

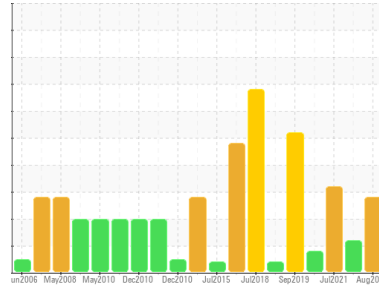


# PROBLEM SUMMARY

Sample Rating Trend

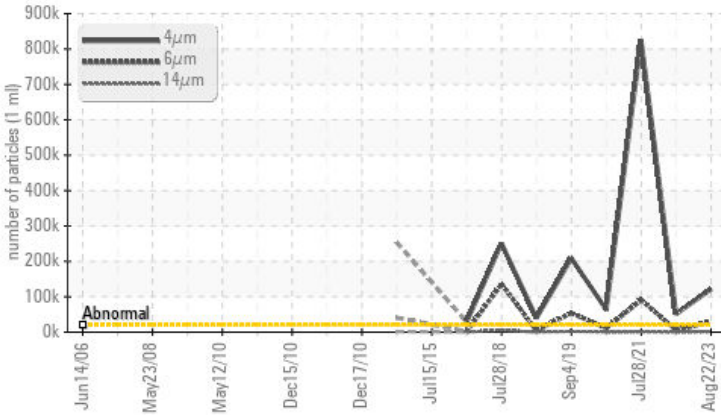
ADDITIVES

Area  
**[11019897]**  
 Machine Id  
**EASAT EP0711/27.5.1 YVR ASDE OIL 2206 (S/N AR18089/9)**  
 Component  
**Gearbox**  
 Fluid  
**MOBIL SHC 630 (80 LTR)**



## COMPONENT CONDITION SUMMARY

### ▲ Particle Trend



## RECOMMENDATION

The oil change at the time of sampling has been noted. We recommend an early resample to monitor this condition.

## PROBLEMATIC TEST RESULTS

Sample Status			ABNORMAL	ABNORMAL	SEVERE
Lithium	ppm	ASTM D5185(m)	▲ 18	3	7
Particles >4µm		ASTM D7647 >20000	▲ 121655	▲ 50885	● 825033
Particles >6µm		ASTM D7647 >5000	▲ 30461	▲ 5071	● 91179
Particles >14µm		ASTM D7647 >640	▲ 1199	107	▲ 900
Particles >21µm		ASTM D7647 >160	▲ 597	22	149
Particles >38µm		ASTM D7647 >40	▲ 57	2	0
Oil Cleanliness		ISO 4406 (c) >21/19/16	▲ 24/22/17	▲ 23/20/14	● 27/24/17

Customer Id: NAVSUR  
 Sample No.: WC0625385  
 Lab Number: 02580797  
 Test Package: IND 2



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](mailto:Kevin.Marson@wearcheck.com)

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

## RECOMMENDED ACTIONS

Action	Status	Date	Done By	Description
Resample	---	---	?	We recommend an early resample to monitor this condition.

## HISTORICAL DIAGNOSIS

### 20 Jul 2022 Diag: Kevin Marson

ISO



We recommend you service the filters on this component. We recommend an early resample to monitor this condition. All component wear rates are normal. Particles >4µm and oil cleanliness are abnormally high. Particles >6µm are notably high. The AN level is acceptable for this fluid. The oil is still serviceable provided that the contaminant(s) can be reduced to acceptable levels.

view report



### 28 Jul 2021 Diag: Kevin Marson

ISO



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 recommend you service the filters on this component. Resample in 30-45 days to monitor this situation. All component wear rates are normal. Particles >6µm are severely high. Particles >4µm are severely high. Particles >14µm are notably high. Viscosity of sample indicates oil is within ISO 220 range, advise investigate. The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

view report



### 02 Nov 2020 Diag: Kevin Marson

ISO



We recommend you service the filters on this component. We recommend an early resample to monitor this condition. All component wear rates are normal. Particles >4µm are abnormally high. Particles >6µm are abnormally high. The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

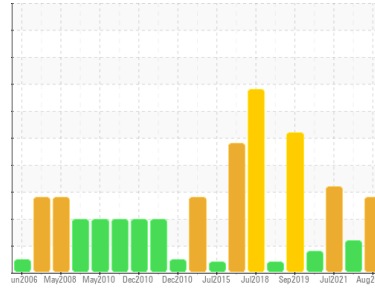
view report





# OIL ANALYSIS REPORT

Sample Rating Trend



## ADDITIVES



Area

[11019897]

Machine Id

EASAT EP0711/27.5.1 YVR ASDE OIL 2206 (S/N AR18089/9)

Component

Gearbox

Fluid

MOBIL SHC 630 (80 LTR)

### DIAGNOSIS

#### Recommendation

The oil change at the time of sampling has been noted. We recommend an early resample to monitor this condition.

#### Wear

All component wear rates are normal.

#### Contamination

Lithium (Li) level abnormal at 18ppm., indicates possible grease contamination. There is a moderate amount of particulates (2 to 100 microns in size) present in the oil.

#### Fluid Condition

The AN level is acceptable for this fluid. The oil is no longer serviceable due to the presence of contaminants.

### SAMPLE INFORMATION

	method	limit/base	current	history1	history2
Sample Number	Client Info		WC0625385	WC0625382	WC0303978
Sample Date	Client Info		22 Aug 2023	20 Jul 2022	28 Jul 2021
Machine Age	yrs	Client Info	0	0	1
Oil Age	yrs	Client Info	1	0	0
Oil Changed	Client Info		Changed	N/A	N/A
Sample Status			ABNORMAL	ABNORMAL	SEVERE

### WEAR METALS

	method	limit/base	current	history1	history2	
Iron	ppm	ASTM D5185(m)	>30	6	3	4
Chromium	ppm	ASTM D5185(m)	>4	0	0	0
Nickel	ppm	ASTM D5185(m)	>5	<1	<1	<1
Titanium	ppm	ASTM D5185(m)		0	0	0
Silver	ppm	ASTM D5185(m)	>5	0	0	0
Aluminum	ppm	ASTM D5185(m)	>8	0	0	0
Lead	ppm	ASTM D5185(m)	>10	0	0	0
Copper	ppm	ASTM D5185(m)	>8	8	2	6
Tin	ppm	ASTM D5185(m)	>4	<1	<1	<1
Antimony	ppm	ASTM D5185(m)	>5	0	0	<1
Vanadium	ppm	ASTM D5185(m)		0	0	0
Beryllium	ppm	ASTM D5185(m)		0	0	0
Cadmium	ppm	ASTM D5185(m)		0	0	0

### ADDITIVES

	method	limit/base	current	history1	history2	
Boron	ppm	ASTM D5185(m)		<1	<1	1
Barium	ppm	ASTM D5185(m)		0	0	0
Molybdenum	ppm	ASTM D5185(m)		0	0	0
Manganese	ppm	ASTM D5185(m)		0	0	0
Magnesium	ppm	ASTM D5185(m)		0	0	<1
Calcium	ppm	ASTM D5185(m)		<1	<1	<1
Phosphorus	ppm	ASTM D5185(m)		464	490	441
Zinc	ppm	ASTM D5185(m)		14	4	11
Sulfur	ppm	ASTM D5185(m)		401	213	110
Lithium	ppm	ASTM D5185(m)		▲ 18	3	7

### CONTAMINANTS

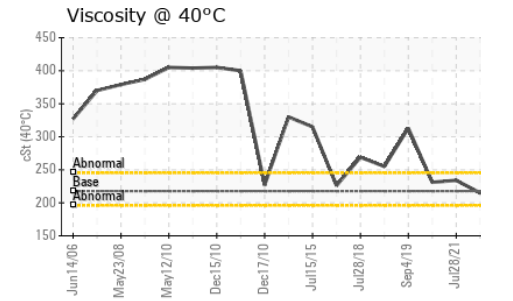
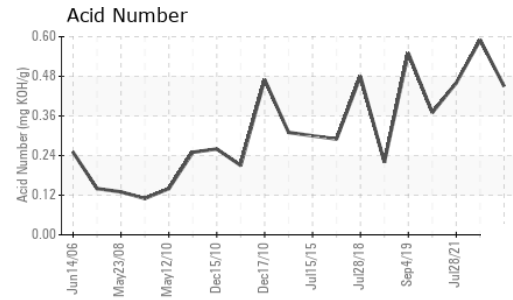
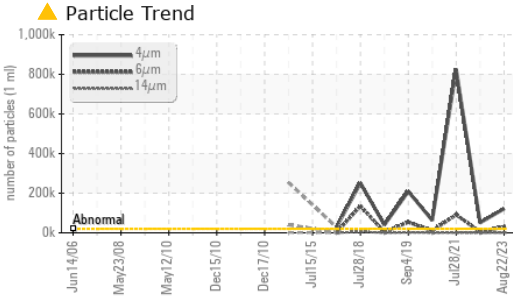
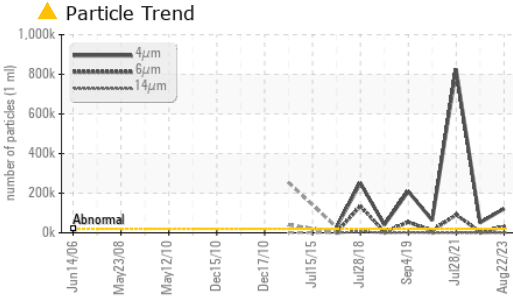
	method	limit/base	current	history1	history2	
Silicon	ppm	ASTM D5185(m)	>10	24	25	27
Sodium	ppm	ASTM D5185(m)		<1	0	0
Potassium	ppm	ASTM D5185(m)	>20	<1	0	<1

### FLUID CLEANLINESS

	method	limit/base	current	history1	history2
Particles >4µm	ASTM D7647	>20000	▲ 121655	▲ 50885	● 825033
Particles >6µm	ASTM D7647	>5000	▲ 30461	▲ 5071	● 91179
Particles >14µm	ASTM D7647	>640	▲ 1199	107	▲ 900
Particles >21µm	ASTM D7647	>160	▲ 597	22	149
Particles >38µm	ASTM D7647	>40	▲ 57	2	0
Particles >71µm	ASTM D7647	>10	5	1	0
Oil Cleanliness	ISO 4406 (c)	>21/19/16	▲ 24/22/17	▲ 23/20/14	● 27/24/17

### FLUID DEGRADATION

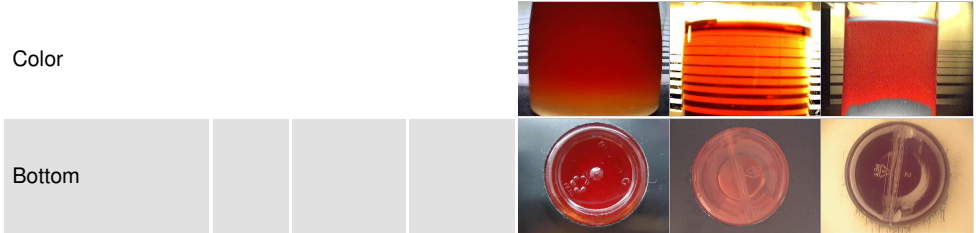
	method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D974*	0.45	0.59	0.46



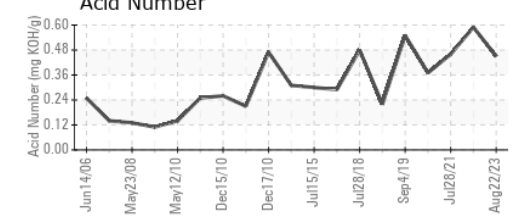
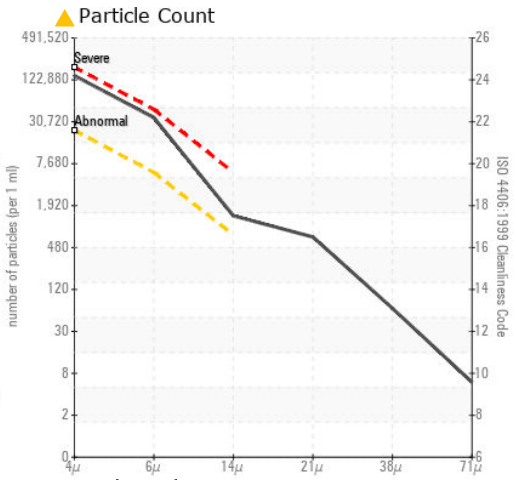
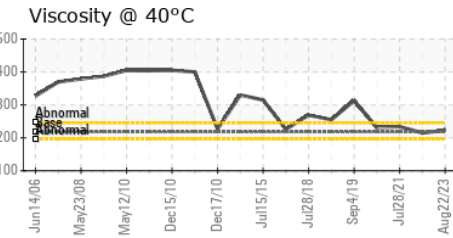
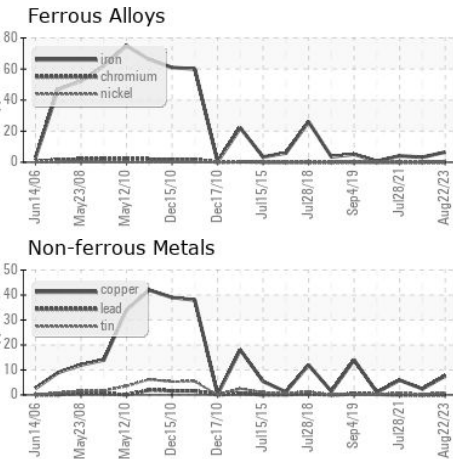
VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	Visual*	NONE	NONE	NONE
Yellow Metal	scalar	Visual*	NONE	NONE	NONE
Precipitate	scalar	Visual*	NONE	NONE	NONE
Silt	scalar	Visual*	NONE	NONE	NONE
Debris	scalar	Visual*	NONE	NONE	NONE
Sand/Dirt	scalar	Visual*	NONE	NONE	NONE
Appearance	scalar	Visual*	NORML	NORML	NORML
Odor	scalar	Visual*	NORML	NORML	NORML
Emulsified Water	scalar	Visual*	>0.2	NEG	NEG
Free Water	scalar	Visual*		NEG	NEG

FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D7279(m)	217.7	223	215

SAMPLE IMAGES	method	limit/base	current	history1	history2
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## GRAPHS



**Laboratory** : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9  
**Sample No.** : WC0625385 **Received** : 06 Sep 2023  
**Lab Number** : 02580797 **Diagnosed** : 07 Sep 2023  
**Unique Number** : 5633857 **Diagnostician** : Kevin Marson  
**Test Package** : IND 2 ( Additional Tests: PrtCount, TAN Man )

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.

**NAV CANADA**  
 7421 135 STREET  
 SURREY, BC  
 CA V3W 0M8  
 Contact: Paul Idasz  
 paul.idasz@navcanada.ca  
 T: (604)354-3010  
 F: (604)775-9659