris	ppm ppm ppm ppm ppm ppm scalar scalar scalar	ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) method ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) Wethod Visual* Visual* Visual*	>15 >20 limit/base NONE NONE NONE NONE	1131 2 62 <1 current <1 <1 0 current NONE NONE VLITE NONE	1202 3 58 <1 history1 <1 <1 0 history1 NONE NONE NONE NONE	1210 2 56 <1 history2 <1 <1 0 history2 NONE NONE NONE NONE
Phosphorus Zinc Sulfur Lithium CONTAMINANTS Silicon Sodium Potassium VISUAL White Metal Yellow Metal Precipitate Silt	ppm ppm ppm ppm ppm ppm scalar scalar scalar scalar	ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) method ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) Wethod Visual* Visual* Visual* Visual* Visual* Visual*	>15 >20 limit/base NONE NONE NONE NONE NONE NONE	1131 2 62 <1 current <1 <1 0 current NONE NONE VLITE NONE VLITE VLITE	1202 3 58 <1 history1 <1 <1 0 history1 NONE NONE NONE NONE VLITE	1210 2 56 <1 history2 <1 <1 0 history2 NONE NONE NONE NONE NONE NONE NONE
Phosphorus Zinc Sulfur Lithium CONTAMINANTS Silicon Sodium Potassium VISUAL White Metal Yellow Metal Precipitate Silt Debris Sand/Dirt	ppm ppm ppm ppm ppm ppm scalar scalar scalar scalar scalar	ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) method ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) method Visual* Visual* Visual* Visual* Visual* Visual*	>15 >20 limit/base NONE NONE NONE NONE NONE NONE NONE NON	1131 2 62 <1 current <1 <1 0 current NONE NONE VLITE NONE VLITE NONE	1202 3 58 <1 history1 <1 <1 0 history1 NONE NONE NONE NONE VLITE NONE	1210 2 56 <1 history2 <1 <1 0 history2 NONE NONE NONE NONE NONE NONE NONE NON

1%

scalar Visual*



OIL ANALYSIS REPORT





GRAPHS Ferrous Alloys 60 50 30 20 Non-ferrous Metals 400 350 300 250 든 200 150 100 50 Viscosity @ 40°C 36 35 & 30 29 28 27 26



CALA ISO 17025:2017 Accredited Laboratory

Laboratory Sample No. Lab Number Unique Number : 5669369

: PP

: 02592290 Test Package : IND 1

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.

Received

: 26 Oct 2023 Diagnosed : 27 Oct 2023 Diagnostician : Kevin Marson

: WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9 HUSKY SEA ROSE /AKER SOLUTIONS PO BOX 20

Contact/Location: Maintenance Supervisor - SPESTJ

ST. JOHN'S, NL CA A1C 6C9

Contact: Maintenance Supervisor maintsuper.searose@huskyenergy.ca

T: x:

Validity of results and interpretation are based on the sample and information as supplied. F: x: