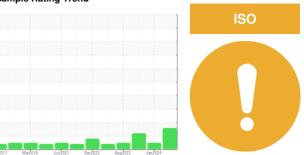


# **OIL ANALYSIS REPORT**

Sample Rating Trend



Machine Id

# IPS TR1388B 200 IPS BALER (S/N 5250)

Hydraulic System

SAE 10W40 (1400 GAL)

### Recommendation

The oil change at the time of sampling has been noted. Resample at the next service interval to monitor.

All component wear rates are normal.

### Contamination

There is a moderate amount of particulates present in the oil.

### **Fluid Condition**

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

		Aug2017	Mar2018 Jun2021	Dec2022 Aug2023 J:	an2024	
SAMPLE INFORM	MATION	method	limit/base	current	history1	history2
Sample Number		Client Info		PTK0005619	PTK0005036	PTK0004662
Sample Date		Client Info		21 May 2024	17 Jan 2024	14 Sep 2023
Machine Age	hrs	Client Info		0	0	0
Oil Age	hrs	Client Info		0	0	0
Oil Changed		Client Info		Changed	N/A	N/A
Sample Status				ATTENTION	NORMAL	ABNORMAL
CONTAMINATION	V	method	limit/base	current	history1	history2
Water		WC Method	>0.1	NEG	NEG	NEG
WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>20	2	3	2
Chromium	ppm	ASTM D5185m	>10	<1	<1	0
Nickel	ppm	ASTM D5185m	>10	0	<1	<1
Titanium	ppm	ASTM D5185m		<1	<1	0
Silver	ppm	ASTM D5185m		<1	0	0
Aluminum	ppm	ASTM D5185m	>10	<1	2	0
Lead	ppm	ASTM D5185m	>10	<1	1	<1
Copper	ppm	ASTM D5185m	>75	3	4	4
Tin	ppm	ASTM D5185m	>10	<1	1	<1
Vanadium	ppm	ASTM D5185m		<1	<1	0
Cadmium	ppm	ASTM D5185m		<1	<1	0
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m		0	0	0
Boron Barium	ppm	ASTM D5185m ASTM D5185m		0	0 <1	0
Barium	ppm	ASTM D5185m		0	<1	0
Barium Molybdenum	ppm	ASTM D5185m ASTM D5185m		0 <1	<1 2	0 <1
Barium Molybdenum Manganese	ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m		0 <1 <1	<1 2 <1	0 <1 0
Barium Molybdenum Manganese Magnesium	ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m		0 <1 <1 1	<1 2 <1 <1	0 <1 0 <1
Barium Molybdenum Manganese Magnesium Calcium	ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m		0 <1 <1 1 89	<1 2 <1 <1 88	0 <1 0 <1 94
Barium Molybdenum Manganese Magnesium Calcium Phosphorus	ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m		0 <1 <1 1 89 296	<1 2 <1 <1 88 287	0 <1 0 <1 94 295
Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS	ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	limit/base	0 <1 <1 1 89 296 328	<1 2 <1 <1 88 287 357	0 <1 0 <1 94 295 364
Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS	ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m	>20	0 <1 <1 1 89 296 328 971	<1 2 <1 <1 88 287 357 861	0 <1 0 <1 94 295 364 978
Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium	ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m		0 <1 <1 1 89 296 328 971 current <1 1	<1 2 <1 <1 <1 <88 287 357 861 history1	0 <1 0 <1 94 295 364 978 history2 <1 0
Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium	ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m	>20 >401 >20	0 <1 <1 <1 1 89 296 328 971 current <1	<1 2 <1 <1 <1 88 287 357 861 history1 <1	0 <1 0 <1 94 295 364 978 history2 <1
Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium FLUID CLEANLIN	ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m	>20 >401	0 <1 <1 <1 1 89 296 328 971 current <1 1 2 current	<1 2 <1 2 <1 <1 88 287 357 861 history1 <1 0 1 history1	0 <1 0 <1 94 295 364 978 history2 <1 0
Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium FLUID CLEANLIN Particles >4µm	ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m  method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	>20 >401 >20 limit/base	0 <1 <1 <1 1	<1 2 <1 2 <1 <1 <1 88 287 357 861 history1 <1 0 1 history1 1723	0 <1 0 <1 94 295 364 978 history2 <1 0 2
Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium FLUID CLEANLIN Particles >4µm Particles >6µm	ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m  method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	>20 >401 >20 limit/base	0 <1 <1 <1 1 89 296 328 971 current <1 1 2 current 13305 3412	<1 2 <1 2 <1 <1 88 287 357 861 history1 <1 0 1 history1 1723 338	0 <1 0 <1 94 295 364 978 history2 <1 0 2 history2
Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium FLUID CLEANLIN Particles >4µm Particles >6µm Particles >14µm	ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m  method ASTM D5185m ASTM D7647 ASTM D7647	>20 >401 >20 limit/base >2500 >320	0 <1 <1 <1 <1 1 <89	<1 2 <1 2 <1 <1 88 287 357 861 history1 <1 0 1	0 <1 0 <1 94 295 364 978 history2 <1 0 2 history2
Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur  CONTAMINANTS Silicon Sodium Potassium FLUID CLEANLIN Particles >4µm Particles >14µm Particles >21µm	ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m  Method ASTM D5185m ASTM D7647 ASTM D7647 ASTM D7647	>20 >401 >20 limit/base >2500 >320 >80	0 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1	<1 2 <1 2 <1 <1 88 287 357 861 history1 <1 0 1	0 <1 0 <1 94 295 364 978 history2 <1 0 2 history2
Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium FLUID CLEANLIN Particles >4µm Particles >14µm Particles >21µm Particles >38µm	ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m  MEthod ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D7647 ASTM D7647 ASTM D7647 ASTM D7647	>20 >401 >20 limit/base >2500 >320 >80 >20	0 <1 <1 1 89 296 328 971 current <1 1 2 current 13305 3412 425 121 3	<1 2 <1 2 <1 <1 88 287 357 861 history1 <1 0 1	0 <1 0 <1 94 295 364 978 history2 <1 0 2 history2
Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium FLUID CLEANLIN Particles >4µm Particles >6µm Particles >21µm Particles >38µm Particles >71µm	ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m  method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D7647 ASTM D7647 ASTM D7647 ASTM D7647 ASTM D7647 ASTM D7647	>20 >401 >20 limit/base >2500 >320 >80 >20 >4	0 <1 <1 1 89 296 328 971 current <1 1 2 current 13305 3412 425 121 3 0	<1 2 <1 2 <1 <1 <1 88 287 357 861 history1 <1 0 1	0 <1 0 <1 0 <1 94 295 364 978 history2 <1 0 2 history2
Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium FLUID CLEANLIN Particles >4µm Particles >14µm Particles >21µm Particles >38µm	ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m  MEthod ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D7647 ASTM D7647 ASTM D7647 ASTM D7647	>20 >401 >20 limit/base >2500 >320 >80 >20	0 <1 <1 1 89 296 328 971 current <1 1 2 current 13305 3412 425 121 3	<1 2 <1 2 <1 <1 88 287 357 861 history1 <1 0 1	0 <1 0 <1 94 295 364 978 history2 <1 0 2 history2

Acid Number (AN)

mg KOH/g ASTM D8045

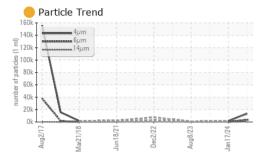
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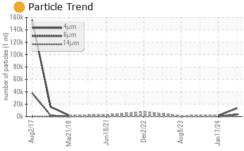
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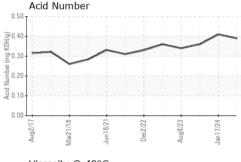
Submitted By: MIKE LEEN

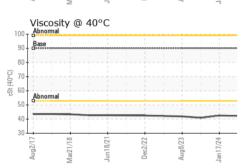


## **OIL ANALYSIS REPORT**

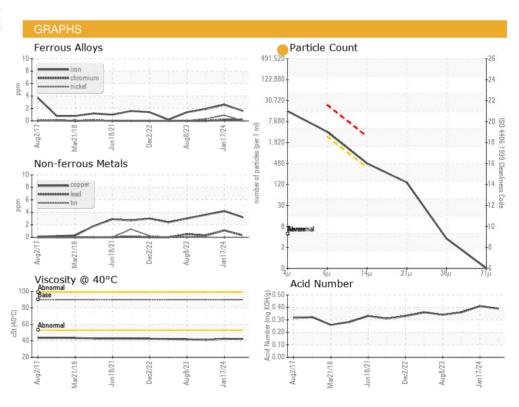








VISUAL		method	limit/base	current	history1	history2		
White Metal	scalar	*Visual	NONE	NONE	NONE	▲ MODER		
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE		
Precipitate	scalar	*Visual	NONE	NONE	NONE	NONE		
Silt	scalar	*Visual	NONE	NONE	NONE	NONE		
Debris	scalar	*Visual	NONE	NONE	NONE	NONE		
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE	NONE		
Appearance	scalar	*Visual	NORML	NORML	NORML	NORML		
Odor	scalar	*Visual	NORML	NORML	NORML	NORML		
<b>Emulsified Water</b>	scalar	*Visual	>0.1	NEG	NEG	NEG		
Free Water	scalar	*Visual		NEG	NEG	NEG		
FLUID PROPERTIES method limit/base current history1 history2								
I LOID I NOI LINI	ILO	memou	IIIIII/Dase	Current	HISTORY	HISTOLYZ		
Visc @ 40°C	cSt	ASTM D445	90.0	42.2	42.5	40.9		
SAMPLE IMAGES	;	method	limit/base	current	history1	history2		







Sample No.

Lab Number : 06193939 Unique Number : 11056062

: PTK0005619

Color

**Bottom** 

Test Package : MOB 2

: WearCheck USA - 501 Madison Ave., Cary, NC 27513 Received : 29 May 2024

**Tested** : 30 May 2024 Diagnosed

: 31 May 2024 - Angela Borella

Certificate 12367 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.

**WEST ROCK RECYCLING** 

8700 VALLEY FORGE LN N MAPLE GROVE, MN

US 55369 Contact: ADAM SNELL adam.snell@westrock.com

Submitted By: MIKE LEEN

T: (763)493-8443

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