



# OIL ANALYSIS REPORT



Area  
**PCS - PORTABLE CRUSHING SERVICES**  
Machine Id  
**KOMATSU PC290LC TH01 - PCS**  
Component  
**Hydraulic System**  
Fluid  
**STP HYDRO OIL ISO AW 46 (66 GAL)**

WEAR	<b>SEVERE</b>
CONTAMINATION	<b>SEVERE</b>
FLUID CONDITION	<b>NORMAL</b>

## RECOMMENDATION

We advise that you check all areas where dirt can enter the system. The filter change at the time of sampling has been noted. We recommend an early resample to monitor this condition. We were unable to perform a particle count due to a high concentration of particles present in this sample. Please note that this is a corrected copy for diagnostic comment updates.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>KL0013776</b>	KL0014099	KL0013078
Sample Date		Client Info		<b>10 Apr 2024</b>	09 Jan 2024	03 Oct 2023
Machine Age	hrs	Client Info		<b>12916</b>	12462	12320
Oil Age	hrs	Client Info		<b>5565</b>	5112	4970
Filter Age	hrs	Client Info		<b>5565</b>	5112	4970
Oil Changed		Client Info		<b>Not Changd</b>	Not Changd	Not Changd
Filter Changed		Client Info		<b>Not Changd</b>	Not Changd	Not Changd
Sample Status				<b>SEVERE</b>	ABNORMAL	SEVERE

## WEAR

The iron level is severe. The copper level is abnormal.

Iron	ppm	ASTM D5185m	>20	<b>▲ 113</b>	▲ 34	4
Chromium	ppm	ASTM D5185m	>10	<b>1</b>	0	0
Nickel	ppm	ASTM D5185m	>10	<b>&lt;1</b>	0	0
Titanium	ppm	ASTM D5185m		<b>&lt;1</b>	<1	0
Silver	ppm	ASTM D5185m		<b>0</b>	0	0
Aluminum	ppm	ASTM D5185m	>10	<b>● 13</b>	● 6	<1
Lead	ppm	ASTM D5185m	>10	<b>&lt;1</b>	0	0
Copper	ppm	ASTM D5185m	>75	<b>▲ 98</b>	14	9
Tin	ppm	ASTM D5185m	>10	<b>2</b>	0	<1
Vanadium	ppm	ASTM D5185m		<b>0</b>	0	0
White Metal	scalar	*Visual	NONE	<b>LIGHT</b>	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE

## CONTAMINATION

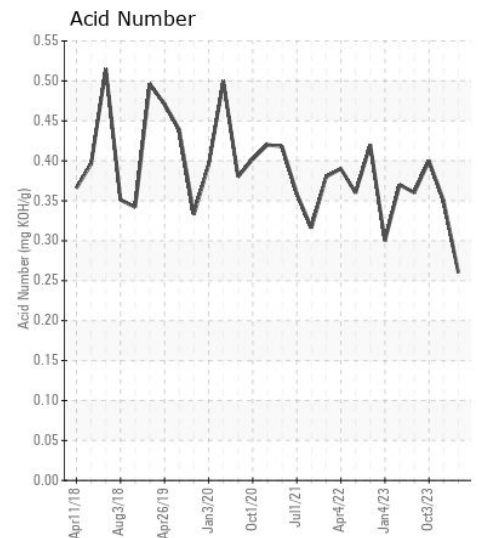
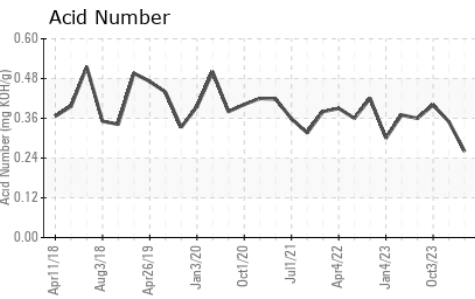
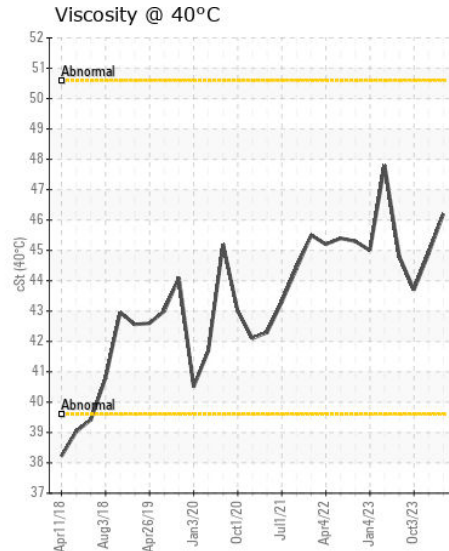
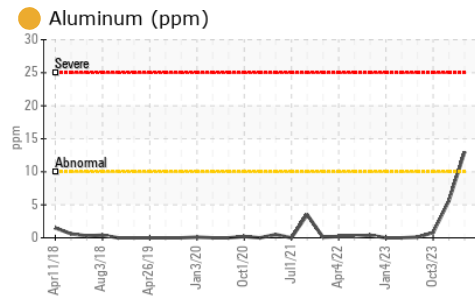
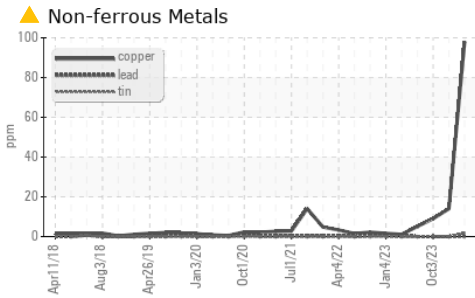
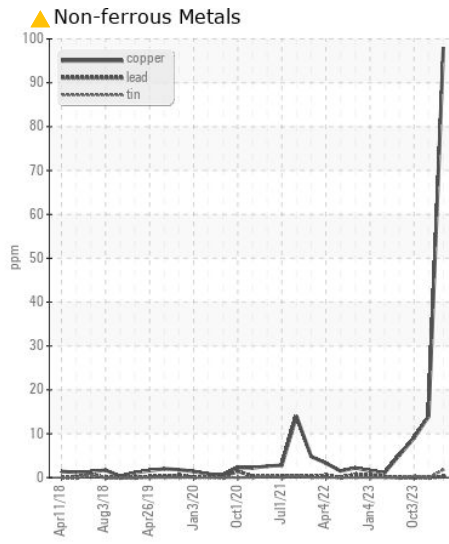
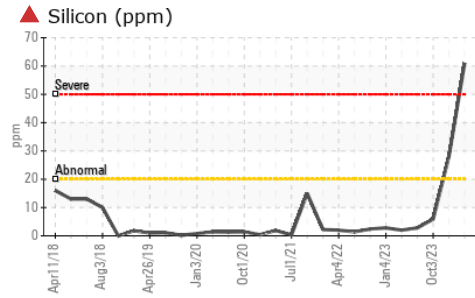
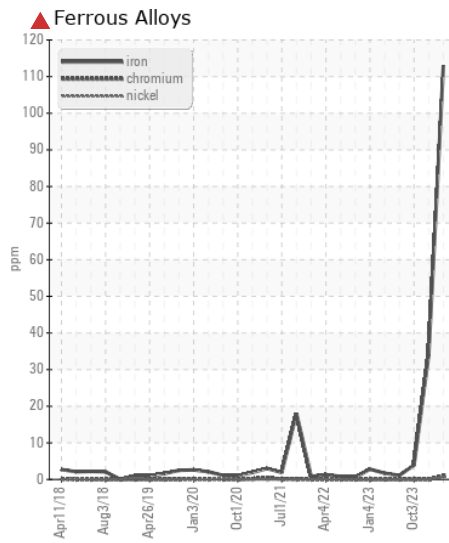
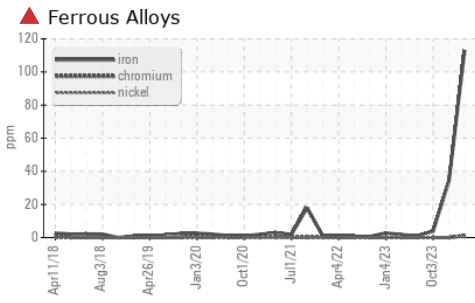
Elemental levels of silicon (Si) and aluminum (Al) indicate alumina-silicate (coarse dirt) ingress. There is a high amount of visible silt present in the sample.

Silicon	ppm	ASTM D5185m	>20	<b>▲ 61</b>	▲ 28	6
Potassium	ppm	ASTM D5185m	>20	<b>5</b>	<1	<1
Water		WC Method	>0.1	<b>NEG</b>	NEG	NEG
Particles >4µm		ASTM D7647		<b>---</b>	200528	125360
Particles >6µm		ASTM D7647	>1300	<b>---</b>	▲ 106645	▲ 23645
Particles >14µm		ASTM D7647	>160	<b>---</b>	▲ 162	49
Particles >21µm		ASTM D7647	>40	<b>---</b>	4	11
Particles >38µm		ASTM D7647	>10	<b>---</b>	1	1
Particles >71µm		ASTM D7647	>3	<b>---</b>	0	0
Oil Cleanliness		ISO 4406 (c)	>17/14	<b>---</b>	▲ 24/15	▲ 22/13
Silt	scalar	*Visual	NONE	<b>▲ HEAVY</b>	NONE	NONE
Debris	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Appearance	scalar	*Visual	NORML	<b>NORML</b>	NORML	NORML
Odor	scalar	*Visual	NORML	<b>NORML</b>	NORML	NORML
Emulsified Water	scalar	*Visual	>0.1	<b>NEG</b>	NEG	NEG

## FLUID CONDITION

The AN level is acceptable for this fluid.

Sodium	ppm	ASTM D5185m		<b>5</b>	2	0
Boron	ppm	ASTM D5185m		<b>5</b>	3	0
Barium	ppm	ASTM D5185m		<b>&lt;1</b>	0	0
Molybdenum	ppm	ASTM D5185m		<b>14</b>	11	1
Manganese	ppm	ASTM D5185m		<b>1</b>	<1	<1
Magnesium	ppm	ASTM D5185m		<b>1</b>	0	2
Calcium	ppm	ASTM D5185m		<b>305</b>	124	42
Phosphorus	ppm	ASTM D5185m		<b>274</b>	298	283
Zinc	ppm	ASTM D5185m		<b>257</b>	338	313
Sulfur	ppm	ASTM D5185m		<b>1480</b>	1335	1271
Acid Number (AN)	mg KOH/g	ASTM D8045		<b>0.26</b>	0.35	0.40
Visc @ 40°C	cSt	ASTM D445		<b>46.2</b>	44.9	43.7



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : KL0013776  
**Lab Number** : 06150279  
**Unique Number** : 10980357  
**Test Package** : MOB 2

**Received** : 16 Apr 2024  
**Tested** : 19 Apr 2024  
**Diagnosed** : 19 Apr 2024 - Doug Bogart

**PIKES PEAK PERFORMANCE PRODUCTS**  
 7888 BULLET RD  
 PEYTON, CO  
 US 80831

Contact: SCOTT RIGGS  
 sriggs.pikespeakperformance@gmail.com

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)

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