



# OIL ANALYSIS REPORT

WEAR	ATTENTION
CONTAMINATION	ABNORMAL
FLUID CONDITION	NORMAL

Machine Id  
**RASA 60 IN MTBM 60 IN RASA MTBM**

Component  
**1 Gear Motor**

Fluid  
**{not provided} (--- GAL)**

## RECOMMENDATION

We advise that you check all areas where dirt can enter the system. We advise that you check for the source of water entry. We advise that you follow the water drain-off procedure for this component. Resample at the next service interval to monitor. Please specify the brand, type, and viscosity of the oil on your next sample.

## WEAR

All component wear rates are normal.

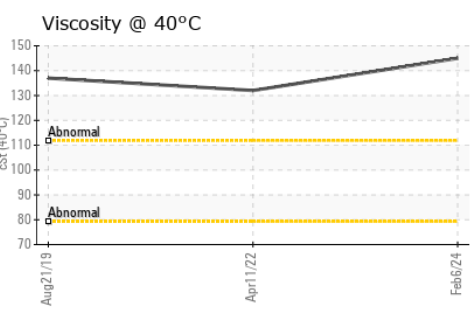
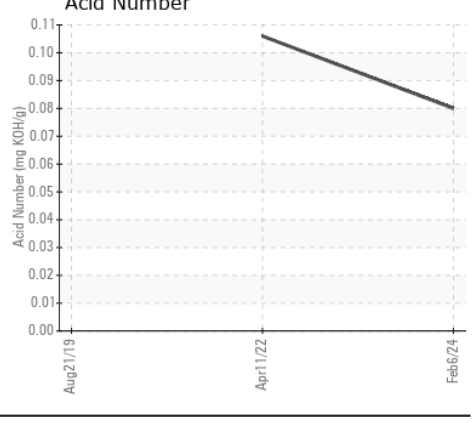
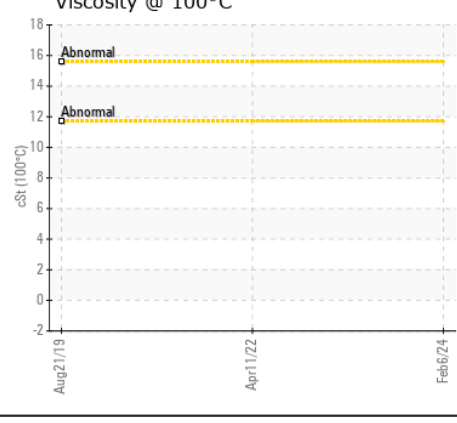
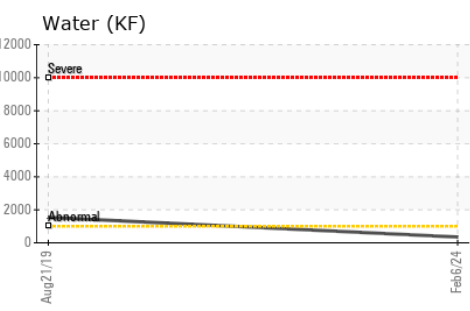
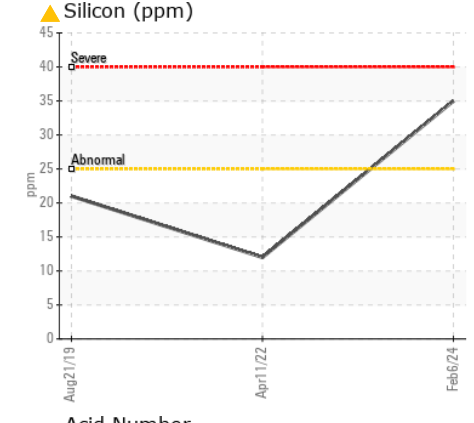
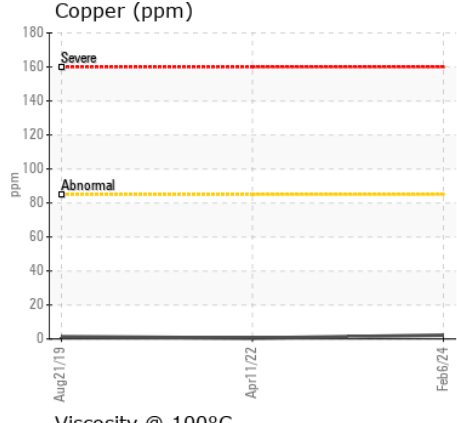
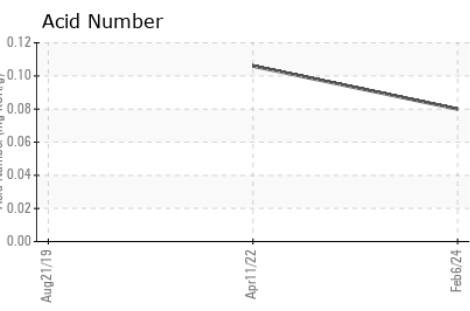
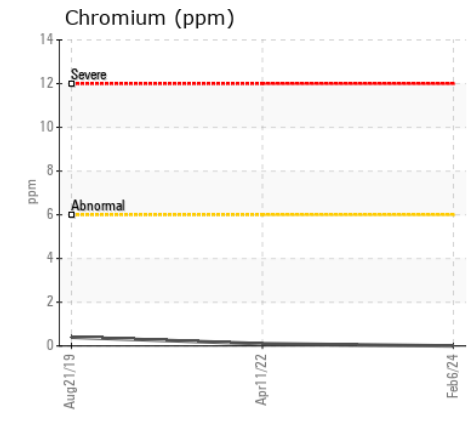
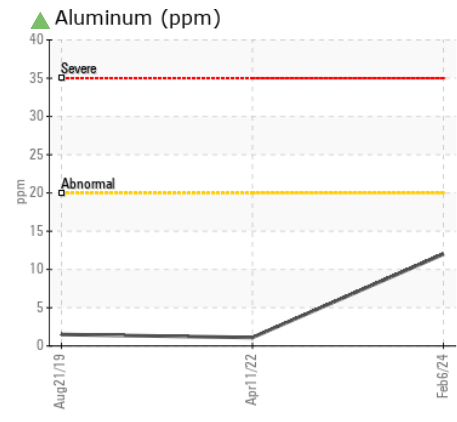
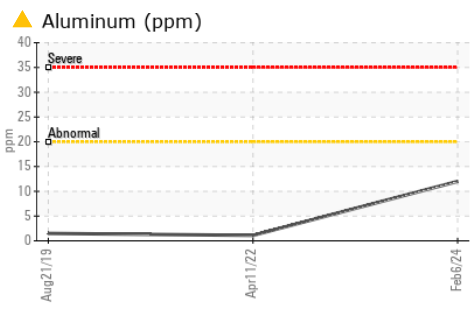
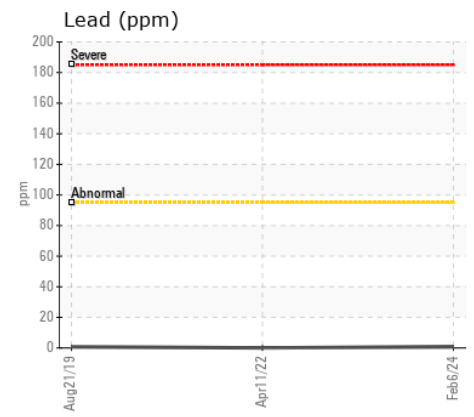
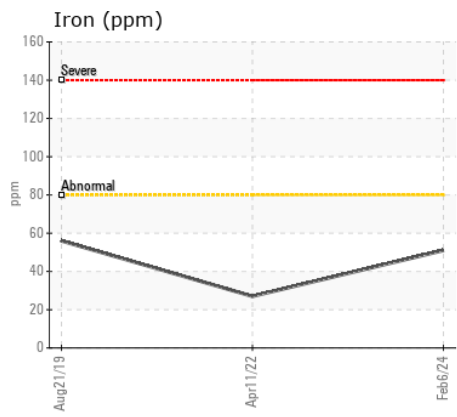
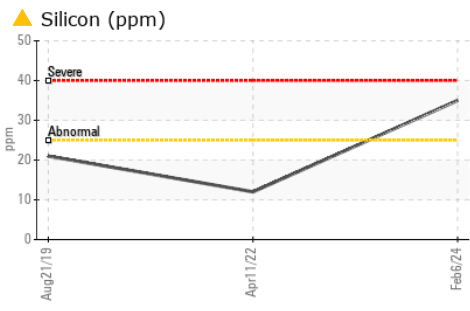
## CONTAMINATION

Elemental levels of silicon (Si) and aluminum (Al) indicate alumina-silicate (coarse dirt) ingress. Free water present.

## FLUID CONDITION

The AN level is acceptable for this fluid.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>DC0021923</b>	DC0018397	DC0000651
Sample Date		Client Info		<b>06 Feb 2024</b>	11 Apr 2022	21 Aug 2019
Machine Age	hrs	Client Info		<b>0</b>	0	0
Oil Age	hrs	Client Info		<b>0</b>	0	0
Filter Age	hrs	Client Info		<b>0</b>	0	0
Oil Changed		Client Info		<b>N/A</b>	N/A	Changed
Filter Changed		Client Info		<b>N/A</b>	N/A	Changed
Sample Status				<b>ABNORMAL</b>	ABNORMAL	ABNORMAL
Iron	ppm	ASTM D5185m	>80	<b>51</b>	27	56
Chromium	ppm	ASTM D5185m	>6	<b>0</b>	<1	<1
Nickel	ppm	ASTM D5185m	>2	<b>0</b>	0	<1
Titanium	ppm	ASTM D5185m	>2	<b>1</b>	<1	<1
Silver	ppm	ASTM D5185m	>2	<b>0</b>	0	0
Aluminum	ppm	ASTM D5185m	>20	<b>▲ 12</b>	1	2
Lead	ppm	ASTM D5185m	>95	<b>&lt;1</b>	0	<1
Copper	ppm	ASTM D5185m	>85	<b>2</b>	<1	1
Tin	ppm	ASTM D5185m	>9	<b>0</b>	0	0
Vanadium	ppm	ASTM D5185m		<b>0</b>	0	0
White Metal	scalar	*Visual	NONE	<b>NONE</b>	<b>▲ MODER</b>	LIGHT
Yellow Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Silicon	ppm	ASTM D5185m	>25	<b>▲ 35</b>	12	21
Potassium	ppm	ASTM D5185m	>20	<b>4</b>	1	0
Fuel		WC Method	>4.0	<b>&lt;1.0</b>	<1.0	<1.0
Water	%	ASTM D6304	>0.1	<b>0.035</b>	---	<b>▲ 0.154</b>
ppm Water	ppm	ASTM D6304	>1000	<b>350</b>	---	<b>▲ 1540</b>
Glycol		WC Method		<b>NEG</b>	NEG	NEG
Silt	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Debris	scalar	*Visual	NONE	<b>LIGHT</b>	<b>▲ MODER</b>	VLITE
Sand/Dirt	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Appearance	scalar	*Visual	NORML	<b>▲ HAZY</b>	NORML	<b>▲ HAZY</b>
Odor	scalar	*Visual	NORML	<b>NORML</b>	NORML	NORML
Emulsified Water	scalar	*Visual	>0.1	<b>0.2%</b>	NEG	0.2%
Sodium	ppm	ASTM D5185m		<b>1</b>	0	1
Boron	ppm	ASTM D5185m		<b>0</b>	1	2
Barium	ppm	ASTM D5185m		<b>0</b>	0	<1
Molybdenum	ppm	ASTM D5185m		<b>0</b>	<1	3
Manganese	ppm	ASTM D5185m		<b>1</b>	<1	<1
Magnesium	ppm	ASTM D5185m		<b>0</b>	7	3
Calcium	ppm	ASTM D5185m		<b>46</b>	64	122
Phosphorus	ppm	ASTM D5185m		<b>37</b>	145	131
Zinc	ppm	ASTM D5185m		<b>34</b>	53	54
Sulfur	ppm	ASTM D5185m		<b>12263</b>	12265	10986
Acid Number (AN)	mg KOH/g	ASTM D8045		<b>0.08</b>	0.106	---
Visc @ 40°C	cSt	ASTM D445		<b>145</b>	132	137



**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : DC0021923 **Received** : 09 Feb 2024  
**Lab Number** : 06084933 **Tested** : 12 Feb 2024  
**Unique Number** : 10872378 **Diagnosed** : 12 Feb 2024 - Don Baldrige  
**Test Package** : MOB 2 ( Additional Tests: KF, KV40 )

**SECA UNDERGROUND**  
 8228 FISCHER RD, PO BOX 656  
 DUNDALK, MD  
 US 21222  
 Contact: SEAN-PAUL WARNICK  
 seanpaul.warnick@seca-tunnel.com  
 T: (443)740-1527  
 F:

Certificate L2367  
 To discuss this sample report, contact Customer Service at 1-800-237-1369.  
 \* - Denotes test methods that are outside of the ISO 17025 scope of accreditation.  
 Statements of conformity to specifications are based on the simple acceptance decision rule (JCGM 106:2012)